



**Research By-Product** 

CRITICAL COMBAT PERFORMANCES, KNOWLEDGES, AND SKILLS REQUIRED OF THE INFANTRY RIFLE SQUAD LEADER

Hand Grenades

by Frank L. Brown

20 December 1968

Г

NATIONAL TECHNICAL INFORMATION SERVICE

> This document has been approved for public release and sale; its distribution is unlimited.

The George Washington University HUMAN RESOURCES RESEARCH OFFICE

This material has been prepared for review by appropriate research or military agencies, or to record research information on an interim basis.

The contents do not necessarily reflect the official opinion or policy of either the Human Resources Research Office or the Department of the Army.



Research By-Product

CRITICAL COMBAT PERFORMANCES, KNOWLEDGES, AND SKILLS REQUIRED OF THE INFANTRY RIFLE SQUAD LEADER

Hand Grenades

by Frank L. Brown

20 December 1968

Technical Advisory Service

This document does not represent official opinion or policy of the Department of the Army.

HumRRO Division No. 4 (Infantry)

The George Washington University HUMAN RESOURCES RESEARCH OFFICE operating under contract with THE DEPARTMENT OF THE ARMY

# FOREWORD

In response to a request from the United States Army Infantry School (USAIS), HumRRO Division No. 4 (Infantry) initiated a Technical Advisory Service research project to identify and record the critical combat performances, knowledges, and skills required of the Infantry Rifle Squad Leader (IRSL) and the Infantry Fire Team Leader (IFTL).

The requirements imposed upon the IRSL and IFTL are essentially the same, except that the former is responsible for the control of the men and fires of both fire teams in a rifle squad, rather than only one. The senior IFTL within each squad must be prepared to assume effective leadership of the squad immediately if the IRSL becomes a casualty, completes a prescribed combat tour, or is absent for any reason. Since it is common practice to provide the same training for candidates for both positions of leadership and to employ the outstanding candidates in the higher position, each paper in this series will set forth the critical requirements imposed upon the IRSL and, therein, those imposed upon the IFTL as well.

Under Work Unit LEAD, Work Sub-Unit I, the critical combat performances, knowledges, and skills of the Infantry Rifle Platoon Leader were published in a series of 41 papers covering a like number of subject areas. Each paper was published with prior review and concurrence by the USAIS Instructional Departments concerned. These papers are being used as the primary source of data in completing a parallel series of papers for the Infantry Rifle Squad Leader and the Infantry Fire Team Leader. This document details the requirements in the use of hand grenades.

This Technical Advisory Service research is being performed at HumRRO Division No. 4 (Infantry), Fort Benning, Georgia. The present Director of Research is Dr. T. O. Jacobs.

Military support for the study is being provided by the U.S. Army Infantry Human Research Unit, Fort Benning, Georgia. LTC Chester I. Christie, Jr. is the present Unit Chief.

HumRRO research is conducted under Army Contract DA 44-188-ARO-2 and under Army Project 2J024701A712 01, Training, Motivation, and Leadership Research.

> Meredith P. Crawford Director Human Resources Research Office

### HAND GRENADES

### **General Considerations**

### Introduction

The hand grenade is a highly portable and extremely lethal individual weapon that can provide immediately available area fire to every soldier in the Infantry Rifle Squad Leader's (IRSL's) squad. In the defense or in the assault, particularly during darkness, hand grenades vastly increase hit probability as compared to small arms weapons, and grenades simultaneously limit the cues likely to pinpoint the thrower's location to the enemy. The sound of discharge and the flash of the explosion occur at the target when grenades are used. Hand grenades frequently are effective and highly efficient substitutes for artillery and mortar fire. In fact, a single fragmentation grenade may just as effectively knock out an enemy machinegun position, for example, as will a 155-millimeter HE shell, and with much less danger to near-by friendly fighters. In many instances, particularly in rough terrain at ranges under 50 meters, the hand grenade is the only weapon immediately available for use against enemy protected by defilade from the flat trajectory of small arms fire. Similarly, there is no substitute for hand grenades when exposed, dismounted Infantrymen must clear enemy from buildings, bunkers, trenches, and other such enclosed areas. Choice of types of hand grenades permits the user to inflict casualties or to temporarily blind and choke the enemy and thus take prisoners. The use of WP and smoke grenades for signaling and screening increases the value of grenades, as does the use of the incendiary grenade for destroying materiel.

Despite the effectiveness and versatility obtainable from properly used hand grenades, it is doubtful that more than a small fraction of the members of an Infantry rifle squad ever develop their maximum potential for throwing grenades for either accuracy or range. Many men enter the service with little or no experience in accurate, long-distance throwing. Certainly, a few soldiers become confident experts in the use of hand grenades during the limited training prior to assignment to a unit. Few soldiers carry live grenades (or even fused practice grenades) habitually prior to entering combat. Intelligent men fear live grenades until they gain confidence by learning how to carry and use them with safety, and one careless or unlearned individual in a rifle squad can instill fear and cause casualties among his fellow soldiers.

Developing each soldier to his maximum potential in the use of hand grenades within the training time available is an important responsibility evolving directly upon the IRSL. By meeting this responsibility, the IRSL will increase individual confidence in a commonly available weapon that can be used to vastly increase the firepower of his squad at critical times in close combat.

# Scope

This paper presents the performances, knowledges, and skills required of the IRSL to be technically and tactically proficient in the use of hand grenades under all levels of visibility and to insure increasingly effective use of hand grenades by his men. Because of the similarity of the external characteristics of hand grenades, such as safety pin, safety lever, etc., performances are limited to the M34 WP grenade, the AN-M14 incendiary grenade, the M7A2 CS flot-control grenade, and the M26 series of fragmentation hand grenades, including use of the M217 fuse which causes the M26 series of hand grenades to detonate on impact.

Use of colored smoke grenades for signaling is covered in the paper on <u>Visual, Sound, and Tactual Communication</u>. Additional, directly related material is presented in the papers on <u>Protection Against Mines</u>, <u>Boobytraps</u>, <u>and Warning and Illuminating Devices</u>; <u>Demolitions and Boobytraps</u>; <u>Mines</u>, <u>Antitank and Antipersonnel</u>, and Warning and Illuminating Devices; <u>Physical</u> <u>Conditioning</u>; and <u>Antipersonnel Mine</u>, <u>M18A1</u> (<u>Claymore</u>).

## Materiel

Hand grenades: Fragmentation, M26 series or substitutes.

Incendiary, AN-M14.

WP, M34.

CS, M7A2.

Practice and training grenades or substitutes.

Standard and improvised pouches for safe carrying of hand grenades.

Pliers, friction tape, trip wire, stakes, and similar items or substitutes for installing trip- or pull-wired hand grenades when such practices are specifically authorized.

### Battlefield Cues

Single or multiple, moving or stationary personnel targets seen or heard within grenade range of thrower or within range of pull-wired grenades.

Orders or signals requiring use of grenades, including requests for covering fire to facilitate throwing grenades.

Openings in tunnels, caves, buildings, emplacements, armored vehicles, or other enclosures sheltering enemy personnel who are vulnerable to attack with grenades. Recognized need to specify use of grenades of specific type in lieu of primary weapon or another grenade or vice versa, e.g., opportunity to take prisoners by using CS grenades against enemy in enclosed area as opposed to destroying the enemy with fragmentation grenades or small arms fire, and use of fragmentation grenades in lieu of small arms at close-in targets during darkness.

Friendly troops within range of own grenade burst.

Any failure of a squad member to carry, maintain, or use grenades safely and according to unit SOP.

Availability of both delay-fused and impact-detonating grenades for use against moving enemy targets, i.e., selection of fuse type for specific target.

Recognized need to prevent delay-fused grenades from rolling on steep slopes by tying to an improvised flat surface.

Vegetation, low-hanging branches, etc., likely to hinder or interfere with accurate grenade throwing from any fighting position.

Recognized need to specify shortened fuse time by cook-off on grenades with delay fuses.

Recognized need to specify increased effective fuse time when using incendiary grenades on fuel tanks to destroy enemy surface vehicles and aircraft.

Enemy personnel seeking to conceal themselves in water.

Recognized need to ignite flammable structures or vegetation which could offer cover or concealment for enemy personnel.

Recognized need to observe the knowledge and skill in the use of hand grenades displayed in initial combat by recently joined replacements to permit timely correction of deficiencies.

Recognized need to insure that, during the organization of a defensive position, preparation for the coordinated defense includes marking of likely hand grenade targets by directional stakes, combined where possible with practice throws using improvised means such as suitably sized stones.

Absence of training grenades required to permit practice in throwing.

Opportunity to cover use of grenades in after-action critiques.

Inadequate quantities of Claymores or trip flares when grenades are available for use as command-pulled or trip-wired substitutes when such use is authorized. Recognized need to recover upon relief or orders to withdraw from a position any installed trip- or pull-wired grenades.

Recognized need to prepare for use boxed grenades on defensive positions where enemy attack is anticipated.

Duds or lost or abandoned grenades.

Accidental dropping of friendly grenade with pin pulled or receipt of live enemy grenade near friendly personnel.

Opportunity to destroy enemy weapons, vehicles, etc., <u>or</u> necessity to destroy friendly materiel, including hand grenades, to prevent capture by the enemy.

### Performances, Knowledges, and Skills

- 1 UNDER ALL CONDITIONS OF VISIBILITY, THE IRSL WILL THROW OR CONTROL THE THROWING OF HAND GRENADES TO EFFECTIVELY ENGAGE STATIONARY AND MOVING, SINGLE AND MULTIPLE ENEMY PERSONNEL IN THE OPEN AND IN FOXHOLES, TRENCHES, TUNNELS, BUNKERS, BUILDINGS, OPEN VEHICLES, AND SIMILAR POSITIONS AT RANGES TO APPROXIMATELY 40 METERS, AND FOR DESTROYING MATERIEL ON ORDER.
  - He must : know the <u>common</u> name, the effective casualty radius, the fuse type (igniting or detonating), the tactical uses, the safety precautions specific to each type, and the relative weight of fragmentation, WP, incendiary, and CS grenades.

: identify grenades by type on sight, by touch alone during darkness, and know the location and number of grenades by type on his person when more than one type of grenade is carried.

: know that the effective range of any grenade is the distance the grenade can be thrown accurately <u>plus</u> the effective casualty radius of the grenade.

: know that the M26 and M26A1 fragmentation hand grenades are armed with a 4- to 5-second time-delay element in the fuse.

: know that the M26A2 fragmentation hand grenade is armed with an electrical impact fuse which arms for impact detonation in 2 seconds.

: know that the time-delay fuse of the M26 and M26Al is not interchangeable with the impact fuse of the M26A2.

: know these additional safety precautions with the M26A2 are required in comparison with the M26 and M26A1 grenades:

- a. the M26A2 cannot safely be kicked into a grenade sump.
- b. The M26A2 is not to be fired from a rifle with the aid of a grenade projection adapter.

: know that the M26A2 is identified by embossed word "impact" on the safety lever. 8

1

2

3

4

5

6

: know that the range of the hand grenade can be increased by attachment to a grenade projection adapter and fired from the standard service rifle when use of such an adapter has been authorized with the rifle in question.

: know the ammunition used for launching grenades from the standard service rifle is identified by a fivepointed star crimped end.

: know and insure that his men know these standard service color codes for identification of the primary capabilities of the hand grenade:

Use
Ordnance item
Smoke producing
Incendiary
Riot-control agent

: know that the time-delay element in the fuse which prevents instantaneous detonation of a hand grenade operates whether the grenade is thrown or used as a boobytrap or mine; hence, the enemy is afforded 4 to 5 seconds to possibly evade the effective casualty radius of the grenade before detonation.

: know that individual trip- or pull-wired hand grenades placed for the close defense of his position do not constitute a nuisance minefield but must be removed or destroyed in place before he leaves the position; use such devices only when specifically authorized to do so.

: know that prior authority must be received through channels from the Army Commander and/or delegated representatives when grenades are laid as part of a nuisance minefield or as a boobytrap which is not part of the close defense of a position.

He will : record all trip- or pull-wired grenades employed in a minefield or as a boobytrap not part of the close defense of a position on DA Form 1355 or an accurate sketch replica, to include the size, type, and extent of the minefield-type obstacle he has employed and submit a copy of the sketch to his platoon leader.

> : recognize or identify situations wherein his principal 16 weapon is more lethal than hand grenades and vice versa.

9

10

11

12

13

14

most effective fire from each of the sources of fire immediately available to him.	
: give warning to close-by friendly troops likely to be exposed to his grenades prior to throwing.	18
: hold the grenade properly, pull the pin, and throw with a side-arm throw, overhand pitch, or roll it from the prone, kneeling, crouched, or standing position to gain maximum accuracy with as little exposure as necessary.	19
: use available <u>effective</u> cover immediately (or hug the ground with helmet toward the target) after releasing each grenade.	20
: repeat the throwing procedure if successive grenades are required against the target.	21
: throw grenades at personnel targets in the open up to 40 meters with sufficient accuracy to obtain detona- tion within 5 meters of the enemy with each grenade thrown.	22
: throw grenades for 25 meters with sufficient accuracy to hit a one-man foxhole (horizontal opening) or a window one-meter square (vertical opening) every other throw, i.e., obtain a hit on either type target with not more than two grenades.	23
: throw impact-detonating grenades with the same accuracy and effectiveness as grenades with delay fuses.	24
: emphasize the use of <u>impact-detonating fuses</u> against moving personnel targets in the open, par- ticularly on steep slopes and during unlimited visibility when the enemy can see grenades and retrieve and return grenades equipped with <u>delay</u> <u>fuses</u> .	25
: emphasize the use of hand grenades in lieu of small arms weapons during limited visibility to increase hit probability through use of an area weapon, to avoid dis- closing own position through sound of shot and muzzle flash, and to reach enemy defiladed positions not vul- nerable to flat trajectory fire.	26

•

: when the element of surprise and the availability of cover permit, use impact-detonating grenades in lieu of small arms weapons on grouped enemy personnel within hand grenade range to increase shock, surprise, and hit probability; anticipate that the explosions will create dust and smoke; and be prepared to follow up the grenade explosions with rapid and accurate small arms fire or additional grenades as the target area clears.

He must : habitually insure that low-hanging branches and other 28 vegetation are cleared from the full circumference of fighting positions to permit unhampered grenade throwing, to avoid having impact-detonating grenades detonate prematurely, and to prevent grenades with delay fuses from rebounding.

> : when throwing grenades in thick vegetation (i.e., brush, tall grass, etc.), avoid the use of impactdetonating grenades which are likely to detonate prematurely and use time-fused grenades thrown with sufficient force to break through the vegetation and reach the target.

He will : recognize that rapidly moving enemy may overrun or change direction and escape the full force of fragmentation grenades thrown directly on target with 4 to 5 seconds of fuse delay.

> : take measures to insure that when impact-detonating 31 fuses are unavailable to engage assaulting personnel, unit personnel "cook-off" standard delay fuses by pulling pin, releasing the safety lever, and counting "one thousand-one, one thousand-two," then throwing to obtain a low air burst directly over moving personnel.

: take measures to insure that when impact fuses are unavailable that unit personnel "cook-off" delay-fuse grenades when throwing <u>up-slope</u> to prevent grenades from rolling backwards to cause friendly casualties and when throwing <u>down-slope</u> to prevent grenades from rolling past intended targets.

He must : keep fragmentation hand grenades immediately and safely available in APC's and in MICV's for use against close-in enemy personnel and recognize that fragmentation or mass casualty producing grenades in particular are more likely to cause casualties among enemy personnel within range than attempts to deliver fire from small arms weapons from moving vehicles. 27

29



He will : tape 12- to 18-inch sticks to fragmentation grenades 34 with friction tape in defensive positions to prevent grenades from rolling beyond enemy personnel targets when throwing down-slope on cleared slopes.

He must : use fragmentation grenades to obtain concussion and 35 fragmentation against enemy personnel submerged in water courses, swamps, and rice paddies; anticipate that submerged enemy will surface after underwater explosions; and be prepared to prevent escape by using small arms fire following detonation of grenades.

> : know that shallow water provides little or no protection to a thrower from his own grenade fragments; forewarn near-by personnel prior to throwing; and throw from covered position or assume prone position with helmet toward target to avoid injury from friendly grenades.

> : in survival situations, use fragmentation grenades to 37 kill fish for food when the muffled sounds of underwater explosions are unlikely to reveal his presence to hostile personnel.

- He will : use M26A2 or "cooked-off" fragmentation grenades thrown in from the outside to clear enemy from caves, cellars, tunnels, and similar unlighted enclosures in lieu of small arms fire to increase hit probability and to prevent dark-adapted enemy from delivering lethal small arms fire upon friendly personnel attempting to enter dark enclosures. (Concussion may damage hearing or cause other injury if grenades are used by personnel within enclosed areas.)
- He must : gain surprise, fire superiority, and the initiative, particularly during limited visibility, by stealthily moving a small unit to within hand grenade range of a located enemy objective (e.g., trench) and having each grenadier throw a grenade into a predesignated part of the enemy position (grenade shower); coordinate delivery on signal to facilitate taking cover; use similar tactic when pinned down within grenade range of enemy, but arrange for covering fire to prevent friendly casualties and to compensate for lack of surprise during throwing of grenades.
- He will : use WP, incendiary, or fragmentation grenades (in the order of preference listed) to ignite fires in flammable structures or dry vegetation when such action will contribute to the mission, but seek to avoid setting fires with grenades if the resulting smoke and heat will adversely affect friendly troops.

40

38

: habitually note wind direction and velocity when using WP grenades for screening, signaling, or to cause casualties; avoid having smoke unnecessarily obscure the vision of friendly troops or provide a useful screen for the enemy.

use WP or colored smoke grenades dropped into tunnel 42 complexes to locate hidden entrances, firing ports, and ventilation shafts.

He must : use incendiary grenades during raids to destroy enemy 43 heavy weapons and vehicles, e.g., incendiary grenades placed in the breech of a howitzer will weld the breech closed and render the weapon useless, and vehicle transmissions may be destroyed in a like manner.

> destroy vehicles, aircraft, power boats, etc., during 44 raids by placing incendiary grenades on closed fuel tanks. (The AN-M14 incendiary grenade has an igniting time fuse with a delay of 0.7-2.0 seconds, so users must take cover guickly before molten metal causes the fuel to explode. A 1/4-inch or thinner square of plywood taped to the grenade will prevent it from rolling and, placed downward, increase delay time.)

> : use incendiary grenades to destroy friendly weapons 45 and materiel to prevent capture.

He will : recognize that newly trained replacements joining 46 his unit usually will not have reached their full potential to use hand grenades with confidence and skill, and know that practice is essential for all personnel to maintain a high level of skill in throwing hand grenades under battlefield stress.

> know that men who do not carry hand grenades habitually 47 in combat (and in training) are likely to forget to use them when they are available on the battlefield; seek to test and provide refresher training to replacements as soon as practicable after they join the unit; and insure that all personnel carry grenades according to unit SOP.

> through observation in training and in combat, identify 48 the personnel who are most skillful at throwing hand grenades and use the highly skilled individuals as instructors during training and as grenadiers for particularly critical tasks in combat.

> > 10

: avoid emotional behavior by instructors, supervisors, and safety personnel during training of replacements with the recognition that emotional outbursts by supervisory personnel during training and practice will instill fear of hand grenades; instill confidence through skillful instruction, demonstration, and practice; and emphasize rapid, <u>deliberate</u> choice between hand grenades and other weapons and among types of hand grenades available for use in specific situations, e.g., use of CS grenades to drive enemy from bunkers and tunnels may permit capture of prisoners where use of fragmentation grenades in the same situation would merely cause casualties and pissibly eliminate sources of useful intelligence information.

49

51

53

: use <u>training</u> grenades to develop the muscular strength 50 and coordination required to attain the range and accuracy essential to the effective use of hand grenades in combat and <u>allot approximately three-fourths of the time available</u> for hand grenade training to throwing practice.

: use <u>practice</u> grenades, fused with an <u>igniter-type</u> fuse only and <u>without the black powder charge</u>, to teach handling and carrying safety and to teach and provide practice in "cooking-off" grenades to reduce fuse time, i.e., to prevent the enemy from returning grenades.

: rehearse squad members in providing covering fire for 52 designated grenade throwers within fire teams and emphasize the necessity for grenade throwers to flat crawl and throw grenades from low positions while carrying small arms weapons with due attention to keeping mud, dirt, snow, etc., out of actions and muzzles.

: emphasize, through demonstration with silhouette targets, the absolute necessity for grenadiers to recognize <u>effective</u> cover from friendly and enemy grenade fragments, particularly when operating in builtup areas, e.g., masonry walls usually provide <u>effective</u> cover against grenade fragments; light frame construction usually provides <u>limited protection</u> but requires grenadiers to hug the ground for protection; and <u>thatch</u>, <u>mud</u>, and <u>sheet tin</u> construction provide <u>no adequate cover</u> from grenade fragments, but may provide <u>concealment</u> for an advancing grenadier.

He must : know that when <u>training</u> grenades are unavailable in 54 an active theater, smooth stones of appropriate size, shape, and weight and ration cans filled with concrete may be used as effective substitutes for throwing practice to conserve live grenades.

- He will : during each after-action critique, cover the use of hand grenades with emphasis upon repetition of successful techniques of employment and elimination of errors or omissions, including coverage of safety procedures pertinent to transport, maintenance, and use.
- 2. ON ORDER, UNDER ALL CONDITIONS OF VISIBILITY, THE IRSL WILL USE AND SUPERVISE THE USE OF FIXED, TRIP- AND PULL-WIRED GRENADES AS WARNING, ILLUMINATING, AND CASUALTY PRODUCING DEVICES.
  - He will : affix fragmentation or WP hand grenades to firmly 56 set stakes or to trees and attach trip where covering possible enemy approach routes to cause enemy casualties and provide early warning of enemy approach to friendly positions.

: use trip-wired incendiary or WP hand grenades to 57 supplement or as substitutes for trip flares when necessary to increase security around any friendly position.

: carefully straighten the bent ends of safety pins on 58 trip- or pull-wired grenades after installation of the pull or trip wire to insure positive functioning when pressure is applied.

: when lack of time, the nature of the terrain, or density of vegetation deny adequate fields of fire around a defensive perimeter, affix fragmentation or WP hand grenades to firmly set stakes and to trees (including branches at a height to provide air bursts) and attach pull wires leading to friendly foxholes to provide readily available area fire to cover defiladed or shielded areas likely to be used by the enemy, i.e., use pull-wired hand grenades to supplement or as economical substitutes for Claymores. (While Claymores should be reserved for multiple targets, pull-wired hand grenades can be used against single enemy, particularly in ditches and defiladed areas ill-suited as fields of fire for the Claymore.)

: lightly camouflage all trip- and pull-wired grenades 60 and wires to prevent enemy discovery and neutralization or salvage.

: consider the fuse time and rate of movement of enemy 61 personnel approaching pull-wired grenades to catch as many of the enemy as possible within the effective casualty radius of each detonating grenade.

55

; require each individual who installs a pull- or tripwired grenade to report the locations of the devices, for inclusion in the platoon fire plan, and require men in adjacent fighting holes to exchange knowledge of location of the devices to facilitate use and retrieval prior to departure from the position.

He must : insure that safety pins are bent to increase safety 63 when trip- or pull-wired grenades are retrieved from fixed positions.

> upon being relieved in place by another organization, 64 point out the exact locations of all trip- or pull-wired hand grenades that are to be left in place and obtain a like number of grenades of the same types from the relieving unit to insure that his men maintain an adequate combat load of granades.

prohibit the abandonment of trip- or pull-wired grenades upon departure from any position to avoid enemy salvage and use against friendly forces; if time prohibits salvage, blow in place.

- He will : when specifically so ordered, install grenades as boobytraps by using trip wires and improvised pressurerelease devices, e.g., pull pin and place weight of useful object on safety lever; pull pin, fasten safety lever with easily flammable cord or rubber bands and conceal in dead ashes or in freshly laid kindling in stoves or fireplaces; or pull pin and encase in ration can to hold safety lever in place for trip-wire release due to movement of can or grenade.
- 3. THE IRSL WILL ESTABLISH, DEMONSTRATE, AND ENFORCE SOP FOR CARRYING, SAFEGUARDING, AND MAINTAINING HAND GRENADES TO INSURE SAFETY, AVAILABILITY FOR INSTANT AND EFFECTIVE USE, AND TO PREVENT SALVAGE BY THE ENEMY.
  - He will : specify the type, number, and method of carrying the 67 grenades that comprise the fighting load for each member of the squad as directed by the platoon leader or in accordance with unit SOP.

: know that WP, incendiary, and smoke grenades weigh approximately twice as much as standard fragmentation grenades; note quantities of grenades by type employed on successive operations; and recommend varying the numbers and types of grenades carried so as to meet operational needs adequately with minimum weight, i.e., avoid overloading the soldier.

62

66

65

: within the limits imposed by the mission, use standard ammunition pouches or canteen covers for carrying grenades and insure that the safety lever is secured <u>under</u> the <u>strap</u> that encircles the top of the grenade and, particularly when operating in densely covered terrain where brush may dislodge safety pin or break the safety lever, that the grenades are carried in a container which fully protects the lever and safety pin.

: when demanded by the mission, use canteen covers and Claymore bags for carrying additional grenades that cannot be carried on or in standard ammunition pouches.

: know (and insure that his men know) that, unless adequate pouches and containers are used for carrying grenades, the safety levers may be broken off or safety pins pulled by heavy brush and undergrowth, that grenades hooked over belts or through harness rings by safety levers may fall or be torn off and lost during violent movement and crawling, and that grenades not covered by pouches and held by straps may be lost during movement.

: prohibit any method of carrying hand grenades that suspends the grenade by the safety ring or by the safety lever.

: prior to stowing grenades for carrying, require inspection to insure that safety pins are seated and bent, safety levers intact and not bent or cracked, and that fuse assemblies are screwed tightly into the grenade body.

He must : frequently spot check (and require fire team leaders to spot check) hand grenades carried by squad members when time permits during operations to insure that grenades are available in the type and numbers required; that safety pins are seated and bent, safety levers are intact and undamaged, and fuse assemblies tight; and that grenades are being carried securely <u>and</u> available for instant use.

> : impress upon his men that grenades lost through carelessness subtract from the squad's firepower and are likely to be salvaged by enemy guerrillas or sympathizers to cause friendly casualties through use as hand grenades or as boobytraps.

69

70 .

72

: emphasize that any grenade detonated as a result of careless handling or inadequate maintenance is likely to cause multiple friendly casualties and may violate noise discipline at a time when stealth is vital to the accomplishment of the mission.

76

77

: within the limits imposed by the mission, require grenades carried as part of the combat load to be kept clean, free of moisture, out of direct rays of the sun, and away from other sources of heat.

He will : when boxed grenades are delivered to defensive positions, insure that shipping bands are removed, boxes opened, and grenades inspected, issued, and readied for immediate use as soon as practical after receipt.

> : require personnel in defensive fighting holes to cut 79 niches, insert ammunition boxes, and use the boxes for storing grenades to keep them clean, dry, protected from enemy fire, and available for instant use.

> : prohibit storage of grenades on wet or frozen ground 80 where fuses may become clogged with frozen mud, grenades may freeze to the ground, or mud adhering to the grenade may prohibit firm grasping and accurate throwing.

- He must : specify and require rehearsal of the action required 81 if a grenade is dropped after the safety pin is pulled or when a grenade lands near friendly personnel, i.e., move or move the grenade away from personnel; emphasize the need to act quickly and deliberately.
- He will : prohibit the disassembly of any enemy or friendly 82 grenade by any member of his unit.
- 4. ON ORDER OR AS DEMANDED BY THE SITUATION, THE IRSL WILL DESTROY OR DIRECT AND SUPERVISE THE DESTRUCTION OF HAND GRENADES TO PREVENT CAPTURE BY THE ENEMY.

He must : when practical, have grenades destroyed by individual detonation, preferably to cause enemy casualties or to damage or destroy enemy materiel, with due consideration to wind direction when destroying CS, WP, and smoke grenades.

: when individual detonation is impractical, dispose of excess hand grenades by submerging in deep water or by burying (e.g., in a foxhole) and camouflaging the burial site.

: destroy individual dud enemy or friendly hand grenades 85 in place by sympathetic detonation with TNT (or C4), time fuse, and a nonelectric blasting cap, to prevent salvage by the enemy, i.e., place the primed charge as close as possible to the dud without touching it, light the time fuse, and take cover.