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

Antipersonnel Mine M18A1 (Claymore)

by
Frank L. Brown

December 1968

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The Human Resources Research Office is a nongovernmental agency of The George Washington University. HumRRO's mission in work performed for the Department of the Army (DA Contract 44-188-ARO-2) is to conduct research in the fields of training, motivation, and leadership.

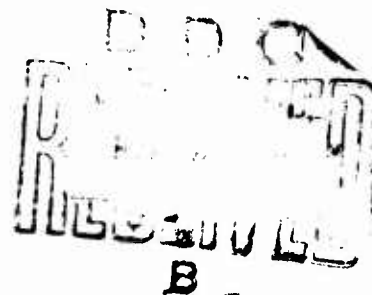
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Technical Advisory Service

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HumRRO Division No. 4
(Infantry)

The George Washington University
HUMAN RESOURCES RESEARCH OFFICE
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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 and the Infantry Fire Team Leader.

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 of the antipersonnel mine M18A1 (Claymore).

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

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ANTIPERSONNEL MINE M18A1 (CLAYMORE)

General Considerations

Introduction

The Infantry Rifle Squad Leader (IRSL) will employ and supervise the employment of Claymores primarily as controlled, electrically fired, one-shot weapons to halt massed, dismounted enemy attacks against defensive positions, including fighting positions within squad sectors, listening posts, observation posts, outguard positions, and road blocks and to cover gaps between small units. Particularly in internal defense and development operations, he frequently will use and supervise the use of controlled, electrically fired Claymores to protect patrol bases (small-unit perimeters); to cover the killing zone in both hasty and deliberate ambushes; and to protect the flanks and rear of friendly ambush sites.

Used as controlled, one-shot weapons, Claymores provide lethal coverage of that area between maximum grenade range and the minimum safe distance of impacting indirect supporting fires, particularly in brush-covered terrain that limits the use of point-detonating fire from the M79. In this role, Claymores may often spell the difference between successful accomplishment of the mission and annihilation of the small unit during semi-independent operations when the enemy temporarily enjoys a numerical superiority, particularly in squad strength ambush situations.

The IRSL will, upon receipt of proper authority, use and supervise the use of Claymores as trip-wired mines to cover dead space and avenues of approach to defensive positions, to block escape routes from killing zones in ambushes, to establish minefields, and to limit enemy ability to clear antitank mines or breach obstacles, such as barbed wire or concertina.

Upon receipt of competent orders, he may install or have Claymores installed in a variety of situations as boobytraps devices.

The 24-hour-a-day demands of military operations frequently will require rapid and safe installation and recovery of Claymores as controlled, one-shot weapons and as mines under widely varied conditions of weather and terrain. Visibility often will be so limited by darkness that the IRSL and his men will be forced largely to substitute touch for vision when working with Claymores and still ensure effective functioning. Because Claymores may be installed and recovered many times prior to detonation, recovery of the weapons and maintenance while installed and during transport are vital to safety and reliability of functioning. The short ranges at which Claymores are fired as weapons against mass attackers demand completely reliable functioning with strong and frequently repeated emphasis on fire discipline.

Any weapon may serve friend and foe equally well, so Claymores must be safeguarded during use and destroyed if capture becomes imminent when employed as controlled weapons. Used as mines or boobytraps, the siting, installation, and camouflage of Claymores must be such that unanticipated detonation of the devices by the enemy with maximum destruction of components is virtually assured. All components not destroyed upon detonation must be salvaged when possible to prevent enemy recovery and use, particularly when operating against guerrillas.

An assumption is made that if the IRSL has mastered the performances, knowledges, and skills required of his subordinates he can instruct them and supervise their work to ensure adequate and reasonably safe use of Claymores. He may be required to execute all of the cited performances himself during the instruction of personnel who lack experience or during semi-independent operations, particularly during internal defense and development operations at a distance from the parent unit.

Scope

The performances, knowledges, and skills contained in this paper describe the tactical and technical proficiency required of the IRSL to inspect, pack, transport, site, install, fire, recover, maintain, and safeguard the Claymore as a controlled, one-shot weapon; to employ it as a mine or a boobytrap; and to supervise the employment of the weapon by his men in any of the three roles cited.

The material in this paper is directly related to all of the papers on tactical operations, with special emphasis on the papers pertaining to defensive operations, retrograde operations, and patrolling. Target detection, location, and identification are covered in the paper on Observation, Combat Intelligence, and Reporting. Directly related information will be found in the paper on Wire Communication (splicing); Mines, Antitank and Antipersonnel, and Warning and Illuminating Devices; Demolitions and Boobytraps; Protection Against Mines, Boobytraps, and Warning and Illuminating Devices; Hand Grenades; and Infrared Weaponsight and Image Intensification Devices.

Materiel

Mine, antipersonnel, M18A1.

Firing device M57.

Test set M40.

Electric blasting cap assembly M4 (M6 electric blasting cap,
100 feet of firing wire, and shorting plug with receptacle).

Bandoleer M7.

Instruction sheet for M18A1.

Luminous tape (1" x 3" strip for each Claymore weapon).

Nonelectric blasting cap M7 (or commercial No. 8) with padding or box for carrying.

Detonating cord.

Trip wire or substitute.

Pull firing device M1.

Pull-release firing device M3.

Pressure-release firing device M5.

Fuse lighters.

Time fuse.

Cap crimper.

Side-cutter pliers.

Knife.

Plastic bags (from radio batteries) for waterproof covering of nonelectric caps, detonating cord, and time fuse.

Insulating tape.

Friction tape.

Locally procured stakes and camouflage material.

DA Form 1355 (minefield report).

Hand grenades M26A1.

Trip flares M49.

Machetes as required for clearing fields of fire and cutting and sharpening stakes.

Hand ax or substitute (e.g., stone) for driving stakes.

Battlefield Cues

Orders or instructions from commanders requiring use of Claymores as weapons, mines, or boobytraps.

Recognized threat of attack on any squad position, including ambush sites and isolated security posts, when Claymores are available or can be procured on a timely basis, particularly when positions must be defended during limited visibility.

Dead space, including approach routes, not adequately covered by organic weapons or supporting final protective fires.

Recognized opportunity to employ the Claymore in ambush to cover the killing ground, block escape routes, and to protect the flanks and rear of the ambush site.

Recognized need to protect road blocks and obstacles (including minefields), patrol bases, halted march columns, temporarily occupied defensive positions during retrograde operations, rallying points, command posts, combat support sites, landing zones, and small-unit perimeters.

Recognized need for a rapidly emplaced weapon to forestall counter-attack during critical periods of offensive operations, e.g., rapid coverage of an approach route on a flank or coverage of a squad sector during reorganization and consolidation.

Recognized need for a small unit, such as a patrol, to block pursuit by the enemy through hasty use of the Claymore as a one-shot, controlled weapon, i.e., use in a hasty ambush, or to gain fire superiority on close-in enemy during a fire fight.

Recognition during inspection that any item vital to the installation of the Claymore is missing.

Discovery of any unserviceable item during inspection of the Claymore and accessories or additional materiel (detonating cord, blasting caps, fuse lighters, firing devices, etc.) required for use with the Claymore.

Inadequate performance by subordinates in siting, installation, maintenance, safeguarding, firing, recovering, packing, or transporting Claymores and accessories or allied material.

Recognized needs to disseminate locally and report the location of Claymores as weapons when submitting unit fire plan and to submit a standard minefield report and disseminate information locally when the Claymores are installed as mines or boobytraps, including use of temporary markers during installation of mines and boobytraps.

Relief involving the transfer of installed Claymores from one squad to another.

Anticipation of probable occurrence of casualties among personnel designated to fire Claymores, i.e., recognition of value of dual electrical firing systems and knowledge of location and type of installation for each Claymore.

Enemy or friendly artillery, mortar or rocket fire, the explosion of hand grenades, or the raking of an area containing Claymores with small arms fire in any volume likely to spoil the aim of claymores, break electrical or mechanical firing circuits, or displace camouflage, i.e., a demand for inspection, replacement, or maintenance of Claymores installed for use as controlled weapons or as mines.

Occurrence of weather (lightning, rain, wind, sleet, snow) that may detonate Claymores, disarrange aim, or reduce lethality by covering and blocking any installation as a weapon, mine, or boobytrap and thus require maintenance or replacement.

Avoidable circumstances that might cause packaged Claymores to be physically damaged or detonated, such as crushing, extended soaking, exposure to excessive heat, and exposure of non-shunted electric caps to radio frequency energy likely to detonate the cap.

Visible or definitely located enemy personnel, thin-skinned surface vehicles (including small boats and parked or hovering aircraft) within effective range of a Claymore installed as a controlled weapon.

Expenditure of Claymores and accessories requiring redistribution, reporting, and requests for resupply.

Abandonment of, or relief from, a position where Claymores have been installed as controlled weapons or as hastily installed mines that must be recovered, detonated, or turned over to a relieving unit.

Accumulations of crimped, nonelectric blasting caps resulting from installation and recovery of Claymores, i.e., recognition of need to destroy useless but dangerous explosives.

Misfires.

Threat of capture of Claymores and accessories, including accessories left intact after detonation.

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Performances, Knowledges, and Skills

1. GIVEN A SPECIFIC MISSION, THE IRSL WILL PLAN THE USE OF CLAYMORES TO AID MISSION ACCOMPLISHMENT AND ENSURE THAT THE CORRECT NUMBER OF CLAYMORES, ACCESSORIES, AND ESSENTIAL TOOLS ARE PROCURED, CHECKED FOR COMPLETENESS AND SERVICEABILITY, AND ISSUED TO SPECIFIC PERSONNEL TO TRANSPORT AND SAFEGUARD PENDING EMPLOYMENT.

- He will : know the functional characteristics, capabilities, limitations, and casualty effects, including the beaten zone and precautions against back-blast injury and damage, that are vital to effective and safe employment of the Claymore as a controlled weapon, mine, or boobytrap, with primary emphasis on use as an electrically controlled, one-shot weapon. 1
- : without references or notes, draw a diagram to show the angular width and range of the killing zone and the danger areas forward of the killing zone, the areas made dangerous by stray fragments and secondary missiles on the flanks of the beaten zone, the back-blast area, and the secondary missile hazard area; label the diagram to show specific hazards, values of angles, limits, and distances; and use the diagram to provide periodic refresher training for his IFTL's and squad members. 2
- : memorize the Claymore aiming distance instructions, e.g., without references or notes, diagram and label the distance and heights portraying the correct line of sight as related to the slope of the terrain within the killing zone. 3
- : know the minimum (5 meters), maximum (45 meters), and preferred (25 meters) intervals pertinent to the installation of Claymores in a single line as employed to cover the front of a position. 4
- : know that the minimum separation of Claymores installed in depth (from front to rear) is 5 meters, provided secondary missiles are removed to prevent destroying the lay (aim), firing devices, or electrical circuits of rearward Claymores as the ones nearest the enemy are detonated. 5

- He must : given a specific mission, make tentative plans for the use of Claymores; specify the number of Claymores required and specify the types and quantities of tools and accessories required for employment of the Claymores; arrange for timely procurement; and plan the basis of issue to squad members with due regard to the effect of weight and bulk of the Claymore equipment that must be transported by dismounted personnel. 6
- He will : anticipate that Claymores issued for use on any mission may have been installed, recovered, and turned in by other troops on previous missions and thus may lack accessories or have unserviceable components; procure, identify, and check for completeness and serviceability all Claymores, accessories, firing devices, detonating cord, time fuse, fuse lighters, blasting caps, trip wire, tools, etc. required for each mission prior to departure from the issue point; and obtain complete and serviceable equipment in the quantities required for the mission. 7
- : pack, safeguard, and transport Claymores, firing devices, detonating cord, time fuse, and blasting caps to ensure safety; prevent wetting of time fuse, blasting caps, and detonating cord; and protect against rough handling and excessive heat. 8
- : by instruction, demonstration, observation of performance, and timely correction, ensure that all members of his squad can identify and inspect the component parts of the Claymore and the items required for pull- and trip-wire installation, recognize unserviceable items, obtain replacements as required, and pack and transport the explosives with reasonable safety. 9
2. ON ORDER OR AS REQUIRED BY THE SITUATION AND UNDER ALL CONDITIONS OF VISIBILITY, THE IRSL WILL INSTALL, MAINTAIN, AND SUPERVISE THE INSTALLATION AND MAINTENANCE OF CLAYMORES AS CONTROLLED, ELECTRICALLY DETONATED, ONE-SHOT WEAPONS TO ENSURE EFFECTIVE COVERAGE OF ENEMY PERSONNEL APPROACHES.
- He must : designate locations and aiming points for controlled weapons or inspect and correct as necessary the locations and aiming points selected by subordinates to ensure rapid installation and effective coverage of enemy approaches in accordance with the capabilities of the weapon and the requirements of the specific mission, including installation in depth. 10

- : with the M57 firing device stowed in a pocket and with the firing circuit shorted, clear the immediate back-blast area, position, aim, arm, recheck after arming, set a short stake to the side (not front or rear) of the Claymore, fasten the firing wire to the stake with a clove hitch, and lightly camouflage the weapon and stake during darkness (e.g., by starlight) without artificial illumination. 11
- : retrieve the bandoleer and instruction card, paper form, and tape; place the firing wire on the ground (as opposed to increasing exposure by draping it over vegetation); camouflage the firing wire; set a short stake at the covered firing position; and fasten the firing wire to the stake with a clove hitch. 12
- : test the circuit from the covered position, make any necessary repairs with the shorting plug in place, retest circuit as necessary, disconnect and stow the test set, replace the shorting plug, and place the disconnected M57 firing device within easy reach with the safety bail in the safe position. 13
- : anticipate that the occurrence of casualties among personnel designated to fire Claymores and difficulty in the detection of targets within the killing zone of a single Claymore may demand use of dual electrical firing equipment for selected Claymores with the firers located in separated positions; use salvaged Claymore firing equipment and M6 electrical blasting caps to fabricate dual systems for a single weapon, i.e., prime both detonator wells. 14
- : require all personnel installing (controlled or uncontrolled) Claymores to report their intent to install Claymores; obtain immediately available covering fire during installation, maintenance, or replacement; and to report completion and location of initial installation to their leaders (for inclusion in the fire plan) and to adjacent personnel likely to be affected by back-blast or likely to detect massed targets or individual infiltrators in front of the weapon. 15
- : ensure that friendly patrols and security personnel required to move in an area where Claymores (or similar devices) are installed are furnished a guide or limited to a prescribed, easily followed route and provided with recognition signals to avoid the tragic consequences of accidental detonation or deliberate firing based upon mistaken identity. 16

: during installation of Claymores by his men in any role or location, anticipate the possibilities of relief by another unit and the occurrence of casualties requiring the shifting of personnel or the integration of replacements; record and retain locally a rough sketch showing the location (direction in degrees and distance in meters from a specific fighting position) of installed Claymores and similar devices to ensure that relieving or reinforcing personnel can locate, maintain, employ, and recover the mines and devices effectively and safely during all levels of visibility. 17

: require the occupant of each fighting position within the squad to record the type and location (magnetic azimuth in degrees and distance in meters) of each Claymore, trip flare, trip- or pull-wired grenade and similar explosive device located within the occupant's sector of responsibility on individual range cards as soon as practicable after installation. 18

He will : anticipate that enemy skilled in stealthy movement will observe and mentally mark the locations of Claymores installed during unlimited visibility or seek to locate, neutralize, remove or reverse Claymores during darkness when the approximate locations of using troops can be determined.

: to counter the action of enemy infiltrators against installed Claymores; make installations at dusk or after dark, when practicable, to avoid enemy observation and marking of locations; prior to arming controlled Claymores, install trip-wired or command-detonated grenades or trip flares at varying distances of 20 to 30 meters in front of Claymores to signal movement of infiltrators, cause enemy casualties, and illuminate the killing zone; use selected vines (jungle creepers) or monofilament (fishing line) as trip wires and pull wires for grenades and trip flares installed in front of Claymores to reduce probability of discovery; habitually maintain light and noise discipline; carefully camouflage installations, including painting the mines with flat white paint or use of light, white cloth drapes (sheeting, cheesecloth) on snow-covered terrain; bury (6 inches minimum) and camouflage firing wires to reduce enemy ability to locate mines and firing positions by touch during darkness and as protection against bullets, fragments, and blast; mark the rear of each controlled Claymore weapon with a 1" x 3" strip of luminous tape or luminous paint to aid surveillance against removal or reversal during darkness; and cover installed Claymores with readily available small arms fire when visibility permits. 20

- He must :** test or direct and supervise the testing of electrically controlled Claymore circuits twice daily during stand-to formations to ensure maintenance of effective circuits. 21
- He will :** when any area in which Claymores are installed as controlled weapons or mines is hit by bombs, rockets, mortar or artillery fire, grenade fragments, or small arms fire or subjected to high winds, lightning, heavy rain, hail, sleet, snow, or rotor wash from helicopters, ensure that Claymores are inspected and tested as soon as practicable for disturbance of aim, continuity of electrical circuits, possible detonation by lightning, and adequate camouflage, and ensure necessary maintenance or replacement. 22
- :** know that heavy brush in the killing zone will limit observation and reduce the lethal effects of the Claymore; select the best available fields of fire and clear or thin brush when practicable to obtain effective observation and fields of fire; camouflage and remove signs of clearing. 23
- :** know that submersion in water will dampen the lethal effects of the Claymore upon firing and may cause misfires; avoid positioning the Claymore at ground level in low places subject to flooding, particularly during the rainy season in tropical areas; place Claymores in trees or use stakes to raise Claymores above the high water mark when areas likely to be inundated must be covered; camouflage stakes, mines, firing wire, and tracks. 24
- :** know that deep or heavily crusted covering snow will reduce the lethal effects of the Claymore; remove drifts that occur after installation or set the Claymore on top of snow (or mud) with the legs extended horizontally and supported by the bandoleer; camouflage the Claymore and sweep out any tracks that might indicate location of the installation to the enemy. 25
- :** anticipate that the volume and intensity of flame generated by any exploding Claymore may ignite dry grass and produce brush or forest fires of tactical significance; note amount and condition of vegetation present, wind direction, and probable effects of fire on enemy and friendly troops and materiel; and control location and employment of Claymores accordingly. 26

: know that lightning (atmospheric electricity) or radio frequency currents from radio transmitters may cause unplanned detonation of Claymores; keep the shorting plug in place until ready to fire the Claymore and avoid using radio transmitters in close proximity to any electrical blasting cap that is not shunted (shorted). 27

: know that burying the electrical firing wire in moist earth when temperatures are likely to drop below freezing may prohibit undamaged recovery of the firing wire from frozen ground; substitute standard communications wire for Claymore firing wire when necessary; limit total length of wire to 100 feet or less for use with the firing device M57; make waterproof splices as necessary to connect electrical blasting caps and receptacles; and tape shorting plugs securely to locally fabricated firing wires to prevent loss. 28

: adhere to minimum separation distances and clear secondary missiles from immediate back-blast area when supervising the installation of Claymores in depth and ensure that the Claymores nearest the enemy are fired first. 29

: through instruction, demonstration, and observed individual performance, ensure that each member of his squad can select useful positions at dusk and safely and effectively install Claymores for controlled electrical detonation during darkness without the aid of artificial illumination. 30

3. THE IRSL WILL ESTABLISH SOP TO GOVERN THE FIRING AND REPLACEMENT OF ELECTRICALLY CONTROLLED CLAYMORES AND HE WILL ENFORCE FIRE DISCIPLINE UNDER ALL CONDITIONS OF VISIBILITY.

He must : know, and ensure that his men know, that the primary purpose of the Claymore is to halt assaults by massed personnel; that the enemy is likely to probe positions and use ruses (e.g., deliver automatic fire from covered positions or throw stones or sticks to make noise and draw fire) to cause the one-shot Claymores to be fired prematurely prior to a planned assault. 31

- : require his men to use hand grenades against located but unseen infiltrators within range during limited visibility to avoid disclosing their positions with muzzle blast, and to use small arms fire only against clearly visible infiltrators. 32
- : order, or delegate authority to IFTL's to order, the firing of Claymores at massed personnel reaching a position 20 to 30 meters in front of the Claymore, i.e., within the killing zone. 33
- : direct Claymore firers to disconnect the shorting plug, attach the M57 firing device (with the safety bail on safe), and place the firing device within easy reach as a matter of SOP upon detecting any indications of enemy activity in the killing zone. 34
- : anticipate that intense enemy fire, the necessity to return fire in self-defense, and the occurrence of casualties may temporarily destroy the chain of command in any small unit, particularly during limited visibility; as a matter of SOP, permit any soldier to fire the Claymore on his own initiative when enemy personnel are clearly apparent within the killing zone and less than 30 meters from the Claymore. 35
- : continually emphasize the need for a deliberate choice of weapons based upon visibility and location and number of enemy personnel detected and located; forewarn all friendly troops to sound the alarm and stop the assault of massed enemy with Claymores and by all other means available before the enemy is within easy hand grenade range of friendly positions. 36
- : to fire the Claymore, deliberately release the safety bail and fire with a firm, quick squeeze of the firing device handle. 37
- : if any member of his unit inadvertently fires a Claymore, require that the weapon be replaced as soon as practicable by the individual who fired it to maintain adequate coverage of the assigned sector. 38
- He will : to order immediate firing of all controlled Claymore weapons within a squad sector during limited visibility, use pyrotechnic ground signals, e.g., green star clusters, fired from central locations and visible to all Claymore firers. 39

He must : after firing Claymores at massed enemy, obtain a resupply of the weapons (or use available Claymores stored on position) and direct and supervise replacement as soon as practicable to maintain readily available Claymore fire. 40

4. ON ORDER OR AS REQUIRED BY THE SITUATION AND UNDER ALL CONDITIONS OF VISIBILITY, THE IRSL WILL INSTALL, MAINTAIN, AND SUPERVISE THE INSTALLATION AND MAINTENANCE OF CLAYMORES AS CONTROLLED, ONE-SHOT WEAPONS FOR PULL-WIRE INITIATION BY FRIENDLY TROOPS AND AS MINES FOR TRIP-WIRE INITIATION BY UNSUSPECTING ENEMY. HE WILL INSTALL AND SUPERVISE THE INSTALLATION OF CLAYMORES AS BOOBYTRAPS ONLY ON ORDER.

He will : know that the installation of Claymores for pull-wire or trip-wire initiation (nonelectric firing) requires tools and materiel not issued as standard Claymore accessories; increases installation and recovery time; exposes troops to the hazards inherent in handling combinations of nonelectrical blasting caps, detonating cord, and firing devices; requires the use of sensitive pull wires at firing positions where troops may be required to move during all levels of visibility; and increases the probability of detonation of Claymores by lightning because the nonelectrical blasting caps cannot be shunted (shorted) after Claymores are installed and armed. 41

: avoid the use of pull-wire or trip-wire initiation for Claymores in any situation where standard electrical detonation will fulfill the requirements of the mission. 42

He must : anticipate the loss of one crimped blasting cap (two if dual priming is used) and a few inches of detonating cord each time a Claymore is recovered after installation for nonelectrical firing; in preparation for any mission requiring the installation and recovery of Claymores for nonelectrical firing, estimate needs and obtain blasting caps, firing devices, detonating cord, and tape sufficient for each anticipated installation of the Claymores to be employed; and ensure that the explosives are packaged, transported, safeguarded, and handled with reasonable safety pending use. 43

- He will : require reports of intent to install, completion, location, and type (controlled weapon or mine) of installation, and require use of immediately available covering fire (security) during installation and maintenance of Claymores for trip-wire or pull-wire firing. 44
- : ensure that applicable precautions (par. 16, supra) are taken against enemy discovery, theft, reversal, and sabotage of Claymores installed for trip-wire or pull-wire firing, omitting any action that might forewarn the enemy of the existence of a Claymore trip-wired mine, e.g., use of trip flares in front of trip-wired Claymores would alert the enemy before he reached the Claymore trip wires. 45
- He must : designate positions and aiming points or inspect and approve positions and aiming points selected by his men; specify the material required for installation at any position selected; lay and aim the Claymore; and follow safe, mechanically sound procedures to fabricate an effective, nonelectrical firing system using blasting caps, detonating cord, standard firing devices, cap crimpers, tape, stakes, wire, and camouflage material to install Claymores for pull-wire initiation as controlled weapons and for trip-wire initiation as mines, including installation in depth. 46
- : when trip-wired Claymores are installed in combination with antitank mines, flame fougasse or flame mines, locate and aim the Claymores to avoid accidental detonation of any other flame or explosive devices employed in the combination. 47
- : obtain reports from subordinates, consolidate, and report Claymores installed as weapons in the squad fire plan; obtain reports, consolidate, and report Claymores installed as mines or boobytraps in the minefield report; and retain recorded information required to turn installed Claymores over to a relieving unit. 48
- He will : through instruction, demonstration, and observed individual performance, ensure that each member of his squad can select useful positions at dusk and safely and effectively install Claymores during darkness for initiation as controlled weapons by pull wires and for initiation as mines by trip wires. 49

- He must : when nonelectrical installation of Claymores occurs infrequently, plan and conduct refresher training (preferably just prior to any mission requiring the performances, knowledges, and skills involved) to ensure safe, effective use of the blasting caps, firing devices, and detonating cord employed with Claymores installed as controlled weapons, mines, or boobytraps. 50
- He will : know that a boobytrap is a concealed or camouflaged lethal device containing an explosive charge and cunningly contrived to be fired by an unsuspecting person who disturbs an apparently safe object or performs a presumably safe act. 51
- : know and ensure that his men know that boobytraps are installed only on order of the Field Army Commander; install boobytraps only after receipt of valid orders; and habitually report boobytraps as nuisance mines on a minefield report with sketches and detailed information to permit friendly personnel to avoid the boobytraps or, when so ordered, to locate and recover or neutralize them safely. 52
- He must : upon receipt of valid orders to boobytrap an area, obtain the assistance of demolition specialists if practicable or select from among his assigned personnel the requisite number of best qualified men and issue a warning order covering the task. 53
- : reconnoiter the area if practical or, if clandestine entry is involved, make a detailed map reconnaissance and study the intelligence available; estimate the number, locations, and types (pull, pull-release, or pressure-release) of boobytraps likely to be installed; specify, obtain, and check all tools and materiel required for completeness and serviceability; and, with due regard to safety and weight involved, ensure that the required explosives and tools are adequately packed, transported, and safeguarded pending use. 54
- He will : select, temporarily mark, and accurately record locations for boobytraps; specify the type to be employed, including designation of the initiating medium and type of firing device; and specify the sequence of installation for each location to ensure the safety of personnel. 55

: follow safe, mechanically sound procedures to fabricate effective boobytraps using Claymores, nonelectrical blasting caps, detonating cord, standard firing devices, cap crimper, tape, stakes, and camouflage material with emphasis on safety and effective installation to obtain enemy casualties without discovery by the enemy prior to detonation. 56

: ensure that temporary markers and all signs of boobytrapping are removed, concealed, or camouflaged and that friendly personnel complete their assignments and clear the area systematically as the boobytraps are laid and armed. 57

: through instruction, demonstration, and observed performance, prepare IFTL's and potential leaders to install Claymores as boobytraps, limit installation of boobytraps to qualified personnel, and ensure through refresher training and direct supervision that personnel selected to install Claymores as boobytraps perform effectively and safely. 58

5. UNDER ALL CONDITIONS OF VISIBILITY, THE IRSL WILL RECOVER AND SUPERVISE THE RECOVERY OF CLAYMORES INSTALLED FOR ELECTRICAL AND MECHANICAL INITIATION AS CONTROLLED WEAPONS, TRIP-WIRED CLAYMORES INSTALLED AS MINES, AND CLAYMORES INSTALLED AS BOOBYTRAPS.

He must : establish and enforce SOP requiring his men to recover (or turn over to relieving personnel) all installed Claymores and accessories, trip flares, trip- or pull-wired grenades and similar items employed with Claymores upon departing any area to prevent accidental injury to unsuspecting friendly personnel who may enter the area, to prevent capture of the devices by the enemy for use against friendly personnel, and as an economy measure to maintain an adequate supply of Claymores and allied equipment for current use. 59

: to the maximum extent practicable, have each Claymore recovered by the same individual who installed it to take advantage of knowledge of location and type of installation and thus enhance safety. 60

- : ensure immediately available covering fire (security) for personnel recovering Claymores in any situation where enemy contact is possible. 61
- He will** : to recover a Claymore installed for electrical firing: ensure that the firing device M57 is disconnected, that the firing device safety bail is in the safe position, replace the dust cover, and stow the firing device (and test set) in the bandoleer; short the firing wire with the shorting plug, remove the clove hitch from the stake at the firing position and roll up the firing wire to locate the installed Claymore during limited visibility; unscrew and remove the priming adapter, remove the blasting cap from the Claymore, and reverse and replace the shipping plug-priming adapter to protect the detonator well; remove the firing wire from the stake, complete rolling of the firing wire and blasting cap and place in cardboard container; remove the disarmed mine and stow all components in their proper compartments in the bandoleer. 62
- He must** : to recover a Claymore installed for nonelectrical firing: know or determine the exact location of the firing device, follow a safe route to the firing device, and replace the safety pins without disturbing the pull wire, trip wire, or any object likely to cause accidental firing; disconnect the trip or pull wire from the nonelectric firing device; remove the detonating cord with crimped blasting cap from the detonator well, cut the crimped cap free of the detonating cord about one inch from the cap with the cap crimpers, wrap and stow the crimped cap for later destruction, and remove, reverse, and replace the shipping plug to protect the detonator well; remove the firing device from the stake, peel off tape to separate the firing device with attached cap from the detonator cord, unscrew the standard base from the firing device and pad and stow the standard base with the crimped cap attached for future use; stow the detonating cord for future use; retrieve the Claymore and stow it in the bandoleer; retrieve and stow the firing device and pull or trip wire for future use; and eliminate signs of installation when applicable, e.g., during clandestine operations of a patrol against guerrillas. 63

- : prohibit the transport of detonating cord with crimped caps attached; prohibit the transport of firing devices with crimped caps attached; and pad, pack, and transport blasting caps separately from detonating cord, Claymores, or other explosives and separately from tools or other items likely to cause accidental detonation. 64
- : with due regard for demands for noise discipline, destroy, or submerge in deep water, the crimped caps cut from detonating cord during recovery of nonelectrical firing systems as a safeguard against accidental detonation or salvage by the enemy, e.g., crimp a cap to a suitable length of time fuse, tape the caps and attached detonating cord to be destroyed to the time fuse cap and destroy by detonation in an abandoned foxhole. 65
- He will : limit the recovery of Claymores employed as boobytraps to selected, qualified individuals, preferably the same individuals who made the installation or to Engineer specialists requested to perform the task. 66
- He must : when any primed Claymore installed as a controlled weapon, mine, or boobytrap has been made overly sensitive by damage (e.g., crushing, perforation by fragments or bullets, etc.), destroy the explosive elements in place by direct electrical detonation, if practicable, or by sympathetic detonation if necessary, using a blasting cap, detonating cord, and a firing device, a blasting cap and time fuse, a hand grenade, or other available explosives; prohibit the movement or transport of damaged explosive components to avoid injury to friendly personnel. 67
6. ON ORDER AND UNDER ALL CONDITIONS OF VISIBILITY, THE IRSL WILL PROVIDE DESCRIPTIONS OF TYPES OF CLAYMORE INSTALLATIONS AND THE SPECIFIC LOCATIONS OF INSTALLED CLAYMORES AND SIMILAR DEVICES TO RELIEVING OR REINFORCING INDIVIDUALS OR UNITS AND ACCEPT INSTALLED CLAYMORES AND SIMILAR DEVICES FROM UNITS RELIEVED OR REINFORCED BY HIS SQUAD.

- : anticipate that relief and reinforcement frequently will occur at night or during other periods of limited visibility; know that failure to rigidly control the use, maintenance, and recovery of installed Claymores and allied devices during a relief or reinforcements may result in mission failure because of a significant loss of firepower; and impress upon his men that knowledge of the locations and operations of installed Claymores and similar devices will afford immediately available fire and prevent the tragic waste of human life that can result from accidental detonation of lethal devices by friendly patrols and security personnel. 68
- : upon being relieved or reinforced, provide the relieving or reinforcing personnel with the specific location and an accurate description of the type of installation (pull wire, trip wire, electrically fired, etc.) of each Claymore and similar device for which the relieving or reinforcing unit must assume responsibility. 69
- : require that range cards and the locations of electrical firing devices and firing wire terminals, pull-wire terminals, and the locations of trip-wired Claymores, trip flares, and trip-wired or pull-wired grenades be provided by members of his own unit to the members of the relieving or reinforcing unit on an individual basis, with emphasis on safety and the maintenance of ability to respond immediately to enemy action despite limitations on visibility. 70
- : arrange for and supervise the direct exchange of installed Claymores and similar devices for like items to be obtained from relieving units to maintain his unit level of supply of Claymores and accessories in anticipation of any forthcoming mission requiring their use. 71
- He will : upon relieving any unit that has installed Claymores and similar devices, coordinate the exchange of information and materiel necessary to maintain reasonable safety and fighting effectiveness at the level of the individual soldier. 72

7. THE IRSL MUST MAINTAIN AN ADEQUATE SUPPLY OF CLAYMORES AND ACCESSORIES IN SAFE OPERATING CONDITION; SAFEGUARD THEM AGAINST DAMAGE, ACCIDENTAL DETONATION, AND LOSS OR CAPTURE; AND DESTROY THEM IF CAPTURE BECOMES IMMINENT.

- He must : anticipate that repeated installation and recovery, exposure to weather, mud, dust, blast, bullets, fragments, and rough handling will require continual inspection and maintenance to ensure reliable functioning of Claymores and the accessories required for electrical and nonelectrical firing; specify the number of Claymores and accessories to be carried by each of his fire teams on each mission; and require that Claymores and accessories be maintained, protected against damage and accidental detonation, and safeguarded against loss or capture by the individuals to whom they are issued. 73
- : inspect for and recognize: broken or bare firing wires; bent, dirty, or broken plugs and receptacles; and inoperative test sets and electrical firing devices and make timely repairs or obtain replacements to ensure the continuity of circuits and adequate voltage output. 74
- : make mechanically and electrically sound splices in firing wire assemblies and use plastic or rubber tape to waterproof splices and cover bare sections of wire. 75
- : package and transport electric and nonelectric blasting caps in waterproof containers (e.g., plastic bags), separate the blasting caps from each other, then separate the packaged blasting caps from detonating cord or other explosives and protect against excessive heat and rough handling that might cause accidental detonation. 76
- : anticipate that electrical and nonelectrical blasting caps will corrode and absorb moisture over time and that lead wires may be broken from electrical caps through repeated use; by inspection, testing, and replacement, ensure the availability of serviceable blasting caps of the required type and quantity for each mission. 77

- : package and transport detonating cord (and time fuse) in waterproof plastic containers separated from blasting caps and protect against excessive heat and rough handling that might break waterproofing and cause misfires. 78
- : anticipate that repeated installation, use, recovery, and transport of detonating cord will break down the weatherproofing and cause misfires; by inspection and replacement, ensure the availability of unbroken, weatherproof detonating cord in sufficient quantity to install the Claymores required for nonelectrical detonation for any mission. 79
- : inspect mechanical firing devices for safe, reliable functioning; protect them from dirt, water, and foreign matter; and ensure the availability of a sufficient number of the desired types to meet the requirements of any mission. 80
- : protect packaged Claymores from excessive heat, crushing, prolonged submersion in water, rough handling, and enemy fire. 81
- He will : prohibit the abandonment of Claymores and accessories and safely destroy damaged Claymores, crimped blasting caps, damaged detonating cord, and other unserviceable Claymore components and accessories by burning or detonation in small quantities to reduce possibility of accidental detonation and prevent salvage by the enemy. 82
- He must : safely reduce misfires of Claymores or supervise the reduction of misfires and require and supervise the destruction in place of any Claymore judged to be unsafe to recover. 83
- He will : in the event capture becomes imminent, destroy Claymores and accessories to deny their use to the enemy, preferably by hasty installation and detonation to cause enemy casualties. 84
- He must : require reports of expenditure of Claymores, consolidate the reports, and ensure timely resupply, including redistribution pending resupply and specification of numbers of packaged Claymores and accessory items to be kept on position for replacement in defensive positions such as squad sectors within base perimeters. 85

He will : upon completion of a mission, inspect and supervise the maintenance of all Claymores and accessories in the hands of his men to ensure completeness and serviceability prior to storage or turn in to issue point and mark or label each unserviceable unit and each unit that contains a test set. 86

He must : through instruction, demonstration, observation of performance, and timely correction, ensure that all personnel assigned to his unit adequately maintain Claymores and accessories in safe operating condition; safeguard them against damage, accidental detonation, and loss or capture; report expenditures and request replacements; safely reduce misfires; and effectively destroy Claymores and accessories if capture becomes imminent. 87

He will : habitually ensure that electrical firing devices, firing wires, test sets, bandoleers, and trip wire that remain serviceable after detonation of Claymores are salvaged for use by friendly troops or turned in to the ammunition supply point for re-issue; he will prohibit abandonment of Claymore accessories to prevent recovery and use by the enemy. 88

8. THE IRSL WILL PLAN, COORDINATE, AND SUPERVISE THE USE OF CLAYMORES BY HIS SQUAD IN DEFENSE, RETROGRADE, ATTACK, AND PATROLLING OPERATIONS; KNOW COMBAT-TESTED TECHNIQUES OF EMPLOYMENT; SELECT AND EMPLOY TECHNIQUES TO DOMINATE SPECIFIC SITUATIONS; AND VARY THE TECHNIQUES EMPLOYED TO PREVENT THE ENEMY FROM PREDICTING AND AVOIDING THE EFFECTS OF CLAYMORES.

: employ Claymores in defense primarily as controlled, electrically detonated, one-shot weapons for use by the individual soldier to cover approaches to fighting positions and security positions, including road blocks, listening posts, observation posts, outguard positions, and local security positions with emphasis on employment against massed enemy personnel during limited visibility. 89

: employ trip-wired Claymores to cover dead (defiladed) space in final protective fires, including employment in depth (at least 5 meters apart) to counter successive or continued enemy attempts to overrun defensive positions. 90

- : emplace Claymores to cover approaches to gaps between small units, gaps in protective wire, and lanes in minefields in front of or on the flanks of defensive positions. 91
- : mix trip-wired Claymores with other antipersonnel mines and antitank mines with emphasis upon aiming the Claymore to cover a probable enemy approach adequately without accidental detonation or disturbance of other mines in protective, defensive, and nuisance minefields. 92
- : use hastily emplaced Claymores to protect drop zones and landing and pickup zones during resupply, evacuation of casualties, landing of reinforcements, and during extraction of troops; e.g., on extractions, controlled Claymores on the perimeter of a pickup zone may be detonated immediately prior to moving the helicopters to cover withdrawal of the security force and to avoid loss of time required to recover and disarm Claymores. 93
- : in situations where controlled Claymores are installed, employ pull-wired fragmentation grenades 15 to 20 meters forward of Claymores for use against individual infiltrators and to deceive the enemy as to whether or not the Claymores have been fired, i.e., use the pull-wired hand grenades against minor probes by individual enemy infiltrators and withhold Claymore detonation for multiple attackers. 94
- : when Claymores are in short supply, employ pull-wired grenades as substitutes for controlled Claymores, particularly in brush-covered terrain where the use of point-detonating grenades from the M79 grenade launcher and manually thrown hand grenades cannot be employed safely during darkness or other limited visibility. 95
- He must : employ Claymores during retrograde operations essentially the same as in defense with emphasis on use by detachments left in contact and carefully supervised use of hastily emplaced Claymores to protect perimeters of assembly areas. 96

- : when "hugging" or "close embrace" tactics are employed by the enemy, use WP smoke grenades and hastily emplaced multiple Claymores to cover a coordinated withdrawal to gain space for use of indirect supporting fires, tactical air strikes, or attack by armed helicopters, i.e., the Claymores provide vastly increased (if momentary) firepower while the WP smoke grenades blind the enemy, cause casualties, and mark the forward edge of the enemy target area for the FAC or helicopter pilots. (This technique is also applicable to patrolling and small-unit search and destroy operations.) 97
- He will : use hastily emplaced, electrically controlled Claymores in the attack to increase immediately available firepower during reorganization and consolidation of the objective, particularly when visibility is limited by darkness, smoke, inclement weather or heavy vegetation detrimental to the delivery of aimed fire from organic small arms. 98
- : emplace electrically controlled Claymores on exit routes leading from guerrilla camps, enemy-occupied villages, and fortified areas when his squad acts as a blocking force during internal defense and development operations. 99
- : block approaches to flanks of attacking units with Claymores when his squad is assigned a flank security mission. 100
- : use electrically controlled Claymores to increase available firepower on the perimeter of assembly areas prior to the attack. 101
- : block open approaches to flanks with controlled Claymores if his squad is pinned down during an attack pending reinforcement by supporting fires or maneuvering troops. 102
- : employ controlled Claymores to block approaches to the flanks and rear of a squad or fire team employed as a base of fire during maneuver of another element. 103
- : use electrically detonated Claymores lashed to long, light poles (i.e., as pole charges) for delivering fire into caves or fighting positions cut into cliffs and stream banks or into doors and windows of buildings with emphasis on the neutralization of automatic weapons in such positions. 104

- : use controlled Claymores to gain fire superiority against close-in enemy during fire fights in thick vegetation, e.g., in jungle fighting where the enemy often is within 15 to 50 meters of friendly troops. 105
- He must : employ controlled Claymores in deliberate ambush situations during patrolling operations to: obtain flanking fire laterally along the length of the killing zone with the Claymores located between the ambush element and the enemy; obtain enfilade fire on the enemy by employing Claymores to cover the killing zone from each end of the ambush; obtain flanking fire on the enemy by placing Claymores on the opposite side of the killing ground from the ambush element where adequate cover is available for friendly forces; and to obtain fire on the killing zone from any direction offering a field of fire where either cover or elevation above the killing zone (as when ambushing a defile) will protect friendly personnel. 106
- : cover possible escape routes from the killing zone by facing Claymores away from the killing zone and trip-wiring them for detonation by fleeing enemy. 107
- : use controlled Claymores to protect the flanks and rear of the ambush element. 108
- : emplace electrically controlled Claymores to set a hasty ambush against an enemy force meeting, trailing, or pursuing a patrol, particularly when operating against guerrillas during internal defense and development operations. 109
- : use hastily emplaced, electrically controlled Claymores installed in depth to seal off enemy approaches and isolate the objective during raids and to cover withdrawal routes of friendly elements from a raid objective. 110
- : use nonelectrically primed Claymores equipped with time fuses and fuse lighters as prefabricated satchel charges during raids for destroying thin-skinned surface vehicles and aircraft, e.g., a Claymore detonated lethal-side-down on an aircraft wing will pierce wing tanks, ignite fuel, and destroy the aircraft. 111

- : employ carefully camouflaged, electrically controlled Claymores for the protection of patrol bases as an economy of force measure when the supplies and equipment cached at the base must be secured by one element while the remainder of the squad (patrol) accomplishes the assigned mission(s). 112
- : use hastily emplaced, electrically controlled Claymores to increase the firepower of small-unit patrols forced into defensive perimeters by superior numbers of the enemy (e.g., during search and destroy missions) pending delivery of indirect fires, arrival of supporting aircraft, or arrival of reinforcements. 113
- : when detection permits, use the aimed and coordinated fire from stealthily emplaced, electrically controlled Claymores as a readily available substitute for close indirect supporting fires against enemy ambush forces, command and communication posts, guerrilla camps, and similar installations, particularly when visibility is limited by near darkness, thick vegetation, or inclement weather. 114
- He will : when infrared or image intensification devices are available, employ and supervise the employment of the devices during darkness to locate sites and fields of fire for Claymores; to detect, locate, and identify targets suitable for engagement with Claymores; and to detect, locate, and identify incoming friendly patrols and other security personnel required by their missions to pass through the fields of fire covered by Claymores. 115
- He must : continually seek and employ variations and innovations in siting (e.g., emplacement of Claymores in trees) and aiming Claymores to avoid enemy detection, gain surprise, and increase shock action with due regard to the safety of his own personnel from back-blast and secondary missile hazard. 116
- He will : instruct and supervise his subordinates in the techniques of employment of Claymores to increase the volume and effectiveness of available firepower in all types of operations and, to the degree feasible, establish SOP covering the employment of Claymores in frequently recurring situations. 117