



MAPÚA INSTITUTE OF TECHNOLOGY

**NATIONAL SERVICE TRAINING PROGRAM
RESERVE OFFICER TRAINING CORPS
[MAPÚA-ROTC]**

PROGRAM MODULE 2

THE MAPÚA-ROTC OFFICE

ENGR. JOYRENCE MERVIN Q. AGAS

Director, Headquarters, NSTP and the MAPÚA-ROTC Unit
jmqagas@mapua.edu.ph

LT COL MELECIO Y. CASTILLO

MAPÚA-ROTC Commandant
halcon-crest@yahoo.com

2LT DENNIS G. CAGUIOA

MAPÚA-ROTC Tactical Officer
denniscaguioa@yahoo.com

2LT WILLY BIADDANG

MAPÚA-ROTC Tactical Officer
willybiaddang@yahoo.com.ph

TSG RONILO R EDURIA

MAPÚA-ROTC Chief Clerk

TSG EUSEBIO A MACATBAG

MAPÚA-ROTC Tactical NCO

C/LT COL ARIEL JOSEPH MORLA

MAPÚA-ROTC Corps Commander
ajpmorla@live.mapua.edu.ph

CONTACT DETAILS

Department of Military Science and Tactics
Ground Flr., West Building
Mapúa Institute of Technology
Muralla St. Intramuros, Manila
247.5000 loc. 4104

<http://nstp.mapua.edu.ph>

CONTENTS	PAGE
MANDATORY SUBJECTS I	
Chapter 1: Interior Guard Duty	
Definition of Terms	
The Organization of Interior Guards	
Duties and Responsibilities of Interior Guards	
Type of Orders for Interior Guards	
The Eleven General Orders	
Guard Composition	
Procedure for Challenging and Reply with the Password	
Informal Guard Mounting	
Formal Guard Mounting	
Chapter 2: Human Rights	
Human Rights	
Definition	
Right of Self-Determination	
Right to Life, Liberty and Security	
Right of the Arrested or Detained Person	
Right of Fair and Public Trial	
Right of Confrontation	
Right to Bail	
Right to Appeal One’s Conviction of a Crime	
Right to Compensation due to Miscarriage of Justice	
Right to Privacy	
Right to Nationality	
Chapter 3: Basic Signal Communication 2	
Definition of Terms	
Principles of Responsibility for Communication	
Communication Characteristics	
Means of Communication	
Fundamental of Net Operations	
Elements of Communication Security	
Antenna/Antenna Field Expedient	
Chapter 4: Basic Survival	
Basic Survival	
Survival	
Evasion	
Resistance	

CONTENTS	PAGE
Escape	
GENERAL MILITARY SUBJECTS	
Chapter 5: Troop Leading Procedure	
Troop Leading Procedure	
Definition	
Objectives	
Steps of Troop Leading Procedure	
Chapter 6: Reservist and Reserve Force Development	
Reservist and Reserve Force Development	
Definition of Terms	
Sources of Enlisted Reservists	
Classification of Reserve Force Units	
Organization	
Categorization of Reservists/Citizen Soldiers	
Benefits System of Reservists	
Four Functional Areas of RRA	
SMALL UNIT TACTICS	
Chapter 7: Patrolling	
Definition of Terms	
Types of Patrol	
General Classification of Patrol	
Chapter 8: Raids	
Raids	
Definition of Terms	
Frequently Asked Questions about Raid	
Classification of Field Artillery Weapons	
Characteristics of Field Artillery Weapons	
Capabilities and Limitations of Field Artillery Weapons	
Field Artillery Organizations	
Mission	
The Gunnery Team of Field Artillery	
Tactical Employment	
Chapter 9: Ambuscades	
Definition of Terms	
Formation of Ambush	
Categories of Ambush	
Types of Ambush	

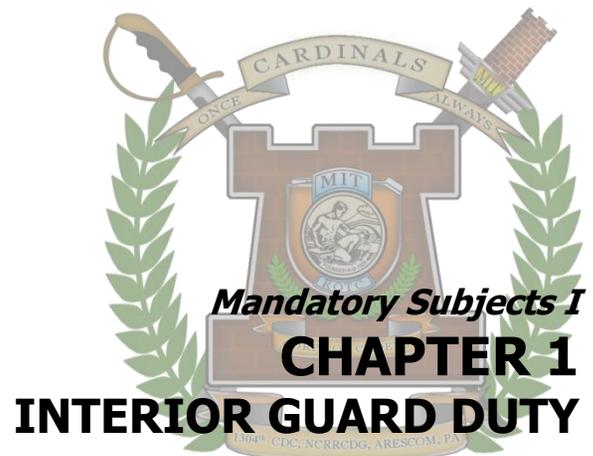
CONTENTS	PAGE
Mission of an Ambush Patrol	
Equipment Used	
Organization	
Factors Necessary for a Successful Ambush	
Preparation for an Ambush	
Conduct of the Ambush	
Counter Ambush Techniques	
Chapter 10: Rifle Squad Tactics	
Rifle Squad Tactics	
Movement Techniques/Formations Used	
Organization of Tactical Rifle Squad (Infantry)	
Squad in the Attack	
Squad in the Defense	
Chapter 11: Military Leadership	
Concept of Leadership	
Leadership Fundamentals	
Traits of Leadership	
Leadership Principles	
Indicators of Leadership	
Stress	
Decision Making	
Communication	
Counseling	
INDIVIDUAL TRAINING	
Chapter 12: Rifle Marksmanship Training	
Rifle Marksmanship Training	
Four Basic Fundamentals of Marksmanship	
Dry Fire	
Sight Adjustment	
Grouping	
Zeroing	
Chapter 13: Visual Training	
Visual Training	
Definition of Terms	
Fundamentals of Tracking	
Perimeter Defense	
Types of Sign	
Types of Terrain that Produce Different Signs	
Aids to Tracking	
Common Native Tracks	

CONTENTS	PAGE
Information from a Track or Sign	
Factors which Adversely or Directly Affect Tracking	
Tracking Method	
Deception Method	
How to Counter Method of Deception	
Chapter 14: Military Mountaineering	
Military Mountaineering	
Mountain Walking Techniques	
Special Equipment	
Knots	
Rock Climbing Techniques	
Rope Installations	
Anchors	
Cliff Evacuation	
Tree Evacuation	
Chapter 15: Jungle Base Operation	
Jungle Base Operation	
Tactical Aspects of the Jungle	
Operational Limitations	
General Considerations in Planning for an Attack	
Advantages of the Guerilla	
Chapter 16: Marches, Bivouacs and Land Navigation	
Marches, Bivouacs and Land Navigation	
Classification of Ground Troop Movement	
Foot Marches	
March Hygiene	
The Advance Group	
The Initial Point	
The Regulating Point	
Inspection Before March	
March Formation and Distance	
Security Measures	
Marches	
March Distance/Factors	
March Formula/Computation	
Bivouacs	
Organization for the March	

CONTENTS	PAGE
INDIVIDUAL PROTECTIVE MEASURES	
Chapter 17: Basic Life Support	
Basic Life Support	
Four Life Saving Steps	
Wounds	
Fracture	
Restore Breathing	
Snake Bite	
Drowning	
Poisoning	
Burns	
Transportation of the Sick and Wounded	
Chapter 18: Basic Life Support	
Hygiene and Sanitation	
Individual Hygiene	
Camp Sanitation	
MANDATORY SUBJECTS II	
Chapter 19: Field Artillery Operations	
105MM Howitzer Section	
Definition of Terms	
History	
Three Elements of Gunnery Team	
Composition of 105MM Howitzer Section	
FA Capabilities and Limitations	
Chapter 20: Introduction to Armor Operations	
Origin of Armor Operations	
Broad Mission of Armor Operations	
Capabilities and Limitations of Armor	
Characteristics, Capabilities and Limitation of Tanks and Armored Personnel Carriers	
Role of Tanks	
Modes of Attack	
Chapter 21: Introduction to Unconventional Warfare	
Definition of Terms	
Concepts of Unconventional Warfare	
AFP Objectives	
Responsibilities OF Unconventional Warfare	

CONTENTS	PAGE
Nature of Unconventional Operations	
Unconventional Warfare in Support to Conventional Warfare	
Psychological, Political and Economic Influence	
Influence of Conventional Operations	
Effect of Conventional Operations	
Guerilla Warfare	
Evasion and Escape	
Subversion	
Chapter 22: Platoon Tactics	
Characteristics	
Organization	
Mission	
Capabilities	
Assignment	
Effectiveness/Weaknesses	
Duties and Responsibilities of Key Personnel	
Equipment	
Platoon Formations	
Techniques of Platoon Movements	
CREW SERVE WEAPONS TRAINING	
Chapter 23: 60MM Mortar	
60mm Mortar	
Characteristics	
General Data	
Mortar Assembly	
Functioning	
Disassembly, Assembly, Mounting and Dismounting	
Care and Cleaning	
Chapter 24: 80MM Mortar	
Characteristics	
General Data	
Operation/Functioning	
Ammunition	
Care and Cleaning	
Chapter 25: CAL 50 MG	
CAL 50 MG	
Characteristics	
General Data	

CONTENTS	PAGE
Operation	
Functioning	
Disassembly	
Assembly	



DEFINITION OF TERMS

Guard - term used when referring to:

1. A special unit responsibilities to the Officer of the Day for the protection and security of an installation or area. This unit includes a Commander of the Guard, Sergeant of the Guard, Commander of the Relief and the Guard.
2. An individual responsible to keep watch over, protect, shield, defend, warn or any duties prescribed by general orders. Also referred to as Sentinel, Sentry or lookout.

Sentry - guard Sentinel or Lookout.

Sentinel - an individual of the guards whose duties are prescribed by general or special orders. Also referred to as guard, sentry or lookout.

Officers of The Day - an Officer acting directly under the commanding officer who is responsible on a given day for the execution of all orders of the commanding officer relating to interior guard duty and other as maybe assigned.

Commander of The Guard - senior officer or non-commissioned officer who is responsible for the instruction, discipline and performance of duty of the guard. He is the member of the guard next junior to the Officer of the Day.

Sergeant of The Guard - senior of non-commissioned officer of guard. He supervise the enlisted members of the guard and responsible to the Commander of the Guard for the execution of all orders relating to the guard duties.

Company - includes battery, or any other similarly organized unit.

Guard House - a building occupied by men detailed for interior guard duty. It might guard tent or any other designated location for the headquarters for the guard.

Challenge - the command "HALT" WHO IS THERE? is used to cause an unidentified. If secret challenge is used, it follows the original challenge and consists of a word or distinctive

sound. Any process carries-out by one unit or person with the objects of ascertaining the friendly or hostile character or identify of another.

Password - a word, or distinctive sound, used to answer a challenge identifies the person or party desiring to enter or pass and is always secret.

Countersign - a countersign consist of a secret challenge and password. The words comprising the countersign are issued from the principal headquarters of a command to aid guards and sentinels in their security of person who apply to pass the lines.

Fixed Post - a specific post with defined limits.

Sentinel Post - an area for which the sentinel is responsible. Within his post a sentinel performs the duties required by general and special order.

Confinement Officer - a military police assigned to a stockade and charge with the security, administration, care, and custody of all prison confined in the local stockade or hospital prisoner ward.

Relief - the procedure whereby members of the post are relieved and members are posted in place.

Relieved – to direct any members of the guard to cease performance of duty.

Sentry - enlisted personnel assigned to duty as member of the guard to keep watch, maintain order, protect property and given alarm of any attack or disorders.

Watch - a period of time during which member of the guard performed the prescribed duties beginning when he is posted and terminated his duties.

Stockade - a confinement facility under the jurisdiction of an installation commander, used for the confinement of the military prisoners.

THE ORGANIZATION OF INTERIOR GUARDS

1. Officer of the Day (OD)
2. Commander of the relief or Junior Officer of the Day (JOOD)
3. Sergeant of the Guard (SOG)
4. Corporal of the Guard (COG)
5. Sentries of Sentinel

NOTE: The strength of the interior guard varies the number of the post at a certain installation.

Arms and equipment varies according to their particular duties

- Rifles (M16)
- Carbines
- Pistols
- Shot Gun
- Motor Vehicles

DUTIES AND RESPONSIBILITIES OF INTERIOR GUARD

Commanding Officer

1. Provide sentinel for security
2. Prescribe regulation and special order of the guard.
3. Received the report of the Officer of the Day.
4. Supervise and inspect stockade prisoners.

Field Officer of the Day

1. Representative of the Commanding Office.
2. Supervise the interior guard duties.
3. Conduct inspection for details.

Officer of the Day

1. Responsible for the performance of the guard.
2. Protect life and properties in case of alarm.
3. Signature of the guard report.
4. Responsible for guard.

Commander of the Relief

1. Responsible for instruction performance and discipline of the guard. Prepare the daily report card.
2. Responsible for the posting of relief at the proper time.
3. Form the reserve in case of alarm.

Sergeant of the Guard

1. Supervise the non-commissioned officer of the guard
2. Responsible for the cleanliness of the guard house and surroundings.
3. Responsible for the posting of relief at the proper time.
4. From the guard in case of emergency.

Corporal of the Guard

1. Assigned members of the guard to their post.
2. Report to the Sergeant of the guard all violation of orders and unusual incidents.
3. Post him at the guardhouse.
4. Awaken the next relief on time of relieving.
5. Examine persons halted or determined by the sentinel.

Sentinels

1. Memorize, understand and complied with the general order.
2. Memorize, understand and complied with special orders.

TYPE OF ORDERS FOR INTERIOR GUARD

1. **General Orders** - orders applied to all sentries to the main and special guard.
2. **Special Orders** - orders promulgated by the Commanding Officer prescribed the special Duties for the main and special guards.

THE ELEVEN (11) GENERAL ORDERS

1. To take charge of this post all government properties and view.
2. To walk my post in a military manner keeping always on alert and observing everything that takes place within sight or hearing.
3. To report all violation of orders I am instructed to enforce.
4. To repeat all calls from post more distance from the guardhouse then my own.
5. To quit my post only when properly relieved.
6. To receive, obey and pass on the sentinel who relieved me all order from the Commanding Officer of the day and non-commissioned Officer of the guard only.
7. To talk to no one except in line of duty.
8. To give the alarm in case of fire or disorder.

9. To call the commander of the relief in any case not covered by instruction.
10. To salute all officers and all colors and standard not case.
11. To be especially watchful at night and during the time for challenge all persons or near my post and to allow no one to pass without proper authority.

GUARD COMPOSITION

1. **Interior Guard** - detailed by the commanders of the military installation to preserve orders protect property and enforce military regulation. The installation commander is responsible for the interior guard of the installation and he prescribed the composition of the guard. When brigade and separate units are responsible for an interior guard with their own areas, their composition, duties and responsibilities are similar to those outlined in this manual, Commanders' of Unit furnishing personnel for guards are responsible to insure that these men are qualified or familiar with the weapons they use on guard.

The interior guards may consist of the following elements;

- a. The *main guard*, which is a combination of patrols and fixed post
 - b. The *Special Guard* which are use to protect parks, trains, boats, aircraft and other special purposes.
2. **Exterior Guard**- are those guards whose duties and responsibilities are different from those set down for interior guard Exterior guard is not as formal and restricted as interior guard. Classified as exterior guards lookout, listening post outpost specially designated patrols and other guard in combat zone. Field training alerts, and guard outside the limits of military installation. The exterior guard performs their duties as prescribed by special orders and instruction.

PROCEDURE FOR CHALLENGING AND REPLY WITH THE PASSWORD

When you are posted as sentry, you should report the situation on your post when you are inspected by officers or non –commissioned officers of the guard. Likewise, you should know the proper procedure for challenging and reply for the password.

Reporting a sentry post

Report to your superior in this manner:

"Sir, private _____ report in post number _____ is secure (Or you report anything that is not ordinary).

Challenging one person

Marine Sentry

- a. To a person about to enter his post: "HALT, WHO GOES THERE?"
- b. The sentry orders the person forward: "ADVANCED, LT ROMAN TO BE RECOGNIZED"
- c. When person are closed enough to be identified. The sentry commands: "HALT" (He does not recognized LT ROMAN)
- d. The sentry will give the challenge in low voice: "PEPSI"
- e. When the sentry has identified the person, he will permit him to proceed: "PASS SIR"

Person Challenged

- a. Person halts immediately and answer: "LT ROMAN, THE OPERATION OFFICER"
- b. The person will advance without giving any reply.
- c. Person will halt on command and wait for further instructions.
- d. The person challenge will give the reply in low voice: "SARSI"
- e. Person will proceed when told to proceed.

Challenging a group

Sentry Group Challenged

To a group of person about to enter, his group will immediately halt and post "HALT, WHO GOES THERE" most senior will answer "LT LUCERO WITH PATROL".

Sentry will order the senior forward. Person will advance without any reply. Come forward to be recognized. "ADVANCE LT LUCERO TO BE RECOGNIZED". Lt Lucero will come forward then, he will be directed to identify other members of his group. The patrol will pass through post.

When LT LUCERO is close enough to be identified, sentry will command "ADVANCE THE PATROL TO RECOGNIZED".

The sentry will halt, identify or control the patrol as the situation demand.

INFORMAL GUARD MOUNTING

Sequence of Activities

1. The Sergeant of the Guard forms the guard by commanding HUMANAY. The relief commander Falls in so that the guard is there steps in front and centered on the sergeant of the guard. Each relief forms at normal interval to the left of each respective commander, sentinels forms in the order of their assigned post (one, two, three, etc) the sergeant of the guard orders inspection of arms by the commands SIYASAT TA, AGAP TA, BABA TA.
2. If an officer has been detailed as commander of the guard, the sergeant of the guard faces about and reports "Nandito na pong lahat". Salutes are exchange. After completing the report, the sergeant of the guard faces about, faces half right in marching a marches by the most direct route to position directly behind the commander of their relief a normal distance.
3. If an officer has not been detailed as commander of the guard, the sergeant of the guard takes three (3) steps forward and assumes the position of the commander of the guard.

4. When the officer of the day arrives, the commander of the guard reports: Nandito Na po lahat". They exchange salutes.
5. Marching to center - The officer of the day commands PINUNO AT MGA KAWAL PUMAGITNA NA, KAD. On the command PUMAGITNA the non-commissioned Officers (NCO) farthest to the rear commands the other NCOs SA KANANG BALIKAT, TA. On the command KAD the commander of the guard. The NCO in the rear commands the other NCOs to halt and face to the right (at right shoulder arms) when they are centered on the commander of the guard.
6. After the commander of the guard and the NCOs halt and are in position, the officer of the day Marches forward, halt at normal distance in front of the commander of the guard and designate PINUNO NG TANOD. He then faces half right in marching and marches around and to the near to the commander of the guard. He halts at normal distance in front of the right flank NCO and designated SARHENTO NG TANOD. He then faces half right in marching takes two-step, halts, executes a left face, and designates PINUNO PANGALAWANG PAMALIT and PINUNO UNANG PAMALIT. He then faces about, marches by most direct route to his post halts and faces about again. If an officer is not present as commander of the guard the officer of the day designates the right flank NCO, PINUNO NG TANOD.
7. Return to post - the officer of the day commands SUMALUNAN. At this command, the commander of the guard and NCO face about, march to their designated post, and halt without command. The sergeant of the guard commands the relief commander to BABA TA and HARAP SALIKOD, NA. If an officer has not been detailed as commander of the guard the first relief commander gives these commands.

Inspection of Guards

1. The Officer of the day commands HUMANDA SA PAGSISIYASAT. At this command the commander of the guard without saluting faces about and commands BUKANG TALUOD NA Ranks are opened and dressed. When the commander of the guard has taken his post, the officer of the day inspects the guard.

2. The officer of the day orders sentinel who are not presentable for guard to fall out and return to quarters, supernumeraries. If any, replace the men who have fallen out.
3. After inspecting the guard, the officer of the day resumes his original position and commands DALHIN ANG MGA, TANOD SA BAHAY TANURAN. Salutes are exchange. The commander of the guard faces to the left and commands LAPIT TALUDDOD, NA. He then moves to his position six steps in front of and centered on the guard, faces the guard and commands HARAP SA KANAN, NA; KANANG balikat, ta. He positions himself at the head of the left file at normal distance and marches the guard to the guardhouse.
4. Relieving the Old Guard - before the new guard arrives at the guardhouse, the old guard is formed in a line formation with two or more relief. The commander of the guard position himself six steps in front of and centered on the guard. When the new guard six step from the left flank of the old guard the commander of the new guard commands KANAN, TINGIN, TA. He faces back to the front and renders proper salutes. When the new guard has cleared the right flank of the old guard, the commander of the new guard commands HANDA, HARAP. The commander of the old guard faces about, commands BABA, TA. and faces back to the front.
5. Formation of the old Guard and New Guard at the Guardhouse - after the new guard executes HANDA, HARAP, and the commander of the guard command KANANG PANIG, NA he position himself six steps in the rear of and centered on his guard. He halts the new guard when it is on line with six steps to the right of the old guard. Then he command BABA, TA; HARAP SALIKOD, NA. The left flank man, first relief, verifies six steps interval; dress. He aligns his guard.
6. Presenting New and Old Guard - when the new guard is in position, the commanders of both guards face about and command TANGHAL, TA. Then the face each other and exchange salutes, face toward their respective guards, command BABA, TA, and face back to the front.

Presenting the Guards to the Officer of the Day

1. After the new guard has been presented to the old guard, the new guard and old officers of the day take their position 18 steps in front of and centered on their respective guards. Commanders both guards face about, command TANGHAL, TA; face back to the front and salute their respective officers of the day.
2. After exchanging salute, both commanders face about, command BABA, TA. And face back to the front. When both have face back to the front the officers of the day face each other and the new officer of the day salutes the old officer of the day. After saluting each other, both officers of the day face their respective guards.

Disposition of the New and Old Guards

1. After both officers of the day have faced their guards, the new officer of the day commands ISALUNAN AND UNANG PAMALIT. The new commander salutes the officer of the day, faces about and command TIWALAG. The guards reports to the guardhouse and commander of the guard for instruction on posting his relief.
2. The old officer of the day commands TIWALAG, AND MGA TAN OD. The commander salutes the old officer of the day. Faces about and commands PAHINGA. He then contacts the new commander and conveys any instruction.
 - a. If the old guard was finished from one company, the commander of the old guard marches the guard to the company area and dismisses it by commanding SIYASAT, TA; AGAP, TA; TIWALAG.
 - b. If the guard was furnished from one company, the commander of the old guard marches the guard detail to the company area and dismisses it, in accordance with the above.
 - c. After relieving the third of the old guard, the commander of the relief reports to commander of the guard. The commander of the new guard inspects the relief order

commander to march the relief to the company area and dismiss it. Salutes are exchanged.

FORMAL GUARD MOUNTING

Sequence of the Activities

1. Assembly of Band - the band takes its place on the parade ground at a point where its left flank is 12 steps to the right where of the guard will be. When the adjutant is ensure that the guard is ready to march unto the parade ground, he signals the band to sound the adjutant call.

Assembly and Forming the Guard

1. The guard detail is formed as prescribed of informal guard mounting. When assembly Sounds, each guard detail is marched to the point of assembly of the parade ground and is reported to the Sergeant of the Guard.

The Guard Details are assembled and formed into a platoon. If there are more than 14 men per rank the guard is divided into two platoons.

2. The assistant sergeant of the guard takes his post three steps and centered on the second. The remaining NCOs if any, form on the left flank to equalize the number of men in each rank. After the platoons are formed, the sergeant of the guards faces the guard to the right.

Marching the Guard to the Parade Ground

1. Upon the Adjutant's Call the band plays march music. The Adjutant will the Sergeant major on his, marches forward on the first note of the music.
2. The Sergeant of the Guard takes his post three steps to the left and centered on the Guard. He commands KANANG, BALIKAT, TA at the first note of the Adjutant call and marches the guard in column unto the parade ground. He approaches the parade ground from direction near to the final line, which the guard will form. He halts the guard when the head of column is 12 steps from the left flank of the band and centered on the Sergeant

Major. At this time the band stops playing. The sergeant of the guard faces to the right and, if appropriate commands BABA, TA; HARAP SA KALIWA, RAP.

Dressing of the Guard

The sergeant of the guard and the assistant of the guard, if there are two platoons dress the guard.

Sergeant of the Guard

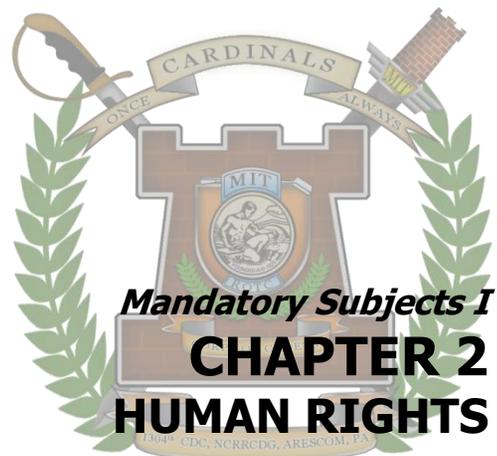
When the Sergeant of the Guard commands, HANDA, HARAP, the Commander of the guards takes a position six steps in the rear in the right flank man of the rear flank. (if there are two platoons, the assistant commander of the guard takes his post behind the second platoon in the same position as prescribed for the commander of the guard). The Sergeant of the Guard faces about and reports the Sergeant Major Lahat po" SUMALUNAN. The Sergeant of the Guard faces about, faces halt right in marching, and march to his post. He halts at normal distance directly behind the commander of the relief. If an assistant sergeant of the guard is presented, he executes the movements cited above at the command SUMALUNAN and posts himself directly the commander of the relief. The Sergeant of the Guard positions himself behind the assistant sergeant of the guard at a normal distance.

Sergeant Major's Report

1. After commanding SUMALUNAN, the Sergeant Major faces about and reports to the Adjutant "Lahat, Po'y Narito "or" _____ and wala" They exchange salutes. The Sergeant Major faces about marches to his post and halts at normal interval to the left the left flank men of the first rank of the second platoon.
2. When the Sergeant major has finished his report and has faced about, the commander of the guard marches his position in the rear of the guard around its right flank to his six steps in front of and centered on the guard. If there are two platoons, the assistant commander of the guard if present takes his post in front of the second platoon.

Marching

The Adjutant commands PINUNO (OR) MGA PINUNO) AT PINUNONG HINDI HIRANG, NA. The procedures for marching to center is the same as in parade of informal Guard Mounting except that when there are two commanders of the guard, the senior is designated "Punong Tanod" and the junior "Pangalawang Punong Tanod"



HUMAN RIGHTS

Human rights are generally defined as those rights, which are inherent in our nature, and without which, we cannot live as human beings.

Human rights and fundamental freedoms allow us to develop and use our human qualities, intelligence, talents and conscience, and to satisfy our spiritual and other needs. The dignity of man and human life is inviolable.

The denial of human rights and fundamental freedoms not only is an individual and personal tragedy, but also creates social and political unrest, sowing the seeds of violence and conflict within a between societies and nations. As the first sentence of the universal declaration of human rights states, "Respect for human rights and human dignity is the foundation of freedom, justice and peace in the world."

DEFINITION

Philippine Commission on Human Rights

Human rights are supreme, inherent and inalienable rights to life, dignity and self-development.

Man's Responsibility in Human Society

While freedom gives man the right to make moral decisions, he is responsible for doing so and has to answer to his own conscience.

Basic Characteristics of Human Rights

Human rights are generally characterized as inherent, fundamental, inalienable, imprescriptibly, indivisible, universal and interdependent.

Civil and Political Rights as Applied in the Philippines

The ideal of free human beings enjoying civil and political freedom and freedom from fear and want can only be achieved if conditions are created whereby everyone may enjoy civil and political rights as well as his economic, social and cultural rights."

RIGHT OF SELF-DETERMINATION

Includes the right to freely determine their political status and to pursue their economic, social and cultural development (Art. I, Sec.1).

To prevent foreign influence, a provision in the 1986 Philippine Constitution now reads:

"The state shall pursue an independent foreign policy. In its relations with other states the paramount consideration shall be national sovereignty, territorial integrity, national interest, and the right to self-determination." (Art. II, sec. 7)

RIGHT TO LIFE, LIBERTY AND SECURITY

The most basic human rights from which other rights flow is the right to life. Art. 3 of the Universal Declaration of Human Rights states "Everyone has the right to life, liberty and security of persons."

Death Penalty. No person, not even the state authority, has the right to take the life of a person except in the cases of heinous crimes.

Admonition on Death Penalty. In his encyclical, *Evangelium Vitae* (Gospel of Life), issued on 25 March 1995, Pope John Paul II admonished that modern society now has all the means of effectively suppressing all crimes by rendering criminals harmless without definitely denying them the chance to reform.

Euthanasia—Mercy Killing. Another form of the deprivation of life is the practice of euthanasia. "Euthanasia" mean the decision of a person who is terminally ill with little hope of recovering may give his consent to a physician to terminal his life or to withdraw all life support or medicine.

Abortion. Whether intentional or unintentional expulsion of the fetus from the woman's womb before the term of its viability is another violation of the right to life.

Prohibition of Slavery and Involuntary Servitude. Slavery has been a legalized institution since the ancient Roman law period.

Article 8 of the covenant states:

“No one shall be held in slavery and slave trade in all forms shall be prohibited.”

Involuntary servitude - forced labor

The Philippine constitution states,

“No involuntary servitude in any form shall exist except as a punishment for a crime whereof the party shall have been duly convicted.” (Art. I, Sec. 18 [2])

Exception on Forced Labor. Forced or compulsory labor is not absolutely prohibited. Under Article, 8 Section 3(b) of the convention on civil and political rights, forced or hard labor is legally allowed in countries where imprisonment for hard labor may be imposed as a punishment for crime; for work as ordered by a competent court or work required of a detained prisoner upon lawful order of court or as a condition to his release; or service in a military character or national service exacted in cases of emergencies or calamities or as part of normal civil obligation.

Torture, Cruel, Inhuman or Degrading Treatment and Punishment. “No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his free consent to medical or scientific experimentation” (Art 7, Political Covenant).

Equality before the Law. “All persons are equal before the law and are entitled without any discrimination to the equal protection of the law” (Art. 26, Political Covenant).

Arbitrary Arrest and Detention. “Everyone has the right to liberty and security of person. No one shall be subjected to arbitrary arrest or detention. No one shall be deprived of his liberty except on such grounds and in accordance with such procedure as are established by law” (Art. 9 Covenant).

Warrantless Arrest. There are instances when any state police officer or private person, without judicial warrant, may arrest a person who, (1) has committed or is actually committing, or attempting to commit an offense in his presence (2) when an

offense was committed and he has personal knowledge that the person to be arrested has committed the offense, (3) a prisoner who has escaped. (Rule 113, Sec. 5, Rules of Court.)

Military or Police Checkpoint. The practice of the police or the military of maintaining checkpoints are some street corners and searching a person passing or stopping a vehicle to conduct searches has been constituted as violation human rights.

RIGHT OF THE ARRESTED OR DETAINED PERSON

“Any person arrested by police or military authorities should be informed, at the time of arrest, of the reasons of his arrest. He should be brought promptly before a judge or other officer authorized by law to exercise judicial power.

He shall be entitled to appropriate proceedings before a court, in order that the court may decide without delay on the lawfulness of his detention, and order his release if the detention is not lawful. A victim of unlawful arrest or detention shall have an enforceable right to compensation.” (Art. 9, Political Covenant)

Miranda Doctrine. Promulgated by the U.S. Supreme Court in *Miranda vs. Arizona*, 384 U.S. 436 (1960), ruling that during the investigation of a detained person, he has the right to be informed of the charges against him and to be assisted by an independent and competent counsel of his own choice when making a statement.

RIGHT OF FAIR AND PUBLIC TRIAL

The accused is entitled to public trial by an impartial tribunal (Art. 9, Political Covenant).

The Philippine Constitution has a corresponding provision, which reads:

“In all criminal prosecutions, the accused shall be presumed innocent until the contrary is proved, and shall enjoy the right to be heard by himself and counsel, to be informed of the nature and cause of the accusation against him, to have a speedy, impartial, and public trial to have compulsory process to secure the attendance of witnesses and the production of evidence in his behalf. However, after arraignment, trial may proceed notwithstanding the absence of the accused

provided that he has been duly notified and his failure to appear is unjustifiable” (Art. III, Sec. 14[2]).

RIGHT OF CONFRONTATION

The right of the accused to meet the witnesses face to face is intended to give the accused the opportunity to cross-examine them. The said provisions are implanted in more detail under Rule 113 of the Rules of court of the Philippines.

Self-Incrimination. Article 14, Section 3 (G) of the Philippine constitution reads:

“A person may not be compelled to testify against himself or to confess guilt”.

Presumption of Innocence. One of the important rights of the accused is his right to be presumed innocent (Art. 2, Sec. 14, Political Covenant). Article III, Section 14(2) of the Philippine Constitution likewise provides for presumption of innocence of the accused until the contrary is proved.

RIGHT TO BAIL

Bail. Is a security filed by an accused for his temporary release (Rule 114, Rules, of Court). An accused is entitled to bail except when he is charged of a crime punishable by life or death sentence and the evidence is strong (Art. II, Sec. 13, Philippine Constitution).

RIGHT TO APPEAL ONE’S CONVICTION OF A CRIME

“Everyone convicted of a crime shall have the right to his conviction and sentence being reviewed by a higher tribunal according to law” (Art. 14, Sec. 5, Political Covenant.).

The right of appeal is not expressly provided for in the Philippine constitution but it is considered as a necessary requirement of due process if it is granted by the statute as a means of correcting possible substantial error committed by the trial court.

Double Jeopardy. “No one shall be liable to be tried or punished again for an offence for which he has already been finally convicted or acquitted in accordance with the law and penal procedure of each country”. (Art 14, Sec. 7, Political Covenant.).

RIGHT TO COMPENSATION DUE TO MISCARRIAGE OF JUSTICE

Article 14, Section 6 of the Covenant states that when a person has a final conviction of criminal offense and when subsequently, his conviction has been reversed or he has been pardoned on a ground that a new or newly discovered fact shows conclusively that there has been a miscarriage of justice, the person who has suffered punishment as a result of such conviction shall be compensated according to law.

Special Procedures for Juveniles. “In the case of the juvenile person, the procedure shall be such as will take account of their age and the desirability of promoting their rehabilitation” (Art. 14, Sec. 4, Covenant).

“Every child deprived of his liberty shall have the right to prompt access to legal and other appropriate assistance” (Art. 37[d], Convention on the Rights of the Child.)

Prohibition against Ex-Post Facto Law. “No one shall be held guilty of any criminal offence on account of any act or omission which did not constitute a criminal offence, under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time when the criminal offence was committed. If, subsequent to the Commission of the Offence, provision is made by law for the imposition of the lighter penalty, the offender shall benefit thereby” (Art 15, Sec. 1, Political Covenant)

Ex post facto law means a statute which renders a previously innocent act a criminal offense, aggravates or increases the punishment for a crime or alters the rules of evidence, or deprives an accused of some protection or defense previously available.

RIGHT TO PRIVACY

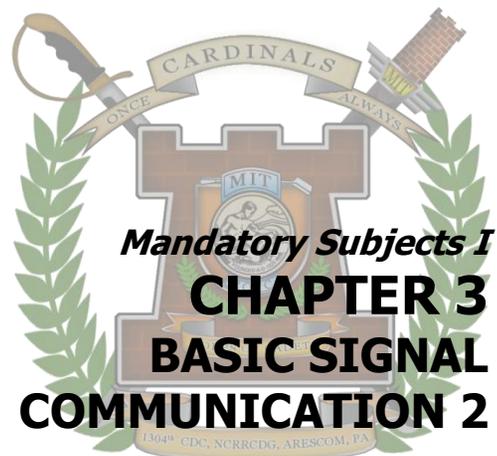
“No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honor and reputation.” (Art. 17, Sec. 1, Covenant).

Freedom of Movement and Choice of Domicile. Everyone lawfully within the territory of the state, shall, within the territory, have the right to liberty of movement and freedom to choose his residence.

Asylum. Everyone has the right to seek and enjoy in other countries asylum due to political persecution by his/her country. Asylum means the granting of sanctuary by state to persons politically persecuted in his own country.

RIGHT OF NATIONALITY

Everyone has the right to nationality and no one shall be arbitrarily deprived of his nationality (Art. 15, Universal Declaration of Human Rights). Nationality has a broader meaning than citizenship in political law.



DEFINITION OF TERMS

Signal Communication - method or means or a combination thereof, of conveying information of any kind from one person or place to another except direct conversation

Means of Communication - a medium by which a message is conveyed from one person or place to another

Agency of Communication - a facility which embraces the personnel and equipment necessary to provide signal communication by any particular means of a combination thereof

PRINCIPLES OF RESPONSIBILITY FOR COMMUNICATION

1. **Commander Responsibility** - the commander is responsible for the installation and maintenance of communication system of his unit.
2. **Superior to Subordinate** - the higher or superior unit is responsible for the installation and maintenance of communication system of his unit.
3. **Supporting to Supported** - a unit supporting another unit is responsible for the establishment and maintenance of communication with the supported unit.
4. **Reinforcing to Reinforce** - a unit having reinforcing mission is responsible for the establishment and maintenance of communication to the unit being reinforced.
5. **Lateral Communication** - responsibility for the establishment of lateral communication between adjacent unit is directed by the next higher commander. In the absence of specific instruction or SOP. The commander or left is responsible for the establishment of communication with the unit of his right.
6. **Maintenance of Communication** - this require coordination and participation of both unit. It is only through the joint effort of all concerned that communication can be assured. If communication is disrupted, its immediate restoration is the responsibility of all units affected.

COMMUNICATION CHARACTERISTICS

1. **Reliability:** This is paramount in all circumstances. The term includes accuracy of communication. This characteristic is achieved by the application of the following techniques. References, accidents, enemy actions as well as personnel and equipment failure, the communication system are specially strengthened by the use of multiple means of communication.
 - a. *Alternate Routing:* Communication system must be planned to be provide routing between points in the system should not convey in a single axis where the destruction of a single facility would impair command and control.
 - b. *Reserve Equipment:* To readily replace a disrupted portion of a communication system, reserve communication personnel and equipment should be maintained at a centrally located point in the communication system whenever possible. Over emphasis on economy or ever commitment of a communication will seriously impair this technique and decrease reliability and flexibility.
 - c. *Training and Logistics:* Thorough training of operators and maintenance of personnel and rapidly responsive logistical support will minimize human and equipment failure.
2. **Speed :** Communication speed is based on operational urgency, ideally, the greatest speed would be attained if every user could communicate directly with every other user of the communication system. Such system is not economical at present. As a result, a common user communicate system is predominantly employed for the majority of users. Various degrees of speed may be attained over a common-user system by the use of precedence designation.
3. **Security:** Maximum communication security is obtained by employing every safeguard consistent with the operational requirement, effective security depends on a proper balance between security controls and operational urgency. Strict security must be observed at all time in static situations while in fluid combat situations, relaxation of security may be forced by conditions.

4. **Flexibility** : Communication means and systems should be feasible and capable of supporting the degree of operational stress to which the command could reasonably be subjected to in time of war. This characteristic can be obtained through detailed advance communication planning. Anticipation of requirements and the maintenance of the communication redundancy (multi-means) should be considered to support unforeseen requirements.
5. **Restricted Use**: Communication in a command exist for the primary and explicit use of the commander and those he prescribes. Their use for personal convenience should be discourage or at least minimized. Communication is a tool of the commander and his staff in order to carry out the mission effectively.
6. **Appropriate Means**: Some communications are more effective than other certain circumstances. Selection of the most effective means must be weight according to operational urgency, susceptibility to any action and cost of resources. Urgency of the operational requirement should be given more weight.
7. **Dispersion**: Units are dispersed to provide the enemy with portable targets. The unit dispersed to provide the enemy with portable targets. The unit dispersed according to their mission and the hostile threat. Communication facilities should therefore be similarly dispersed.
8. **Operational Simplicity**: Communication system must be operationally simple. Technical complexity causes misunderstanding and delay. It may require higher training requirements on operating personnel.
9. **Integrated System**: The means of signal communication for combat supports units are generally organic. The organic communication system of the smaller units and communication system of higher level must be completely compatible to allow for integration and use as a single entity.

MEANS OF COMMUNICATION

1. **Telecommunication Means**: Telecommunication are defined as any transmission, omission or reception of signs, signals, writing, images, and sound and information of any nature by means of wire, radio, visual or other electromagnetic systems. Primary telecommunication means employed by armed forces are:
 - a. **Electrical/Electronic Communications**: This includes radio, wire or a combination of both and may be further subdivided into:
 - a.1. *Voice*: direct communication between two or more individuals. This is most common method available to the user and it includes telephone, voice radio-wire integration.
 - a.2. *Telegraphy*: A method of transmitting written messages by means of the International Morse Code. A relatively slow method of transmission, approximately 10 to 15 words per minute, it useable when other means of radio propagation are suppressed either by distance or man-made or natural interferences.
 - a.3. *Teletypewriter*: This is a rapid method of transmitting messages (Approximately 40 to 100 words per minute) over wire or multi-channel and radio circuits. This is normally employed on a common-user basis and is available through a signal centre. Speed of transmission depends on the type of equipment use and the degree of training of the operator.
 - a.4. *Facsimile*: A relatively slow method of transmitting graphic materials such as photographs, maps and overlays. Facsimile requires skilled operators and high quality voice circuits. This is normally employed on a point-to-point basis to meet a specific requirement.

- a.5. *Television:* An electronic method of transmitting a combination of audio and graphic information over wire and/or radio circuits.
2. **Visual Communication:** This is means available to all units and is used for transmitting short prearrange messages rapidly over short distance as well as for recognition of friendly forces. Among the mediums used for this particular means of communication are:
 - a. **Flags:** Messages may be sent with signal flags by using prearrange signal, semaphore alphabet or wigwag representation of the International Morse Code (IMC).
 - b. **Lights:** This may be used to send prearrange messages such as the identity of friendly units, International Morse Code (IMC) messages as well as infrared devices and directional shields for signaling and as landing assembly aids in airborne or amphibious operations.
 - c. **Pro-techniques:** Including smoke is used to send short prearrange messages. This may be used between ground units and aircraft or between ground units and ship off-shored.
 - d. **Panels:** Panels, either marking panels or signaling panels are used to transmit short prearrange message to identify and show location of the most forward friendly units or those in contact with the enemy.
3. **Sound Communication** - are typed by such simple devices as whistles, siren, bells, voice, amplifier, and explosive devices. This used to transmit short prearrange message and give warning or alarm.
4. **Physical Communication Means**
 - a. **Messenger Communication.** The oldest and relatively most secured means of communication. Messenger is available to all units. This is the most effective method of transmitting lengthy messengers and bulky items.

- b. **Trained Animals.** Although this means of communication is not widely used in the armed Forces, this does not preclude its use. This means makes use of the availability of some animals to find their way back from relatively great distances. Homing pigeon as well as dog had been effectively used by unit that is operating enemy line.
- c. **Mail.** This means of communication is not the responsibility of the signal corp. Normally, the Adjutant General of similar entity in as unit are provided with funds to defray the expenses that will be incurred in the use of this means of communications.

FUNDAMENTAL OF NET OPERATIONS

A. TERMINOLOGY

1. **Call Sign.** Any combination of characters or pronounceable words which identify communication facilities, command, authority, activities or unit. This primarily used in establishing and maintaining communication and ACP one 121 (C) the Philippine has been allocated the letter "DUA" to "DZZ" for use in radio call sign.
2. **Individual Call Sign.** A call sign which identifies as single communication facility, command, authority, activity or units. In communication-electronics practices this call sign may identify a radio telephone station, radio telegraph station, radio teletype stations, manual teletype station, or broadcast station.
3. **Net Call Sign.** A call sign which identifies all station in a particular net.
4. **Call.** A method of establishing communication whereby the station desiring to establish contact transmits the call sign of the station he want to communicate with, as well as his own identity.
5. **Single Call.** A method of establishing communication whereby the calling station transmit the individual call sign of called station.

6. **Multiple Call.** A method of establishing communication whereby calling stn transmits a series of call sign.
7. **Radio Net.** A radio net consists of several stations working together on the same frequency, same modulation and same emission.
8. **Pro-word.** Are pronounceable words assigned specific meaning used to facilitate traffic handling and radio telephone circuit.

B. TYPES OF NET OPERATION

1. **Directed Net.** A type of radio net operation where all stations in the net can contact other station in the same net without having to ask permission from the senior radio station.
2. **Free Net.** A type of radio net operation where all station in the net can contact other station in the same net without having to ask permission to senior radio station.

C. FUNCTION OF NET CONTROL STN

1. **NCS Defined:**
Senior radio station in the net who exercises supervision and control over net operation and determine if not will be operated a free or directed net.
2. **Specific Duties**
 - Prevents and official conversation (chatting) between operators.
 - Monitor all transmission in the net to ensure that correct procedures are used.
 - Carry out the commander's order for imposing radio or listening silence.
 - Orders frequency change or shift as needed
 - Determine broadcast schedule if required.
 - Establishes and enforces authentication criteria.

D. RADIO NET OPERATING RULES

1. Make only short and concise transmission consistent with clarity.
2. Adhere to operating procedures.
3. No transmission will be made without proper authority.

E. AUTHENTICATION DEFINED

Authentication is a security measure designed to protect communication system from fraudulent transmission.

F. TYPE OF AUTHENTICATION

1. **Message Authentication** - A security measure designed to prove that a particular message emanated from official sources.
2. **Station Authentication** - A security measures whereby station proved that they are legitimate station and net one established by the enemy to confused as to gained information.

G. CHARACTERISTICS OF TACTICAL RADIO SETS

1. **Radio Set URC 187**
The URC 187 is an HF radio communication that may be use for short or long range communication not specific can be given as this will vary according to the terrain, atmospheric conditions, frequency of operation.

Technical Characteristics:

- a. Power Supply 8.5 to 15 VDC
- b. Frequency Range. 2-11.99 MHz
- c. Channels 20,000 useable channels
- d. Mode of Operation. AM
- e. Antenna. Whip, Dipole and Long Wire
- f. Power Output. 20 Watts High, 5 watts low

Operating Procedure

- a. Check the power supply on the transceiver. Press the battery test button and observe the reading or the panel meter. Reading should be 12 - 14 volts.
- b. Connect the chosen antenna to the antenna connector 50 ohms dipole terminal. Provide grounding if necessary.
- c. Set the transceiver of the frequency of operation.
- d. Switch on the transceiver by turning the volume control clockwise.
- e. Set the function control to tune position.
- f. Tune the connected antenna by properly setting the antenna tune 2 and the antenna 1 controls. Proper tuning is achieved if the meter needle reacts on the "TUNE" (green) area.
- g. Set function switch to desire mode of operation.
- h. With the speaker are the: SPKR" position. Noise should be avail on the speaker.
- i. Adjust clarifier to clearly receive incoming signals.
- j. Connect handset or telegraphy key/handset connector.
- k. Select power output by setting switch to "HI" or "LOW".

2. **Radio Set AN/PRC - 77**

The AN/PRC - 77 is a fully transistorized short range portable, frequency (FM) receiver transmitter use to provide two way voice communication.

Technical Characteristics

- a. Frequency Range:
 - Low band 30 to 52.95 MHz
 - High band 53 to 75.95 MHz
- b. Number of channels. 920 spaced every 50 KHz
- c. Planning range. 8 Kms (5 miles)
- d. Power output. 1.5 to 4 watts
- e. Antenna. 3 ft steel whip, 10 ft Multi section and 10 ft vehicular.
- f. Power Source. DC battery
- g. Weight. (RT only) 13 lbs

3. **PRC - 126**

Technical Characteristics

- a. Power Output 1 watt
- b. Frequency Range. 30 to 87.975 mhz
- c. Number of channels. 2,320 channels
- d. Mode of Operation. FM
- e. Transmission Range - short antenna - 1648 ft (500 mtrs)
- f. long antenna - 9890 ft (3,000 mtrs)
- g. Preset Channel Spacing - Programmable
- h. Preset Channel 10
- i. Battery Operating Time - 76 hours
- j. Weight with complete accessories 2.6 lbs

General Operating Hints

- a. Use a handset or head set in a place of a loud speaker incoming signal is weak.
- b. Make sure the microphone or handset is in good condition.
- c. If a set is in vehicle, make sure the battery voltage is up.
- d. Switch off the radio set when starting the engine.
- e. Moving the set a few meter may be improved reception considerably.
- f. Use CW in place of voice for increase range or if voice signal is weak.
- g. Pausing should be observed during transmission that is press to talk 10 seconds and release 5 seconds for break then press to transmit again alternately. Prolonged continuous transmission by pressing transmits which on handset will damage the power amplifier of the radio set.

4. **Radio Set URC - 601F**

The URC - 601F VHF HF handheld radio set is designed for short range communication in areas where size, weight and proper consumption have all to kept to a minimum. Extremely ragger and light weight, it is waterproof.

Technical Characteristics

- a. Type of service. F3 (narrow band FM) simplex
- b. Frequency Range. 44 to 54 MHz
- c. Number of channels. 6 space every 25 KHz

- d. Planning range. 2Kms
- e. Power Output. 1.5 watts high and 30 miliwatt low
- f. Antenna. 1 meter sectional tape rule
- g. Power source. 12 volts nominal for a battery of 8 dry cell battery life approximately 50 hours is to 9 receive/transmit ratio.

5. **Radio Set URC – 773**

The URC - 773 is a short man pack portable frequency modulated (FM) receiver transmitted used to provide two way voice communication. Multicolored led are provided to indicate battery life.

Technical Characteristics

- a. Type of service. F3 (narrow band FM) simplex
- b. Frequency Range. 36 to 97.5 MHz
- c. Number of channels. 16,000 every 25 KHz
- d. Power Output. Low 1 watt and high 5 watt
- e. Antenna. Sectional whip antenna
- f. Power source. 12 VDC from VDC battery BA-30
- g. Weight. Approximately 6.06 kgs including whip, handset and batteries.
- h. Battery life. 1 is to 9 reception transmission ratio. 32 hours - HI and 42 hours - LOW

ELEMENTS OF COMMUNICATION SECURITY

A. **Physical security** - All measures and activities designed to protect and safeguard classified equipment, materials and areas from access by unauthorized personnel.

1. **Security Measures**

- a. *Secure areas* - declaring certain areas off limit.
- b. *Classification of materials* - degree of security measure to be observed.
- c. *Cryptographic Security Clearance* - personnel slated to have access to classified materials are given background check to determine if they are security risk.

- 2. **Evacuation and Destruction** - to ensure that classified material will not fall into the hand of unauthorized personnel.
 - a. *Routine* - schedule disposition of classified material.
 - b. *Emergency* - unscheduled when captured.
- 3. **Compromise Report** - rendered when classified material is made known to the enemy.

B. **Transmission Security** - measure designed to prevent the enemy from deriving information from our electrical transmission.

Security Measures:

- 1. Reduce length and number of transmission.
- 2. Reduce transmission power to minimum.
- 3. Strict adherence to prescribe procedure.
- 4. Operators training.
- 5. Circuit discipline.
- 6. Jamming and imitative deception defense.
- 7. Intersection and direction finding defense.
- 8. Defense against traffic analysis.
- 9. Message authentication.

C. **Cryptographic Security** - Convert communication from an understandable language to unintelligible text or language. In short transform plain text to secret text.

Security Measures:

- 1. *Code System* - plain text is transform to secret text by replacing words, phrases or sentences with equivalent code.
- 2. *Cipher System* - treats on individual letter of the message text.
 - a. *Transposition* - transferring individual letter of the original text.
 - b. *Substitution* - replacing individual letter of the clear text with equivalent letter found in the cipher text.

- D. **Authentication System** - designed to protect communication system against fraudulent messages or transmission.

Station Authentication - transmitting station proves that it is the legitimate/official radio station.

1. Challenge authentication
2. Self authentication

E. **WHEN TO AUTHENTICATE**

1. When imitative deception is suspected in a circuit
2. When a station is challenged
3. When directing radio silence or requiring a radio station to break impose silence.
4. Transmitting important messages in plain language or brevity.
5. When cancelling a previous message in plain language
6. When transmitting operating instruction affecting communication system.
7. Making initial radio contact or re-establishment radio contact after a prolong interruption.
8. Transmitting to radio station under radio silence
9. Transmitting a classified message in clear.

ANTENNA/ANTENNA FIELD EXPEDIENT

Antenna is designed to receive and radiate radio frequency signal.

1. *Receiving antenna* - absorbs part of this energy and send it to the receiving equipment through another transmission line.
2. *Transmitting antenna* - by means of transmission line the radiate into space at approximately the speed of light.

FUNCTION OF ANTENNA

1. *Transmitting antennas* - to convert the output delivered by a radio transmitter into a electromagnetic field that is radiated space.
2. *Receiving Antenna* - makes the energy conversion in the opposite direction.

Antenna Gain

The gain of antenna depends primarily on its design.

Transmitting antenna - are designed for high efficiency in radiating energy.

ADVANTAGE OF HORIZONTAL POLARIZATION

1. Simple horizontal half wave antenna is a simple bi-directional, this characteristic is useful, and it is desired to minimized interference from certain direction.
2. Horizontal antennas are less affected to pick-up man made interference.
3. When antennas are located near dense forest, horizontal polarized waves suffer lower losses than vertical polarized.

Receiving Antenna

The Vertical Receiving Antenna accepts Radio Signal equally from all horizontal direction.

Grounded Antenna

The ground is fairly a good conductor for medium and low frequency and acts a large mirror of the radiated energy.

Types of Ground

When grounded Antenna is use it is specifically important that the ground wave a high conductivity as possible.

COUNTERPOISE

1. May be replaced the usual direct ground connection in which current actually flows to and from the antenna through ground itself.
2. In some VHF antenna installation in vehicles the metal roof of the vehicles is use as a counterpoise for the antenna.

TYPES OF ANTENNA

1. **Whip Antenna** - (*Omni Directional*) are the most commonly use for Tactical Radio Communication over relatively SHORT DISTANCE COMMUNICATION.
2. **Double or Dipole** (*Bidirectional*) - a single wire with a length is equal to approximately one half of the wave length of the signal to be transmitted.
3. **Long wire or Uni-Directional** - least open to enemy interception it can be positioned properly, its advantages are that you can transmit and receive best in only one direction.
4. **Metallic Whip Spliced** - take a Common Case a metallic whip broken into pieces a splint job is the quickest repair, you make scrapped off the paint 5 to 6 inches from the broken ends use rocks or knife to scrapped the ends clean take about 1 foot of copper wire stripped WD1 it overlay the clean ends and wrap them together tightly with the copper wire.
5. **Wire Antennas** - pick a support at least 15 feet high communicate move your vehicle radio so the support is on a line with a station you need to reach 100 feet from you tie a rope or WD1 to the tree or pole you selected as a support attached an insulator to the rope or WD1 tied to the support connect 100 feet of WD1 (ANTENNA) to the insulator.
6. **1/4 Wave Vertical** - now let's put up a quarter wave vertical antenna quarter waves may also be use to replace whip antennas.

Step 1

Using the quick reference chart on the formula for quarter waves determine the length of the wire (WD1) you need.

Step 2

Attached insulation to one end stripped into the antenna connector on your radio.

Step 3

Tie a pole to the insulator end and throw the rope over the limb.

Step 4

Pull it up until it vertical and your ready to go.

RADIATION OF THE ANTENNA:

When power delivered to an antenna two fields are set up by fluctuating energy.

1. *Induction field* which is associated with the stored energy.
2. *Radiation field* which move out into space at nearly speed of light.

ANTENNA RADIATION PATTERN

The energy of radio signal radiated by an antenna forms and electromagnetic field depending on the type of the antenna use directional and vertical antenna are equally in all direction but usually distorted by obstruction or terrain features.

ADVANTAGES OF VERTICAL POLARIZATION:

1. SIMPLE VERTICAL, HALF-WAVE ANTENNAS can be used to provide OMNI DIRECTIONAL (in all direction). This is advantageous when it is desired to communicate with a moving vehicle.
2. When antenna high are limited to 10 feet or less over land as in vehicular installation.
3. When vertical polarization somewhat less affected by reflection from aircraft flying over the transmission path.
4. When vertical polarization is used less interference is produced or pick-up because of strong VHF and UHF broadcast transmission and reception TV and FM or frequency modulation.

ANTENNA FIELD EXPEDIENT

1. Field Expedient Items

On previous pages you read about antenna types, antenna connection and making antennas. Here some field expedient item that might help you get the job done in an emergency.

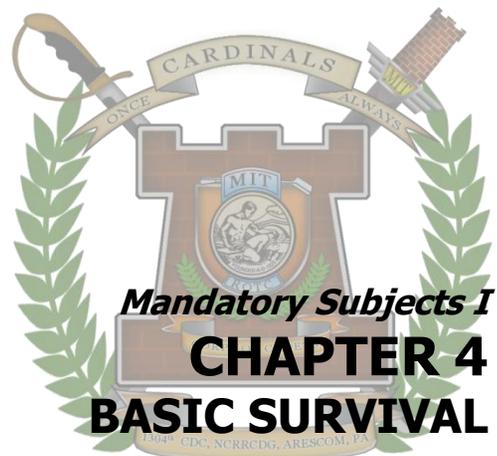
Original issue	Field Expedient
Antenna wire	WD1 barbed wire, electrical wire coaxial
Antenna mast	Trees, stick, lance pole telephone pole
Coaxial cable	WD1 electrical wire
Antenna guy rope	Wire, cloth, belts
Guy stakes	Rocks, vehicles, trees
Whip antenna	Wire WD1 coaxial cable
Pulleys	Wire, nylon, rope
Insulators	plastics, rings, spoons, bags, woods, robe rugs

2. Antenna First Aid Rule

Medical first aid is intended to the job until you can see a doctor the same principal applies to first aid on antennas quick work on your antennas helps get your radio back on the air so you can communicate until you can replace the pathed antenna.

3. Formulas and Quick Reference Charts

- To figure a quarter wave length antenna in feet divided 234 (constant) by operating frequency in megahertz. $234 \text{ divide } 448 = 5.22 \text{ or } 52$
- To figure a half wave length antenna in feet divide 468 (constant) by your operating frequency. $468 \text{ divide } 56 = 8.36 \text{ or } 8' 5"$
- To figure a full wave length antenna in feet divide 936 (constant) by your operating frequency in megahertz. $936 \text{ divide } 43 = 20.8 \text{ or } 20' 10 "$
- To convert feet in meters multiply by 3048 (constant) $110 \text{ feet } \times 3048 = 33.5 \text{ meters}$
- To convert meters to feet multiply by 3.28 (constant) $100 \text{ meters } \times 3.28 = 328 \text{ feet}$



BASIC SURVIVAL

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

Modern combat increases the likelihood of your becoming isolated and having to find water, food and shelter for many days, even weeks while making it back to the friendly forces. Small units fighting in widely dispersed formations or on special mission forward of friendly line are most likely to be cut-off. Large units travelling great distances by air and sea make survival in remote and desolate areas a real possibility for you. The ability to evade the enemy and to escape if captured, are both basic requirements of soldiers code of conduct which demands every survival skill you can master. The chances of being exposed to such emergency are always present especially when travelling so survival technique should be a part of your basic soldiery skill. You can remain alive anywhere in the world when you keep your wits. This is a major lesson in survival.

The purpose of this lesson is to learn what nature truly is and befriend it, thus face only one common foe, the enemy.

SURVIVAL

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

THE FOLLOWING SITUATIONS THAT CAUSES SURVIVAL:

1. Air crashes
2. Crash landing
3. Ship wreck
4. Lost patrol
5. Unit cut-off from main body

PSYCHOLOGICAL CONDITIONS TO OVERCOME IN ORDER TO SURVIVE

1. ***Fear of the Unknown*** - Your fear of the unknown will be eliminated by proper training and briefing. Perhaps you will learn something of the geography, topography and the climate of the area which will you operate. All it takes you only is to recall them.
2. ***Fear of Discomfort*** - Fear of discomfort will be eliminated when you how to get water, foods and proper ways to travel through the terrain. Knowledge of medical and construction of shelter will also help you to overcome this condition. Remember that rest is valuable than speed and you will be more comfortable if you make your way with careful planning instead of Blind and Exhausting. Always keep in mind that your country has not forgotten you.
3. ***Fear of People*** - Fear of certain races of people within the territory can be relieved by previous knowledge and some common sense. Unless they have been allied with the enemy, you will have little trouble from the natives and possibility get a lot of assistance.
4. ***Fear of your Weaknesses*** - Considerable outdoor experience, or previous experience in environment similar to that which you find yourself; You should have confidence in your ability to live-off the land if not, take advantage of any opportunity to go any survival school.

DECIDING FACTORS FOR SURVIVAL

1. ***Determination to Live*** - You can remain alive anywhere in the world when you keep your wits, you may suffer all the hardship and obstacle, yet you will still be alive because of your strong determination in your will to survive.
2. ***Ability to make Nature Work for you*** - Remember that nature and elements are actually interested on your welfare. If you know how to use it in your own advantage, it will always be your friend.

KEY WORDS IN S-U-R-V-I-V-A-L**1. SIZE UP THE SITUATION by considering:**

- a. *YOURSELF* - Hope for the best but prepare for the worst. Recall survival training, expect it to work. Be confident that you can survive. Get to safe comfortable place as quickly as possible. Once there, look things over, think and force a plan. Your fear will lessen: Your confidence increases. Be calm. Take it easy until you know where you and where you are heading for.
- b. *THE AREA* - Part of your fear may come from being in a strange country, therefore try to determine where you are by, landmarks, compass direction or by recalling intelligence to passed to you by leaders.
- c. *THE ENEMY* - Put yourself in the enemy's shoes. What would you do? Watch the enemy habits and routines. Base are plans in your observations. Remember you know where the enemy is but he does not know where are you.

2. UNDUE HASTE MAKE WASTE

- a. Don't be too eager to move. It will make you careless and impatient.
- b. Don't lose your temper. It make cause you to top thinking when something initiating happens, stop, take a breath and relax, start over.
- c. Face the fact, danger does exist.

3. REMEMBER WHERE YOU ARE

You may give yourself away because you are top acting in a certain way. Doing what comes naturally due the tip of what you don't belong there.

4. VANQUISH FEAR AND PANIC

- a. To fear is normal and necessary. It is natures of giving you to that extra shot of energy when you need learn to recognized fear for what it is and control it.
- b. When you are injured and in pain, it is difficult to control fear. Pain sometimes turn fear into panic and causes person to act without thinking.
- c. Panic can also be caused by loneliness. It can lead to hopelessness, thought of suicide and carelessness, even capture or surrender recognizing this signs helps to overcome panic.
- d. Planning your escape will keep your mind busy. Find things to do and watch. Remember that miracle work best for those who prepare carefully and they can do to save themselves.

5. IMPROVISE

- a. You can always do something to improve the situation. Figure out of what you need, take a stock of what you have, then improvise.
- b. Learn to put up with new and unpleasant conditions. Keeping your mind on survival will help. Don't be afraid to try strange food.

6. VALUE LIVING

- a. A hope and real when for escape reduces your fear and make chance of survival.
- b. Conserve your health and strength. Illness as injury will greatly reduce your chance of survival and escape.
- c. Hunger, cold and fatigue lower your efficiency and stamina, make you careless and increases the possibility of captured. Knowing this will make you especially careful because you will realize that your low spirit are the result of your physical condition and not of the danger.

- d. Remember your goal - Getting out alive concentrating on the rime after you get out alive will help you value living now.

7. ACT LIKE A NATIVE

Accept the true customs of the native. When you are in the situation, accept and adopt native behavior.

8. LEARN BASIC SKILLS

a. *Survival Rules on Edibility*

Generally:

- a.1. Anything that swims, flies, creeps and crawls are edible.
- a.2. All four-legged animals are edible.
- a.3. Anything that birds and monkeys eat are edible.
- a.4. All eggs are edible.
- a.5. All larvae are edible.
- a.6. Almost of sea leaves are edible.
- a.7. All reptiles are edible.
- a.8. All crustaceans and mollusk are edible.
- a.9. Most fish you can catch in an open sea and sight of land are good to eat.
- a.10. Eel are good to eat than sea snakes.
- a.11. All snakes except sea snakes are edible.
- a.12. Cook animals as soon after killing as possible.
- a.13. Frogs, turtles, lizards, alligators and crocodiles are edibles. Toads are not edible.
- a.14. Always remove in trails (intestines) and sex glands before cooking.

- b. **WATER** will be a primary requirement. Start looking for it immediately. An individual can get along without food for a week, but he can't live along without water, especially in hot or in arctic areas where he will lose large quantities of water through sweating or dehydration.

Purification - purify all water before drinking, either (1) by boiling for at least one minute; or (2) by using water purification tablets; (3) by adding eight drops of 2 1/2 percent solution of iodine to a quart (canteen full) of water and letting it stand for ten minutes before drinking.

Rainwater collected directly in the clean containers or in plants is generally safe to drink without purifying. Don't drink urine or sea water - the salt contents is too high.

- c. **PLANTS** never eat large quantities of strange food without first tasting it. Prepare a cooked sample then take a mouthful chew and hold it in your mouth for five minutes. If it still tastes good, go ahead and eat it. If the taste is disagreeable, don't eat it. A burning or bitter taste is a warning or danger.

- c.1. Plants eaten by birds and animals are safe.
- c.2. Don't eat unknown plants with milky juice or let silk contact your body skin.
- c.3. Don't eat unknown plants that have an disagreeable odor.
- c.4. Non-poisonous mushroom are edible. Poisonous mushroom are very dangerous. Cooking will not destroy the poison. Poisonous mushrooms have a frill or ring around the upper part of the stem and a cup at the base into which the stem fits.
- c.5. Don't eat unknown plants that taste disagreeable, bitterness is a guide for danger.
- c.6. Most roots are edible, but must be boiled thoroughly.

Common Medicinal Plants

1. AVOCADO - fresh leaves use for diarrhea. Boil for thirty minutes. Take a glass three times a day.
2. AMPALAYA - leaves, antiseptic for wounds. Cure for malaria. Boiled seed or stem. For stomach trouble. Reduce constipation.
3. ATIS - leaves, bark, unripe fruits, good for diarrhea. Boil or ground fruit. For sprain, wrap leaves.
4. BALINGBING - for gonorrhoea. Rub and squeeze in opening of penis. Rub around penis.
5. BANANA - leaves and bark. Boil for kidney trouble. Increase urine flow. Four to five glasses daily.
6. GARLIC - bulb is a cure for high blood, inflammation of peptic ulcer. Use a juice.
7. GUAVA - leaves for diarrhea and antiseptic for wounds.
8. CACAO - Boil roots for kidney trouble

9. CHICO - Barks cure for diarrhea
10. DUHAT - Barks when boiled is good for cure of diabetes and hemorrhage, anemia
11. GRANADA - Fruits, barks cures hemorrhage
12. GUMAMELA - Flower for boils
13. SQUASH - seeds when boil is good for eradicating parasites
14. CALAMANSI - for Cold
15. CAMIAS - for gonorrhea
16. COFFEE - stimulants for nerves and heart
17. KAWAYAN - roots and leaves, shoots for curing kidney
18. KAIMITO - Bark or fruit for diarrhea
19. RADISH - help cure peptic ulcer
20. JACKFRUIT - milky caps helps cure wound

d. HUNTING GROUNDS FOR SURVIVAL

- d.1 Along sea coast between high and low water marks.
- d.2 Areas between beaches and corals reefs.
- d.3 Marshes and mud flats.
- d.4 Best time is on early morning or dusk.
- d.5 In travels, keep alert for animal size such as tracks, trampled underbrush or droppings.
- d.6 On narrow trails, watch for games crossing.
- d.7 In hallow trees.

EVASION

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

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

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

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

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

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

1. The bayonet
2. The garrote (a choke wire or cord with handles).
3. Improvised clubs.

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

EVASION TECHNIQUES

1. When unable to continue the mission or unable to rejoin your unit, leave the immediate area and move to your last rallying point.
2. Observe activity in the area and form a plan.
3. Plan a primary and alternate route. Consider distance, cover, food and water. The easiest and shortest route may not be the best.
4. Food and water are daily requirements. You can do without food for several days; water, however is essential.
5. Move at night. Use the daylight to observe, plan, and rest in a hide position.
6. Linkup only during daylight hours. Place friendly lines under observation.
7. Attempt to identify the unit you will approach, note their movement and routine.
8. Make voice contact as soon as possible after carefully considering your approach route.

RESISTANCE

The code of conduct is an expression of the ideals and principles, which traditionally have guided and strengthened Filipino fighting men. It prescribes the manner in which every soldier of the Philippine Armed Forces must conduct himself when captured or when faced with the possibility of capture.

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

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

1. Make every effort to escape and to help others escape.
2. Do not accept especial favor from the enemy.
3. Do not give your word not to escape.
4. Do nothing that will harm fellow prisoner.
5. Give no information except NAME, RANK, SOCIAL SECURITY NUMBER/SERIAL NUMBER, AND DATE OF BIRTH.
6. Do not answer questions other than those concerning your name, rank, social security number, and date of birth.

ESCAPE

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

THE FOLLOWING ARE OTHER REASONS FOR MAKING AN EARLY ESCAPE:

1. Friendly fire or air strikes may cause enough confusion and disorder to provide a chance of escape.
2. The first guards you have probably will not be as well trained in handling prisoners as guard's farther back.
3. Some of the first guards may be walking wounded who are distracted by their own condition.
4. You know something about the area where you are captured and may know the locations of nearby friendly units.

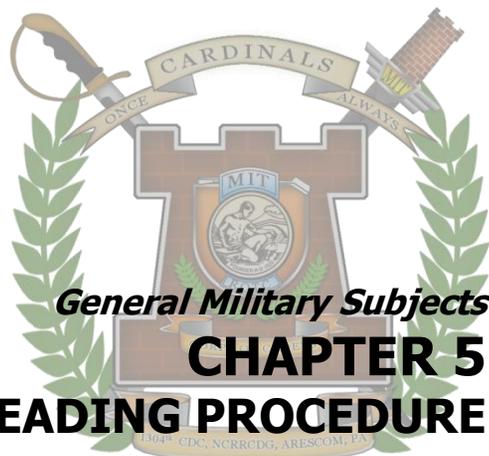
5. The way you escape depends on what you can think of to fit the situation.
6. The only general rules are to escape early and escape when the enemy is distracted.

Once you have escaped, it may not easy to contact friendly troops, even when you know where they are. You should contact a friendly unit as you would if you were a member of a lost patrol. You should time your movement so that you pass through enemy units at night and arrive at a friendly unit at dawn. A good way to make contact is to find a ditch or shallow hole to hide in where you have cover from both friendly and enemy fire. At dawn, you should attract the attention of the friendly unit by waving a white cloth, shouting, showing a panel, or some other way. This should alert the friendly unit and prepare it to accept you. After the unit has been alerted, you shout who you are, what your situation is, and asks for permission to move toward the unit.

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

THE FOLLOWING ARE SOME BASIC THINGS TO DO FOR SECURITY:

1. Be awake and alert.
2. Stay dressed and ready for action.
3. Keep your equipment packed when it is not being used.
4. Keep your equipment and weapon in good operating condition.
5. Use camouflage.
6. Move around only when necessary. Stay as quite as possible.
7. Look and listen for enemy activity in your sector.
8. Use lights only when necessary.
9. Do not write information about an operation on your map.
10. Do not take note or papers about an operation into combat.
11. Do not take personal items into combat.
12. Do not leave trash lying about.
13. Tie or tape down equipment to keep it from rattling.
14. Use challenge and password.
15. Do not give military information to strangers.
16. Remember the code of conduct.



General Military Subjects

CHAPTER 5

TROOP LEADING PROCEDURE

© 2009 CDC, NCRRCDG, ARESCOM, PA

TROOP LEADING PROCEDURE

Every Military unit, regardless of these levels, has a mission to accomplish and in this mission, the commander his help responsible for it. This is one of functions of the Command, whole the other is to lead the troops in a manner that ends in success not failure.

Troop Leading differ planning, that the former embraces the range in written, verbal, or physical influences that a commander exerts over his troops. Basically, in involve three (3) actions that may occur simultaneously. First planning involves commander's mental process, coordination with the adjacent action and supporting elements and reconnaissance, all the actions point to the development of the plan or order to the implemented through troops leading.

DEFINITION

Troop Leading Procedure is the logical sequence of action that a leader follows while preparing for and execution on assigned mission, making the best use of time, facilities or equipments personnel.

The troop-leading procedures are the dynamic process by which a commander receives a mission, plans it and executes it. It should be an instinctive and familiar way of thinking for a commander. The sequence of the individual TLP's is not rigid. It is modified to meet the mission, situation and available time. Some steps are done concurrently while others may go on continuously throughout the operation. The TLP's are the time savers, as such the leader conducts them in the order that most effectively uses the available time.

OBJECTIVES

The following are the purposes of Troop Leading Procedure:

- It ensures that the leader makes the best use of time, equipment and personnel in accomplishing the assigned mission.
- It allows the commander/leader to launch his troops in the battle quickly with maximum preparation.
- It assures the accomplishment of all actions required before battle.
- Save time.

STEPS OF TROOP LEADING PROCEDURE

STEP 1. RECEIVE THE MISSION

A mission may be received in the form of either a written or oral warning order, operation or (OPORD), or fragmentary order (FRAGO). At times, a leader may deduce a change in mission, based on a change in the situation. When the battalion OPORD is issued, the company commander should have his company FSO with him.

1. Once an upcoming mission is identified, actions to begin preparing the unit are conducted. The CO conducts an initial METT-T analysis to determine the requirements for his warning order.
2. With the information available, the commander sets his time schedule by identifying the actions that must be done (time-critical tasks) to prepare his unit for the operation. These preparatory actions are identified by a preliminary consideration of the information on the mission, enemy, terrain, and own troops. An initial reconnaissance (may be a reconnaissance) is conducted to allow the leader to more fully understand the time requirements for the mission. He then develops his time schedule by starting at "mission time" and working backward to the time it is now (reverse planning). The mission time is normally the most critical time in the operation.
3. The commander must ensure that all subordinate echelons have sufficient time for their own planning needs. A general rule of thumb for leaders at all levels is to use no more than one-third of the available time for planning and issuance of the OPORD. This will leave the rest of the available time for the subordinate leaders to use for the planning and preparation.

STEP 2. ISSUE A WARNING ORDER

Do not wait for more information. Issue the best warning order possible with the information at hand and update it as needed with additional warning orders. The warning order lets units prepare for combat as soon as possible after being alerted of an upcoming mission. This normally involves a number of standard actions that should be addressed by SOP that must be done to be prepared for the mission. The specific contents for each warning order will vary, based upon the unique tactical situation.

STEP 3. MAKE A TENTATIVE PLAN

Tentative plans are the basis for the OPORD. The leader uses the commander’s estimate of the situation to analyze METT-Tinformation, develop and analyze a COA, compare courses of action, and make decision that produces a tentative plan.

The company commander makes a tentative plan:

- M - Mission
- E - Enemy
- T - Terrain and weather
- T - Troops
- T - Time

- What is the company MISSION? What are the stated and implied tasks?
- What is the ENEMY situation? What weapons and units do they have in support? Will they be mounted, dismounted, or both?

Sequence in Studying Enemy Situation

- | | | | |
|---|-------------|---|-------------------|
| S | - Size | S | - Size |
| A | - Activity | E | - Equipment |
| L | - Location | L | - Location |
| U | - Uniform | D | - Disposition |
| T | - Time | O | - Organization |
| E | - Equipment | M | - Morale/Movement |

- How can be the TERRAIN and WEATHER best be used? To get an answer to this question, he considers observation and field of fire, cover and concealment, obstacles, key terrain, and avenues of approach. He considers the effect of weather that will have on personnel, equipment, visibility and trafficability.

- K - Key terrain feature
- O - Observation of field of fire
- C - Cover and Concealment
- O - Obstacle
- A - Avenue of Approach

Key terrain is any feature that affords marked advantage to the force that seizes or retrieves it. A commander considers key terrain and the weather in selection of positions in the defense.

Observation and field of fire dictate where platoon and weapon crews are positioned to cover likely enemy avenues of approach.

A commander also considers the enemy has good observation and fields of fire, a commander tries to reduce them by suppressing or obscuring the enemy’s observation with fire and smoke.

Cover and concealment influence the choice of routes and positions. In the offense, a commander picks positions that provide the best cover and concealment.

Obstacles also influence the choice of routes in the offense and the choice of positions in the defense. In the offense, a commander may by-pass obstacles that allow movement. In the defense, he positions troops and weapons to take advantage of obstacles that allow or stop the enemy. He reinforces existing obstacle if there are no natural obstacles with standard or expedient means.

Avenues approach is considered in conjunction with all direction of attack in the offense, and the assignment of position and sectors of fire in the defense. A commander considers how the enemy avenues of approach or withdrawal can affect friendly operations.

How many TROOPS and how much TIME are available? These affect the selection of position, routes, formation and degree of preparation.

As the commander studies these factors, he determines how they affect his mission. He develops a plan to take advantage of them.

STEP 4. INITIAL MOVEMENT

This can be done by having a subordinate leader move the unit to an assemble areas or attack position. The instructions for this move can be given in the warning order. The AOO ensures that security is provided and fires are integrated for all company movements.

STEP 5. CONDUCT RECONNAISSANCE

Reconnaissance is a continuous process during the TLP. The tentative plan should include an R & S guidance can be given to subordinates. In every tactical operation the OO requires additional information and at the same time, he must deny the enemy information about his company. These requirements provide the focus for the company R & S plan.

1. **Prepare the plan.** The CO determines-
 - What are his information requirements?
 - What are his security requirements? (The higher headquarters may also assign R & S responsibilities to the company.)
 - What are the priorities for these requirements?
 - What are the priorities for these requirements? (The CO may request support from higher, adjacent and supporting units)
 - How much time is available to collect the information or establish security?

- What is the most critical (and thus the focus) for his personal reconnaissance?
 - To whom will be assign tasks to meet the R & S needs?
2. **Issue the plan.** The CO provides additional instructions to supplement the assigned tasks to his subordinates. The amount of detail depends on the specific situation. A leader's reconnaissance that has several subordinate units involved requires more specific instructions. These may include the following:
 - A specific tasking for selected soldiers from subordinate units, such as the 1st platoon's RATELO
 - A specific time schedule for the reconnaissance (report inspection departure and return times.)
 - Specific routes and formations.
 - Special equipment required.
 - Likely contingency plans.
 - Fire support coordination.
 - Withdrawal plan from the reconnaissance site.
 - Bank up with the company.
 3. **Select the technique.** The leader's reconnaissance is crucial to every operation. An effective leader reconnaissance provides the required information without being detected by the enemy. The risk of detection and the effect that this loss of surprise will have on the mission must be weighed against the benefit of collecting the information. Generally, the closer the against the benefit of collecting the information. Generally, the closer the reconnaissance element is to the objective, the greater the risk of detection. The two primary techniques for conducting the leader's reconnaissance are:
 - a *Long-range observation / surveillance.* Reconnaissance personnel generally stay beyond small-arms range from the objective. This will usually be outside the enemy's security positions also. Tentative OP sties are selected from a

map reconnaissance and confirmed after the unit has occupied the ORP. This technique is generally more effective during daylight hours. When possible, Ops should provide 360-degree coverage and may require repositioning at night.

- b *Short-range observation / surveillance.* This technique generally requires the reconnaissance personnel to move inside the enemy's security positions and small-arms fire range. It depends on stealth and effective use of available cover and concealment. Limited visibility may support this technique Ops are also designed for short-range observation.

4. **Conduct the reconnaissance.** The leader's reconnaissance should be conducted as any reconnaissance patrol; only essential personnel should take part. The smaller this element is, the less likely the enemy will detect them. This should include a leader from each of the key elements. Additional tasks during the reconnaissance may include:
- Testing communications if authorized.
 - Making final coordination on precise timings, signals, weapons/personnel locations and sub-unit responsibilities.
 - Establishing a security/surveillance on the objective area.

STEP 6. COMPLETE THE PLAN

The CO must be prepared to adjust his tentative plan base on the results of the reconnaissance. He may have to change COAs if the situation is not what he expected. In this case, one of the previously analyzed and discarded COAs may be adjusted to quickly finalize his new plan. Coordination continues with all supporting agencies, higher headquarters and adjacent units. This, along with his recon, gives the leader the information he needs to expand the tentative plan into a five-paragraph OPORD.

STEP 7. ISSUE THE ORDER

Preferably issue the order while viewing the avenues of approach/objective are make maximum use of visual aids (sketches and terrain models) to enhance the presentation of the order. When the CO issues the tentative plan before the leader's reconnaissance, he issues a FRAGO to finalize the plan prior to execution.

STEP 8. SUPERVISE

The best plan may fail it is not managed right. Brief backs, rehearsals, inspections and continuous coordination of plans must be used to supervise and refine troop leading procedures. Brief backs and rehearsals are not same, brief backs focus on the planning, and rehearsals focus on the execution.

1. **Inspect.** During pre-combat inspections, check-
 - Weapons and ammunition.
 - Uniforms and equipment.
 - Mission-essential equipment
 - Soldier's knowledge and understanding of the mission and their specific responsibilities.
 - Communications.
 - Rations and water.
 - Camouflage.
2. **Rehearse.** Rehearsals are always conducted. They are essential to ensure complete coordination and subordinate understanding. The warning order should provide subordinate leaders sufficient detail for them to schedule and conduct rehearsals of drills/SOPs before receiving the company OPORD. Rehearsals conducted after the OPORD can then focus on mission specific tasks. Rehearsals conducted as any other training exercise except the training area should be as much like the objective area as possible, including the same light and weather conditions. Mock-ups of the objective should be used for these practices. Rehearsals include holding soldier and leader brief backs of individual tasks and using sand tables or sketches to talk through the execution of the plan. These are followed by walk-through exercises and then full-

speed, blank-fire or live-fire rehearsals. The priority of rehearsals, as COA development, flows from the decisive point of the operation. For example, actions of the objective, battle drills for maneuver, actions on enemy contact, special teams, movement techniques, and others as required. Security must be maintained during the rehearsal.

3. **Brief back.** Subordinated should brief back the commander right after the OPORD to ensure they understand their instructions. Brief backs of the subordinates' plans should also be conducted. These brief backs may be given collectively at a meeting of the orders group. Such a technique allows exchange of information, coordination among units, and rapid distribution of changes to the initial plan.
4. **Coordinate.** The commander visits his subordinates and adjacent units to discuss their plans. The CO ensures that all necessary preparations are being made. These may include coordination of fire support and engineer activities maintenance, resupply, movement and other required actions.
 - a Any departures from the plan, both before and during the operation, are coordinated with battalion commander and staff.
 - b During execution, the CO issues FRAGOs to modify or refine the operation as the situation develops. He personally supervises and or leads the critical actions.



General Military Subjects

CHAPTER 6

RESERVIST AND RESERVE FORCE DEVELOPMENT

RESERVIST AND RESERVE FORCE DEVELOPMENT

It is a universally accepted principles among military theorists and historians that to be victorious in the conduct of warfare, it is imperative for any armed force to secure and maintain a reliable reserve components that allows commanders the needed window of flexibility necessary to adapt to the changing mechanics of conflict.

Thus, the enactment of RA 7077 otherwise known as The Armed Forces of The Philippines Reservist Act of 1991 increases the momentum of the country's military modernization and preparedness efforts. It speaks of a total force concept aimed at complementing the regular force with a well-trained citizen armed force that could be depended upon in times of nation building and in cases of war, invasion or rebellion.

DEFINITION OF TERMS

Career Course – pertains to the course required for career progression (Basic, advance and etc) which provides AFOS such as: Infantry, Armor, Artillery, Quartermaster, Signal, Engineer, Finance, Ordnance, etc.

Non-Resident Career Course – course offered by PA Service Schools to junior and company grade inactive reserve officers to prepare them to assume as company commander, battalion commander or brigade staff of the PA Reserve Force.

Active Duty Training – a call to active duty of inactive reserve officer and enlisted reservist for the purpose of training. The training may involve updating of skills and knowledge on military techniques, doctrines, policies and regulations in order to upgrade his state of preparedness for integration with the active component in time of emergency.

Inactive Reserve – a commissioned officer and enlisted reservist not performing regular military duty with the AFP.

Mobilization – the utilization of the reserve force in times of war or national emergency.

Mobilization Center – a designated area or place wherein reservist will report when mobilization is ordered.

Deserving Non-Commissioned Officer (NCO) – an enlisted personnel in the grade of E-3 (Corporal) or higher including E-7 (Master Sergeant), who has conspicuously demonstrated meritorious and valuable service.

Grade – the military rank of a commissioned officer of the AFP.

Separation – the severance of all connections linking a reserve officer with the AFP. It includes the termination of appointment as a reserve officer as a result of resignation, deferment of promotion and administrative or court martial action.

SOURCES OF ENLISTED RESERVISTS

Citizen Soldiers – alternately referred to as reservists, who compose the reserve force, are those reservists of the Armed Forces of the Philippines who are incorporated into the reserve force, as follows:

1. Graduates of the ROTC basic and advance course and who were issued orders as enlisted reservists or reserve officers of the AFP.
2. Graduates of the authorized basic military training instructions who, as a result thereof, were issued orders as enlisted reservists or reserve officers.
3. Ex-servicemen and retired officers of the AFP and other Armed Forces that have diplomatic relations with the Philippines who were honorably discharge or retired from the service and who are Filipino citizens upon their application.
4. Recognized World War II guerillas who were honorably discharge from the service.
5. Commissioned and non-commissioned officers under the affiliated reserve category and graduates of the National Defense College of the Philippines (NDCP).
6. Commissioned, non-commissioned officer and privates under the existing laws including those procured under Project 36-70 and included in the present AFP roster before the enactment of RA 7077 and those to be commissioned or enlisted after the enactment of said act.

7. Graduates of MS – 43/POTC
8. Disbanded/honorably separated members of CAFGU.

CLASSIFICATION OF RESERVE FORCE UNITS

1. **Ready Reserve** – the ready reserve shall be composed of citizen soldiers belonging mostly to the first category reserve and others as provided in RA 7077 who shall be organized, trained and maintained as mobilizable ready reserve subject to call at any time to augment the regular Armed Force of the AFP not only in times of war or national emergency but also to meet local emergencies arising from calamities, disaster and threats to peace, order security and stability in any locality including the need to assistance activities.

Degree of readiness to respond to the call to service:

- a. **Ready Reserve I** – units maintained in a high degree of readiness as to be ready for operational employment in not more than seven (7) days after activation.
- b. **Ready Reserve II** - units maintained in a high degree of readiness as to be ready for operational employment in not more than fifteen (15) days after activation.

Any reservists or citizen soldier belonging to the second category reserve and/or the third category reserve, particularly the commissioned and non-commissioned officers, who will volunteer to serve with the ready reserve shall be allowed, if qualified and fit for duty, to join and actively participate as part of the ready reserve and shall serve with an appropriate ready reserve unit.

Furthermore, members of the AFP affiliated reserve units of various government and private utilities and services considered essential for the preservation of the economic stability of the country or particular locality, such as power and electricity, water supply, transportation and communications, among other, regardless of their categorization shall be classified as ready reserve.

All citizen soldiers belonging to the first category reserve except those exempted under RA 7077, shall be required to serve with ready reserve units and will have assignments and promotions in

accordance with existing policies of the AFP until transferred to the standby reserve by virtue of their age.

The following citizen soldiers may be exempted from rendering service with said reserve units:

- a. Active members of the armed forces of the Philippines and the Philippine national police.
- b. Those who are residing abroad but only during the duration of their absence from the Philippines.
- c. Those who are physically and mentally unfit to serve their tour of duty.
- d. Those who are convicted of crimes involving moral turpitude.
- e. Those who may be exempted from duty for valid reasons which may be authorized on a case-to-case basis by appropriate and competent authority. For this purpose the AFP shall issue such appropriate guidelines, rules and regulations as may be necessary.

This unit shall be maintained in a high degree of readiness as to be ready for mobilization and operational employment within seven (7) days.

The whereabouts of the reservists assigned to this unit shall be constantly ascertained. As necessary, this unit shall carry an excess of twenty percent (20%) of their authorized personnel strength to compensate for those who may fail to report or to be reporting when mobilized.

In the event of partial and selective mobilization these units shall be the priority for call to active duty.

2. **Standby Reserve** - shall be composed of citizen soldiers belonging mostly to the second category reserve and the third category reserve, except as provided in RA 7077. The members of the standby reserve shall be organized and assigned to specified reserve units and shall be maintained through annual assembly tests to update their records and their present addresses, among others. The standby reserve may be mobilized or ordered to active duty in times of national emergency or war. The ranks of the members of the standby reserve may be upgraded if they voluntarily participate in training or serve with the ready reserve units in their areas or if

their standby reserves units undergo retraining. They will however be encourage to upgrade their military knowledge and skills by taking up nonresident or resident courses which shall be set up for the purpose.

3. **Retired Reserve** - shall be composed of citizen soldiers who have qualified for retirement through length of service, old age or disability. For this purpose, sixty-five (65) years shall be considered as the retirement age. However, if qualified and fit for duty, a member of local or national emergencies if he volunteers for active duty and when the SND determines that there are not enough qualified citizen soldiers with his special skills and qualifications in the ready reserve or standby reserve in his particular area of residence.

ORGANIZATION

The reserve force shall be organized into five (5) components:

1. The Army Reserve component.
2. The Air Force Reserve component.
3. The Navy Reserve component.
4. The AFP-wide technical reserve component.
5. The affiliated reserves.

The organization of each component of the reserve force and the manpower objective of each component shall be as prescribed by the Secretary of National Defense and approved by the President of the Philippines. The organization, structure, manning and equipment of reserve units shall conform to the organization of the regular force. Reserve units of the battalion type or equivalent shall be organized on a provincial basis, and reserve units of a brigade and division type or equivalent, on regional basis. The organizational structure and manning of the affiliated reserve units shall be prescribed by the Secretary of National Defense and shall as much as possible conform to their existing civilian organization.

CATEGORIZATION OF RESERVISTS/CITIZEN SOLDIERS

1. **First category reserve** – composed of able-bodied reservists whose ages are between eighteen (18) years and thirty five (35) years inclusive.
2. **Second category reserve** – composed of able-bodied reservists whose ages are between thirty six (36) years and fifty one (51) years inclusive.
3. **Third category reserve** – composed of all able-bodied reservists who are above fifty one (51) years of age.

BENEFITS SYSTEM OF RESERVISTS

1. **Security of tenure in government or private employment while on military schooling** – an employee in the government including one in a government-owned or controlled corporate or private employment with monthly operating volume of not less than twenty (20) employees who undergo military training shall be separated or terminated from such employment, shall not be considered as having forfeited his seniority status, if any, and shall continue to receive the salary he was receiving prior to his call to military training. In the case of private employment, payment of basic salary during such military training shall be in accordance with existing laws or with his company's policies on its employees on leave from his employment. Upon termination of his military training, he shall resume his former position or, if not practicable, he shall be assigned to a new position without diminution of his pay and allowances provided he is honorably terminated or discharged from such training or service; otherwise, his record of dishonorable discharge from military training or service shall be taken into account as to whether or not he should be reinstated to his former employment.
2. **Retention for maximum hospitalization** – a reservist/draftee who is injured or contract a disease or sickness while undergoing training and service, not due to his intentional misconduct, willful failure or neglect, or vicious or immoral habits, shall be retained beyond the period of his reservists/draftee service with his consent for the necessary hospitalization and medical care until such time that he recovers or its determined that further hospitalization will not improve his condition. During the period of hospitalization, he shall be

entitled to subsistence allowances and hospitalization benefits as are available to the members of the regular force who are patients in armed forces hospitals.

3. **Awards of ranks and assignments to reserve units of graduates of ROTC** – graduates of basic ROTC shall be given a reserve enlisted rank and serial number and assigned to reserve units and mobilization centers in their provinces. The ranks to be awarded shall be from private to sergeant or its equivalent. Provided, that the quota for non-commissioned officers shall not exceed five (5) percent of the authorized strength to the unit to which the reservists shall be assigned after graduation. Provided, that those to be awarded rank above private shall be chosen based on merit. Those who continue to the advance ROTC course shall continue to carry their enlisted rank until their Successful completion of advance ROTC.
4. **Promotion and appointment** - the promotion similar to those prescribed for the regular force.

Officers in the inactive list shall be eligible for promotion to the next higher permanent grade subject to the following condition:

- a. there must be a vacancy in the peacetime procurement objective of the reserve force for the grades of major and higher: provided, that such promotional vacancy shall be over those authorized for the active list.
- b. completion of the following time in permanent grade (inactive & active) for promotion in the grade indicated or their equivalent naval grades:
 - To First Lieutenant – three (3) as Second Lieutenant.
 - To Captain – four (4) years as First Lieutenant.
 - To Major – five (5) years as Captain.
 - To Lt Colonel – six (6) years as Major.
 - To Colonel – seven (7) years as Lt Colonel.
 - To Brigadier General – two (2) years as Colonel.

- c. completion of:
 - (6) months or more of active service in grade, or.
 - annual active duty training requirements in grade, or
 - non0resident instruction/schooling corresponding to grade, or
 - resident schooling authorized by the secretary of national defense: provided: that any officer below another who has not completed the length of service requirements and/or time-in-inactive/active grade shall not be considered, even if eligible, for promotion until the officer above him finally becomes eligible and qualified for promotion to the next higher permanent grade.
5. **Promotion of enlisted reservist** – in order to be eligible for promotion, an enlisted reservist must satisfy all the following conditions:
 - a. He is carried in the roster of any of the reserve units under the promotion authority.
 - b. He has attained the educational qualification, length and the time-in-grade requirements.
 - c. He has satisfactorily completed in his present grade any of the following:
 - Annual active duty training.
 - Week-end duty training.
 - Advance ROTC/WATC course.
 - Assembly test/exercises.
 - Any other active duty training of not less than seven (7) days in duration prescribed by the promotion authorities.
 - d. He is occupying or being earmarked to occupy a TO/TD position calling for at least the grade to which he is being promoted, and he possess the skills/qualification required of such TO/TD position.

- e. He must be able-bodied and physically fit for general military service.
 - f. He has no pending case or derogatory record.
6. **Awards** – granted to recognize actions or deeds of valor and exceptional service or achievement.

FOUR FUNCTIONAL AREAS OF RRA

1. **Reserve affairs administration.**

- a. Insurance coverage for PA reservists on training.
- b. Sharing of human and training resources/assets.
- c. Inclusion of human rights in all reservists training.
- d. Procurement, admission, training and commission/CAD OD candidates for OCS.

2. **Reserve manpower development.**

- a. Utilization of selected officer/enlisted personnel from tactical/engineer units in the ROTC program.
- b. Standard procedures in the procurement of candidates for ROTC advance course, probationary training (MS-43) and documentation for commission in the reserve force.
- c. Scholarship incentive for PA advance ROTC training.
- d. PA advanced ROTC entrance examination.
- e. PA ROTC male and female cadet of the year.
- f. The ROTC trust fund (ROTCTF) and its educational assistance program.
- g. ROTC administrative and tactical inspection.
- h. Administration of Philippine Army ROTC units.
- i. Conduct of basic ROTC remedial course for summer 1999.
- j. Conduct of basic ROTC summer remedial course.

3. **Reserve force development.**

- a. Letter of instruction 01-94 (Paghahanda)
- b. Selective recruitment of reservist for ready reserve units.
- c. Unit designation of reservists brigades and battalions.
- d. Integration of CAFGU-AA to the reserve force.
- e. AFP affiliated reserve units program.
- f. Procurement and separation of pa affiliated reserves.
- g. Organization, training, administration, and utilization of PAARU.
- h. Letter of instruction (Pagsagip).

- i. Mobilization of army reservists during occurrence of calamities and disaster.

4. **Retirees and public affairs.**

- a. Fellowship with the reservists.
- b. Reservist organizations and associations.
- c. Organization of retiree and veterans cooperative.
- d. Retiree and veterans assistance center (RVAC).
- e. Rules and regulations to implement RA 6948, act standardizing and upgrading the benefits of military veterans and their dependents.
- f. Arrangement and conduct of funeral services.
- g. Funeral services and utilization of pa mortuaries.
- h. Additional units tasked for funeral honors/services.



DEFINITION OF TERMS

Patrol - a detachment sent out in a unit to perform an assigned mission reconnaissance or a combat or a combination of both.

Patrol Order – an order issued by a leader setting from the five (5) basics paragraph OPORD/OPLAN.

Warning Order – preliminary motive of an action to follow.

Area of Interests – it is a part of area of interest where commander may influence action of his maneuver force, supporting fires and Support units.

Route – an access intended for use of the patrol in going in or from objective

Primary Route – route intended for use of patrol to objective and returning to friendly forces.

Alternate Point - route intended for use of patrol when the Primary route is not feasible.

Rallying Point – point where the patrol was assemble or re-organized.

Initial Rallying Point – located within friendly forces.

Rallying Point Route – Located between the friendly area and the objectives.

Objective Rallying Point - located near the objective which may be in the front, rear, or flanks.

Aims in patrolling:

- To gain and retain initiative
- To gather information
- To deny information to enemy
- To harass the enemy
- To provide protection
- To provide security

TYPES OF PATROL

ACCORDING TO NATURE OF MISSION

1. **Recon Patrol** – move to specific point or area, gather required information through observance and report information obtained. They will avoid enemy contact whenever possible. Fighting only hen necessary to accomplish the mission.
1. **Combat Patrol** – are heavily detachment sent out to kill or capture the enemy, destroy his equipment or installation. The size of the combat patrol is consistent with the assigned mission.

ACCORDING TO RANGE

1. **Long Range** – operates in the dispatching unit area of influence or area of interest or both.
2. **Short Range** – operates in the dispatching unit area of influence for short distance period.

GENERAL CLASSIFICATION OF PATROL

1. **Recon Patrol**
 - a. Point Recon – specific area
 - b. Area Recon – within AOR/area of responsibility
2. **Combat Patrol**
 - a. *Raid*
 - a.1. Ambush
 - a.2. Contact
 - a.3. Economy of Force
 - b. *Day Patrol*
 - b.1. Disperse to maximum
 - b.2. AOR is assigned to the front, rear and flanks
 - b.3. Cautions movements along high ground
 - b.4. Avoid exposed area.
 - b.5. Maintain are

- c. *Night Patrol*
 - c.1. Distance
 - Zero visibility
 - Limited visibility
 - c.2. Use of Password
 - c.3. Search and Attack

FACTORS TO BE CONSIDERED IN THE CONDUCT OF COMBAT PATROL

- Formation and order of movement
- Departure and entry of Friendly Forces
- Rallying Point
- Action upon enemy
- Action at the objective
- Control Action at the Danger area

CHARACTERISTICS OF COMBAT PATROL

REDEPLAN - require detailed planning
 RISIA – require independent/semi-independent action
 MARETORASPEQUI -may require task organization and specific equipment
 REST- require stealth
 RERE – require rehearsal
 REDEDE - require detailed briefing

SKILLS INTEGRATED IN PATROLLING

1. Leadership
2. Combat Intelligence
3. Map Reading and Land Navigation
4. Small Unit Tactics
5. Individual and unit Security
6. Communication
7. Teamwork
8. Ability to operate at night
9. Combat training for Individual Soldier (CTIS) proper recognition of cover and concealment

PURPOSE OF WARNING ORDER

The purpose of Warning order is to give ample time to participating unit to prepare prior to jump-off

CHARACTERISTICS OF WARNING ORDER

- Brief statement of the mission
- Mission of the Patrol
- General Instructions:
- General and Special Organization
- Uniform/Equipment common to all
- Weapon/Ammunition and Equipment
- Chain of Command
- Time schedule for pre-trial and guidance
- Time and place for inspection and rehearsal

SPECIFIC INSTRUCTION

- a. To subordinate leader
- b. To specific purpose teams/Key individual

STEPS IN CONDUCTING PATROL

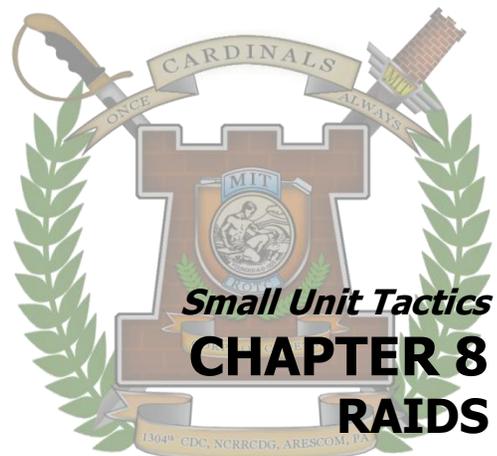
1. Study/analyze the mission
2. Plan use of time
3. Study the terrain situation
4. Organize the patrol
5. Select men, weapon and equipment
6. Issue Warning Order
7. Coordinate
8. Conduct reconnaissance
9. Issue Patrol Order
10. Supervise
11. Execute the mission

SILENT CONTROL MEASURES

1. Use of arm and hand signal
2. Infrared fillers flashlights
3. Luminous tape

ORGANIZING UNDER STRENGTH SQUAD

1. Keep key position filed
2. Man key weapon
3. Maintain two(2) fire teams
4. Maintain chain of command
5. If the squad diminishes to 5, make it as one team.



RAIDS

Combat forces must be employed as part of the combined arms team. Infantry, armor, aviation, and artillery must be synchronized and orchestrated by the maneuver commander to realize the full potential of each arm. The same applies in the principle to firepower. Mortars, artillery, naval gunfire, and tactical air are nothing more than various means to deliver fire support. Successful fire support encompasses careful integration and synchronization of these weapon systems.

DEFINITIONS OF TERMS

Field Artillery - FA provides close support fires, counter fires and interdiction fires.

Close Support Fires - engage enemy troops, weapons, or positions that are threatening or can threaten the force in either the attack or defense.

Counter Fires - attack enemy, indirect fire systems, to include mortar, artillery, air defense, missile, and rocket systems, observation posts and field artillery command and control facilities.

FREQUENTLY ASKED QUESTIONS ABOUT RAID

What is Raid?

A **Raid** is a surprise attack against a position or installation for a specific purpose other than seizing the terrain. It is conducted to destroy a position or installation, to destroy or capture enemy soldiers or equipment, or to free friendly prisoners.

What are the Types of Raid?

Hasty is immediate action drill in response to an expected meeting at close range with an enemy force. In this situation, the enemy force is considered a target opportunity.

Deliberate is one that is planned against a specific target. Detailed information of the target required its size, organization, weapons, equipment, route of entry and exit, and activities and the tie during which it will leaves its location temporarily.

What are the Key Factors of Raid?

The key factors of Raid are **Surprise, Firepower, Violence** and **Swift Withdrawal**.

CLASSIFICATIONS OF FIELD ARTILLERY WEAPONS

1. **AS TO CALIBER**
 - a. Light - 120MM AND LESS
 - b. Medium - 121MM THROUGH 160MM
 - c. Heavy - 161MM THROUGH 210MM
 - d. Very Heavy - 210MM AND MORE
2. **AS TO MEANS OF TRANSPORT:**
 - a. Towed
 - b. Self-Propelled
 - c. Aerial

CHARACTERISTICS OF FIELD ARTILLERY WEAPONS

1. 105MM HOWITZER M101A1

Maximum Range	Approx 11,270 meters
Maximum Rate of Fire	10 rounds per minute for the first 3 minutes
Sustained Rate of Fire	3 rounds per minute
Prime Mover	2 ½ ton truck or helicopter
Tube Life (M2A1)	5,000 rounds (EFC)
(M2A2)	7,500 RDS (EFC)
Weight in Firing or Traveling PSN	4,980 lbs

2. 155MM HOWITZER M114A1 (US) TOWED

Maximum Range	14,600 meters
Max Rate of Fire	4 rounds per minute for the first 3 minutes
Sustained Rate of Fire	1 rounds per minute thereafter
Prime Mover	5-ton, 6 x 6 truck or heavy-lift helicopter
Tube Life (M1)	2,000 rounds (EFC)
(M1A1)	7,500 rounds (EFC)
Weight in Firing or Traveling PSN	12,700 lbs

3. UPGRADED 105MM HOWITZER M101A1

Maximum Range Using M1 Standard Ammo	11,400 meters
Max Range Using Base Bleed (extended range) Ammo	17,200 meters

CAPABILITIES AND LIMITATIONS OF FIELD ARTILLERY WEAPONS

CAPABILITIES

- Adds depth to the battlefield.
- Massing of fires on one or more targets.
- Provides continuous fires under all conditions of weather and from all types of terrain.
- Provides a variety of ammunition and fuze combinations.

LIMITATIONS

- Mission effectiveness reduced during close combat.
- Has limited ability to survive enemy ground, air, and artillery fires.
- Is not to be used in the direct-fire mode.
- Unobserved fires are unreliable in mountainous terrain.

FIELD ARTILLERY ORGANIZATIONS

1. Field Artillery Regiment

The primary fire support unit of the division is the FA regiment. It provides timely and accurate fires in support of the division operations and assists in the integration of all fire support into combined arms operations.

The FA regiment is consists of a headquarters and one (1) FA 155mm Howitzer battery. The FABs are in direct support (DS) of the maneuver brigades (one (1) FAB per BDE) while the 155mm Howitzer battery is the general support (GS) unit of the division. There are a total of fifty four (54) 105mm Howitzer and six (6) 155mm Howitzer in one (1) FA regiment.

The HQS and HQS battery provides command and control and admin supervision of organic and attached FA units.

FA regiment is organic to the division.

2. Field Artillery Battalion

The FAB consists of HQS & HQS battery, and three (3) firing batteries. The HQS & HQS battery of FAB provides C2 and admin supervision of organic and attached FA units. It also provides the services needed by the FA BN. It consist of the BN HQS, signal PLTN, support PLTN, target acquisition PLTN, fire direction center, fire SPT elements and medical section.

3. Field Artillery Battery

The FA battery is the howitzer firing components of the FAB. The battery has six (6) towed Howitzers. It is organized into a BTRY HQS, a firing battery, a communication section and ammo section. The firing battery contains six (6) Howitzer sections and a firing section. The BTRY has eight (8) 1 ¼ ton trucks. Six (6) are used as prime movers and two (2) 2 ½ ton trucks as ammo truck. The FA BTRY normally employed under the control of the FA BN. However, the BTRY can be employed in DS role to one of the maneuver battalion during movement to contact offensive operations.

MISSION

To destroy, neutralize, or suppress the enemy by cannon, rocket, and missile fires and to assist in the integration of all fire support assets into combined arms operations.

THE GUNNERY TEAM OF FIELD ARTILLERY

The field artillery is used as indirect fire system. The system consists of the forward observer (FO), fire direction center, and the firing battery (F BTY).

1. **FO** - serves as the eyes of all indirect fire system. He locates suitable indirect fire targets with his zone of observations, calls for fires, and adjusts fires if necessary.
2. **FDC** - serves as the brain of the system. It receives the call for fire from the FO, determines firing data, and converts it to fire commands.
3. **FIRING BATTERY** - serves as the arm of the system. It consists of the firing unit HQS and firing sections. The normal function of the section is to deliver fires as directed by the FDC.

TACTICAL EMPLOYMENT

1. Self-propelled FA is ideal to support a mechanized unit to ensure that it is able to provide the support necessary for accomplishment of the mission.
2. The selection of FA position areas is governed mainly by the mission, the terrain, the mobility of available weapons, the nature of the tactical operation. Position areas must have good cover and concealment for survivability.
3. On the battlefield, a sophisticated enemy can locate and engage a battery in various ways. To survive, the battery must move frequently from primary position to alternate position. Therefore said position must be reconnoitered before occupation to effectively accomplish the mission.
4. In offensive operations, FA units are positioned well forward (2/3 of its range) and to the flank of maneuver forces to minimize early displacement and keep fire support responsive and flexible.



DEFINITION OF TERMS

Ambush – a surprise attack from a concealed position on a moving or temporary halted enemy.

Planning – a proposal for executing a mission thus it represents a preparation for future or anticipated operations.

1. Covering the entire killing zone by fire.
2. Using existing or reinforcing obstacles (Claymores and other mines).
3. Protecting the assault and support elements. Using security elements or teams to isolate the killing zone. Assaulting into the killing zone to search KIA and WI, assemble prisoners and collect equipment. (The assault elements must be able to move quickly through its own protective obstacles)
4. Timing the actions of all the elements of the ambushers to preclude loss surprise.

FORMATION OF AMBUSH

1. **Linear** – in a formation in ambush using linear formations, the assault and support elements are deployed parallel to the enemy's route. This formation can be used in closed terrain that restricts the enemy's ability to maneuver against the ambusher or in open terrain that provide a means of keeping the enemy in the killing zone.
2. **L-Shaped** – a formation in ambush of which the assault elements forms the long leg to the enemy's direction of movement along the killing zone while the support elements forms the short leg at one end of and right angle to the assault elements. This formation can be used in a sharp bend in trail, road or stream. It should not be used where the short leg would have to cross a straight road or trail because it leaves a mark or traces that compromise the ambush.

CATEGORIES OF AMBUSH

1. **Hasty** – a category of ambush conducted when it makes visual contact with an enemy force and has time to establish an ambush without being detected. The actions for a hasty ambush must be well rehearsed so that the ambushers knows what to do on the leader's signal of attack or same is through when compromised.

Following are the considerations:

- a. Using visual signal, any soldier alerts the ambushers that an enemy is in sight. The soldier continues to monitor the location and activities of the enemy force until it is relieved.
- b. The platoon or squad remains motionless.
- c. The leader determines the best nearby location for a hasty ambush. He uses arm-and-hand signals to direct soldier to covered and concealed positions. The leader designates the location and extent of the kill zone.
- d. Security elements move out to the cover each flank and the rear. The leader directs the security elements to move a given distance, set up, and rejoin the platoon on order or, after the ambush (the sound of firing ceases). At squad level, the two (2) outside buddy teams normally provide flanks security as well as fires into the kill zone. At platoon level, fire teams make up the security elements.
- e. Soldier move quickly to covered and concealed positions, normally 5 to 10 meters apart. Soldiers insure that they have good observation and field of fire into kill zone.
- f. The leader initiates the ambush when the majority of the enemy force enters the kill zone. If time and terrain permit, the squad or platoon may place claymore and use them to initiate ambush. (Note: If the enemy detects a soldier, the soldier initiates the ambush by firing his weapon and alerting the rest of the platoon, saying ENEMY LEFT of FRONT.

- g. Leader control the rate and distribution of fires. The leader orders cease fire when the enemy force is destroyed or ceases to resist. Directs the assault elements to move into the kill zone and conduct a hasty search of the enemy soldiers. All other soldiers remain in place to provide security.
 - h. The security elements rejoin the platoon after assault element has cleared through the kill zone. The platoons withdraw from the ambush site using a covered and concealed route. The platoon returns to the ORP in effect, collects and disseminates all information, reorganizes as necessary and continues the mission.
2. **Deliberate Ambush** - conducted against a specific target at a predetermine location. The leader requires detailed formation in planning a deliberate ambush such as:
- a. Size & composition of the targeted enemy unit.
 - b. Weapon & equipment available to the enemy.
 - c. Times that the targeted unit will reach or pass specified points along the route.

TYPES OF AMBUSH

- A. **Point Ambush** - In a point ambush, soldiers deploy to attack an enemy in a single kill zone. The platoon leader should consider the following sequence of actions when planning a deliberate point ambush.
1. The security or surveillance team (s) should be position first. The support element should be in position before the assault element moves forward of the release point. The support element must over watch the movement of the assault element into position.
 2. The platoon leader is the leader of the assault element. He must check each soldier once they establish the assault position. He signals the surveillance team to rejoin the assault element. Actions of the assault element includes the following;

- a. Identify individual sectors of fire as assigned by the platoon leader. Emplace aiming stakes.
- b. Emplace claymores and other protective devices.
- c. Emplace claymores, mines or other explosives in dead space within the kill zone.
- d. Camouflage position.
- e. Take weapons off SAFE because moving the selection lever on the weapon causes a metallic click that could compromise the ambush therefore, soldiers shall wait until the enemy is in the killing zone. This must be the last action performed by all soldiers before waiting to initiate the ambush. Actions of the support element includes:
 - Identify sectors of fire for all weapons, especially machine gun. Emplace limiting stakes to prevent friendly fires from hitting the assault element in an L-Shaped ambush.
 - Emplace claymores and other protective devices.
 - Instructions to security teams must include how to notify the platoon leader of the enemy's approach into the kill zone. (SALUTE report) The security element must also keep the platoon leader informed if any enemy forces are following the lead force.
 - The platoon leader must determine how large an element his ambush can engaged successfully, he must be prepared to let units pass that are too large. He must report to higher headquarters any units that pass his ambush unengaged.
 - The platoon leader initiates the ambush. He may used a command detonates claymore, he must also plan a backup method for initiating the ambush should the primary means fail. This should also be a casualty-producing device such as machine gun, this

information must be passed out to all soldiers and practices during rehearsals.

- Soldier must have a means of engaging enemy in the kill zone during periods of limited visibility if it becomes necessary to initiate the ambush then, use of traces must be weighed against how it might help the enemy to identify illumination flares.
- The platoon leader should include indirect fire support as a part of his plan. Indirect fires can cover the flanks of the kill zone to help isolate it. They can also help the platoon to disengage if the ambush is compromised of the platoon must depart the ambush site under pressure.
- The platoon leader must have good plan to signal the advance of the assault element into the kill zone to begin its search and collection activities. Smoke may not be visible to the support element. All soldiers must know and practice relaying this signal during rehearsal.
- The assault element must be prepared to move across the kill zone using individual movement techniques if there is any return fire once they begin to search, otherwise the assault element move across by bounding fire teams. Other action in the kill zone includes the following;
 - As the search team approaches a dead enemy soldier. One man guards while the other man searches. First, he kicks the enemy weapon away. Second, he rolls the body over (if on the stomach) by laying on top and when given the go ahead by the guard (who is positioned at the enemy's head), the searcher rolls the body over on him. This done for protection in case the enemy soldier has a grenade with the pin pulled underneath him.

- The searchers then conduct a systematic search of the dead enemy from head to toe removing all papers and anything new (different type rank, shoulder boards, different unit patch, pistol weapon or NVD). They note if the enemy has a refresh or shabby haircut and the condition of his uniform and boots. They take note of the radio frequency, SOI and maps once the body has been thoroughly searched, the search team will continue in this manner until all enemy personnel in and near the kill zone have been searched. Enemy bodies should be marked (for example, fold arms over chest) to avoid duplication.
- The flank security teams may also place out anti-armor mines after the ambush has been initiated if the enemy is known to have armor capability. If a flank security team makes contact, it fights as long as possible w/o becoming decisively engaged. It uses a prearranged signal to let the platoon leader know it is breaking contact. The platoon leader may direct a portion of the support element to assist the security team in breaking contact.
- The platoon leader must plan the withdrawal from the ambush site.

B. Area Ambush – In an area ambush soldiers are deployed in two (2) or more related point ambushes. The platoon leader should consider the following sequences of actions when planning a deliberate area ambush;

1. A platoon is the smallest unit to conduct an area ambush. Platoons conduct area ambushes where enemy movement is largely restricted to trails or streams.
2. The platoon leader should select one principal ambush site around which he organizes outlying ambushes. These secondary sites are located along the enemy's most likely approach to and escape from the principal ambush site.

Squad-size elements are normally responsible for each site. They establish an area ambush as described above

3. The platoon leader must determine the best employment of his machine guns, he normally positions them both with the support element of the principal site.
4. Squads are responsible for outlying ambushes and do not initiate their ambushes until forces from escaping or reinforcing.

MISSION OF AN AMBUSH PATROL

Ambush Patrols perform such mission as ambushing enemy carrying parties, patrols, wire repair crews, enemy reconnaissance patrol, sentinels moving out to their outpost positions and vehicle and foot elements. These patrols are not assigned general ambush mission.

1. **Harassment** - the damage caused by harassment from frequent ambushes is less apparent than the physical destruction wrought, but nevertheless very important. When ambushes are staged more frequently against all types of hostile targets, the enemy tends to be more reluctant to send combat patrols in convoys or in small groups, especially if their aggressiveness becomes more defensive mindness.
2. **Destruction** - the loss of men and equipment has a critical effect on the part of the enemy. In widespread guerilla operations, the enemy will be prompted to divert his force from other mission in order to protect his area.

EQUIPMENT USED

The equipment used by ambush patrols varies with each assigned mission. For instance, more special equipment is needed to ambush an enemy vehicular column than a foot patrol. Since the success of this type ambush patrol depends largely of surprise and shock action, sufficient automatic weapons are needed to deliver volume of fire. This is especially true when ambushing foot patrols.

ORGANIZATION

NORMALLY, AN AMBUSH PATROL HAS TWO (2) PRINCIPAL ELEMENTS – SECURITY and ASSAULT. The primarily mission of the security elements is to protect rear and flank of the assault elements from being surprised, to seal off the assault elements the revenues of the approach in the objective area, and to cover the withdrawal of the assault elements. It's at a point where thus first shot ahead of the head of the enemy column causes his command to open fire.

FACTORS NECESSARY FOR A SUCCESSFUL AMBUSH

1. **Patience** – since an ambush patrol may have to occupy an ambush site all ahead of the arrival of the target, patience among the participating troops becomes a necessary trait.
2. **Camouflage Discipline** – it has been said that surprise is the key to a successful ambush partly should have to anticipate every move of the enemy. Then conducted a rehearsal permit each member to know his role and tasks.
3. **A Good Plan that is Well Rehearsed** – in planning the ambush, every member of the ambush party should have to anticipate movement of the enemy.
4. **Prior Knowledge of the Enemy** – This is considered in the conduct of an ambush. The mission assigned to an ambush patrol is based on how much security the enemy uses in his unit in his movement.

PREPARATION FOR AN AMBUSH

1. **Mission** – the ambush site should be ideally suited for the conduct of a single mission action or series of action.
2. **Enemy** – one should consider the probable size, strength or compositions of the hostile force to be ambush. One must also know the likely combat formations the enemy uses and his reinforcement capabilities.
3. **Terrain** – the ambush site should be on advantage point that provides clear fields of fire and observation, good cover and concealment, and good route of withdrawal.

CONDUCT OF THE AMBUSH

On the arrival of the enemy force at the ambush site, the ambush patrol delivers a heavy volume of fire threat that should be able to annihilate them, or exact a heavy toll on his ranks.

COUNTER AMBUSH TECHNIQUES

Fire and Maneuver

In an offensive or attack operation, the key to success is the use of fire and maneuver. This applies as well to an ambush. By fire and maneuver, an ambush patrol can easily untangle itself from one difficult situation to another. This is no different from counter attack situation.

Withdrawal

After the action, the ambush patrol ensures the successful accomplishment of its mission by making a reconnaissance and survey of the ambush site to be assured that the enemy force had been completely destroyed that no further actions is in normal ambush operation.

RIFLE SQUAD TACTICS

The infantry is capable of limited independent action by the use of its weapons. Its offensive power decreases when its freedom of maneuver is limited, or when it is opposed by an organized defense. Under these conditions, or against a force of combined arms, infantry fire power is reinforced by the artillery, tanks or other arms. Its defensive power reaches its maximum when it occupies a defensive position, or when the enemy's freedom of maneuver is limited. The infantry maneuvers on difficult ground by moving in small, inconspicuous formations and by taking advantage of covered routes of approach and the small irregularities in the terrain. By the skilled use of the terrain, infantry units achieve maximum fire effect, conserve personnel, conceal movements, and permit the maneuver of their reserves.

The rifle squad tactics aims of locating the enemy, closing in with him, and destroying him by fire and maneuver. When employed in the attack, its mission is to close with and kill or capture the enemy. When used in the defense as part of the forward rifle platoon, the rifle squad has the mission to stop the enemy by fire delivered forward of the battle area, and repel the attack by fire and close combat.

MOVEMENT TECHNIQUES/FORMATIONS USED

The tactical rifle squad usually adopts three (3) combat formations to ensure accomplishment of its mission. These are:

1. **Squad column-** this formation permits the rapid and easily-controlled movement of the troops. It also allows fire and maneuver to the flanks. However, it is vulnerable to enemy fire from the front.
2. **Line or skirmishers right or left** - this combat formation permits maximum fire power to the front. It is however very difficult to control.
3. **Echelon right or left** - it is quite similar in execution to the skirmishers right or left. The only difference is that this formation is anchored to the rear right or left. Aside from the fact that this combat formation is difficult to control, it is also vulnerable to enemy fire from both flanks.

ORGANIZATION OF TACTICAL RIFLE SQUAD (INFANTRY)

The tactical rifle squad is organized into two (2) fire teams: one fire team consists of a team leader, an automatic rifleman, a grenadier, and a rifleman. The other team has the same elements plus an additional rifleman.

Squad Leader - he carries out the orders of his platoon leader. His responsibility includes the discipline, appearance, training, control and welfare of his men at all times. He also sees to it that the weapons and other equipment of his unit are properly maintained and cared for to be assured of their proper functioning and economical use. In combat, he is responsible for the tactical employment, fire discipline, control, and maneuver of his squad.

Fire Team Leader - he gives positive leadership to his team, and maintains discipline, welfare and combat proficiency. He carries out his assigned mission by vigorously exerting the most practical and effective course of action until his mission is accomplished. He assists in controlling the squad by setting the examples and by initiating action as a fighting leader.

SQUAD IN THE ATTACK

To mostly frequently, the tactical rifle squad attacks as a part of the platoon, moving as a unit under supporting fire from other weapons. However, there are times when the squad is employed independently to execute fire and maneuver. In cases like this, the squad accomplishes its mission by using one fire team as the fire support element, while the other is used as the maneuver element. In squad combat formations, the tactical integrity of the fire team is maintained. The squad leader adopts a suitable combat formation and alters it only to conform to the changing conditions during the attack.

The squad leader controls his squad by issuing orders and supervising the execution of those orders. He maintains the tactical formations and controls the rate and direction of the attack by use of voice commands and visual and sound signals. He controls the fire of the squad and utilizes it to maximum effect in the accomplishment of his mission. He is personally present where he can best influence

the actions of his men. The fire team leaders assist the squad leader in controlling the squad.

During the movement to contact, the tactical rifle squad is used as a point of an advance guard, as a flank guard, and as a march outpost when a marching column halts. It may also be employed as dictated by the squad leader, or on orders of the platoon leader.

As soon as contact with the enemy is established, the rifleman of the squad immediately moves into firing positions and return the fire. At this juncture, the squad leader makes a quick estimate of the situation and decides where to place the automatic rifles. He directs them into firing position with the help of the fire team leaders. Normally, however, the fire team leaders supervise directly the fire of the automatic rifles. At close range, the instant fire from the rifles and automatic rifles of the squad can immediately destroy or neutralize the enemy whose position had been disclosed by fire. When the enemy strength prevents a quick local success, the squad leader builds up superiority and moves his unit forward by fire and maneuver. The platoon leader may use his squad for a frontal attack, while he maneuvers the rest of his platoon.

SQUAD IN THE DEFENSE

The rifle squad is used as part of the rifle platoon in the organization and defense of the platoon's battle area. The width of the area to be physically occupied by the squad is affected by the mission, enemy situation, troops available and terrain. The width of this area should not exceed 100 meters unless non-organic weapons have been deployed. In close terrain, the width is much less than 100 meters. In an open terrain, the width should be about 100 meters.

The intervals between foxholes should be from 5 to 20 meters according to the terrain and the use of single or double foxholes. In close terrain, single foxholes may be 5 meters apart, while double foxholes should have an interval of 10 meters. In an open terrain, the intervals should be increased to 10 and 20 meters for single and double foxholes, respectively. The choice of the use of the single or double foxholes is influenced by morale, fields of fire, and unit strength. Because the double foxhole provides continuous observation and improves individual morale, it is used whenever conditions permit.

In preparing the defense of an area, the sequence of actions taken by the squad leader begins just as soon as he receives the platoon defense order. His first task is to make a hasty reconnaissance of his assigned area and plans its defense. Next he effects coordination after noting the location of adjacent squads and the supporting weapons. Finally, he issues his order in the vicinity of the area to be organized for defense. The entire range of the squad leader's duties in preparing a defensive area includes the following:

1. Developing a defense area.
2. Issuing a defense order.
3. Preparing and implementing a security plan.
4. Supervising the preparation of the defensive area.
5. Requesting necessary extra ammunition and equipment from the platoon leader.

The defense plan to be prepared by the squad leader should specify the firing position for each rifleman, taking into account the best field of fire. Sectors of fire which overlap one another should be designated for each weapon.

In the conduct of the defense, the more significant duties of the squad leader are as follows:

1. Close supervision of the squad's security plan.
2. Fire control, including the opening of initial fires and shifting of fires to targets of opportunity.
3. Keeping the platoon leader informed of the situation and the status of the squad's defensive area.
4. Exercising direct positive leadership at critical times.

Whether in the offense or defense, the squad leader controls the fire by oral orders and signals. Fire discipline is achieved through training in sight setting, aiming, trigger squeeze, and the exact execution of orders.



CONCEPT OF LEADERSHIP

The concept of leadership is based on accomplishing the organizational mission while preserving the dignity of the soldier. This requires that continuing effort be made to maintain a proper balance at all times between fulfillment of the goals (Mission) of the organization and the needs and goals of its members. Leadership behavior must be, therefore flexible in technique and personal in application to motivate the soldier, promote and maintain a high state of discipline and responsiveness, and develop a combat-effective unit.

The ultimate objective of leadership in a military organization will always be the successful ACCOMPLISHMENT OF THE MISSION. In striving to achieve this goal, the leader must accept full personal responsibility for all his decisions and must continually assess the situational environment in which he is operating. Situations may arise in which the leader must take a directive approach and limit to varying degrees of extent to which his subordinates participate in the decision-making process. Even then the need and goals of the soldier should not be ignored. The leader must always keep uppermost in his mind that unit mission are accomplished by the people who comprises the unit. If they are to contribute willingly and wholeheartedly to the accomplishment of those missions, the leader must always exert every reasonable effort to consider their needs.

Too often leaders focus their efforts on short-range goals at the unnecessary expense of their subordinates. In the long run this can be detrimental to both the soldier and the unit. Effective leadership is, on the other hand, accomplishing the mission with a minimum expenditure of time and effort and an appropriate balance between unit, group, and individual needs and goals.

LEADERSHIP FUNDAMENTALS

In military as well as in civilian usage, the functions of *Command*, *Management*, and *Leadership* becomes a question of interpretation due to their interrelationship. To enable each leader to begin the study of leadership with a common foundation, it is necessary to understand these terms, their definitions, and their relationship in the army.

1. **Command** - *the authority a person in the military service lawfully exercises over subordinates by virtue of his rank and assignment or position.* It provides the legal basis for exercise of the broad activities of leadership and management and is derived from the position to which he is assigned. Command is based primarily on authority delegated through the *Chain of Command*. *Authority* is the legitimate power of a leader to direct those subordinate to him or to take action within the scope of his position. *Responsibility* is an integral part of the leader's authority. All Army men are morally and legally accountable for their actions.
2. **Management** - *the process of planning, organizing, coordinating, directing, and controlling resources such as: men, material, time, and money to accomplish the organizational mission.* The commander is involved in all organizational activities. When a commander is unable to personally supervise each activity, he delegates his authority and thereby uses his subordinates to assist him in the accomplishment of the mission. Of the resources available, *Men are the most important*. This resource is the foundation for the employment of the other resources.
3. **Leadership** - *the process of influencing men in such a manner as to accomplish the mission.* Leadership involves the personal relationship of one person to another, the ability of a commander to use his personality to directly influence his subordinates to accomplish a mission. *A leader is a person who uses the technique of leadership to accomplish the mission.*

TRAITS OF LEADERSHIP

Leadership Traits are distinguishing qualities demonstrated by commanders to earn respect, confidence, willing obedience, and loyal cooperation of his men. However, possession of these traits by itself does not guarantee success, but apparently they are most desirable in all leaders. Although these traits are a good guide for the desirable personality development of a leader, the mission, the personalities of subordinates, and the situation will have a direct effect on which traits the leader must apply.

1. **Bearing** - *creating a favorable impression in carriage, appearance, and personal conduct at all times.* The bearing of the leader establishes the standard, which affects subordinates, peers, and superiors. His appearance and manner should reflect alertness, energy, competence, and confidence. Frequent irritation, loss of temper, and vulgar speech indicates a lack of self-control or self-discipline. A leader who cannot control himself cannot be expected to control others. *Dignity* is also an essential element, which implies a state of being honorable and requires the control of one's actions and emotions. To develop good bearing, a leader should concentrate on achieving and maintaining the highest standards in *appearance* and *conduct*.
2. **Courage** - *mental quality which recognized fear but enables the individual to meet danger of opposition with calmness and firmness.* It is a quality of mind that gives a man control over fear, enabling him to accept responsibility and act properly in a threatening situation. Courage exists in a moral, as well as a physical sense. Moral courage means knowing and standing up for what is right in the face of popular disfavor. A leader who has moral courage will admit his errors, but will enforce his decisions when he is sure he is correct. To help attain and demonstrate courage, the leader should study and understand his reactions to fear, and control his fear by developing self-discipline and calmness. He must stand for what is right in the face of popular disagreement and accept blame when he is at fault.
3. **Decisiveness** - *ability to make decisions promptly and then express them in a clear and forceful manner.* Many situations have more than one solution. The wise leader gets all the facts, weighs one against the other, then calmly and quickly arrives at a sound decision. The leader should also bear in mind that many sound ideas originate at the subordinate level. He should solicit opinions of his subordinates when appropriate. A positive approach, little waste of time, objectivity, timely analysis, and sound evaluations of opinions made by others all contribute to the development of decisiveness in the leader.
4. **Dependability** - *certainty of proper performance of duty.* A dependable leader can be relied upon to carry out any activity with willing effort. This willing and voluntary support of the policies and orders of the chain of command does not mean

- blind obedience. Most commanders will listen to the suggestions of their subordinates, but once the commander makes the final decision, the subordinate must give it his complete and energetic support. The leader who has a high sense of duty will continually put forth his best efforts in an attempt to achieve the highest standards of performance.
5. **Endurance** - *mental and physical stamina measured by the ability to withstand pain, fatigue, stress, and hardship.* Lack of endurance in a combat situation may be mistaken for *cowardice*. Likewise, the leader's lack of endurance makes him a liability rather than the asset he should be. The leader sets the standards for a unit most effectively by example. The leader must display an acceptable, if not superior level of endurance. He may develop his endurance and stamina by regular participation in a strenuous physical and mental activities. Self-discipline and fortitude are essential in developing and maintaining endurance.
 6. **Enthusiasm** - *display of sincere interest and zeal in the performance of duties.* This requires the leader to be optimistic and cheerful. The leader must, therefore, willingly accept the challenges of his profession and determine to do the best job possible. This attitude helps create a good unit. Whether in training or combat, enthusiastic troops are very helpful in accomplishing the mission. To avoid becoming stale, set aside a brief period daily to relax. *Capitalize on success.*
 7. **Initiative** - *taking action in the absence of orders.* Men develop respect and trust for a leader who meets new and unexpected situations with prompt action. The men should therefore be assigned to tasks commensurate with their grade and experience level. This allows them to work out the details and complete the tasks. When normal resources do not support a situation, especially under combat conditions, another method must be found to solve the problem. The ability to anticipate future unit missions is also important. *Caution, judgment, and discretion* must be used in reaching decisions. To aid developments of initiative, *Stay Alert, Try to Recognize the Task that Needs to be Done*, and then *Do It*. Use available resources efficiently.

8. **Integrity** - *uprightness of character and soundness of moral principle and the quality of absolute truthfulness and honesty.* In the military, the lives of thousands are placed in the hands of a few leaders. Reports from the small unit leader to the highest headquarters must contain true facts because the seemingly unimportant report might have great effect. Sound estimation and planning at high levels are impossible without accurate information supplied throughout the chain of command. A leader who proves himself *unreliable* or of *questionable integrity* has *no* place in the military.
9. **Judgment** - *ability to make wise decision as based on valid facts.* Anticipation of situations, avoidance of hasty decisions, and the application of common sense will insure success in most situations with which the leader is confronted. The lack of technical expertise in a given situation may turn what would ordinarily be a sound decision into a *disaster*. Often a sign of good judgment is *knowing when to ask a question*.
10. **Justice** - *(fairness) being impartial and consistent in exercising command.* Prejudice of any kind cannot be accepted. Each decision made by a leader is a test of *fairness*, which is observed by subordinates and superior alike. A careless mistake can destroy a reputation of fairness that month to establish. When confronted by a situation requiring justice, the leader must be *fair, consistent, and prompt*. Justice also has a positive effect in the forms of *awards* and *decorations*. The effective leader does not fail to recognize subordinates who are worthy of *commendation* and *awards*. The leader who uses nothing but punishment will destroy his unit's morale.
11. **Knowledge** - *acquired information including professional knowledge and an understanding of subordinates.* The leader should develop a program of learning to keep himself abreast of current developments in his military specialty, command policies, and his local and world communities. Field manuals, directives, magazines, etc are valuable towards this goal. Serious discussion, research, and experience also contribute to broadening the leader's knowledge.

12. **Loyalty** - *quality of faithfulness to country, seniors, and subordinates.* The good leader does not allow his personal opinion to interfere with his mission, nor does he give the impression of disagreement with orders when relaying them to his men. He views his orders as his superior's method of dealing with the situation.
13. **Tact** - *ability to deal in a respectful manner and without hurting one's feelings.* The leader who displays tact in dealing with superiors and subordinates encourages courteous treatment in return. During conditions of stress or when delivering criticism to a subordinate, the use of tact becomes more challenging. Usually, *calm, courteous, firm* approach will bring cooperative response without creating ill feeling. Abrupt and forceful orders may be desirable in emergencies because of time saved and the seriousness of the situation.
14. **Unselfishness** - *avoidance of comfort at the expense of others.* The comfort, pleasure, and recreation of subordinates should be placed before that of leaders. It is difficult to respect a leader who seeks his own comfort over that of his men or who hoards credit for achievement made possible by subordinates. The true leader places himself last in priority and shares the dangers and hardship with his men.

LEADERSHIP PRINCIPLES

Leadership Principles are guidelines for use of the commander in the exercise of leadership. These are the guidelines for use of the commander in his relationship with his men. These principles have stood the test of time and have guided the conduct and action of successful leaders of the past. The fact that every leader has not always made full use of each one of these principles does not make them any less valid. Although their application may vary with the situation, a leader who disregards them risks failure.

1. **Know Yourself and Seek Self-Improvement** - A leader should determine his own strength and weakness. Through this, he can also determine his capabilities and limitations. Through knowledge of himself, combined with his knowledge of individual and group behavior, the leader is able to evaluate how his actions and behavior affect his subordinates. The leader solicits, when appropriate, the honest opinions of his

contemporaries or superiors as to how he can improve his leadership. This further gives leader knowledge necessary to further develop his strength and strengthen his weakness.

2. **Be Technically and Tactically Proficient** - A leader must demonstrate to his men that he is well qualified to lead his unit. He must be competent in combat operations and training as well as in the technical and administrative aspects of his duties. RANKS and POSITIONS alone will not automatically gain the respect and confidence of the subordinate. The leader must demonstrate his proficiency to get his men's respect and confidence. If the leader is deficient in carrying out his duties, his men will lose confidence in his ability and in the effectiveness of their unit.
3. **Seek Responsibility and Take Responsibility of your Actions** - the leader must take the initiative to accomplish his unit's mission. By seeking responsibility, he develops himself professionally and increases his leadership ability. He accepts responsibility for all that his unit does or fails to do. In the absence or orders, seizing the initiative and taking the necessary action based on personal judgment and experience will aid in the accomplishment of the mission. Constant study, training and proper planning will lay the groundwork for the competence necessary for the sound and timely decisions which form the basis for the leader's actions.
4. **Make Sound and Timely Decisions** - the leader must be able to make a rapid estimate of the situation and arrive at a sound decision. He must be able to reason under the most trying conditions and decide quickly what action is necessary to take advantage of opportunities as they occur. He must not create *hesitancy*, *loss of confidence*, and *confusion* within his unit. When circumstances dictate a change of plans, *prompt reaction* builds the men's confidence in their leader.
5. **Set the Example** - A leader must be a good example for his men in *integrity*, *courage*, *administrative knowledge*, *professional competence*, *personal appearance*, and *personal conduct*. Moreover, he must set the personal and professional standards for his organization by his performance. Otherwise, the mutual confidence and respect that exist between himself and his men may be destroyed. (Share danger and hardship

with your men, demonstrate your willingness to assume your share of the difficulties).

6. **Know your Men and Look Out for their Welfare** - A leader must know and understand his men. Aside from their names, marital status, hometown and other such data, the leader must also understand what makes his men tick - their values, ideals, and attitudes. The leader must therefore observe, become personally acquainted with, and recognize his men as individuals who have different backgrounds and different personalities. When men know you are concerned with their welfare, they will have an attitude which enables them to accomplish their unit's goal.
7. **Keep your Men Informed** - This will encourage initiative, improve teamwork, and enhance morale. A subordinate expects to be kept informed and when possible, given the reason for a particular assignment. Otherwise, he may become frustrated and will not perform well. Well-informed soldiers have a better attitude towards the leader and the unit and will therefore be a better soldier. Additionally, subordinate leaders are kept abreast of the situation and, in your absence, will be able to make similar decisions based on the same reasoning. If they have to make similar decisions based on the same reasoning. If they have respect and confidence in their leader, soldiers will accept a number of tasks without knowing WHY. In combat, men expect to be told what to do without delay for explanations. By keeping them informed, you will also reduce *fear* and *rumors*.
8. **Develop a Sense of Responsibility in your Subordinates** - Another way to show your men that you are interested in their welfare is to give them the opportunity for professional development. Delegation of authority commensurate with responsibility develops mutual confidence and respect between the leader and his subordinates. It also encourages the subordinates to exercise initiative and to give his wholehearted cooperation in the accomplishment of the unit's tasks. The leader who properly delegates authority demonstrates faith in his subordinates and increases their desire for greater responsibility.

9. **Insure that the Task is Understood, Supervised, and Accomplished** - Your men must know what is expected of them and must be informed of specific task requirements through clear and concise orders. Be sure that you are understood by communicating with your subordinates. Do not overstate an order by giving too many details. Subordinates resent over supervision and harassment. Initiative is develop in men when they can develop their own techniques for performing tasks. However, troops should understand that their leader is available for advice and counsel when the situation arises.
10. **Train your Men as a Team** - Your men must also be well trained if they are to accomplish any mission. It is the leader's duty to train the members of his unit so that they will be tactically and technically proficient, and so that they work as a team. Teamwork is a *key* to mission accomplishment. Members of a unit will perform better if they have sense of belonging and team spirit. The unit gives its member a feeling of *accomplishment, security, and recognition*; and in return, the members give his best for the unit.
11. **Employ your Unit in accordance with its Capabilities** - Good training prepares a unit for its job. The leader must know what his unit is trained to do, as well as its capabilities. Men get satisfaction from performing tasks, which are reasonable but challenging, but become dissatisfied if they are given tasks, which they consider too easy or too difficult to accomplish. The leader must exercise sound judgment in employing his unit because each time the unit fails, it causes his men to lose confidence in him as the leader. In time, this will lower morale, esprit de corps, discipline, and proficiency.

The Traits and Principles of Leadership are NOT in themselves the solution to good leadership. They can, however, help the leader because they present desirable personal QUALITIES and common sense GUIDELINES for use in his relationship with his men. In the exercise of leadership, there are two basic responsibilities of the commander:

1. Accomplishment of the mission;
2. Welfare of the men.

INDICATORS OF LEADERSHIP

Leadership Indicators are characteristics of a unit which indicate success or failure in the exercise of military leadership. These indicators can be used as a gauge for measuring the unit's effectiveness. The three (3) indicators depend on MORALE because it is the sum total of all the attitudes of the soldier. While the leader should strive for increasing MORALE, his efforts must always be directed towards building up all the indicators of leadership. The absence of reduction of one indicator could adversely affect to destroy the others.

1. **Morale** - *is the state of mind of an individual.* It depends on his attitude toward everything that affects him - his fellow soldiers, his leaders and Army life in general. Morale is closely related to the satisfying of man's needs. *High morale* is a state of mind, which gives the soldier a feeling of confidence, and well being that enables him to face hardship with courage, endurance, and determination. MORALE CAN BE DETERMINED BY: Appearance, Personal conduct, Standard of Military Courtesy, Personal Hygienic, and Job Proficiency.
2. **Esprit de Corps** - *is the loyalty to, pride in, and enthusiasm for the unit as shown by its members.* Whereas morale refers to the attitude of the soldier, esprit de corps is the unit spirit. It is the common spirit reflected by all members of a unit and provides group solidarity. It implies devotion and loyalty to the unit and all for which it stands, and a deep regard for the unit's history, traditions, and honor. It is the unit's personality and expresses the unit's will to fight and win in spite of the seemingly insurmountable odds. Esprit de corps depends on the satisfaction the members get from belonging to a unit, their attitudes towards other members of the unit, and confidence in their leaders.
3. **Discipline** - *is the attitude that insures prompt obedience to orders and the initiation of appropriate action in the absence of orders.* When achieved in a unit, it is an attitude that keeps soldiers doing what they are supposed to do and as they are supposed to do it through strong inner conviction. Good discipline is constant and functions whether or not outside pressure or supervision is present. Before a man can act

resourcefully in the absence of orders, he must have an understanding of what is to be done and the role he must play.

4. **Proficiency** - *is the technical, tactical, and physical ability to do the job well.* Unit proficiency is the sum of the skills of all the men in the unit welded together by the leader into a smooth-functioning team. A unit will attain proficiency when its leader demands high standards of individual and group performance. Therefore, much of the leader's time must be spent supervising training.

An effective leader is one who follows the principles of leadership with awareness of the forces, which are influencing his behavior, and that of his men. He understands himself, his men, his job, and the situation. Understanding, however, is not enough. The effective leader is also able to evaluate his unit using the *indicators* of leadership and act appropriately in light of his awareness. He is one who can assess the forces that influence his action and then behave in the manner that produces the best results.

STRESS

A common problem faced by Army leaders is that of dealing with the stress which they and their men experience. Because stress can reduce the level of discipline and efficiency in a man or unit, a leader must identify stress producing situations and behavior resulting from stress so that he can avoid or correct the situation or behavior.

Frustration is a behavior pattern that results when one is impeded by *external* or *internal* obstacles or pressures.

CAUSES OF FRUSTRATION

1. **Delaying or Blocking** - is caused when the level of achievement is lower than the level of aspiration or when there is a delay in the achievement of a goal.
2. **Conflicting** - is caused when someone desires two or more goals, but the satisfying of one causes the denial of the other.

REACTIONS/RESULTS OF FRUSTRATION

1. **Aggression** - characterized by hostility, striking out, smashing objects, snide remarks.
2. **Rationalization** - is a behavioral reaction in which the frustrated person blames someone else for his inability to achieve some goal or talks himself out of the desirability of a goal.
3. **Regression** - failure to act one's age. One simply got his way by a display of temper as a child and reverts to this behavior in an effort to have his way as a man.
4. **Fixation** - characterized by compulsive, stereotyped, repetitive behavior. He may exhibit the same behavior or pattern over and over again without attempt to adjust to the situation.
5. **Resignation** - characterized by loss of hope, escape from reality, withdrawal, and retreat from the source of frustration.
6. **Negativism** - is the most common reaction to frustration, wherein the person adopts a negative resistive attitude towards the situation.

HOW TO COPE WITH FRUSTRATION

Once you determine that a man or a group is frustrated, *identify* the source of the frustration and *try to solve* the problem. You must be *cause* oriented and not *symptom* oriented. Do not make a snap judgment. By discussing a man's problem with him, you can in most cases be able to determine or to help him determine the cause of his problem. However, solving the problem is *not* the final step for the leader. After the cause of the frustration has been identified and eliminated, the leader must take steps to prevent the recurrence and future frustration.

Overload Point is the point at which a person is no longer able to function effectively under pressure that he feels.

HOW TO COPE WITH PRESSURE

1. Increase the soldier's knowledge and self-confidence by training;
2. Put the right man in the right job;
3. Minimize personnel changes or reshuffle;
4. As a leader, be present in stressful situations.

DECISION MAKING

Decision Making is a conscious process for selecting a course of action from two or more alternatives for the purpose of achieving a desired result. A decision cannot be made if the leader does not have a choice between courses of action. If only one choice is available, *no decision is required*.

DECISION MAKING PROCESS

1. **Prepare**
 - a. Identify the problem
 - b. Gather information
2. **Decide**
 - a. Develop and list courses of action
 - b. Analyze the courses of action
 - c. Select the best course of action
3. **Act**
 - a. Implement & Re-evaluate the solution

ONCE THE DECISION IS MADE, IT IS TIME TO ACT!!!

DECISION MAKING ERRORS

1. Solving without long range planning
2. Relying too much on experience
3. "Doctoring" of facts
4. Passing the buck-no self-decision

Decision-making is a continual process involving interpersonal relationship from top to bottom in any organization. Before a good decision can be reached, the leader must first recognize the problem and gather all information needed to solve the problem. Second, he must develop, analyze, and select the best solution to the problem. Upon reaching a decision, he must inform those concerned of the decision and be alert for changing situations, which may require his decision to be modified or changed.

COMMUNICATION

Communication is an exchange of information. Through communication with others, the leader employs his command and issues his decisions for action. Without the ability to convey instructions and orders to subordinates clearly, the leader may as well operate in a *vacuum*, completely detached from his unit. A good plan is worthless unless every man in the unit understands his part.

TYPES OF INFORMAL COMMUNICATION

1. **Lateral** - exchange of information between leaders or staff members of equal levels in the organization.
2. **Social** - based on the social position within the unit, inside or outside working hours.
3. **Grapevine** - is the chain of command system of communication.

COMMUNICATION BARRIERS

1. Distortion
2. Lack of an open exchange of information.
3. Lack of trust.
4. Language/Dialect differences.
5. Personalities clashes and power struggles.
6. Lack of confidence and respect.

Communicating is the very essence of leadership because no leader is effective unless he can communicate. Through an awareness of the barriers to communicate, the leader can decide which communication system to use, how to reduce the effects of the barriers, and where to look should breakdowns occur. Good

communication does not just happen - it must be developed and maintained by each and every leader.

COUNSELING

Counseling - is the art of communicating advice, instruction, or judgment, with the intent of influencing a person's attitude or behavior. It is one of the key elements of leadership. Counseling aims at changing things for the better in the relationship, behavior, and functioning of persons. It is a process for assisting a person to find answer to his problems. It may be conducted either *formally* or *informally*.

In order to be an effective counselor, each leader must first be *available to his men*. Leaders should admit to themselves that they have particular likes, dislikes, biases, and prejudices and they must be careful not to let these interfere with the relationship between themselves and their men. Instead of trying to solve every problem himself, the leader should encourage the counselee to solve his own problems.

PURPOSE OF COUNSELING

1. To provide encouragement and support for change in the counselee.
2. To provide information in the form of knowledge and sources of knowledge that will help the counselee improve.
3. To reinforce the counselee's expressions of feeling or present ideas that will help him improve performance or solve his own problems.

QUALITIES OF A GOOD COUNSELOR

1. Observant
2. Communicative
3. Flexible

TYPES OF COUNSELING

1. **Performance** - for improving job performance of a man or unit.
2. **Personal** - helping a man reach a solution to personal problems which pertains to himself, such as: rank & promotion, job assignment, financial, family.
3. **Professional** - conducted by men who are qualified in specialized fields, such as: medicine, law, religion, or finance.
4. **Career** - which informs men concerning a career in the Army.

TYPES OF COUNSELING APPROACHES

1. **Directive** - with the use of manuals, SOPs, policies, directives, or any other special materials.
2. **Non-directive** - persuading the counselee to solve his own problem with your help and guidance without the aid of manuals, SOPs. As a counselor, you only aid him in its solution only by helping him to remove self-constructed obstacles.

The non-directive counselor must be a GOOD LISTENER. Non-directive counseling should be used when a man is dissatisfied with his job, request career guidance, or is having financial difficulties.

3. **Electic** - combination of the directive and the non-directive approach to assist a person to make the proper adjustments or to solve his own problems as efficiently as possible.

Not all soldiers will ask for help. Therefore, the leader must know his men well enough to recognize their need for assistance. THESE ARE THE INDICATORS:

1. Performance
2. Attentiveness or Concentration.
3. Drunkenness
4. Deliberate Acts of Misconduct.
5. Negative Reaction.

THINGS TO BE CONSIDERED IN PREPARATION FOR COUNSELING

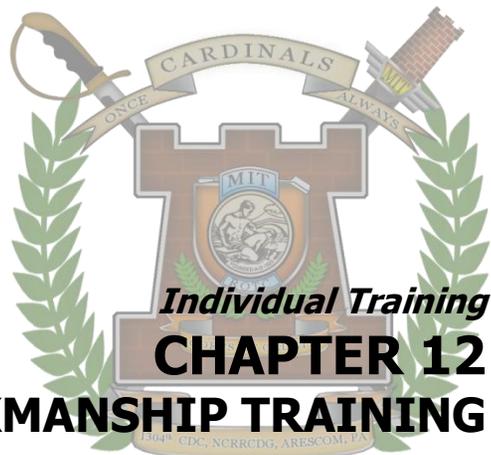
1. The leader should review all the background information.
2. The place of the interview should have a *privacy* to prevent distractions and maintain a confidential atmosphere.
3. High level of formality must be eliminated.

CONDUCTING THE INTERVIEW

1. **Introduction/Opening** - the opening few minutes are probably the most critical phase of the interview.
 - a. Establish a relationship with the counselee.
 - b. Relieve any tension.
2. **Discussion/Body** - the leader should guide the interview.
 - a. Avoid detours.
 - b. Avoid fruitless conversation.
 - c. Use brief questions.
 - d. "Save the face" of the counselee - don't embarrass him.
 - e. Capitalize on WHO, WHAT, WHERE, WHEN and WHY.
3. **Ending**
 - a. Dismiss the counselee in a graceful manner.
 - b. Be sure the counselee understood everything.
 - c. The conversation should end at a natural stopping point.

*** Even though the counseling interview is over, that does not mean that the job is over. Certain follow-up actions must be taken. The leader must continue to evaluate performance and he must check to insure the personal problems no longer exist. If problems still exist, further counseling is necessary.

All leaders must be good counselors. Their objectives are to reinforce good behavior or to help men who have problems to help themselves. Accomplishment of this task requires an understanding and the application of the proper techniques and approaches to the various types of counseling.



RIFLE MARKSMANSHIP TRAINING

RIFLE MARKSMANSHIP TRAINING

Rifle marksmanship is a basic combat skill which all soldiers must master. Success of combat operations depends on the ability of a soldier to hit target accurately. His efficiency and confidence in shooting is only acquired in marksmanship training. Proper understanding on the fundamentals of marksmanship helps a lot in developing a soldier to be accurate and efficient in combat.

Before any practice on the range is commenced, at least a month of dry fire training is required. It is most essential that the soldier, by careful attention to the sighting, position, and aiming drills, should have become thoroughly at ease in all positions and should have discovered and mastered the difficulties of steady holding and accurate aiming in each position.

Two things are required to hit targets: The rifle must be aligned with the target, and the hammer must fall without disturbing the lay of the rifle. Soldiers should be taught to put the front sight post on the target and squeeze the trigger, in order to be capable of hitting most combat targets. This can be best accomplished through the learning of our (4) basic fundamentals.

FOUR BASIC FUNDAMENTALS OF MARKSMANSHIP

1. **Steady Position** - Before a soldier can hit targets, he must learn to hold the weapon in a steady position. This is an initial shooting skill the soldier should master.
 1. **Supported Position** - Soldiers should be encouraged always to fire from supported position when possible. Any type of support (sandbags, tree, rubble file, walls, etc) will greatly assist shooting accuracy.
 2. **Unsupported Position** - Soldiers must learn to hold the weapon steady without support. The record fire course utilizes the prone unsupported position. The steadiest of all unsupported positions.

Three (3) firing positions commonly used:

1. Prone
2. Kneeling/Squatting/Sitting/Cross-legged
3. Standing

In order to have a good and stable position, the soldier should bear in mind the three elements of stable position.

1. **Bone Support** - Positions are designed as foundation of the rifle. It should be stressed that a good foundation of a rifle is important. It is uncomfortable to a house built in a weak foundation, the house won't stand erect. This is same through to a rifle shooter who established a weak foundation for a rifle, won't withstand the repeated recoil of the rifle.
2. **Muscular Relaxation** - The rifle shooter must learn to relax as much as possible in the various firing position, avoid unnecessary muscular tension in an effort to hold in the aiming area.
3. **Natural Point of Aim on the Target** - Natural point of aim is established during respiratory pause, since the shooter and the rifle becomes single steady unit or the rifle become the extension of the body, it is but necessary to adjust the position of the body until the rifle points or aim naturally.

Eight Steady Hold Factors:

1. **Grip of the Non-Firing Hand** - The new emphasis here is to relax the grip of the non-firing hand.
2. **Rifle Butt in the Pocket of the Shoulder** - Again, emphasis here is to avoid holding the butt of the weapon very tightly into the pocket of the shoulder, promoting a more relaxed position. Also, holding the weapon only lightly into the shoulder reduces the effects of breathing and other body movement. In other words, when the rifle is held tightly against the chest cavity, there will be significant movement of the rifle during the natural breathing process.
3. **Grip of the Firing Hand** - It is appropriate to apply the rearward pressure required to keep the butt of the weapon in the pocket of the shoulder with the firing hand. Emphasis here is that the placement of the trigger finger is dependent upon hand size, strength, and the weight required to pull the trigger. The objective is to make the hammer fall without disturbing the lay of the weapon.

4. **Firing Elbow** - When possible, the elbow is firmly planted to help insure a steady position.
 5. **Stock weld** - The stock weld is taught as an integral part of various positions. Two (2) key factors emphasized are that the stock weld should provide for a natural line of sight through the center of the aperture to the front sight, and the eye should be close to the rear sight.
 6. **Breathing** - The rhythmical movements of the chest, elbow and shoulder. The rise and fall of the chest cause compulsory movement of the muzzle of the rifle. The primary technique for the control of breathing is to lock the breath at any point within the breathing cycle as the trigger is squeezed - most combat targets will not wait around for the moment of natural respiratory pause. Breathing is included as one of the four (4) fundamentals.
 7. **Relaxation** - Undue muscle strain or tension causes trembling which is transmitted to the rifle. Relaxation is important, but some problems could be expected in getting a soldier to relax while a horde of enemy soldiers are charging his position to kill him; therefore, relaxation has been built into firing position by relaxing the grip on the weapon.
 8. **Trigger Control** - This factor probably causes more target misses than any of the other steady hold factor. It is included as one of the four (4) fundamentals.
2. **Aiming** - The act of pointing the rifle so that the projectile will hit the desired target. The precise alignment of the rifle to the target. The rear open sight is the least accurate of the three (3) sighting systems and requires that three objects be brought into alignment; the rear sight, the front sight, and the target.

Four (4) Things to Remember in Aiming

1. Focus the tip of the front sight post on the target.
2. Focus the tip of the front sight post on the target precisely centered in the rear aperture.

3. Establish the appropriate point of aim and then bring the focus of the eye to the front tip as the front sight post is move on the target.
 4. Breathing must be cease or stopped to ensure that the rear sight, front sight and target are all in proper alignment. The peeping eye should be placed behind the rear aperture approximately two (2) inches with the check rested on the small of the stock.
3. **Breath Control** - It is impossible to maintain a steady position, keeping the tip of the front sight post at the precise aiming point, while breathing in an out. Control the breathing to help keep the rifle steady during trigger squeeze. The shot must be then fired before feeling any unpleasant sensations from ceasing breathing.

Things to Remember in Breath Control

1. Maintain steady position keeping the tip of the front sight post at the precise aiming point while breathing in and out.
 2. Proper placement of the trigger finger on the trigger in between the finger tip and the first joint or between the first joint and second joint of the pad.
 3. Trigger finger must be in an arched position to avoid contact in any part of the rifle.
 4. Squeeze along the barrel: Backward and forward movement of the trigger finger on the trigger without any twisting movement to the left or right.
4. **Trigger Squeeze** - It is the independent action of the forefinger on trigger with a uniformly increasing pressure straight to the rear as long as the desired perfect sight picture is maintain. Trigger squeeze is vitally important for two (2) reasons:
 1. Any sudden movement of the finger on the trigger disturbs the lay of the weapon, and therefore, causes the shot to miss its intended target.

2. However, the most important reason for squeezing the trigger is that the exact moment of weapon firing must be a complete surprise to the firer. From the unsupported position, a small wobble area normally exists. The wobble area is the movement of the sight around the aiming point when the weapon is in the steadiest possible position. If wobble is present, the same trigger squeeze technique should be employed. The best firing performance will result when the trigger is squeezed continuously while the smallest possible wobble area is maintained, and the actual moment of firing cannot be anticipated.

Sequence of Trigger Squeeze

1. Breath - Hold Breath
2. Relax - Release a little air and hold
3. Aim - Complete sight alignment
4. Slack - Take a slack with initial pressure 1/2 of the weight to pull the trigger.
5. Squeeze - Apply pressure to the remaining resistance.
6. Follow Through - It is the continued mechanical and mental application of fundamentals after each round has been fired, this simply means the firer maintain his stable position, aiming, breath control, and continue to press the trigger to the rear even though the rifle has fired already.

DRY FIRE

DRY FIRE - Firing a shot exactly as live bullet would be fired except with an empty chamber. This is a method of training widely used by top marksman throughout the world.

Objective of Dry Fire - to master the four (4) fundamentals of marksmanship in a relax environment, the firer will be able to:

1. Assume good firing position in comfortable manner.
2. Fully understand the aiming process, breath control will be second in nature, trigger squeeze is practiced or mastered.

Devices Use in Dry Fire

1. **Aiming Card** - Simple device which is used to determine if the soldier understands the aiming process and how to aim at target center of mass.
2. **Riddle Sighting Device** - This allows the trainer to see if the soldier understands the aiming process while using his own rifle. The device is a small plastic plate with a magnet attached and a drawing of a small E - type silhouette target.
3. **Paige Sighting Device** - Serves the same purpose as the riddle device - to teach, diagnose, and practice the fundamentals of aiming. The Paige sighting device consists of a metal target piece and a spring, which is fixed on a wooden spindle and is inserted in the rifle barrel.
4. **The Dime/Washer Exercise** - Determines if the soldier has a smooth trigger pull. It is more effective when conducted from an unsupported position. The rifle is cocked and the soldier assumes a good firing position, an assistant place a dime or a washer on the barrel between the sight assembly and flash suppressor and then the soldier attempts to pull the trigger without causing the dime/washer to fall. To enhance this training, the soldier should be aiming at a target when he pulls the trigger.
5. **Target Box Exercise** - It is an excellent procedure for checking the consistency of aiming from shot to shot and the consistent placement of shot group in a dry environment.
6. **Ball and Dummy Exercise** - It is conducted on a live fire range during actual firing; however, soldier should be taught the ball and dummy exercises during PMT so it can be conducted by a soldier-coach on the firing range. This exercise is an excellent means of detecting if the soldier knows when the rifle is going to fire.
7. **Modified Silhouette Targets** - The use of modified silhouette target are not appropriate for most soldiers; however, they may prove useful to a few soldiers who experience difficulty understanding center -of- mass aiming. By using this target during PMT, the soldier can adjust his aiming point until the

white just disappears, and it may assist him in learning how to aim at center-of-mass.

SIGHT ADJUSTMENT

All soldiers should be confident they can correctly adjust sights for windage and elevation before they get to the live fire range.

"Windage/Elevation Rule" - States that one click of the elevation or windage will move the strike of the projectile at a specific distance at a specific range. At range twenty five (25) meters, one click of either the elevation or windage will move the strike of the projectile approximately .7 cm.

Steps in Sight Adjustment

1. Insure that soldiers understand the general concept of zeroing. The use of long range sight ("L") and adjusting sights until the point of aim and bullet strike are the same at 25 meters, will result in a good 250 meter zero when the regular sight is used. Flip between the regular sight and long range sight to insure that the "L" sight is used for zeroing (at long range shooting) and the unmarked sight is used for all normal firing (battlesight zero).
2. Next step is to find the lines which cross at a point closest to the center of the shot group.
3. Next is to insure that soldiers can transfer the information from the zero target to the rifle. Turn the front sight in a clockwise direction and the rear in a clockwise direction (in accordance with the sight change requirements). In addition, rotate the sight adjustment ("UP" on the front sight and "R" on the rear sight). The arrows on the rifle indicate the direction of bullet movement. In other words, turning the rear sight clockwise and in the direction of the "R" arrow moves the bullet strikes right. Moving the front sight clockwise and in the direction of the "UP" arrow moves the bullet strike up.

GROUPING

Grouping is a form of practice firing. There are two (2) primary objectives - shooting tight shot group and the consistent placement of those groups. It appropriately falls between dry fire exercise and zeroing. The initial live fire training should be a grouping exercise. The purpose of a grouping exercise is to practice and refine shooting fundamentals. It is important to note that this is not a zeroing exercise, therefore, very few sight changes should be made.

ZEROING

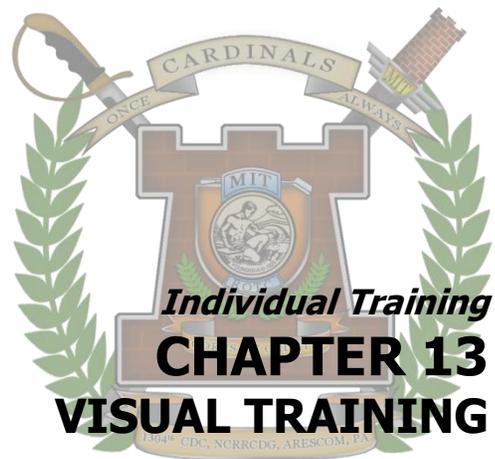
The purpose of zeroing is to increase hit probability in combat. Zeroing involves the adjustment of sights until bullets hit the same place the rifle is aimed when shooting targets at a distance of 250 meters.

Concept of Zeroing - When a rifle is zeroed, the sights are adjusted so that bullet strike will be the same at point of aim at a given range.

RANGE SAFETY PRECAUTIONS

1. The bolt of the rifle must be opened.
2. All loading and unloading is executed on the firing line with the muzzle of the rifle point towards the target. Strictly no loading behind the firing line.
3. No weapon is loaded until the command "Load" is given.
4. All firing must be controlled by signal, command will be given by the designated Range Officer/NCO. Do not fire until the command is given.
5. At the command "Cease Fire", all trigger finger must be automatically remove from the trigger and shift to safe position.
6. No weapon is to be remove from the firing line until it has been inspected to see to it that it is clear with ammo and the safely lever is at safe and bolt is opened.

7. No person is allowed beyond the firing line for any reason or purpose. No weapon is carried in front of the firing line.
8. After firing, place the selector lever at safe, remove magazine, and always keep the bolt open.
9. If in case of malfunction or alibi, do immediate action or remedial action with the barrel pointing to the target. If failed, put down your rifle, raise your hand and shout alibi to be assisted by Coach or Range NCO.
10. Anyone observing an unsafe act will immediately call "Cease-fire".
11. Consider the rifle loaded at all times, even in the break areas. Never point the rifle to anyone.



VISUAL TRACKING

A platoon or squad may receive the mission to follow the trail of a specific enemy unit. Soldiers look for signs left by the enemy. They gather information about the enemy unit, the route, and the surrounding terrain as they track.

Training is essential to develop and maintain the necessary tracking skills. Once deployed into an area of operations, training continues so the platoon can learn about local soils, climate, vegetation, animals, vehicles, footwear, and other factors. The primary tracker can prepare a tracking book showing specific signs and how they weather or change over time.

DEFINITION OF TERMS

VISUAL TRACK - the art of being able to follow a man or a group of men using the track or sign they have left.

SIGN - a mark on the ground and disturbances of vegetation made by an animal or group of men passing through an area.

FUNDAMENTALS OF TRACKING

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

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

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

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

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

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

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

TRACKING TEAMS

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

TRACKER DOGS

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

COUNTERTRACKING

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

When your direction of movement parallels a stream use the stream, to deceive an enemy tracker. Some tactics that will help elude a tracker are as follows:

- Stay in the stream for 100 to 200 meters.
- Stay in the center of the stream and in deep water.
- Watch for rocks or roots near the banks that are not covered with moss or vegetation and leave the stream at the point.
- Walk out backward on soft ground.
- Walk up a small, vegetation-covered tributary and exit from it.

LOOPHOLES

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

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

PERIMETER DEFENSE

1. A perimeter defense can be part of selected missions. Some of these include:
 - a. Assembly areas (preserve the force and/or prepare for other missions).
 - b. Hide position and/or patrol base (preserve the force and/or prepare for other missions)
 - c. Defense of a specific location (a downed aircraft, a LZ, a bridge, terrain retention).
2. The characteristics of a perimeter defense are:
 - a. Units and personnel are distributed more or less equally through all 360 degrees (other techniques have 360 degree security but do not always have personnel through all 360 degrees).
 - b. Distance between squads and individual positions must have interlocking fires to the right and left.
 - c. The bulk of the combat power is placed on the outer edge of the position.
 - d. No penetrations of the perimeter are permitted. Any that occur are immediately counterattacked.
3. The need to hold or protect feature such as bridge, airfield, from enemy observation and fire may restrict the positioning of unit within a perimeter.
 - a. Position anti-armor weapon system on armor restrictive terrain to concentrate fires on armor approach.
 - b. Providing as much depth as the diameter of the perimeter allows through his location of security element. The reserve and secondary sectors of the fires of anti-tank weapon.
 - c. Constructing obstacles to fix or block the enemy so can be effectively engaged.
4. Perimeter defenses that are patrol bases or assembly areas are often established in the dark. In this case, it is easiest to use a triangle or circle formation. For purposes of control, soldiers may have to be positioned in a straight line along the perimeter (so they not shoot each other in the dark), but as soon as it is light enough to see, they are repositioned in a staggered formation

to add depth to the position. Depth is also provided by retaining small reserve under control of the platoon leader or squad leader (a fire team plus the platoon Headquarters under the platoon; squad leader; and one SAW gunner for squad perimeter) to counterattack penetrations, or reinforce threatened areas. Within the platoon perimeter, squad supplementary and alternate positions can be used to add depth.

5. Perimeter varies in shape depending on the terrain and situation. If the commander determines the most probable direction of enemy attack, he may weigh that part of the perimeter to cover the avenue of approach and strengthen the effectiveness of the perimeter. He may use natural obstacles, such as river, which allows combat power to concentrate in more threatened sectors.
6. Several Methods may be used to organize a battalion perimeter. One method is to place all platoon in the battalion in position on the perimeter. This is at least desirable since it facilitates an enemy penetration. However, certain positioning techniques can some create depth in defense.
 - a. The perimeter is divided in to company sector with boundaries and coordinating point which is established based on the same considerations discussed earlier. When possible two platoon (each with three squads abreast) are place on the outer perimeter and one of the inner perimeter of each sector this give depth to the platoon position and facilitate control. It give one platoon from each rifle company the mission to support front line (just add in the defense). Also it enable the company commander to locate is Command Post and his 60mm mortar near the reserve platoon enhancing control and security.
 - b. The battalion commander may elect to assign two rifle companies to the outer perimeter and the third to an inner perimeter. The inner perimeter should be far enough from the outer perimeter to prevent the enemy from suppressing both with same fire. However the inner perimeter must be closed enough to support the outer perimeter with small arms fire gaps on the outer perimeter between units are in restrictive terrain with restrictive fields of fire and observations. No gaps should be allowed and a narrower

frontage may be required. This may also required the company commander to deploy all this platoon in line.

- c. The commander ensure the perimeter position have rearward protection from inner perimeter weapon once the inner perimeter is established.
- d. Combat vehicles supporting the defense are normally assigned firing position on the perimeter, covering the most likely mounted avenue of approach. The commander must ensure that vehicles do not destroy wire communication
- e. Isolation may drive the battalion commander to form a perimeter if so. Combat and combat support element from other units may seen the battalion protection. These units given mission based on their support abilities. Any fire support provided from outside the perimeter is coordinated and integrated into the overall defensive plan. The extra fire support conserves the ammunition of this unit within the perimeter.
- f. The battalion commander normally employs the scout platoon outside the perimeter for early warning. He augments security with squad size or smaller element, which are provided and controlled by units on the perimeter. The security elements are positioned to observe avenue of approach. Patrol covers areas that cannot be observed by stationary element. If the scout platoons remain under battalion control. It coordinates with units on the perimeter for passage on lines.
- g. Reserve element may consist of a designated unit or provisional forces organize from Headquarters and support personnel. They form the second line of defense behind the perimeter element, ideally reserve are mobile enough to react to enemy action in any portion of the perimeter element. They are positioned to block the most dangerous avenue of approach and are assigned on order position on other critical avenue. If available combat vehicles initially any and support occupying firing position on the perimeter may be tasked to reinforce the reserve on the order.

- h. The perimeter defense is conducted much like a forward defense, mortar FA, engaged the enemy at long ranges. As they come within small arms ranges other weapons are engaged in. If the assaults continue, FPF's are fired. If the perimeter is penetrated, the reserve blocks the penetration or counter attacked to restore the perimeter. After committing the initial reserve the commander must reconstitute a reserve to meet other threats. This force normally comes from an unengaged unit in another portion of the perimeter. If an unengaged force is used to constitute a new reserve, sufficient forces must be retained to defend the vacated sector.
- i. Combat Support element may support from within the perimeter or from another location, depending on the mission and status of the battalion, the type of transport availability, the weather, and the terrain, re-supply is often by the air. The availability of landing zone (LZ) and DZS protected from the enemy observation and fire is a main consideration in selecting the position. Since aerial re-supply is vulnerable to weather and enemy fires commanders must emphasize supply economy and protection of available stock.

TYPES OF SIGN

1. **Ground Sign** - sign left by animals or man found on the ground.

Examples: boots mark, broken twigs, bruise on roots or seedlings, disturbances on the ground like insects, disturbance on vegetation, mud deposit from boots, disturb leaves and stone, debris drop beside track, disturb water, sap latex.

Places where sign is most obvious:

- a. Banks of river and stream
- b. Muddy sandy patches
- c. Steep hillside
- d. Edges of clearing or plantation
- e. High grass or thick undergrowth

2. **TOP SIGN** - a sign left by animals or group of men that are found above the ground and vegetation.

TYPES OF TERRAIN THAT PRODUCE DIFFERENT SIGNS

1. **Jungle** - any features of an impenetrable vegetation forbidding in appearance and filled with wild life.

Signs to be encountered in the Jungle

- a. Disturbed dried leaves
 - b. Broken twigs and branches
 - c. Vegetation passed aside will be on unnatural
 - d. Boots impression or marks on soft ground
 - e. Scratches, marks on trees and logs
 - f. Broken cobwebs
 - g. Twigs laid on the ground
2. **Grassland** - high grasses is easy to track as it is bent in a direction of the bushes. In small grasses there will be a little change in color and position but not so obvious.
 3. **Rocky Road** - is the most difficult terrain to track

Signs to be encountered in Rocky Country:

- a. Smaller stone and rock will be knocked off from their resting place into the ground.
- b. Moss growing on the rock will be disturbed
- c. Nailed boots will be scratches and rubber boots will left black marks on the rocks.
- d. Insect hiding inside the stone may be seen when disturbed
- e. Signs will be found on the areas of soft ground near the base of the large rock.

AIDS TO TRACKING

1. Footprints or portion of footprints.
2. Direction of grass leaves or sticks get up by the feet.
3. Unnatural formation of vines and thick grasses will indicate that a person has pushed them aside.
4. Sap exuding from cuts.
5. Dry leaf surfaces on the ground after rain.
6. Change of color.

7. Dirt smudges on rocks, logs, and leaves.
8. Broken cobwebs up to men height.
9. Moss scrapes from trees.
10. Disturbance of water when people have climb out of creeks or stepped in paddies.

COMMON NATIVE TRACKS

Walking Barefoot - prints are soft rounded impression from the heel.

Comparison of woman and man native track: woman tracks are generally smaller.

Two characteristics:

1. They tend to be pigeon toed.
2. Their toes are spread-out than those of men.

INFORMATION FROM A TRACK OR SIGN

1. Direction of the enemy movement.
2. Number of person making a track
3. Age of sign
4. Loading
5. Sex under favorable condition
6. Speed
7. Rationing being used
8. Time

FACTORS WHICH ADVERSELY OR DIRECTLY AFFECT TRACKING

1. Direct sunlight
2. Strong wind
3. Heavy rain
4. Time

TRACKING METHOD

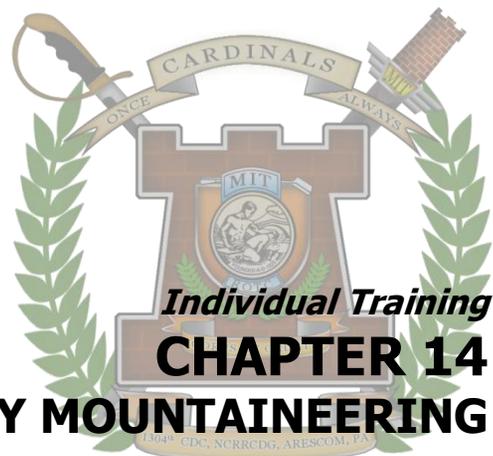
1. Mark the sign
2. Put a competent for expert tracker on to it asap.
3. Do not attempt to follow by yourself unless you are a competent tracker.
4. Do not allow anyone to search around the area until the tracker arrived.

DECEPTION METHOD

1. Walking backward
2. Walking on the edges of path
3. Stepping in one another's track
4. Walking in stream or stream bench
5. Splitting up into a small group
6. Walking along falling trees, over rocky ground or stepping from rock to rock
7. Tip-toeing
8. Rear man covering tracks with leaves

HOW TO COUNTER METHOD OF DECEPTION

1. The tracker will concentrate himself along the last sign and search an area of approximate radius of ten to fifteen meters.
2. If it is unsuccessful he increases his search to approximately twenty five (25) meters radius.
3. If it is unsuccessful the tracker will search the sign of the track. If the search carried out is also unsuccessful the tracker will walk of approximately fifty (50) meters.



MILITARY MOUNTAINEERING

The success of a patrol operating in mountainous terrain depends on the patrol's ability to use a number of skills in overcoming a great variety of obstacles. The use of knot tying, splicing, constructing rope installation, rappelling and mountain walking techniques are very important aspects in order to accomplish the mission timely and successfully.

MOUNTAIN WALKING TECHNIQUES

1. Hard Ground and Grassy Slopes

A. Ascent

- a. Full sole
- b. Locked knees
- c. Weight over the feet
- d. Slight forward lean from the waist
- e. Do not lean into slope
- f. Traversing, zig-zag pattern (method)
- g. Straight, herringbone pattern (method)

B. Descent

- a. Full sole
- b. Knees bent, springy (shock absorber)
- c. Weight over the feet
- d. Do not lean into slope
- e. Traversing, zig-zag pattern (method)
- f. Straight down (normal foot position)
- g. Hop-skip advantage at time
- h. Full control of speed at all times
- i. Side step can be used on very steep slopes

2. Route Selection

A. Considerations

- a. Tactical considerations
- b. Time element
- c. Skill of troops
- d. Equipment available
- e. Support required
- f. Effect of weather

B. Scope

- a. Map and photo reconnaissance.
- b. Aerial reconnaissance.
- c. Ground reconnaissance.
 - approach.
 - types of terrain, nature of difficulties.
 - delay and anchor positions.
 - concealment.
 - special equipment needed.
 - dangers from weather changes.
 - tactical considerations.

SPECIAL EQUIPMENT

1. Ropes
2. Snaplinks
3. Rock pitons
4. Piton hammer

KNOTS

1. Joining knots (knots to tie ends of ropes together)
2. Anchor knots
3. Special knots
4. Tightening system

ROCK CLIMBING TECHNIQUES

1. Balance climbing.
2. Belays – belaying
3. Party climbing (roped)
4. Rappelling

ROPE INSTALLATIONS

1. A-frame
2. Fixed ropes
3. Vertical hauling line
4. Suspension traverse
5. Ropes bridges

ANCHORS

1. Natural anchors
2. Artificial anchors

CLIFF EVACUATION

1. Litter evacuation
2. Rappel carrier (piggyback) evacuation

TREE EVACUATION

1. Preparation
2. Lashing the casualty
3. Evacuation procedure.



JUNGLE BASE OPERATION

Most, if not all, Scout Ranger combat operations are conducted inside the jungle. Necessary for the proper understanding of these types of jungle mountain operations are the following terms:

Jungle – It is an area located in the humid tropics, wherein the land is covered with such dense growth of trees or other types of associated vegetation which impedimentary operations and tends to obstruct lines of communication.

TACTICAL ASPECTS OF THE JUNGLE

- A. **Key Terrain.** The jungle includes defiles and high grounds, but, in most cases, the tactical advantage of the high grounds is diminished due to limited observation and fields of fire. All features thereat expedite movement, resupply and evacuation are considered key terrain. Roads are the most critical and are usually limited to logging roads. Normally, the best avenues of approach are long ridges. Jungle trails cannot easily be located because they are easily reclaimed by the robust jungle growth.
- B. **Observation and Fields of Fire.** The terrain inside the jungles is so resistive to the extent that excellent opportunities to deceive and surprise the enemy are present. Ground observation is obscured by the trees, bushes, and shrubs and in most cases, jungle observation is obscured by the jungle canopy.

Normally, fields of fire have to be cleared in the form of “fire tunnels.” Maximum and coverage of sectors are not desirable, because these will expose troop positions and locations of automatic weapons.

- C. **Cover and Concealment.** While the jungle vegetation provides excellent concealment, it does not always provide excellent cover. Most of the cover will be afforded not by the vegetation, but by the surface irregularities, such as ravines, gullies and large rocks. Fallen rocks can also provide cover. Except in primary evergreen rainforest, the trees will not normally provide extensive cover. Most of the large trees have been through by nefarious illegal activities in the forest.

Many vegetative features that afford concealment provide no resistance bullets and shrapnel. They should never be mistaken for cover.

- D. **Command and Control.** The dense jungle vegetation makes control of large units difficult due to the commander’s lack of observation of the major portion of the troop file. To minimize this problem, the commander must do the following:
1. Reduce the distances and intervals between individuals.
 2. Decentralize command and control, if necessary.
 3. Employ as small a unit, as is necessary.
 4. Ensure that all communication channels are open and utilized.

OPERATIONAL LIMITATIONS

While the jungle is generally hospitable to the attacker, it also represents the intruder with certain limitations. The following are some of the units the jungle environment poses:

1. Control is difficult and must be decentralized.
2. Frontages must be shortened and intervals must be lessened.
3. Maintaining direction of movements is difficult.
4. Limits use of heavy equipment and support weapons.
5. Limits use of armor and, to some extent, artillery fire.

GENERAL CONSIDERATIONS IN PLANNING FOR AN ATTACK

An offensive action, right into the heart of the forest, requires careful planning. The general considerations are the following:

1. *Scheme of maneuver.* Know how you want to attack. You must not leave anything to chance or luck.
2. *Plan for fire support.* In a deep penetration mission. You must not leave anything to chance or luck.
3. *Plan for fire support.* In a deep penetration mission, you will be off artillery range within a day’s walk. However, you must still consider alternative means of fire support, because you do not want to get isolated all by yourselves.

4. *Control and coordination.* Once inside the jungle, you do not have the same wide attitude of freedom to do as you please. Coordinate before doing anything else.

ADVANTAGES OF THE GUERILLA

The guerilla inhabits the jungle. He has intimate knowledge of the terrain. Therefore, defending from his jungle hideaway offers him the initial edge. Here are some of his advantages:

1. Dominant terrain provides the defender and denies the attacker observation firing positions.
2. Slopes and vegetation serve as obstacles.
3. There are areas that are either impassable or extremely difficult to negotiate.
4. The attackers, us, have limited use other combat assets, such as armored vehicles.



**MARCHES, BIVOUACS AND LAND
NAVIGATION**

MARCHES, BIVOUACS AND LAND NAVIGATION

As far as the Armed Forces of the Philippines, especially the Army is concerned, this subject is a must in order to guide the commanders and staff in the conduct of marches, particularly the procedure and techniques of foot marches, and maintenance of bivouac.

This subject describes the march mission, wherein the troops arrive at their destination on time and in proper condition for carrying out their mission this portion emphasize troop mobility, an important element of combat power which provides for the efficient movement of troops from one location to another for tactical advantages. With the advent of mechanization, troop movements in our Armed Forces may be done by land, water and air transport or by combination of these means. However, these mechanical means of movement may not always be available, particularly in the field where the troops must have the capability to march reasonable results in combat.

Moving troops, however, is not enough. The men must arrive at the appointed place at the appointed time with the unit well organized likewise, the individual soldier with this weapons and equipment should have remained in good condition. In brief, troop should reach their march destination ready to fight to perform their assigned mission immediately.

CLASSIFICATION OF GROUND TROOP MOVEMENT

All movements of ground forces may be classified into two (2) types: the administrative movement and tactical movement.

1. **The Administrative Movement** – It is the troop movement wherein no enemy activity or interference is anticipated. The primary consideration in the conduct of this type of movement and in the arrangement of troops is the comfort and convenience of the personnel and their transit.
2. **The Tactical Movement** - A movement is a tactical movement when the unit will be employed against to enemy, when making contact or when interference with the enemy is a possibility the mission of the unit, the proximity of hostile ground forces, the terrain over which the unit will travel, the type of enemy resistance expected must all be considered in determining the organization and composition if the unit for tactical movement.

In this type of movement the unit must be so organized that can fight at once.

FOOT MARCHES

Foot marches as a method of moving ground troops is resorted when sufficient transportation is not available and when the distance to be covered is relatively short troops may also move by foot when tactical situation on the terrain prohibited the use of motor transport or when it is desired to march by foot for training or physical conditioning.

1. **Preparatory Training for Foot Marches** - Proper training in the conduct of foot marches involve the indoctrination of marine officers and NCOs of their roles and responsibilities before and during march.
2. **Physical Condition** - The conditioning provinces for foot marches must be systematic and progressive. Initially, troops must be made to march on short distances without equipment followed by frequent practice marches increasing in length and in the amount of equipment carried until troops are able to march 25 miles in 8 hours with full field equipment and personal weapons calisthenics, organized athletics and periods of lectures on the subject may also be included in the conditioning process to provide physical and mental relaxation.

MARCH HYGIENE

In the conduct of practice marches attention must be given to the case of the feet, proper fitting and wearing of shoes and socks, proper fitting and cleanliness of clothing and adjustment of equipment must be taught to drink water before the start of the march and to take in only sparingly during the duration of the hike. Likewise, they must also be taught to get water only from approved sources.

1. **Conduct of Marches** - Following are the control measures used to ensure proper conduct of foot marches.
2. **The Warning Order** - When possible, a warning order is issued to give participating units advance information regarding the march. A warning order is issued to the companies and attached units as soon as the decision to move the troops is

made. This 30 yds be platoons, 50 yds between alert gives the troops the maximum time to prepare. The warning order is usually brief, but contains the essential information who, what, when, where, how and why.

THE ADVANCE GROUP

An advance group is usually dispatched ahead of the body troop to perform specific task. This group is usually composed of the route reconnaissance party and the quartering party.

1. **The Route Reconnaissance Party** - This group is tasked to make a detailed reconnaissance of the route of march. It may include the reconnaissance elements, a traffic control representatives. The reconnaissance party obtained detailed information of route, determines the number of guards required and determines the amount of engineering work necessary.
2. **The Quartering Party** - This group is sent forward the exact bivouac area and to make administrative arrangements. The quartering party is usually composed of headquarters commandant or unit adjutant, an officer from each attached units and a medical officer its primary task is to select the bivouac site, divide the area among the subordinate units, make sanitary inspections and preparations and guide each unit to its area upon arrival.

THE INITIAL POINT

It is the starting point of the march. The initial point is designated to be along the route of march so that no elements of the marching will have the countermarch from its unit area to reach it.

THE REGULATING POINT (RP)

It is the point at the end of the march where the element of the marching unit are broken up and led to their respective are within the bivouac by the members of the quartering party.

INSPECTION BEFORE MARCH

As part for the preparation for the march, an inspection of the troops must be conducted to check their physical condition and to adjust improperly harness equipment.

MARCH FORMATION AND DISTANCE

1. The usual march formation is a column of twos with one file on each side of the road.
2. The daytime distance is about companies and 100 yds between battalions.
3. Company commanders usually march at the held of their units with platoon commanders and non-commissioned officers situated where they can best enforce march discipline to their men.
4. At night, distance between men and units are decreased for better control.

SECURITY MEASURES

It embraces all measures taken a unit to protect itself against surprise and observation by the enemy and to obtain freedom of action where there is a need for maneuver. Thus, security wins to prevent attempts by the enemy to harass, surprise, ambush, or reconnoiter, the positions of elements of the marching units. Security as a continuous requirement of a successful foot march and in the conduct of bivouacs. Individual security consists mostly of common sense. Its principles include the proper use of cover, concealment and individual camouflage. On the other hand, the external security is usually provided by the following:

1. Advance Guard

These are the troops who move in advance of the marching unit and provide security along the axis of movement of columns. Their main mission is to prevent unnecessary delay of the main body, to protect of against surprise and enemy observation and to ensure for it the time and space necessary for its deployment for actions. The advance guards should be not stronger than necessary for the purpose of security. Its formation is such as to assure its

non-security and provide sufficient distribution in depth and width for its maneuvers from front to rear, the advance guard is divided into a highly mobile reconnaissance detachment, the point the advance party, the support and the reserve may be omitted there must always be an efficient communication net between the advance guards (as when as the flank and mean guards) the main body.

2. Flank Guards

If the flanks of a unit are not protected by friendly adjacent units, security on the flanks is provided by detailing flank guard. The primary mission of the flank guard is to protect the main body from enemy observation and surprise attacks on its flanks. In the advent of attack, to provide the necessary time and space for the deployment of the main body. The strength and composition of the flank guards will vary with the strength, mobility and mission of the marching unit. It must not be stronger than necessary. The formation it adopts depends on the terrain, the routes available, the expected enemy action and the method of movements.

3. Rear Guard

In addition to the advance and flank guards, a rear guard follows the main body. Its mission is to protect the rear of the columns from surprise harassment, attacks and observation of the enemy.

Strength and composition if your guards have the same characteristics with that of the advance guards.

MARCHES

Foot March - a method of moving troops from one place to another. It is resorted to when transportation is not available, and when the distance to be covered is relatively short.

Classification of Foot March

1. Tactical March
2. Admin March

Types of Foot Marches

1. Day march
2. Night march
3. Forced march
4. Shuttle march

Day March is characterized by:

1. Dispersed formation
2. Ease of control and recon
3. Increase vulnerability to enemy observation and air attack

Night March is characterized by:

1. Closed formation
2. More difficult to control and recon
3. Slower rate of march
4. Better concealment from enemy observation and air attack

Forced March is characterized by:

1. Increase rate of march
2. Increase fatigue to personnel
3. Decreases the efficiency of unit

Shuttle March is characterized by:

Transporting of troops, equipment and supplies.

Arrival Time - the time the head of a column or elements reaches a designated point, lines or object.

Clearance Time - the time at which the tail of a column or elements thereof, passes a designated point line or object.

Column - formation in which elements are place one directly behind the other.

Length of Column - the length of roadway occupied by a column in movement including the gaps inside the column from the front to rear.

Completion Time - the time the tail of column passes the release point.

Critical Point - any point along a route of march where interference with a troop movement may occur.

Distance - the space between adjacent individuals measured in any direction.

Column Gap - the space between two consecutive elements proceeding in the same direction on the same route. It can be calculated in units of lengths or in units of time measured from the rear on one element to the front of the following element.

March Collecting Post - location on the route of march in casualties who cannot continue to march are given medical treatment and then moved to medical stations in the rear.

March Outpost - observation posts and patrol established for the protection of a command or troops during halt in the march.

March Unit - units which moves and halts at the orders of a single commander. The march unit normally correspond to one smaller troops, unit such as squad section, platoon, company or battery.

Pace Setter - an individual selected by the column commander who travels in the lead element to regulate the column speed and established the pace necessary to meet the required movement order.

Rate of March - the average number of miles or kilometers to be traveled in a given period of time, including all ordered halts. It is expressed in miles or kilometers traveled each hour.

Release Point - a well defines point on a route at which the element composing a column return under the authority of their respective commanders each of these elements continuing its movement towards its own appropriate destination

Road Movement Graph - a time space diagram used in planning and controlling both foot and motor marches and in preparing or checking road movement, tables.

Road Movement Table - a composite list showing the organization and time and space scheduled for march movement. It is generally published as an annex to an operation order for road movement.

Road Space - the length of roadway allocated to and or actually occupied by a column on route. Road space is expressed in meters or in kilometers.

Route Reconnaissance - a careful survey of route for military purposes. The recon may be accomplished by ground or serial elements.

Serial - an element or a group of elements within a series.

Speed - the actual rate of the forward movement of a vehicle at a given movement as shown in the speedometer (in km/hr (KMPH) or miles per hour (MPH).

Start Point - a well defines point on a route at which the elements composing a column begin to be under the control of the commander of this movement. It is at this point, at an appointed time of each element composing the column. In addition to the principal start points for its different elements.

Strip Map - sketch a route of march which may or not be drawn to scale but which should include identifying landmarks such as town, bridges, outstanding building or cross roads.

Time Distance - the time it takes the head of a column or any single element thereof to move from one point to another at a given rate of march.

MARCH DISTANCE/FACTORS

1. **Distance**

	Between Men	Platoon	Company
Reduced Distance	1 - 2 mtrs	25 mtrs	50 mtrs
Normal Distance	3 - 5 mtrs	50 mtrs	100 mtrs
Extended Distance	as situation demands		

2. **Rate of March**

	Road	Cross Country
Day Time	4 KPH	2.4 KPH
Night Time	3.2 KPH	1.6 KPH

3. **Road Space Factors**

Formation	2 mtrs/men	5 mtrs/men
Single Column	2.4	5.4
Column of 2s	1.2	2.7
Column of 3s	.5	1.8
Column of 4s	.4	1.4

4. **Pass Time Factors**

Rate of March	Factors
4 KPH	.0152
3.2 KPH	.0817
2.4 KPH	.0250
1.6 KPH	.0375

MARCH FORMULA/COMPUTATION

1. **Time Distance Formula**

$$TD \text{ (Mtrs/Min)} = \frac{\text{Distance (KM)}}{\text{Rate of March}}$$

Example:

$$TD = \frac{32 \text{ (Distance in KM)}}{4 \text{ (Rate of March)}}$$

$$= 8$$

2. **Length of Column Formula**

$$LC \text{ (M)} - \text{Nr of men} \times \text{RS Factor} + \text{Distance of Unit}$$

Example:

Foot troops of a Battalion composed of 350 men. Formed into three (3) company march units. Each containing three

(3) platoon. Formation is a column of two and 2 meters between men. Column gaps between companies is 50 meters and between platoons is 25 meters.

$$LC = (350 \times 1.2) + (2 \times 50) + (6 \times 25)$$

$$= 420 + 100 + 300$$

$$= 670 \text{ meters}$$

3. **Pass Time Formula**

$$PST = LC \times \text{Factors}$$

$$= 670 \times .0187$$

$$= 12 \text{ mins}$$

4. **Completion Time Formula**

$$CPT = SP + PT + TD + \text{Scheduled halts or breaks}$$

Problem Solving:

The 68 IB are advised to go on Bivouac tomorrow at 0600H approximately 48 kms away from Fort Magsaysay. This battalion is composed of 484 Officers and men forming four (4) company march unit. Each containing four (4) platoon size. Formation is 100 meters between platoon. Break and halts to include lunch is one (1) hour and 25 minutes.

Solve the following:

1. Time distance
2. Length of column
3. Pass time
4. Completion time

BIVOUACS

Bivouacs are established at the end of the march to allow the elements of the marching units to rest. It is established along the route of long march.

Guidelines in the Selection or Occupation of the Bivouac Area

1. Nearness to the route of march.
2. Good road nets.
3. Large enough to permit dispersion of entire unit.
4. Adequate cover and concealment.
5. Elevated of well drained silts.
6. Sandy loam or gravel soil, favorable to waste disposal.
7. Defensible in case of enemy attack.

Occupation of Bivouac Area

1. Members of the quartering party will meet the element of the marching unit at the regulating point and lead to their respective assigned areas. This prevents confusion and congestion at the entrance of the Bivouac area.
2. Troops when they reach their assigned areas will select a site for fixing tent. They will link-up their defensive position to that of the adjacent position.

Factors in Selecting Tent Sites

1. Adequate cover and concealment
2. Wide dispersion
3. Drainage

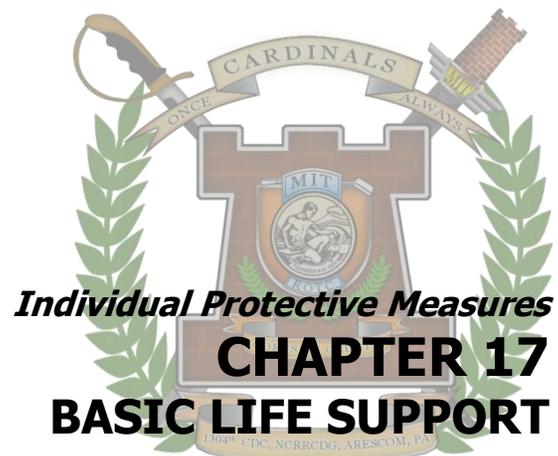
Undesirable Sites for Bivouac

1. Dry river or stream bed
2. Ravines
3. Adjacent to swampy ground
4. Steep slopes
5. Clay or dusty soil
6. Does not allow for adequate dispersion of units

ORGANIZATION FOR THE MARCH

A command executing a march is basically organized into march serial or on march column:

1. **March Unit** - is a unit of command which moves and halts at the command of a single commander. The march unit normally corresponds to one of the smaller troop units such as squad, section, platoon or company.
2. **March Serial** - consist of one or more march units organized under the senior officer and given specific alphabetical designation to facilitate control. The march unit of the serial normally passes the same march characteristics. A serial is usually a Battalion or is mar
3. **Marching alone.**
4. **March Column** - is composed of a command moving over the same route. It may be composed of one or more serials.



BASIC LIFE SUPPORT

One of the inherent dangers of being a combat soldier is that one enemy bullet that pierces through the body of the individual soldiers. Each bullet is like a “to whom it may concern” letter which is for the consumption of anyone who receives it. The bullet that pierces into the body of a soldier is not the end of his charmed life. He has his prayers and teammates, that can stop the bleeding, can calm him down, and perform the techniques of first aid before he gets professional help from our friendly doctors and lovely nurses.

The worst thing that can happen to a soldier is to needlessly die because his teammates did not know how to help him or they did the wrong thing when they administering first aid. There is simply no excuse. You cannot lose a teammate because you no not know what to do. Its therefore imperative for you to heed the lesson on first aid.

First Aid – immediate treatment administered to a victim of injury or illness before the services of a doctor or corpsman can be obtained.

FOUR LIFE SAVING STEPS

1. **Stop the bleeding** – by elevating, direct pressure and by applying tourniquet.
2. **Protect the Wound** – by applying first aid dressing.
3. **Prevent or Treat Shock** – keep the victim lying down with his/her head lower than the body. Loosen any tight clothing. Keep the casualty's convertible warm by wrapping with blanket. If she/he is unconscious, place him at his/her sides, prevent checking on vomits and other fluid. Give him fluid by mouth with warm stimulants such as coffee, tea or cocoa, remember Alcohol is not stimulants fluid.
4. **Restore Breathing** – if a casualty stops breathing you must give artificial respiration immediately. The sooner you begin artificial respiration, the more likely you are to succeed in restoring breathing.

WOUNDS

Wounds – any break in the continuity of the skin/tissue of the body.

Classification of Wounds

1. **Open Wound** – there is a break in the skin or mucus membrane.
2. **Close Wound** – involves underlying tissues without a break in the skin or mucus membrane.

Types of Wounds

1. **Abrasions** – results from scraping (abrading) the skin. Bleeding is minimal and limited to ruptured small veins and capillaries.
2. **Incised Wound** – cuts, commonly caused by sharp objects the degree of bleeding depend on the deep and extent of a cut. Deep cuts may involves blood vessels and may cause extensive bleeding, they may also damage muscles tendons and nerves.
3. **Lacerated Wound** – jagged, irregular or blunt breaks or tears in the skin. The destruction of tissues is greater in.
4. **Fracture Wounds** – irregularly caused by pointed objects such as pin, icepick, nails and splinters. External bleeding is usually minor, but the fracturing object may penetrate deeply into the body and thus damage organs and cause severe internal bleeding. Generally are not flushed out by external bleeding, therefore they are more likely than other wounds to become infected, tetanus organism grow rapidly in the absence of air.
5. **Invulsions** – involve forcible separation or tearing or tissue from the victims body. commonly caused by animals bites and accidents involving motor vehicles and heavy machinery.

Complication of Wounds

1. *Bleeding* - continuation of blood flowing from the wounds.
2. *Infections* – the healing process is delayed by infection.

Treatment

Control Bleeding

1. *Direct pressure* – is a place where the main artery to the injured person or part lies neat the skin surface and over a bone. Pressure at such a point applied with the fingers or with the hand, no first aid materials are required. The object of the pressure is to compress the artery against the bone, thus shutting off the flow of blood from heart to the wounds.

The pressure points is that which is:

- Nearest to the wound
- Between the wound and the main part of the body.

It can be seldom be maintained for more than fifteen minutes. Pressure points are recommended for use while direct pressure is being applied to a serious wound. If bleeding continues, you may apply a Tourniquet.

Only when the direct pressure, elevation and pressure points fail to stop the bleeding from a limb, or when blood is gushing from a major wound such as a limb amputation, should a tourniquet be applied. The use of a tourniquet can cause the loss of the limb below the hand, hence it must be used as a last-resort measure.

2. *Tourniquet Application*
 - Place the tourniquet around the limb and between the wound and the heart. Never place directly over the wound or fractured.
 - For amputation or partial amputation of the foot, leg, hand and arm for bleeding from the upper arm or thigh, place the tourniquet just above the wound or amputation.

- For hemorrhage from the forearm with no associated amputation, place the tourniquet just above the wound or amputation.
- When possible, place the tourniquet over the smooth sleeve or trouser leg to prevent skin from being pinched or twisted.
- Once a tourniquet has been applied, inspect it and the dressing frequently to see if the tourniquet has slipped and if any sign or further bleeding is present. If necessary tighten the tourniquet, but under no circumstances loosen it. It should only be loosened by medical personnel.
- It needs to be loosened for 2 –3 seconds in every 20-30 minutes, and piece of wood, stick, etc.

FRACTURE

Fracture - are broken bone, skull.

The Two Classes of Fracture

1. *Simple or Close Fracture* – no break in the continuity or no injury to the skin. It is free from air and infection.
2. *Compound or Open Fracture* – one in which, there is wound communicating with the broken ends of the bone is broken into more than two (2) pieces. Complicated when there are also injuries in the adjoining vessels, nerves or muscles.

Treatment for Fracture

1. Determining the full extent of injuries and dress the wound.
2. Immobilized (Splint) the fracture to prevent further damage.

Treatment for the Neck and Back Fracture

1. Lay the patient on his back.
2. Place a small pad under his back and under the hollow of his neck.
3. Prepare improvised litter.

Bandaging and Splinting Fracture

1. Prepare an improvised splinting.
2. Strips or rolls gauze or other materials that are use or wrapping or binding any part of the body to hold compress in place.
3. Prepared an improvised litter.

RESTORE BREATHING

Restore Breathing – If the casualty stops breathing, you must give artificial respiration immediately.

There are Two Primary Methods for Administering Artificial Respiration

1. *Mouth to Mouth Method*
 - a. Clear the casualty's upper airway by turning his head to one side quickly and remove from his mouth any vomits. Mucus or debris is by running your finger behind his lower teeth and over the back of his tongue. If he/she is wearing removable dentures, put them into his/her pocket.
 - b. Position the casualty's on his back.
 - c. Place him face up and put a rolled blanket or similar object under his shoulder, so that his head will drop back. If such an object is not available, tilt his head back so that the neck is extended and the head is in chin-up position.
 - d. Adjust the casualty's lower jaw to a jutting-out position. This moves the base of the tongue away from the back of the throat, thus enlarging the airway passage to the lungs.
2. *Mouth to Nose Methods* – The same procedure was made or should be done. But instead of mouth, close his nose with your thumb and fore finger.

Administering Artificial Respiration

1. Take a deep breath, open your mouth wide, and make an airtight seal around the casualty's mouth or nose, defend upon which one of you have left open, (If the patients is an infant or small child, cover both his nose and mouth with your mouth sealing your lips against the skin of his face.
2. With your eyes focused on the casualty's chest, blow into his/her airway (Mouth to Nose)
3. Remove your mouth from the casualty's airway opening, and listening for the return of air from the lungs, or his/her lungs. If the casualty's exhalation is noisy, elevate his jaw more.
4. After his/her exhalation of air from the casualty's lungs blow another deep breath into his/her airway. Make the first five (5) or ten (10) breaths deep except for infant. And give them at a rate in order to provide fast reoxygenation. Thereafter, give the breaths at a rate of (12-20) per minutes until the casualty's is able to breath satisfactory for himself or until you are positive his life is gone.

If the casualty's Jaw are so tightly closed:

- Thumb-jaw-Lift – is the best method to open the mouth.
- Two-Hand-Jaw-Lift

SNAKE BITE

Kinds of Snake Bite

1. *Poisonous Snake Bite* – has elliptical eyes and leave two (2) fang marked.
2. *No Poisonous Snake Bite* – has around eyes and single fang marked.

Signs and Symptoms of Snake Bite

1. General discoloration on the skin due to destruction, RBC
2. Marked pain and swelling
3. General weakness and paralysis
4. Shortness of vision
5. Dimness of vision
6. Dropping of eyelids
7. Slurring of speech
8. Nausea and Vomiting
9. Shock
10. Increase salivation and sweating

First Aid for Snake Bite

1. Keep the victim from not moving around.
2. Keep the victim calm as possible, preferably lying down.
3. Immobilized the bitten area and keep it at or below heat level.
4. Apply tourniquet 2-4 inches above the bitten area, but not around the joint and around the head, neck or trunk.
5. Cut should be 1/8 inch deep and 1/4 wide directly over each fang marked or bite.
6. Transport the victim immediately to the nearest hospital as soon as possible.

DROWNING

Drowning – aspiration of fluids or obstruction of the airway caused by spasm of the larynx in the water.

Cause

1. *Cramps* – muscles undergo marked spasm and would totally incapacitates a swimmer because of severe pain.
2. *Hyperventilation* – excessive deep breathing of the lungs before swimming under water, the carbon dioxide concentration of the blood is lowered by the forced exhaling of air during deep breathing. The circulation of the blood to the brain and normal functioning of the brain may be greatly altered. There is lung congestion in salt water drowning and lung collapse in fresh water submission.

POISONING

Poisoning – any substance – solid, liquid or gas the tends to impair health a cause death when introduced into the body.

Treatment

1. *Induce Vomiting* – insert the blunt end of a spoon or your finger in the back of a victim mouth.
2. *Neutralize and dilate the poison* – by giving a pure milk or water with charcoal.
3. Transport the victim to the nearest hospital.

BURNS

Burns – an injury that result from heat, chemical agents or radiation.

Classification

1. *First Degree Burns* – involve the superficial layer of the skin, healing occurs rapidly. It is redness, swelling and pain.
2. *Second Degree Burns* – deeper than first degree burns, blister formation, considerable swelling, more painful because the nerve ending are destroyed in 3rd degree burns.
3. *Third Degree Burns* – involve complete loss of all layers of the skin.

Treatment

1. *1st Degree Burns* – this can be immerse immediately in cold water or place ice wrapped.
2. *2nd Degree Burns* – causing skin blister, cover the skin with sterile dressing but don't open the blister.
3. *3rd Degree Burns* – don't pull stock clothing from burns, cut clothing away from burned area. Scrubs hands with alcohol or similar collation before applying dressing to prevent contamination.

TRANSPORTATION OF THE SICK AND WOUNDED

1. By means of improvised litter
 - a. Materials, Jacket, pole or strong pole.
 - b. Rolled blanket.
 - c. Empty sock of rice.

2. By means of two (2) man carry
 - a. Arm carry
 - b. Supporting carry
 - c. Chair
 - d. Etc.



HYGIENE AND SANITATION

Personal Hygiene and Sanitation is every soldier's responsibility. A command is the mirror-image of its Commander, the state of the health of men and the condition they work in, reflect the leadership, discipline and supervision in the unit. If one or several members of an operating unit become sick due to bad sanitation, the effective strength of the unit is reduced thus diminishing its fighting capability and efficiency.

Therefore, it is important to practice hygiene and sanitation not only to serve as an example, but also to impart to others the need for clean and healthful living to support our primary objective that is the accomplishment of the mission.

Rules of hygiene and sanitation are simple and easy to follow but some carelessly disregard them. It is for this reason that everybody should sometimes go out of their way to remind and see to it that aid rules of good hygiene and sanitation are followed.

INDIVIDUAL HYGIENE

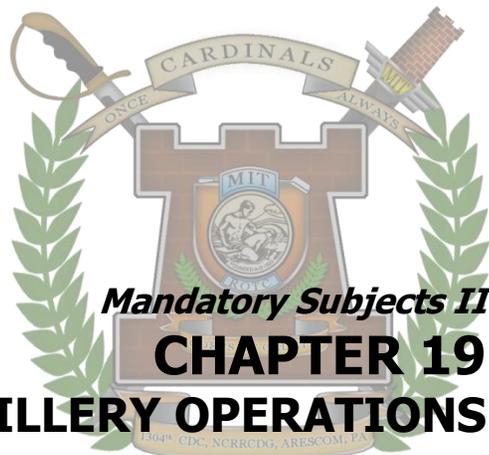
Following are basic health guidelines that everyone must follow to stay as a combat effective soldier.

1. Always keep your body clean. Take a bath once every day. As minimum, bathe your feet, hands and private parts. If possible, change your underwear and socks after bathing. When water is scarce, you may bathe at least twice a week. If water availability is worst, scrub your body regularly with clean wet cloth.
2. Change your underclothing daily if possible, If not, at least twice a week. Inspect them for lice, fleas or other bug that may keep you itchy.
3. Change clothing, shoes or socks immediately after they are get wet to avoid getting colds, athletes foot and other illnesses.
4. Brush your teeth at least twice a day, preferably after waking up and before going to bed. Brush your teeth on the inside and outside, away from the gums and towards the cutting surface of the teeth.
5. Always wash your hands with soap and water after doing fatigue duty, after engaging in strenuous exercise, before eating and after coming out of the comfort room.
6. Use only your own eating and drinking utensils if possible. You may contact disease from infected mess gear or personal articles of others. For the same reason, avoid borrowing and lending your own pipes, towels, shoes, etc.
7. When mosquito's and other flying insects are present in you area, be sure to use your mosquito net. Tuck it well around your bedding and ensure that there are no holes before sleeping. Take your anti-malaria tablets regularly, many soldiers became fatal casualties due to their indifference to this tiny but effective anti-malaria tablets.
8. Never drink water from any untreated source until has been declared safe for drinking by your medical officer. When purification tablets (such as halazone) are available, use them to treat your drinking water. If there are none, you may consider boiling your water at least fifteen minutes to kill the harmful bacteria's germs that may be present.
9. Relieve yourself on an area which is designated as the head area for your unit.
10. Exercise your muscles and joints regularly. Inactivity may do equal damage to your health as extreme exertion or fatigue.
11. Avoid venereal diseases. Do not associate with infected woman who may be carries of these diseases. If you think you have caught any of these sexually transmitted diseases report to your medical officer at once. Any venereal disease can be cured much easier and quickly on its early stage. Untreated VD may result to death or permanent damage to your body.
12. As a leader, you must set an example of personal cleanliness and sanitary. Discipline to your men. If possible, bathe, shave and wear clean clothes daily. Observe all the precaution mentioned above and require that everybody do likewise.

CAMP SANITATION

Camp Sanitation refers to the rules of cleanliness and sanitation which soldiers should follow to keep and maintain camps.

1. When putting up camps and bivouacs, build them around a sanitary plan. Make provision for sanitation requirements, such as the location of the galley, the head and the billeting areas of the men.
2. Control your water supply. Purify drinking water in a manner approved by the medical officer. When water source is a stream or a river, mark separate water points for washing, cooking and human consumption. Washing and bathing points must always be downstream from points used for human consumption. Of course, in the case of tactical camps, these watering points must be well secured against enemy harassment.
3. Locate and construct heads and urinals away from the galley, mess hall, and water supply but not too far from the living areas. As much as possible, heads and urinals should be situated downwind of above mentioned areas. In the construction of heads, follow the prescribed design. When situation allows a straddle type head trench may be constructed easily. The trench should be dug one foot wide, two and half feet deep and four feet long or longer depending on the number of men who will use it. The earth removed in digging is piled at the end of the trench with a can or shovel so that each men can cover his waste with soil after using the trench. Wooden plants may be used to improve the stepping area of this type of head. When leaving the camp be sure to cover the trench completely. A simple field urinal may as easily be constructed.
4. Maintain the sanitary conditions in the galley. Food must be stored in clean receptacles. Garbage, leftovers and other refuse must be disposed of at designated dumping areas or garbage pits, where they may be covered with soil or burned. When improperly disposed and left uncovered, insects, especially flies, feed on this garbage, pick up the germs and later transfer them to your food. Dysentery and other illness may then result.
5. Carry out a continuous campaign against insect, rodents and other pests may include flies, mosquitoes, lice, ticks, mites, cockroaches and rats. The simplest way to control the increase of these pests is to cut-off their nourishment by screening heads, galleys and messes and by disposing waste properly. You must also drain or soil stagnant pools of water to kill the larvae of insects when in the field. Bury empty ration cans and turns split coconut husks upside down to prevent disease carrying insects and rodents to breed or feed on them.



Mandatory Subjects II
CHAPTER 19
FIELD ARTILLERY OPERATIONS

105MM HOWITZER SECTION

105MM Howitzer M101A1 – is a light towed FA weapon normally used in direct support of the Infantry Division. The 105mm Bn includes three (3) Firing Batteries with six (6) Howitzers each.

Mission: to destroy, neutralize, or suppress the enemy, by cannon, rocket and missile fires and to assist in integrating fire support into arms operations.

DEFINITION OF TERMS

Call for Fire - a concise message prepared by the Forward observer. It contains all information needed by the FDC to determine the method of target attack. Call for fire is a request not an order. It must be sent quickly and clearly.

MIL - the smallest angular measurement that divides a circle into 6400 mils.

Observer Identification - tells the FDC who is calling for fire.

Warning Order - consist of type of mission, the size of the element to fire for effect and the method of target location.

Fire for Effect - observer observers should always strive for first round fire for effect.

Fire Mission - a warning order to alert the FDC personnel that message to follow (request for fire), warning to communicate personnel that the observer has a priority message.

Direction - a horizontal clockwise angle measured from the north or base direction.

Left or Right - means to correct the deviation as observed along the observers target line.

Add or Drop - to increase or decrease the distance of burst from the observer.

Up or Down - to announce the difference in altitude between the RP and Target or between OP and target.

Volley Fire - a method of fire in which a pieces of a battery or a portion thereof fire simultaneously.

Salvo Fire - a method of fire in which a pieces of a battery or a portion thereof fire successively at specific interval.

Repeat Range - to obtain fire at the same distance from the observer as the previous round or volley fire not observed.

Correction - a term use in a fire message to show that the observer made an error and that the corrected data will follow.

HISTORY

In the dawn history, war engines were performing the function of artillery (which may be loosely defined as a means of hurling missiles too heavy to be thrown by hand), and it was from the use of these crude weapons that the basic principles of artillery originated. The scriptures record the use of ingenious machines – probably predecessors of the catapult and ballista getting power from the ropes made of hair hide, or sinew – on the walls of Jerusalem eight centuries BC.

The **Ballista** had horizontal arms like a bow and was used to reduce fortification. The arms were set in rope, a cord, fastened to the arms like a bowstring, fired arrows, darts, and stones. Like a modern field gun, the ballista shot low and directly toward the enemy.

The **Catapult** was the howitzer or mortars of its day. It could throw a 100 pound stone 600 yards in a high arc to strike the enemy behind his wall or to batter down his defenses.

THREE ELEMENTS OF GUNNERY TEAM

Forward Observer - serves as the eyes & ears of all indirect fire. It is the element of gunnery team that detects, select suitable targets, request for fire & make necessary adjustment.

Fire Direction Center - serves as the brains of artillery system, receives the call for fire from the observer, plot the target location on the firing chart and converts firing data into appropriate fire commands.

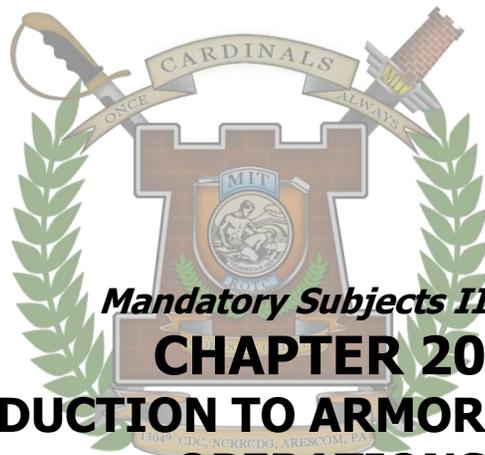
Firing Battery - serves as the brawn/arm of the artillery system. They will manipulate the data into the howitzer being sent by the FDC.

COMPOSITION OF 105MM HOWITZER SECTION

1. Chief of Section
2. Gunner
3. Assistant Gunner
4. Cannoneer #1
5. Cannoneer #2
6. Cannoneer #3
7. Cannoneer #4
8. Cannoneer #5
9. Cannoneer #6

FA CAPABILITIES AND LIMITATIONS

1. Capabilities
 - Shifting fires rapidly within a large area without displacing.
 - Massing fires on one or more targets.
 - Placing indirect fires on targets from positioning in defilade
 - Can deliver fire on all conditions (Weather & terrain).
 - Placing fires on targets in defilade
 - Delivering accurate fires without adjustments.
 - Displacing rapidly to new positions
 - Destroying point targets
 - Direct fires against enemy forces
 - Provide battlefield illumination.
 - Target acquisition – detecting suitable targets & their location thru map



Mandatory Subjects II

CHAPTER 20

INTRODUCTION TO ARMOR OPERATIONS

ORIGIN OF ARMOR OPERATIONS

Armor operations may be said to have been evolved out of the invention of the tank. The tank was developed from the war chariots of old. Against fortifications, man developed these war carts armored with wood. As early as 1482, Leonardo da Vinci, an eminent Italian painter, sculptor, accomplished engineer, and scientist, invented a covered chariot propelled by men inside.

In 1901, the French experimented with their own version of a tank. They placed an armored tub and a machine gun on an automobile. The French experience did not succeed. However, by 1911, the idea of a tracklaying vehicle was developed in Europe in Europe, but it found no popular acceptance.

Sometime later, in 1915, Lt. Col. Ernest Dunlop Swinton of the British Army, who became a major general in later years, created the first tank for use in combat. It was a motor-powered armor-plated vehicle with caterpillar treads to enable it to cross trenches. He (Swinton) received the full support of Winston Churchill who was then Britain's first Lord of Admiralty. This was during World War I. The tank as invented by Swinton was designed to overcome machine guns, barbed war entanglement, and the stalemate of trench warfare.

It was in the Battle of Somme Valley in Picardy, Northern France where there was heavy fighting, when the British army used about 49 tanks for the first time in combat against German forces. This was on Sept. 15, 1916. However, no major success was achieved. From this auspicious event, such as the introduction of the tank by the British Army, we can safely conclude without fear of contradiction that it ushered in an era in the large-scale resort to armor warfare and the organization of armored forces. The appendage, "tank," stuck in the minds of many after these vehicles were shipped in crates to France and labeled "tank."

At about the time, the French Army out with its own version of the tank. The French model, developed by Col (later general) Jean B. Estienne, consisted of a metal box and a gun placed on top of a Holt caterpillar tractor. In that same year (1916), the British and French agreed the Britain would produce heavy tanks, while France would produce light ones.

On Nov. 20, 1917, after the creation on Jan. 26 of the year of the U.S. Tank Corps, about 400 U.S. built tanks under Brig. Gen. Hugh J. Elles launched a surprise attack on Cambrai, a French industrial city, breaking through 10 miles of the Hindenburg Line. As a result, Elles routed the enemy, taking as captives 8,000 personnel, and capturing 100 heavy guns. At war's end, the armored forces of Britain, France United States and Germany had recorded a total of 91 armored engagements.

During World War II, Germany defeated Poland mainly because of the massive use of tanks and dive-bomber's in "blitzkrieg" warfare. This proves that German armor made the difference between victory and defeat in combat.

Today, the major world powers maintain their large standing armored forces as part of their armed services. For instance, the United States maintains four armored divisions, two or three armored cavalry regiments, and several mechanized and tank battalions. The U.S.S.R., on the other hand, has the world's largest armored force. Its armored force consists of both the motorized rifle divisions and tank divisions. Its tank divisions alone constitute about 1/3 of the strength of the Russian Army.

BROAD MISSION OF ARMOR OPERATIONS

As feature above, armor operations had evolved from their crudest form to its modern day version. As such, armor is now regarded as the "arm of speed and violence." At the same time, it (armor) has become a combined-arms force organized to conduct mounted combat through the use of tanks and other armor-protected vehicles as the principal means of accomplishing its ground combat mission.

Armor operations in all types of conflict range from a threatening posture in a cold war situation to punitive active in a general war. Operationally, however, armor Armor operations in all types of conflict range from a threatening posture in a cold war situation to punitive active in a general war. Operationally, however, armor can conduct the following missions: to provide security; to perform reconnaissance; and to engage in offensive, defensive, or delaying actions. These are the innate missions of armor.

CAPABILITIES AND LIMITATIONS OF ARMOR

By its very nature, armor has been accepted as the “anti-tank weapon.” that has been to invent. This is the general perception of what armor is capable of doing. However, it is capable of doing more than this, such as the following: deep penetration and wide envelopment, exploitation, mobile defense, destruction of hostile armor, reconnaissance and security, counter-insurgency operations, close support of infantry, and economy of force employment. Now, let us look into the aspects of each of these capabilities.

1. **Deep Penetration and Wide Envelopment.** Through mobility, deception, and surprise, armor can dig deep into the enemy’s rear areas with great freedom of action as it seizes key terrain, disrupts communication, destroys command posts and missile sites, and captures or destroys enemy supplies. It can be employed as a troop reserve.
2. **Exploitation.** Once success is attained by the friendly forces, this can be exploited to the hill by an armored force.
3. **Mobile Defense.** An armored force is the best alternative whenever there is a need to employ a mobile counter-attack force.
4. **Destruction of Enemy Armor.** This can be exemplified by the popular saying “another tank is the best anti-tank weapon.”
5. **Reconnaissance and Security.** To cover, guard, screen and provide rear area security are part of the inherent of the armor.
6. **Counter-insurgency Operations.** Armor is very suitable in “searched-and-destroy” operations against roving guerilla forces.
7. **Economy and Force.** It is more economical to employ a small armored force insofar as mission accomplishment is concerned.
8. **Close Support of Infantry.** The infantry will accomplish much more when it enjoys the support of an armored force.

While it is true that armor is capable of doing almost everything this truism cannot be readily accepted a gospel truth. This is because armor has its own limitations. For use, because of weight, a tank cannot be effectively used in a mountains terrain, particularly so when the area, is thickly forested or vegetated. If employed in such a situation, a tank’s maneuverability is limited. What is cited here is the main battle tank or the heavily-built one.

For another, a tank is also not suitable for use in an area where there are deep bodies of water. Min this case, fordability becomes a major problem. And this can be solved only when a hastily-built bridge capable of overcoming the heavy weight is laid out. Still for another, the tank consumes so much fuel.

Because of these limitations as discussed above, considering if they were tactically and logistically cumbersome, the heavy tanks were discarded by the United States Army. In their stead, the medium and light tanks were introduced as the more tactically and logistically – efficient ones or models.

CHARACTERISTICS, CAPABILITIES AND LIMITATION OF TANKS AND ARMORED PERSONNEL CARRIERS

There are two categories of tanks. One is the main battle tank, while the other is the light tank. A main battle tank, weighs from 37 to 52 tons. Its primary armament consists of the 90-mm and 120-mm guns. In the US Army, the 52-ton Patton M148 with a 90-mm gun, which was replaced by the 52-ton M60 with a 105-mm gun is a main battle tanks as described herein: USSR – 40-ton T54 with a 100-mm gun, and 40.8-ton T62 with a 115-mm gun; West Germany – 43-ton Leopard with a 105-mm gun; Britain – 56.6 ton Chieftain with a 105-mm gun; and Sweden – 41-ton

USSR – 40-ton T54 with a 100-mm gun, and 40.8-ton T62 with a 115-mm gun; West Germany – 43-ton Leopard with a 105-mm gun; Britain – 56.6 ton Chieftain with a 105-mm gun; and Sweden – 41-ton STRV103 with a 105-mm gun. The French model is the lightest among the main battle tanks.

A light tank is categorized as such when its weight ranges from 9 to 25 tons and equipped with guns of from 76-mm to 90-mm caliber. The only exception here is the US Sheridan. The main light tanks of the following major countries are as follows: US-16.8 ton Sheridan

equipped with a 152-mm combination missile launcher gun, and 25.4-ton M41 with a 76-gun; USSR – 15.4 P176 with a 76-mm gun (amphibious); Britain – 8.7-ton Scorpion with a 76-mm gun, which is the first aluminum tank; and France – 14.6-ton AMX13 equipped with a 90-mm gun and SS11 guided missile.

The general capabilities and limitations of armor are also applicable to tanks. In addition to those capabilities of armor, tanks can operate near nuclear explosions. This is because their armor is a protection against blasts or radioactivity.

A tank differs much from armored cars, reconnaissance vehicles, armored personnel carriers, or self-propelled artillery. These specified vehicles do not possess the capabilities of tanks.

ROLE OF TANKS

Since tanks can perform varied combat missions, they can also assume various roles. Among these are: to fight other tanks, to create shock and panic, to punch through suppressed defenses, and to wreck havoc and disaster against soft targets. Ranged against their capabilities are their inherent or built-in vulnerabilities and weaknesses. For instance, tanks are very much vulnerable when operating in close terrain, woods and cities, when visibility is reduced by bad weather or smoke.

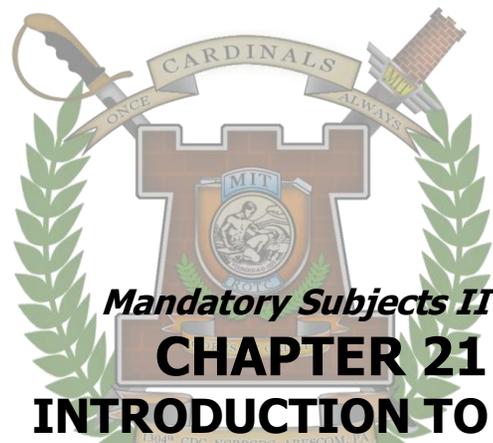
In addition to the general limitations of armor, we may also mention the following limitations of tanks: they cannot cross most rivers or swamps without bridging, they cannot also climb steep hills and mountains.

MODES OF ATTACK

An armored force can resort to the following modes of attack operating independently or in support of the infantry:

1. ***Movement to Contact.*** This means that an armored force has to seek the enemy and when in contact, to engage and destroy him.
2. ***Hasty attack.*** Once contact with the enemy is established, a hasty or sudden attack is made with the ultimate aim of complete destruction on the hostile side.

3. ***Deliberate Attack.*** This tactical action is characterized by greater and widely extensive preparations and designed to exact massive destruction on the part of the enemy.
4. ***Reconnaissance in Force.*** The main objective of this action is to discover and test the enemy's disposition and strength for purposes of future operations.
5. ***Infiltration.*** To obtain information about the enemy or to harass him.



Mandatory Subjects II

CHAPTER 21

INTRODUCTION TO

UNCONVENTIONAL WARFARE

DEFINITION OF TERMS

Unconventional Warfare – a quasi-military activity describe by commonly used but seldom defined terms such as economic, political, psychological, guerilla warfare, underground escape/evasion activities.

Guerilla Warfare – comprises combat operations in enemy controlled or hostile territory by irregular predominantly indigenous forces of a military or paramilitary nature to achieve limited activities.

Escape and Evasion – is the part of unconventional warfare where by friendly military personnel and other selected individuals are enable to emerged from enemy held or hostile areas to areas under friendly control.

Subversion – consist of covert and clandestine action by resistance group to reduce the military economic, psychological and political potential of the enemy.

Resistance - the cornerstone to guerilla warfare. Resistance movements are those organized activities of a disaffected population in which are employed both passive and violently active means to resist a government or occupying power. Most unconventional warfare activities may be classed as resistance movement.

CONCEPTS OF UNCONVENTIONAL WARFARE

The primary factors in the development of the AFP concept of unconventional warfare:

1. Filipino resistance movements of the past.
2. Roles and mission of GHQ and the major services.
3. Existing concepts of defense.
4. Threats to the security of the Philippines.
5. Need for an organized, centrally controlled and directed guerilla unit.
6. An effective counter to the enemy's strategy.
7. Need for a defense plan.
8. Utilizing military specialist to support conventional forces operations.

AFP OBJECTIVES

The general objective of the AFP is to develop its capability for conducting unconventional warfare in order that:

1. Effectively support all phases of unconventional military operations.
2. Can cause the defeat or withdrawal of enemy forces through the conduct of unconventional warfare on all-out, action wide scale.
3. Can continue to prolong the resistance against the enemy occupying power until such time as the intervention of friendly powers can affect the liberation of the Philippines.

RESPONSIBILITIES OF UNCONVENTIONAL WARFARE

WARTIME

1. Not a sole responsibility of one major service.
2. All personnel regardless of major services component will be involved and must therefore be trained.
3. All civilian and quasi-military agencies assigned home security or civil defense missions.
4. Psychological operations to gain the support of the people and to unify the spirit of resistance against a foreign aggressor.
5. All available resources and the services of every effort will be utilized.

PEACETIME

1. The primary employment of individual staffs and unit to conduct and participate in unconventional warfare training activities.
2. Operational task may be assigned such individuals during periods of national emergency.
3. Staffs and units should attain certain stages of development and proficiency.

NATURE OF UNCONVENTIONAL OPERATIONS

1. **Covert Operation** - conducted in such a manner as to conceal the identity of the sponsor.
2. **Overt Operation** - do not try to conceal either the operations of the identity of the sponsor.
3. **Clandestine Operations** - place emphasis on concealment of the operations rather than the identity of the sponsor.

GENERAL CLASSIFICATION

1. Unconventional warfare includes the three (3) interrelated fields of *Guerilla Warfare*, *Escape & Evasion*, and *Subversion*.
2. Unconventional Warfare maybe either strategic or tactical in nature is normally under a unified command for the purpose of assisting and supporting conventional military effort.

CONDUCT OF OPERATION

1. Unconventional Warfare is conducted by organizations trained and equips to operate directly against enemy target in hostile areas.
2. Unconventional warfare must closely coordinated to civilian agencies that have responsibilities in economic, political, and psychological operation.

COORDINATION OF OPERATIONS

1. Unconventional warfare are planned and coordinated at a national level and may require the participation of several agencies of the government
2. To discharge this responsibility, the theater commander develop, organize, plan and support unconventional warfare operation.

Related Activities:

1. To produce the desired effect, unconventional warfare operation must be supported by psychological operation designed to influence the target population and by civil

affairs operation designed to reinforce a government capabilities.

2. Unconventional warfare produces intelligence to support conventional forces.

UNCONVENTIONAL WARFARE IN SUPPORT TO CONVENTIONAL OPERATIONS

1. Commanders in the field insure that UW operations: support conventional military operations.
2. The nature of a particular operation in a target area will be influence by any factors such as ideological matters the effectiveness of mass media communication.
3. UW is particularly useful when application of force must be limited or discrete or when a commitment of a conventional force is not practical.

PSYCHOLOGICAL, POLITICAL AND ECONOMIC INFLUENCE

1. Psychological, political and economic influence effect of other military operation may have immediate or long term impact on UW operation.
2. Close coordination of conventional, psychological, civil affairs and UW operations is required to obtain the necessary support of the local population.
3. The political consequences of sponsoring guerilla and other resistance forces must be carefully considered, support of political groups that are unpopular with the local population or incompatible with friendly national interest maybe detrimental to long term objective
4. Guerilla forces may developed diverse political objective, rivalries among leaders may result from personal ambition.

INFLUENCE OF CONVENTIONAL OPERATIONS

1. Conventional operations may effect the attitudes of the local population in a manner that influences the effectiveness of UW operations for example destruction of religious facilities.
2. PSYOPS directed at the enemy civilian population can contribute to popular acceptance and influence the people to cooperate with the military operations in the area.

EFFECT OF CONVENTIONAL OPERATIONS

- Destruction of enemy rear facilities and desolation of his strength and resources. UW forces can directly support conventional military operation.
- Enemy of UW operations must be countered. Counter measures include the use of consolidation PSYOPS in conjunction with civil affairs and the use of combat troops or irregular para-military units in counter guerilla role.

GUERRILLA WARFARE

Guerilla warfare comprises combat operations in enemy controlled or hostile territory by irregular predominantly indigenous forces of a military or paramilitary nature to achieved limited objectives

Normally, the primary mission of guerilla forces is to entreat enemy lines of communication and conduct attacks against critical enemy installation as prescribed by commander.

Guerilla warfare is characterized by offensive action carried out by relatively small unit with emphasis on mobility, elusiveness and surprise.

Tactical guerilla operation is closely coordinated with and can support the tactical operation of conventional military.

In nuclear war, the fluidity of operation, the disruption of communication, the dispersion of units and the mass movement of people would lead the opportunities for the development of guerilla forces.

Guerilla Missions

1. Guerilla forces provide maximum assistance in support of advancing ground forces by attacking targets in enemy rear areas at decisive times or over a prolonged area.
2. Guerilla operation should be coordinated with the overall interdiction program.
3. Mission assigned guerilla forces must be within their capabilities.
4. Guerilla forces maybe used to consist airborne and airmobile operation by occupying key terrain such as drop and landing zone.
5. Guerilla forces can furnish target information, exploit the effect of nuclear and other fire.

Reinforcement of Guerilla Forces

- Maybe reinforce by fire support, aircraft and other combat support element.

Communication

- Special Forces operated in enemy controlled areas must be provided communication equipment, those are normally non-electronics such as messenger a visual signs.

Combat Service Support Considerations

1. Guerilla forces make maximum use of supplies obtained from civilian sources and those acquired from enemy in the area.
2. Combat support for the guerilla is usually provided through the Special Forces units.
3. Initial combat service support consists of minimum essential supplies and equipment commensurate with the size of guerilla forces and its intended for operations.
4. Normally air transport is the most effective method of delivering supplies to the guerilla forces.

Demobilization

- As friendly conventional forces uncover the areas of guerilla operations, the ability of guerilla force to support operation effectively diminished, guerilla units retain beyond their period of usefulness may become a liability.

EVASION AND ESCAPE

Evasion and escape is the part of unconventional warfare where by friendly military personnel and other selected individuals are enable to emerged from enemy held or hostile areas to areas under friendly control.

The objective of evasion and escape are to provide allied military forces personnel and other selected individual means to avoid capture, to escape or be removed from enemy held or hostile territory.

Evasion and escape system moved independently a guerilla forces.

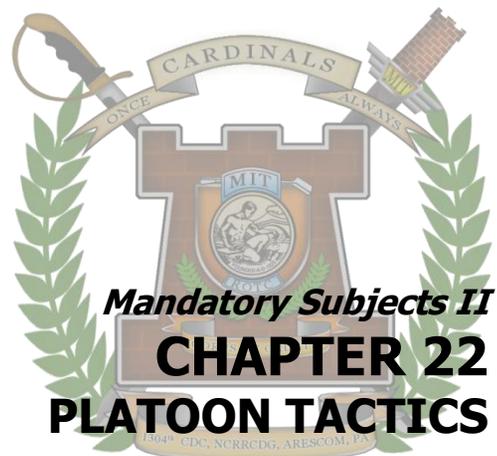
Provide detail guidance concerning the principles and techniques of evasion and escape.

SUBVERSION

Subversion consist of covert and clandestine action by resistance group to reduce the military economic, psychological and political potential of the enemy. It includes such activities as infiltration, espionage, propaganda, sabotage or terrorism.

Employment of Subversion

1. Subversion is used to determine confidence and disrupt social institution to achieve a desired political objective.
2. Subversion is designed to exploit such potential vulnerabilities as widespread popular grievances and dissatisfaction corrupt, oppressive, premature, nationalistic ambition of the people or their leader.



CHARACTERISTICS

The Infantry Rifle Platoon (Light) is a soldier powered organization that can be deployed rapidly. It has no organic vehicles and is footmobile. It has austere combat support and relies more on professionally trained and disciplined soldiers under superb leadership. All fighters are trained in day and night combat support.

The Rifle Platoon/Squad (Light) can be employed in a variety of scenarios. It is suited for economy of force and contingency operations. It is also ideally suited for air assault operations and is strategically mobile. The platoon/squad is usually deployed as part of the company from whom it depends on combat support and combat service support.

ORGANIZATION

The rifle platoon each has a platoon headquarters and three rifle squads. With the platoon headquarters are the platoon leader, platoon sergeant, radio/telephone operator (RATELO) and machine gun crew. It has two general purpose machine guns (GPMG) each operated by a crew of two. These GPMGs provide sustained fire at longer ranges and with better penetration than any of the platoon's weapons.

The three rifle squads have nine (9) men each. The nine-man composition of the squad is ideal and affords flexibility and effectiveness. It can still operate even if 20% of its strength is ineffective.

The rifle squad is broken down into two (2) fire teams. Each fire team has four (4) men composed of a team leader, grenadier, automatic rifleman and a riflemam. The two fire team leaders doubles as anti-armor gunners. The two (2) riflemen also serve as medical aidman.

Each squad has two 40 mm grenade launchers (GL), which are attached to the assault rifle, and two squad automatic weapons (SAW). It is light enough to be operated by one man moving with the rest of the squad in assault. Its range, penetration and sustained rate of fire is lesser than that of the platoon GPMG. The rest of the squad is armed with individual assault rifles. The two fire team leaders are also armed with light antitank weapons (LAW).

MISSION

To close with the enemy by means of fire and maneuver to destroy or capture him or repel his assault by fire, close combat and counterattack.

CAPABILITIES

The Light Infantry Rifle Platoon can:

- Provide a base of fire and maneuver.
- Close with the enemy to destroy or capture him.
- Repel and assault by fire, close combat and counterattack.
- Seize and hold terrain.
- Maneuver in all types of local weather and terrain.
- Provide light antitank protection.
- Conduct combat operations under limited visibility.
- Participate in air assault operations.
- Participate in amphibious/waterborne operations.
- Operate in conjunction with heavy forces.

The Light Infantry Rifle Platoon depends on the company headquarters for:

- Unit level administration.
- Supply.
- Unit level maintenance of communication equipment.
- Transportation.
- Medical support.
- Heavy anti-armor and mortar fire support.

ASSIGNMENT

Organic to Light Infantry Rifle Company.

EFFECTIVENESS/WEAKNESSES

The platoon is extremely effective when operating in areas that would be unfavorable to heavy forces. Its strengths include the ability to move in restricted terrain; infiltrate through or around the enemy unobserved; employ accurate, intense, small arms fire for short durations; use the environment to protect the force from enemy fire and maneuver; and withstand the extremes of weather and terrain.

There are inherent weaknesses of the Light Infantry Rifle Platoon. It is no as mobile as mounted forces in terrain favorable to vehicular movement. Against a heavy enemy, it may not have sufficient density of artillery or anti-armor weapons to sustain a high volume of fire for a prolonged period. It is vulnerable to all classes of fire, including CAS, once observed by the enemy.

DUTIES AND REPOSIBILITIES OF KEY PERSONNEL

Within the platoon, many different tactical, administrative, and logistical tasks must be done continuously and in some cases simultaneously. In order to do this, the tasks of key men must defined in detail, coordinated, and understood by each soldier.

1. **Rifle Platoon Leader.** He is responsible for all the platoon does or fails to do. This includes the tactical employment, training, administration, personnel management, and logistics of his platoon. He must know his men and how to employ the platoon’s weapons. He is responsible for positioning and employing all assigned or attached crew-served weapons.
2. **Rifle Platoon Sergeant.** This soldier is the senior NCO in the platoon and second in succession of command. He helps and advises the platoon leader, and leads the platoon in the platoon leader’s absence. He supervises the platoon’s administration, logistics, and maintenance. He may prepare and issue paragraph 4 of the platoon OPORD. The rifle platoon sergeant is responsible for individual training. He must ensure that soldiers can perform their individual MOS tasks. He advises the platoon leader on appointments, promotions and reductions, assignments and discipline of NCOs and enlisted soldiers in the platoon.
3. **Fire Support Team.** The platoon has a fire support team attached from the DSFA battalion. This team provides each platoon with a two-soldier FO party – an FO and his RATELO.
 - a. **Forward observer.** The FO acts as the eyes of the FA and mortars. He works for the platoon leader. The FO’s main responsibilities are to locate targets and to call for and adjust indirect fire support. The FO must be familiar

with the terrain that mission, the concepts, and the platoon’s scheme of maneuver and priority of fires.

- b. **Radiotelephone operator.** The RATELO’s main duties are to set up, operate, and maintain the FO party’s communications equipment. At times, he must also perform the duties of the FO for the platoon.

EQUIPMENT

SHOOT

UNIT	PCS
Light Anti-Tank Weapon (LAW)	6
General Purpose Machine Gun (GPMG)	2
Squad Arm Weapon (SAW)	6
40MM Grenade Launcher (GL)	6
Assault Rifle	25
Sub-Machine Gun (SMG)/Carbine	1
Pistol	1

COMMUNICATE

UNIT	PCS
Rad, FM 5W MP	1
Rad, FM 2W HH	4

SEE

UNIT	PCS
Night Vision Goggle (NVG)	4
Binocular	1

PLATOON FORMATIONS

Platoon formation includes the platoon column, the platoon line (squads on line or in column), the platoon vee, and the platoon wedge. The leader should weigh these carefully to select the best formation based on his mission and on METT-T analysis. A comparison of the platoon as follows:

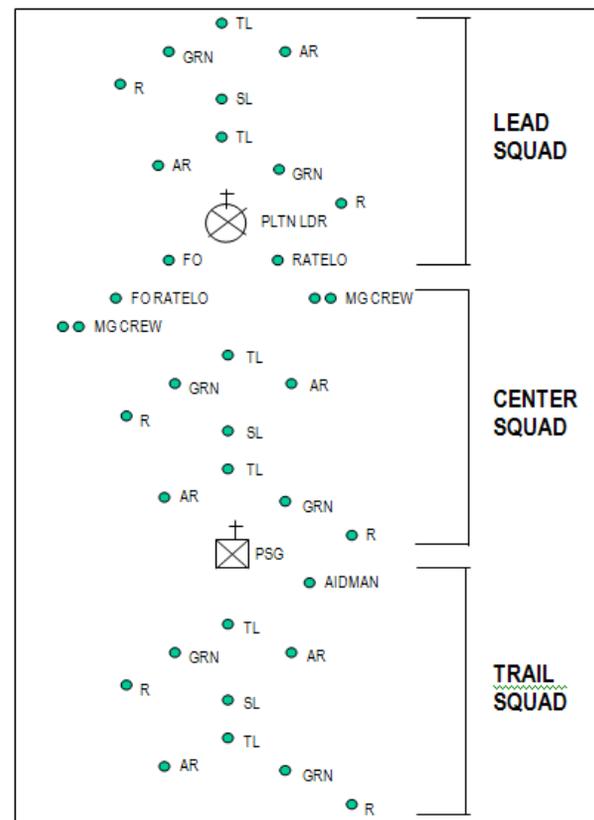
MOVEMENT FORMATION	WHEN NORMALLY USED	CHARACTERISTICS			
		CONTROL	FLEXIBILITY	FIRE CAPABILITIES/ RESTRICTION	MOVEMENT
Platoon Column	Platoon Primary Movement Formation	Good for maneuver (fire and movement)	Provides good dispersion laterally and in depth	Allows limited firepower to the	Good
Platoon Line, Squad on Line	When the leader wants all soldiers forward for maximum firepower to the front and the enemy situation is known	Difficult	Minimal	Allows maximum firepower to the front-little to flanks and rear	Slow
Platoon line, squads in column	May be used when the leader does not want everyone on line; but leader wants to be prepared for contact; when crossing the ld when ld is near the objective	Easier than platoon column; squads on line; but more difficult than platoon column	Greater than platoon column; squads on line; but less than platoon line; squads on line	Good to the front and rear; not as good as platoon column; better than platoon line	Slower than platoon column; but faster than platoon line; squads on line
Platoon Vee	When enemy situation is vague, but contact is expected from the front.	Difficult	Provides 2 squads up front for immediate fire-power & 1 squad to the rear for movement (fire & movement) upon contact fm the flank	Immediate heavy volume of fire to the front	Slow
Platoon Wedge	When enemy situation is vague, but contact is not expected.	Difficult but better than platoon vee and platoon line, squads on line	Enables leader to make contact with a small element & still have 2 squads to maneuver	Provides heavy volume of firepower to the front or flanks	Slow; faster than platoon vee
Platoon File	When visibility is poor due to terrain, or light.	Easiest	Most difficult formation FM which to maneuver	Allows immediate fires to the flanks; mask most fires to front and rear	Fastest

1. Platoon Column

The formation is the platoon’s primary movement formation. It provides good dispersion both laterally and in depth and simplifies control. The lead squad is the base squad.

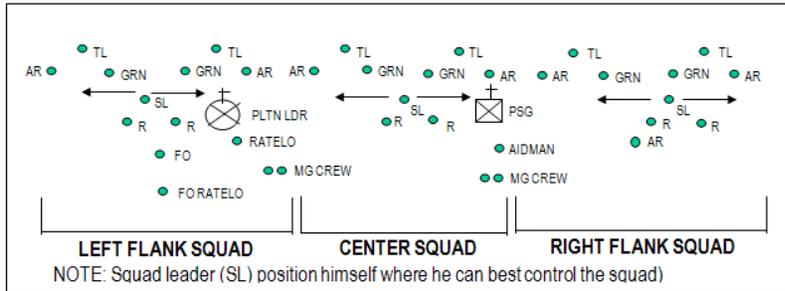
Note: METT-T will determine where crew-served weapons move in the formations.

They normally move with the platoon leader so he can quickly establish a base of fire.



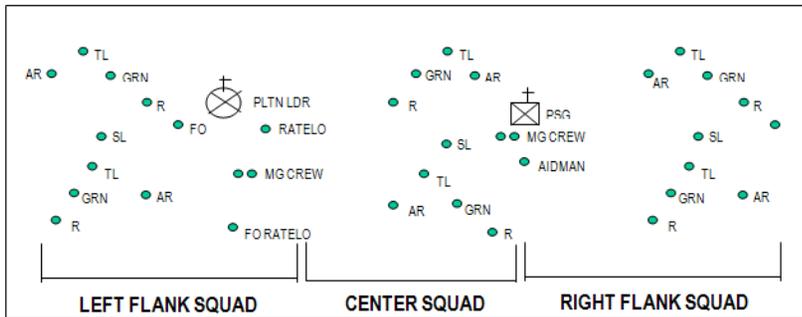
2. **Platoon-Line, Squad-on-Line**

This formation allows the delivery of maximum fire to the front but little fire to the flanks. The formation is hard to control. The platoon center squad is the base squad.



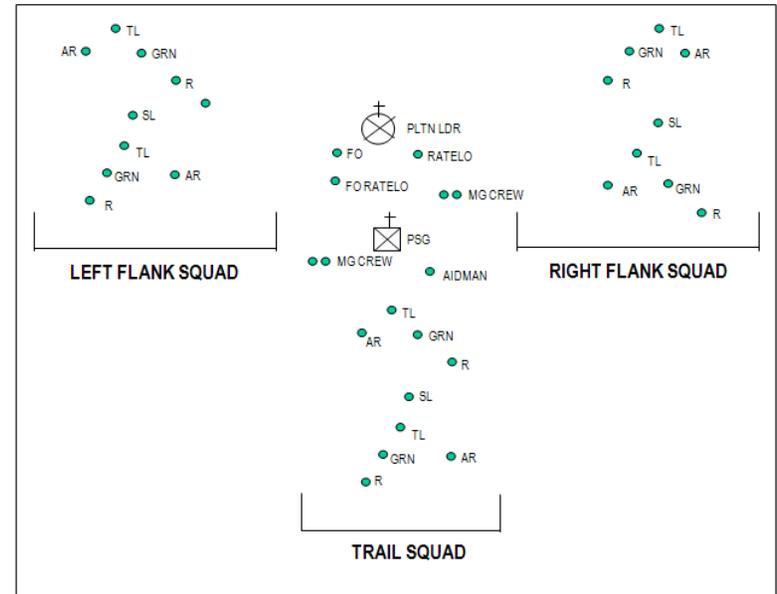
3. **Platoon-Line, Squad-on-Column**

The platoon leader when he does not want to deploy all personnel on line, and when he wants the squad to react to unexpected contact. This formation is easier to control and it lends itself better to rapid movement than the platoon – line, squad – on – line formation.



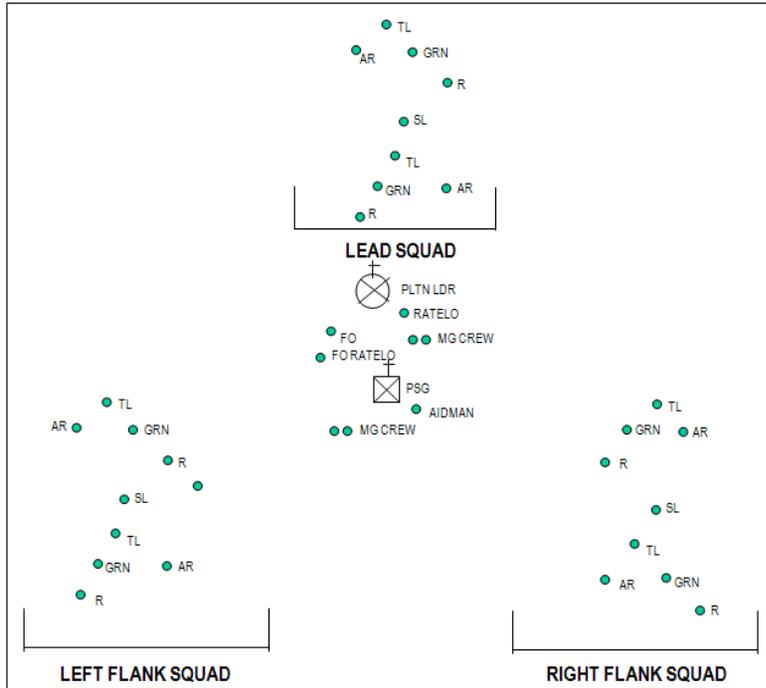
4. **Platoon Vee**

This formation has two (2) squads up front to provide a heavy volume of fire on contact. It also has one (1) squad in the rear that can either over watch or trail the other squads. This formation is hard to control; movement is slow. The platoon leader designates one of the front's squads to be the platoon base squad.



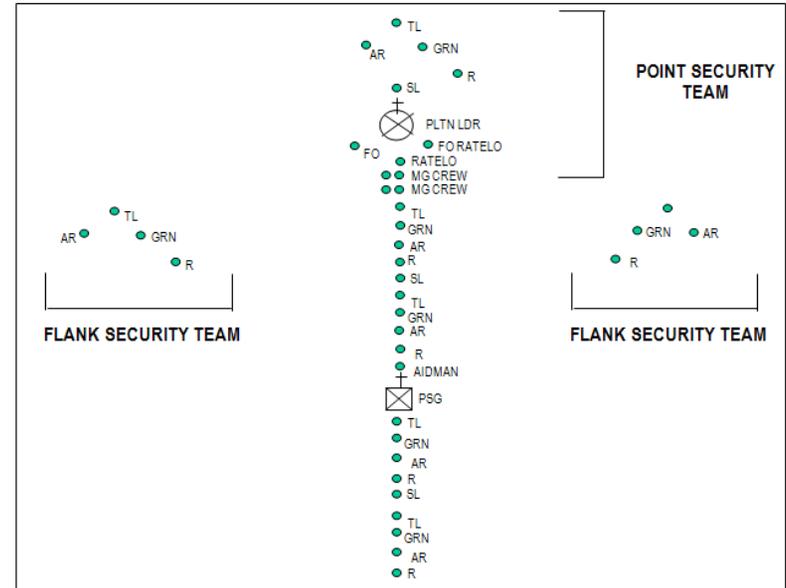
5. **Platoon Wedge**

This formation is used when enemy situation is vague, but contact is not expected. This formation is better than platoon vee and platoon – line, squad – on – line.



6. **Platoon File**

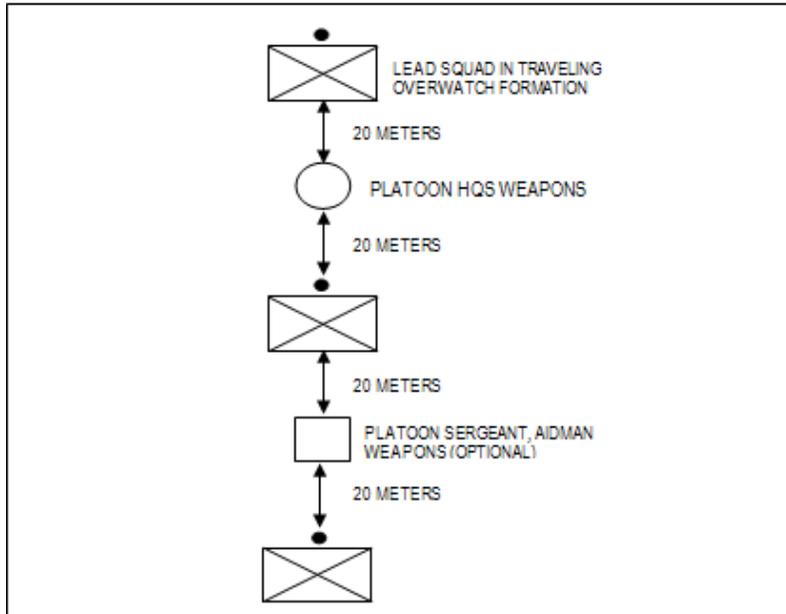
This formation is used when visibility is poor due to terrain, vegetation or light condition. The distance between soldiers is less than normal to allow communication by passing messages up and down the file. The platoon file has the same characteristics as the fire team in squad files.



TECHNIQUES OF PLATOON MOVEMENTS

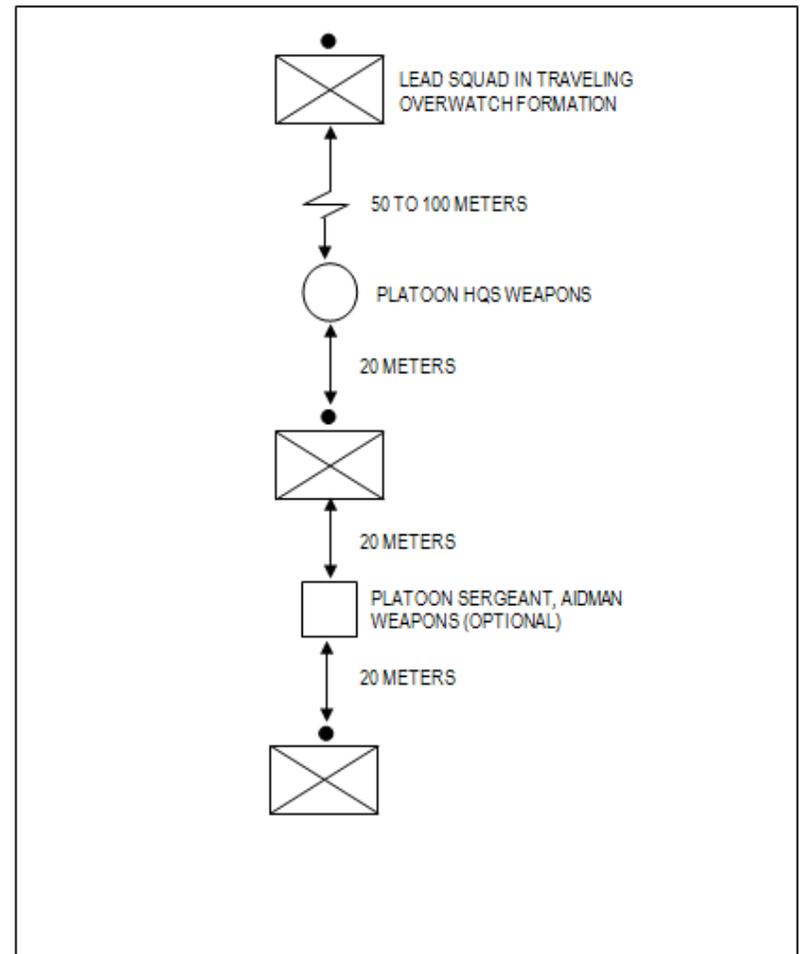
1. Travelling

Traveling is used when contact is not likely and speed is needed.



2. Travelling Over watch

Travelling over watch is used when contact is possible but speed is needed. The platoon leader moves where he can best control the platoon. The platoon sergeant travels with the trailing squad. Though he is free to move throughout between squads. The lead squad uses traveling over watch and trailing squads use traveling.

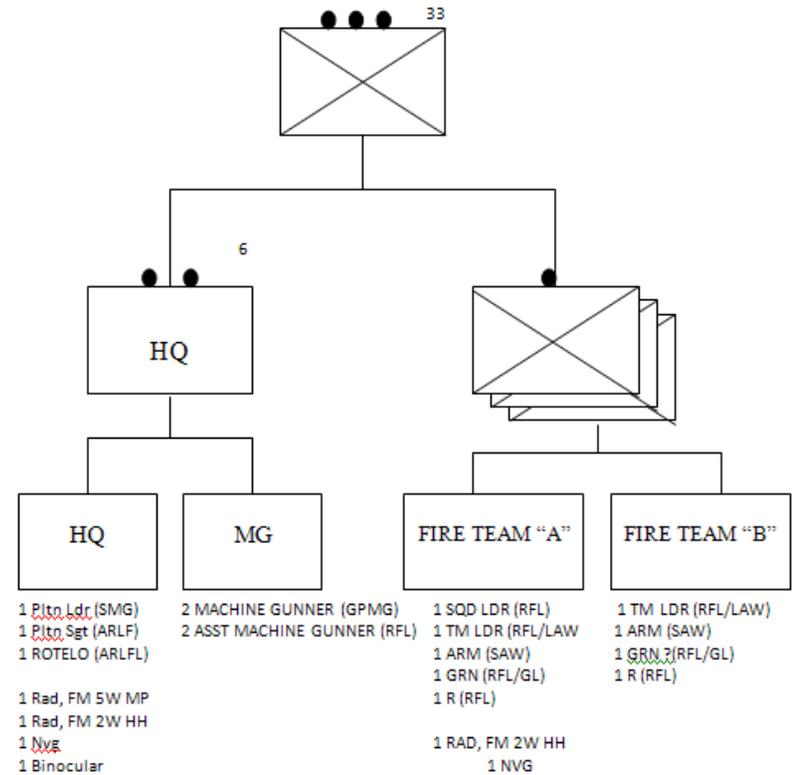


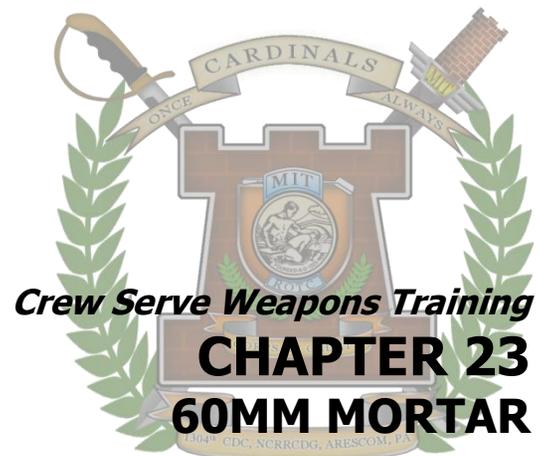
3. **Bounding Over watch**

Bounding overwatch is used when the contact is expected. Platoon leader conduct bounding overwatch using successive or alternative bounds.

- a. *One Squad Bounding* – One squad bounds forward to a chosen position, then it becomes the overwatching element unless contact is made in route.
- b. *One Squad Overwatching* – one squad overwatches the bounding squad from covered positions from which it can see and suppress likely enemy positions. Soldiers use scanning techniques to view their assigned sector. The platoon leader remains with the overwatching squad also.
- c. *One Squad Awaiting Orders* – One squad is committed and ready for employment as directed by the platoon leader. The platoon sergeant and the leader of the squad awaiting orders position themselves to the platoon leader.

Rifle Platoon Organization





60MM MORTAR

This weapon is organic to the weapons platoon of Rifle Company. It supports units of the company in the attack or defense. The mortar is an excellent weapon for firing at hostile troops in the open and enemy assembly areas.

Normally, the mortar is fired from a defiladed position. This is the reason why it cannot be engaged by flat-trajectory weapons. Since the mortar crews cannot see their targets, its fire is adjusted by a forward observer.

CHARACTERISTICS

The 60-mm mortar is a smooth bore, muzzle-loaded, high angle-of-fire weapon. The mortar, hereafter referred to as the barrel, is assembled into a single unit. The mount consists of two units – the bipod and baseplate. The barrel is attached to the bipod by a clamp, and it is easily dismounted. It is fastened to the baseplate by inserting the spherical projection into the base cap socket and then closing the locking lever. The mortar may be used for direct fire missions by eliminating the bipod and substituting the small baseplate, M1, for the conventional baseplate. When this is done one man can operate the mortar. In this case, the mortar is referred to in this manual as the handheld mortar. For a detailed list of the parts, equipment, and essential data for the mortar, see TM 9-3071-1 and supporting maintenance unit.

GENERAL DATA

WEIGHTS:

Mortar, complete	45.2 LBS
Mortar, with M1 baseplate	20.5 LBS
Barrel	16.0 LBS
Bipod	16.4 LBS
Baseplate	12.8 LBS
Baseplate, M1	4.5 LBS

OVERALL LENGTH: 32.25 INCHES

ELEVATIONS APPROXIMATE:

w/ M5 Mount (Conventional)	40° to 85° ; 710 to 1510 MIL
w/ M1 Baseplate	0° to 85° ; 0 to 1510 MILS
one turn of elevating crank (approximate)	1/2° ; 10 MILS
Traverse, right or left (approximate)	125 MILS
one turn of handwheel (approximate)	15 MILS

RATE OF FIRE:

Maximum	30 RDS per minute
Sustained	18 RDS per minute

Note: Firing at the maximum rate of fire for more than one minute will cause gas leakage around the base cap)

RANGE:

Maximum, approximate:	
HE, M49A2	1,790 meters
Smoke (WP), m302	1,450 meters
Training Practice, M50A2	1,790 meters
Training Round, M69	225 meters
Illumination, M83A1 & A2	1,000 meters

MORTAR ASSEMBLY

1. The Barrel Assembly

The mortar barrel assembly consists of the barrel and combination abase cap and firing mechanism.

- a. *The Barrel* - bored smooth and carefully finished in interior dimensions and surfaces.
- b. *The Base Cap* - hollowed and threaded to screw on the barrel, thereby closing the breech end of the barrel. The firing mechanism housing is attached to the base cap by a threaded adapter. The spherical projection which fits into and locks into the socket of the baseplate, is a prolongation of the firing mechanism housing.
- c. *The Firing Mechanism* - consists mainly of a firing pin, firing pin striker, firing spring, striker pawl, trigger and firing lever. a firing selector, which acts as a cam on the rear end of the firing pin striker, permits the mortar to be fired with or without the firing lever.

2. The Bipod

The bipod consists of the leg assembly, elevating mechanism assembly, and traversing mechanism assembly.

- a. *The Leg Assembly* - consists of two tubular steel legs connected by a clevis joint that is attached by two bearing (front and rear) to the elevating screw guide tube. The clevis joint limits the spread of the legs. Each half of the clevis joint is provided with a spring latch to lock the legs in the open position. The legs terminate in spiked feet.
 - a.1. The Left Leg - has a cross-leveling mechanism that provides the gunner with a means of keeping the bubble in the cross-level of the sight centered. It is necessary to keep the sight cross-leveled. When the mortar is cross-leveled the barrel points in the desired direction. The cross-leveling mechanism consists of a sliding bracket, a sleeve, a locking nut, and adjusting nut, and a connecting link. The sliding bracket is mounted on the sleeve and locked in the desired position on the sleeve by the locking nut. The sliding bracket is also connected to the guide tube nut moves the sleeve up or down the left leg and transmits movement through the sliding bracket, connecting link, and guide tube to the yoke on which the sight is mounted. Thus, the bubble in the cross-level of the sight may be centered by moving the adjusting nut.
 - a.2. The Right Leg - contains no moving parts. On the lower part of the right leg is a leather handgrip and a strap to secure the legs to the barrel when the mortar is carried.
- b. *The Elevating Mechanism Assembly* – consists of an elevating screwnut that moves vertically on a screw within the guide tube. The elevating screw turned by the crank attached to its lower end. The upper end of the elevating screw fits into the lower end of the traversing bearing and is locked to it by a pin. The elevating screw remains within the guide tube when the elevating crank is turned. the elevating screwnut appears above the guide tube when the mortar is elevated.

- c. *The Traversing Mechanism Assembly* – consists of the traversing mechanism, shock absorbers, and clamp.
 - c.1. The Traversing Mechanism - is a telescoping type of mechanism and consists of a tube and nut. Turning the handwheel causes the nut to move back and forth within the tube, thus moving the yoke and traversing the mortar. The yoke provides the bearing for the traversing mechanism and connects the mortar clamp and the elevating mechanism. The sight bracket fits into a dovetail slot in the yoke.
 - c.2. The Shock Absorbers - stabilize the mortar and mount during the firing. They permit movement between the yoke and the clamp assembly and are countered by the resistance of two coil compression springs, which are mounted in the shock absorber retainers of the saddle.
 - c.3. The Clamp - is in two sections and clamps the barrel to the bipod. The lower half is called the saddle and includes two shock absorbers retainers with locking screws. The upper half of the clamp is called the clamping collar. The two halves of the clamp are hinged and can be locked tightly together by the clamp bolt. When secured about the barrel, they lock it firmly to the bipod. The clamping collar is placed around the barrel so that 10 inches of the barrel extends in front of the collar.
3. **The Baseplate**
The baseplate is a pressed steel body to which are welded a series of ribs and braces, a front flange, and the socket. A locking lever is mounted on a pivot on the left of the socket to lock the spherical projection of the mortar in the socket. The base cap fits into the recess in the forward part of the baseplate when the entire mortar is carried as one unit.
 4. **The M1 Baseplate**
A curved metal base with a ball socket shaped to receive the spherical projection. Part of the ball socket consists of a split nut that fits around the spherical projection and then screws into the socket on the baseplate to hold the spherical projection secure. A carrying strap may be fastened at one end to the stud

on the baseplate. The other end of the strap is permanently attached to the muzzle cover.

FUNCTIONING

The mortar is fired by inserting a complete round in the muzzle. The elevation of the barrel allows the round to slide toward the base of the barrel. When the firing selector is set on drop fire, as the round reaches the base, the primer of the ignition cartridge strikes the firing pin located inside the base cap. The flame from the exploding cartridge ignites the propelling charge. The gas pressure produced from the burning propellant drives the round up and out of the barrel, arming the fuze. When fired, the round carries the fired ignition cartridge case with it. The mortar is then ready for the next round. When the firing selector is set on lever fire, the lever is tripped to ignite the ignition cartridge after the round has come to rest against the base cap.

DISASSEMBLY, ASSEMBLY, MOUNTING AND DISMOUNTING

Disassembling the Firing Mechanism

The crew may disassemble the firing mechanism; however, this is only part of the mortar disassembled by other than supporting maintenance unit personnel. Follow this procedure in disassembling and assembling the firing mechanism:

1. Remove the lock screw from the firing mechanism housing.
2. Unscrew in a counterclockwise direction the complete firing mechanism housing assembly from the base cap.
3. Remove the firing pin striker, firing spring and firing spring stop.
4. Remove the housing cover pin by drifting it out to the left.
5. Push in on the selector plunger and remove the housing cover, firing selector, selector plunger and spring, firing lever, tripper, and firing lever spring and sleeve.
6. Taking up the barrel and base cap, remove the housing adapter by screwing it in a clockwise direction and allowing it to slide out the muzzle end of the barrel. (do not unscrew the base cap from the tube)
7. Remove the firing pin assembly from the housing adapter by turning the firing pin bushing in a counterclockwise direction.
8. Remove the stop washer and retaining spring from the firing pin lock by pressing the firing pin lock against the action of

the retracting spring until the lock slides out through the lock recess.

Assembling the Firing Mechanism

Follow the procedure given in *1* through *10* below, for assembling the firing mechanism.

1. Place the stop washer and retracting spring on the rear shank of the firing pin and lock in place with the firing pin lock.
2. Place the firing pin assembly in the musk-room end of the housing adapter and secure the assembly by replacing the firing pin bushing. Set the bushing securely with the wrench provided for that purpose.
3. Replace the housing adapter in the base cap by sliding it down the barrel until the slotted collar protrudes from the base cap. Then screw it firmly into place in a counterclockwise direction.
4. Pick up the firing mechanism housing in the left with the raised square surface up and the spherical projection to the rear; replace the firing lever spring and sleeve in the upper forward hole in the right side of the housing.
5. Hold the tripper in the right hand with the point to the front and the flat cam surface up; position it in the rectangular hole in the flat surface of the housing by starting the pointed cam in first. Keep it pointed toward the front of the firing mechanism housing. While holding the tripper in place from the inside with the index finger of the left hand, replace the firing lever in the hole on the left with the lever arm up and to the front. Set the firing lever spring sleeve flush with the surface of the housing.
6. Replace the selector plunger and spring in the rear upper hole, and the firing selector in the lower hole on the right side of the housing.
7. Replace the housing cover and pin. The pin is drifted in from left to right. Press the selector plunger in flush with the housing surface while replacing the housing cover.
8. Place the firing spring and spring stop on the striker. The spring stop sleeve must protrude beyond the face of the striker.
9. Place the striker in the housing with the groove inline with the tripper. Set the firing selector at lever fire and screw the complete firing mechanism housing assembly securely to the housing adapter in a clockwise direction.

10. Test the firing mechanism by tripping the firing lever. If it functions properly, replace the screw lock in the right side of the housing.

CARE AND CLEANING

Before Firing

1. Dismount the main groups.
2. Clean the bore and firing mechanism with clean, dry rags. Do not apply any oil to the bore before firing.
3. Clean and oil lightly all metal moving parts with oil. do not use grease.
4. Mount the mortar for firing.

After Firing

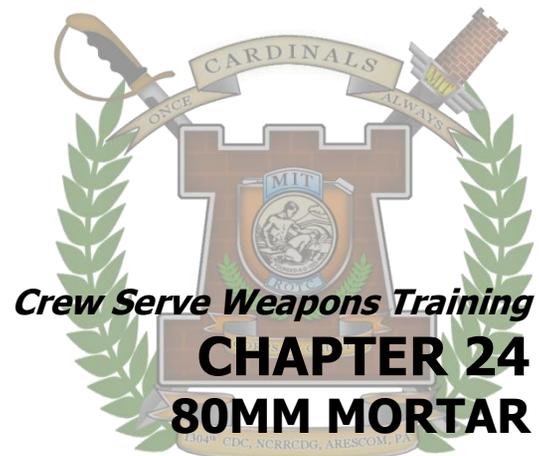
Clean the mortar bore thoroughly by the evening of the day on which it is fired, because firing causes powder and primer fouling to collect in the bore and on the firing pin. This fouling absorbs and retains moisture from the air, thereby causing rust. Remove these deposits by cleaning with rifle bore cleaner, soap solution, or water.

1. Clean the bore, firing mechanism and all working parts on the mount. if this cannot be done at once, apply oil carefully to prevent rust.
2. At the first opportunity, clean, oil and inspect all parts and make needed repairs and replacements
3. On assembly, check the operation of the firing mechanism and bipod to make sure that functioning is correct.

Cleaning Equipment

The equipment authorized and issued for cleaning and lubricating the mortar are:

1. Chamber cleaning brush, M6
2. Cleaning staff, M9
3. Hand trigger operated oiler



CHARACTERISTICS

The 81-mm mortar is a smooth bore, muzzle loading high angle-of-fire weapon capable of high degrees of accuracy. It can deliver fire at ranges up to 4,000 yards (3,657.6 kms). The mortar has three (3) main units: the barrel, the bipod and the base plate. The circular base plate allows it to be shifted through 6,400 mils simply by moving the bipod. It is fastened to the base plate by inserting the spherical projection of the base plug into the socket of the base plate and rotating the barrel to one-quarter (90°) turn.

GENERAL DATA

Weight of Mortar	93.5 lbs
Weight of Barrel	29 lbs
Weight of Bipod	40 lbs
Weight of Base Plate	25.5 lbs
Maximum Rate of Fire	20 rounds/min
Sustained Rate of Fire	15 rounds/min

OPERATION/FUNCTIONING

Its functioning is very simple. The mortar is fired by inserting a complete cartridge into the muzzle with the fin assembly down. On reaching the base, the primer of the cartridge strikes the pin inside the base plug. The cartridge explodes.

AMMUNITION

Cartridge	Range (mtrs)	Weight (lbs)	Primary Use
HE M374	4,737	9.34	Anti pers & light matls
HE M362	3,550	9.42	Anti pers
WP M375	4,737	10.2	Illumination
M301A3	3,150	7.15	training (practice)

Fuzes - designed for superquick impact action with greater sensitivity and speed than fuzes formerly used with 81mm mortar ammunition and function on point impact or graze contact.

CARE AND CLEANING

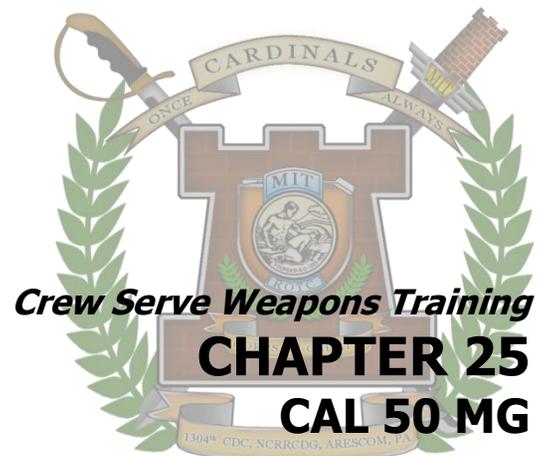
Care and cleaning of the mortar become the responsibility of all using personnel. This chore must not be left to chances. Lack of care makes the weapon more likely to become unserviceable rather than for use.

Before Firing

Check the mortar and ammunitions needed to insure that they are in proper conditions.

After Firing

Clean the barrel with a rifle bore cleaner or gen purpose oil. x diesel fuel. x hot soapy water for temporary one day period. then clean it with prescribed lubricant. x engine oil. x coconut oil. x used oil (the red one). x singer sewing machine oil. x baby oil.



CAL 50 MG

This weapon is very important especially in defensive and offensive operations. It can deliver a volume of fires accurately that give the troops accomplished their mission successfully. Once the weapons start to fire to the enemy, it gives morale to the troops.

CHARACTERISTICS

The browning machinegun, caliber .50 HB, M2, is belt-fed, recoil-operated, air-cooled, crew-operated machinegun. The gun is capable of single-shot, as well as automatic.

1. **Belt Feed** - by positioning some of the component parts, the gun is capable of alternate feed (ammunition can be fed into the weapon from the right or the left side of the receiver); however, the infantry uses only left side feed. A disintegrating metallic link belt is used in feeding.
2. **Recoil Operation** - the force for recoil operation is furnished by expanding powder gases which are controlled by various springs, cam and levers.
3. **Air Cooling** - maximum surface of the barrel and receiver are exposed to permit air cooling. Perforations in the barrel support allow air to circulate around the breach end of the barrel and help in cooling the parts. The heavy barrel is use to retard early overheating.
4. **Sights** - the gun has a leaf-type rear sight, graduated in both yards and mills for ranges from 100 to 2,600 yards and from 0 to 62 mils. A windage knob permits deflection changes of 5 mils right or left of center. The front sight is a semi-fixed blade type with cover.

GENERAL DATA

WEIGHTS:

Receiver group	60 lbs
Barrel	24 lbs (approx)
Tripod mount M3 (w/ traversing & elevating mechanism & pintle w/ bolt)	44 lbs
Total weight of gun, complete, on tripod mount, M3	128 lbs (approx)

MAXIMUM RANGE (M2 BALL): 6,800 meters (approx.)

MAXIMUM EFFECTIVE RANGE: 1,830 meters (approx.)

RATE OF FIRE:

Sustained	40 RDS or less per minute
Rapid	40 RDS or more per minute
Cyclic Rate of Fire	450-550 RDS per minute
Muzzle Velocity (M2 Ball)	3,050 ft per second (2,080 mph)

LENGTH:

Barrel	45 inches
Gun, Overall	65 inches (approx.)

OPERATION

Operations include loading or unloading the gun, clearing the gun, or allowing the bolt to go forward.

1. Half-Loading and Unloading the Gun

- a. To half-load the gun, the gunner insures the bolt is forward and the cover is closed. The assistant gunner inserts the double loop end of the ammunition belt in the feedway until the first round is engaged by the holding pawl. The gunner grasps the retracting slide handle with the right hand, palm up, and vigorously jerks the bolt to the rear and releases the retracting slide handle. If the bolt latch release lock is engaging the bolt latch release, the bolt and retracting slide handle will move forward under pressure of the driving spring group, half-loading the gun. However, if the bolt latch release is up and free of the bolt latch release lock, the bolt latch will hold the bolt and retracting side handle to the

rear. The retracting slide handle must be returned to its most forward position prior to releasing the bolt. To complete half-loading, press the bolt latch release allowing the bolt to go forward.

- b. To fully load the gun, the procedure is the same as in half-loading, except it requires the gunner to pull and release the bolt twice.

2. Unloading and Clearing the Gun

- a. To unload the gun, the gunner unlocks the bolt latch release (if applicable) and raises the cover. The assistant gunner lifts the ammunition belt from the feedway. The gunner pulls the bolt to the rear and examines the chamber and t-slot to insure they hold no rounds. In darkness, the gunner must feed the chamber and t-slot.
- b. To clear the gun additional precautions are taken. After the steps above have been accomplished, a wooden block, extending above and below the receiver approximately one inch, is inserted in the receiver between the bolt and the rear of the barrel. A cleaning rod is then inserted in the muzzle end of the barrel, pushed through the bore until it can be seen in the receiver, and immediately removed.
- c. During any temporary cessation of fire where it is not necessary to unload or clear the gun, the bolt should be latched to the rear to prevent accidental firing.

3. Precautions During Operation

- a. Insure that the cover (once raised) remain in the raised position, with the barrel reaming in the gun, before allowing the bolt to go forward.
- b. If the cover is lowered when the bolt is to the rear, the belt lever lug will not fit into its proper groove in the bolt. Thus, parts may be damaged as the bolt goes forward. In the cover assembly, the belt feed lever lug is held to the left by the action of the shoulder headless pin and spring, just above the pivot. angst

- c. If the bolt is allowed to go forward with the barrel out of the gun, parts may be damaged when the bolt slams forward. The added weight and cushioning effect of the barrel act as a buffer and protect the parts from damage.
- d. To allow the bolt to go forward with the barrel out of the gun, pull the retracting slide handle all the way to the rear, engaging the bolt stud in the notch in the rear of the retracting slide. Maintain a steady pressure to the rear on the retracting slide handle; press the bolt latch release and allow the bolt to ride slowly forward.

4. Single Shot Operation

- a. To fire the gun single shot, the bolt latch release must be in the up position. The latch engages the notches on top of the bolt when the bolt is to the rear after each round is fired.
- b. When the bolt latch release is depressed the latch assembly is raised, allowing the bolt to be driven forward into battery. The gun may then be fired by pressing the trigger.
- c. When the bolt latch release is locked down by the bolt latch release lock on the buffer tube sleeve, the gun functions as an automatic weapon.

FUNCTIONING

1. The cycle of operation is broken down into eight basic steps. More than one step may occur at the same time. the steps are listed below in the order explained:
 - a. **Feeding** – is the action of placing a cartridge in the receiver, approximately in back of the barrel, ready for chambering.
 - b. **Chambering** – the round is placed in the chamber.
 - c. **Locking** - the bolt is locked to the barrel and barrel extension.

- d. **Firing** - the releasing of the firing pin, igniting the primer of the cartridge.
 - e. **Unlocking** - the bolt unlocks from the barrel and barrel extension.
 - f. **Extracting** - the empty cartridge case is pulled from the chamber.
 - g. **Ejecting** - the empty cartridge case is ejected from the receiver.
 - h. **Cocking** - the firing pin is withdrawn into the cocked position.
2. With the Browning machinegun, caliber .50 HB, M2 the recoiling groups must be manually operated to place the first round in the chamber, the cycle of operation begins with the first round positioned over the belt holding pawl. The recoiling groups are in their forward position.

DISASSEMBLY

General disassembly consists of removing the major groups and assemblies for inspection or cleaning.

1. **Clearing the Gun** - before disassembly can be conducted, the gun must be cleared.
2. **Barrel Group** - turn the cover latch and raise the cover group. Grasp the retracting slide handle with the right hand, palm up, and pull the recoiling parts to the rear until the lug on the barrel locking spring aligns with 3/8-inch hole in the right sideplate of the receiver (just below the feedway exit). The barrel can be turned only when the lug is aligned with 3/8-inch hole. Place the smallest loop of a caliber.50 link, or suitable spacer, between the trunnion block and the barrel extension. This holds the barrel locking spring lug aligned with the 3/8-inch hole in the right sideplate. Unscrew the barrel from the receiver. Be careful not to damage the threads or barrel locking notches when setting the barrel down. Pull back slightly on the retracting slide handle and remove the link or spacer from the receiver.

3. **Backplate Group** - insure that the bolt latch release is in the up position, free of the bolt latch release lock. If it is not, push down on the bolt latch release and turn the buffer tube sleeve to the right to free it. The bolt must be forward before the backplate is removed. If the bolt is to the rear, push down on the bolt latch release allowing the bolt to go forward.

Caution: Care must be taken to prevent the bolt from slamming forward with the barrel removed. Use the retracting slide handle to ease the bolt forward after the bolt latch is released. The backplate latch lock and latch are below the buffer tube. Pull out on the lock and up on the latch; remove the backplate by lifting it straight up.

4. **Driving Spring Rod Assembly** - the inner and outer driving springs and driving spring rod are located inside the receiver next to the right of the driving plate. Push in on the head of the driving spring rod and push to the left to remove the driving spring rod retaining pin from its seat in the right sideplate. Pull the driving spring assembly to the rear and out of the receiver.

Caution: never attempt to cock the gun while the backplate is off and the driving spring assembly is in place. If the backplate is off and the driving spring assembly is compressed, the retaining pin of the driving spring rod can slip from its seat in the sideplate and could cause serious injuries to anyone behind the gun.

5. **Bolt Stud** - grasp the retracting slide handle and give it a quick jerk, freeing the bolt from the barrel extension. Align the shoulder on the bolt stud with the clearance hole in the bolt slot on the right sideplate, and remove the bolt stud latch (left of the trigger lever) and push the bolt forward to align the bolt stud with clearance hole.
6. **Bolt Group** - after freeing the bolt, slide it to the rear and out of receiver. Place the bolt down on its right side (with the extractor arm up) so that the extractor will not fall from the bolt.
7. **Barrel Buffer Group and Barrel Extension Group** - insert the drift of a combination tool, or other pointed instrument, through the hole in the lower rear corner of the right sideplate. Push in on the barrel buffer body lock. At the same time, place

one hand in the receiver and push the barrel extension group and barrel buffer group to the rear. Remove the barrel buffer group and barrel extension group from the receiver. Separate the two groups by pushing forward on the tips of the accelerator.

8. **Barrel Buffer Assembly** - pull the barrel buffer assembly from the rear of the barrel buffer body group. The barrel buffer assembly will not be disassembled. This completes general disassembly.

ASSEMBLY

To assemble the gun, replace the groups and assemblies (in reverse order of removal in disassembly).

1. **Barrel Buffer Assembly and Barrel Buffer Body Group** - replace the barrel buffer assembly in the barrel buffer body group, with the key on the spring guide to the right. This key must fit in its slot in the right slide of the barrel buffer body. Turn the barrel buffer tube until the screwdriver slot (in the rear of the tube) is vertical, the arrow pointing to the right. The stud on the tube lock will now engage the serrations in the barrel buffer tube, to keep the tube from turning. Push the barrel buffer assembly fully forward.
2. **Barrel Buffer Group and Barrel Extension** - to join the two groups together, hold the barrel buffer group in the right hand, with the index finger supporting the accelerator. Join the notch on the shank of the barrel extension group with the cross-groove in the piston rod of the barrel buffer assembly. At the same time, align the breech lock depressors with their guideway in the sides of the barrel extension, insuring the tips of the accelerator are against the rear end of the barrel extension (claws against the shank). Push the groups together. As the accelerator rotates to the rear, press down on its tips insure positive locking of groups. Place the groove in the receiver, and push them forward until the barrel buffer body spring lock snaps in to position. When the parts are properly locked in place, the barrel buffer tube should protrude about 1½ inches from the rear of the barrel buffer body group.

3. **Bolt** - place the bolt in the receiver, with the top of the cocking lever forward and the extractor down. Push the bolt forward into the receiver. As the front end of the bolt approach the tips of the accelerator, lock in the sideplate the receiver, press down on the rear end of the bolt to insure the front end of the bolt clears the accelerator tips. Raises the rear of the bolt and continue to push the bolt forward until the bolt latch engages the notches in the top of the receiver.

Note: The barrel extension, barrel buffer, and bolt groups may be assembled and returned to the receiver together.

4. **Bolt Stud** - align the stud hole in the bolt with the clearance hole and replaced the bolt stud, insuring that the shoulder of the stud is inside the sideplate.
5. **Driving Spring Group** - press up on the bolt latch and push the bolt all the way forward by pushing on the bolt stud only. Place the end of the driving spring rod in its hole in the rear of the bolt, and push forward on the driving spring group and the barrel buffer tube. Press in and to the right on the head of the driving spring rod and place the retaining pin in its seat in the right sideplate.

Note: At this time, the barrel buffer tube should be completely inside the receiver. If not, the barrel buffer body spring in to properly seated.

6. **Backplate Group** - holds the backplate with the latch down and the trigger up; place the backplate guides in their guideways. Hold out on the latch lock and tap the backplate into position until the latch snaps into place. Release the latch lock, and pull up on the backplate group to insure it is firmly seated.
7. **Barrel** - pull the retracting slide handle to the rear until the lug on the barrel locking spring is visible through the 3/8-inch hole in the right side-plate. Place the smallest loop of a caliber .50 link, or suitable spacer, between the trunnion block and the barrel extension. Screw the barrel all the way into notches. Remove the link and close the cover. This completes general assembly.