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

Rifle, 7.62-mm M14

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.

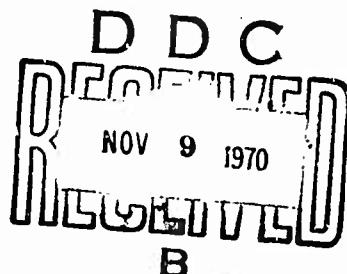
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Rifle, 7.62-mm M14

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Technical Advisory Service

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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 of the rifle, 7.62-mm M14.

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

RIFLE, 7.62-MM M14

General Considerations

Introduction

The rifle, 7.62-mm, M14, is a lightweight, air-cooled, gas-operated, magazine-fed shoulder weapon designed primarily for semiautomatic fire. It is the basic individual weapon in units where it is issued as the standard rifle. In the hands of a skilled rifleman it is the most accurate and economical source of firepower available to the members of an Infantry small unit. It will be the IRS's individual weapon in units where it is issued as a standard item. The IRS should set the example as the outstanding rifleman of the squad insofar as marksmanship, maintenance, safety, and the safeguarding of his weapon are concerned. He must use the rifle professionally in self-defense as demanded by the situation. He will use it deliberately to set an example in the delivery of fire when an example is required to inspire his men or when the volume of fire he can provide is likely to be a decisive factor and the most significant contribution he can make at the moment.

Scope

This paper sets forth the knowledges, skills, and performances required of the IRS to use and supervise the use of the M14 rifle as an individual, semiautomatic weapon. Inspection, the engagement of targets from point-blank to maximum effective range during all levels of visibility, reloading, maintenance, safety, and destruction to prevent capture are covered in adequate detail. An assumption is made that if the IRS masters the knowledges, skills, and performances required of his men, he can instruct them and supervise their activities to ensure an acceptable performance. Target detection is covered in the paper on Observation, Combat Intelligence, and Reporting. Additional directly related material is covered in the papers on Bayonet Knife and Hand-to-Hand Combat; Technique of Fire of the Rifle Squad; Mounted and Dismounted Platoon Combat Formations; Infrared Weaponsight and Image Intensification Devices; Cover, Concealment, and Camouflage; Physical Conditioning; and the papers covering tactical operations.

Battlefield Cues

Orders or instructions from commanders pertinent to the use or maintenance of the M14.

Known or suspected enemy targets, e.g., personnel, vulnerable surface vehicles and craft, weapons positions, and aircraft within effective range.

Close-in, fleeting targets requiring use of "Quick Kill" techniques (as opposed to aiming with sights).

Visible bullet strike, particularly between the firer and the target, indicating a need to adjust the aiming point to deliver effective fire.

Limited visibility requiring use of the pointing technique (as opposed to aiming with sights) and delivery of prearranged grazing fire with bipods, stakes, rests, etc., to control elevation and lateral distribution.

Possible, but unidentified, targets, particularly when perceived during limited visibility, i.e., possible threat of delivery of lethal fire against friendly personnel.

Availability of infrared or image intensification devices for use during limited visibility.

Tracer fire indicating a need to reload.

Dirt, rust, carbon, etc., requiring care and cleaning to ensure delivery of effective fire.

Free time and the availability of cleaning materials immediately after prolonged firing.

Broken, worn, or missing parts discovered during inspection or routine maintenance.

Failure of the weapon to fire, unlock, extract, eject, cock, feed, chamber, or lock.

Repeated failure to hit targets during zeroing or in combat.

Excessive dust and dirt in the air from wind or aircraft rotors or propellers.

Accidental discharge of the weapon.

Unsafe weapons handling by any soldier.

Swelling, cracking, or drying of stock due to exposure to weather.

Heavy rain or inadvertent submersion in water or mud.

Freezing weather where heated bunkers or other warm shelters may cause moisture to condense on weapons brought in from the cold with resultant freezing upon being exposed to outside temperatures.

Fixed bayonets around or within aircraft or in heavy brush where the added length of the bayonet slows movement and weapons handling.

Any rifle slung when a soldier's hands are free (i.e., when he is not carrying a load that requires both hands or using his hands to climb, etc.) and contact is possible.

Any rifle left out of arm's reach by the soldier armed with it when contact is possible.

Imminent threat of capture of the M14 and accessories.

Materiel

U.S. rifle, 7.62-mm, M14.

20-round magazines.

5-round cartridge clips.

Magazine filler.

Standard ball and tracer ammunition.

Standard set of maintenance equipment plus toothbrush or shaving brush.

Patches and cleaning rags.

Bore cleaner and lubricants specific to the environment.

Raw linseed oil for stock preservation.

M2 bipod (if available, for use during limited visibility to aid delivery of grazing fire).

Bayonet knife.

Performances, Knowledges, and Skills

1. UPON INITIAL ISSUE OF AN M14 RIFLE, THE IRSL WILL ENSURE THAT THE WEAPON IS CLEAN, PROPERLY LUBRICATED, COMPLETE, AND READY TO FIRE.

He will : remove the magazine and clear the weapon to ensure against a live round in the chamber. 1

: ensure availability of maintenance equipment, i.e., combination tool, chamber cleaning brush, plastic case of lubricant, cleaning rod (4 sections), cleaning rod case, slotted cleaning patch holder, bore-cleaning brush, patches, and dry-cleaning solvent, if the latter is necessary to remove heavy grease, etc. 2

: field-strip the weapon, inspect parts, and replace any missing, broken, or worn parts. 3

: clean, lubricate, and assemble the weapon; check for functioning, including safety; and leave the bore and chamber dry (not oiled) in preparation for zeroing. 4

2. THE IRSL WILL TEST FIRE HIS M14 RIFLE AND OBTAIN A 250-METER BATTLESIGHT ZERO BY USE OF THE 25-METER METHOD AS SOON AFTER RECEIPT OF THE WEAPON AS POSSIBLE.

He will : recognize the economy of time and the convenience of establishing a 250-meter battlesight at a range of 25 meters; diagram (e.g., make a sketch on the ground) the trajectory of the round and the line of sight as related to targets at 25 meters and at 250 meters; and explain to his men in simple language how the rifle can be zeroed to hit the point of aim at 250 meters by firing at a target on a 25-meter range. 5

: to zero his rifle (or to supervise the zeroing of his subordinates' rifles) at 25 meters, use a distinctive (e.g., black) aiming point 3 centimeters high by 7 centimeters wide on a contrasting background with a safe stop or restricted area to the rear of the target. 6

: anticipate that the average soldier will need to fire three or four shot groups to accurately determine the battlesight zero of his rifle. 7

He must : set the rear sight at 12 clicks of elevation and zero windage with proper tension; use a prone-supported (e.g., sandbag rest) or foxhole-supported position for maximum accuracy; aim at the bottom center of the rectangular aiming point; and fire a three-round shot group. 8

- : know that the bullet strike for a correct 250-meter battlesight zero fired at a range of 25 meters will be 4.6 centimeters directly above the point of aim. 9
- : know that each click of either windage or elevation placed on the rear sight will move the bullet strike .7 centimeters (slightly more than 1/4 inch) on a target at 25 meters, and 7.5 centimeters (approximately 3 inches) on a target at 250 meters. 10
- : to adjust the rear sight while zeroing, move the sight in the same direction that it is desired to move the shot group on the target, i.e., to raise the strike on the target, raise the rear sight; to move the strike to the right, move the windage to the right. 11
- : based upon the results of successive shot groups, adjust the rear sight until the center of the shot group appears 4.6 centimeters directly above the point of aim. 12
- He will : upon completion of zeroing, calibrate his rear sight; instruct his men in rear sight calibration, using the correct procedure for rear sights with locking nuts and for those without locking nuts; and require each person concerned to know (memorize) the serial number of the assigned weapon and the 250-meter battlesight zero for the assigned weapon. 13
3. THE IRS WILL, AT RANGES UP TO APPROXIMATELY 500 METERS, UNDER TIME PRESSURE VARYING FROM GREAT TO NONE, ENGAGE AND SUPERVISE ENGAGEMENT OF TARGETS SUCH AS OBSERVED STATIONARY, MOVING, SINGLE- AND MULTIPLE-PERSONNEL, AND SUSPECTED ENEMY POSITIONS FROM GROUND FIRING POSITIONS, OR FROM AIR AND SURFACE VEHICLES. HE WILL COMMENCE AND TERMINATE FIRE AS THE SITUATION DEMANDS OR ON ORDER.
- He must : know these characteristics of the M14 to use and control his fire and that of his men effectively: 14
- (1) Maximum range is 3750 meters.
 - (2) Maximum effective range is 460 meters.
 - (3) Maximum sustained rate of fire is approximately 15 rounds per minute and any higher rate of fire may be fired only for short periods without overheating the barrel, e.g., a firer may fire 30 rounds per minute for 5 minutes without harming himself or the weapon.

- (4) Within its effective range, fire from the M14 will penetrate mud, thatch, sheet iron, frame, and brick veneer construction and inflict casualties within such structures. It will penetrate approximately 12 inches of solid oak, e.g., in situations where the enemy uses trees for cover.

: except where time, insufficient light, or enemy proximity demand the use of pointing, unaimed fire ("Quick Kill" technique), aim his weapon by using the sights; deliberately apply the fundamentals of marksmanship to ensure maximum effective fire; and require the same actions of his men.

15

: know that automatic fire from an unsupported position is much less accurate than semiautomatic fire (in terms of hits per round expended); that promiscuous automatic fire will usually merely create resupply problems without materially increasing the number of casualties inflicted; and require that all riflemen selectively use pointing or aimed semiautomatic fire except for those individuals designated as automatic riflemen.

16

: anticipate that the majority of point targets engaged in combat will be at ranges up to 300 meters and discount the effect of wind in selecting an aiming point except as indicated by visible bullet strike.

17

: recognize that it is not practical for the average soldier to change sight settings for targets at various ranges in combat; maintain a 250-meter battlesight zero; and use an adjusted aiming point to deliver effective fire, i.e., aim his zeroed weapon at the:

18

- (1) Center of the torso (i.e., midway between the crotch and the chin) on fully visible, stationary human targets from point-blank range to the maximum effective range of the rifle.
- (2) Bottom center of visible mass for stationary targets using cover and concealment up to 200 meters.
- (3) Center of visible mass for stationary targets using cover and concealment from 200 to 500 meters.
- (4) Recognize that most men tend to shoot high in combat; that the prescribed adjusted aiming points aid to overcome this tendency; and that a low shot may produce either an incapacitating ricochet hit or a visible bullet strike that will permit adjustment of the aiming point to deliver effective fire. (A high shot often is simply lost and usually produces no feedback.)

- He will : anticipate that dismounted enemy personnel moving within effective rifle range will usually avoid lateral movement and often will move by short, full-speed, 3- to 4-second rushes; recognize that such moving targets often can be hit by marking the point where the rush ends and shooting while the enemy is stationary or as the enemy rises to start a rush. 19
- He must : when engaging a target moving directly toward or directly away from him, use the same adjusted aiming point as would be used for a stationary target. 20
- He will : when engaging laterally moving enemy, adhere to the elevation prescribed for the range and target involved but adjust the aiming point further to lead the target, i.e., aim at: 21
- (1) The forward edge of the body of a walking man within 200 meters.
 - (2) A point one body width in front of a running man within 200 meters.
 - (3) A point one body width in front of a walking man beyond 200 meters.
 - (4) A point two body widths in front of a running man beyond 200 meters.
- : habitually react to and correct the aiming point on the basis of visible bullet strike, and if a moving target cannot be seen through the peep sight because of poor light or a background that blends with the target, look directly over the sights and deliver pointing fire, i.e., use the "Quick Kill" technique. 22
- He must : when a moving target takes cover or concealment, select a visible aiming or reference point at or near the point of disappearance and "stitch" the suspected position laterally with 3 or 4 carefully aimed, single rounds spaced approximately a foot apart to take maximum advantage of chance dispersion and the penetrating quality of M14 rifle fire. 23
- : recognize that regular practice is essential to the effective engagement of stationary or moving targets and conscientiously seek to provide practice for himself and his men at every opportunity, e.g., balloons moved by the current of a stream may be used for moving target practice with little preparation if a high river bank or suitable cleared space is available down range to ensure safety. 24

- He will : when firing at time-pressure targets at ranges over 35 meters, use the shoulder position with sights and semiautomatic fire to achieve maximum accuracy with speed, when time pressure permits. 25
- : when time pressure permits, assume the most stable position, i.e., standing, kneeling, squatting, sitting, prone, or modifications thereof, that the situation allows; use available cover and concealment; use the sights to aim, taking the correct adjusted aiming point and any required lead; fire a single shot or a rapid succession of semiautomatic shots as required to destroy or neutralize each target. 26
- : ensure that he and his men know how to use the hasty sling and, when time and the situation permit, consider use of the hasty sling to increase accuracy when firing from unsupported standing or kneeling positions. 27
- : when practicable, habitually use stable objects such as parapets, trees, etc., to gain a supported firing position and increase accuracy, particularly when firing at targets at medium range and beyond; in defensive positions, deliberately fix firing positions to provide for delivering supported, aimed fire over the assigned sector during unlimited visibility and supported grazing fire during limited visibility. 28
- : use the squatting position to increase stability on sloping ground; to avoid contaminated or wet, muddy surfaces; and to gain observation with maximum concealment in tall grass and brush. 29
- : when firing from moving vehicles or aircraft, assume a stable, supported firing position; seek to anticipate vehicle or aircraft movement likely to inhibit accuracy; ensure that the intended line of fire is clear of approaching friendly forces; and ensure that the muzzle of the weapon is clear of the vehicle to prevent damage. 30
4. THE IRS WILL, AT RANGES UP TO APPROXIMATELY 35 METERS AND UNDER EXTREME TIME PRESSURE, ENGAGE AND SUPERVISE THE ENGAGEMENT OF SUDDENLY APPEARING, CLOSE-IN TARGETS, INCLUDING STATIONARY, MOVING, SINGLE- AND MULTIPLE-LOCATED PERSONNEL ON THE GROUND, AS WELL AS SUSPECTED ENEMY POSITIONS, AND WILL SUPERVISE DELIVERY OF ASSAULT FIRE BY HIS SQUAD. HE WILL COMMENCE AND TERMINATE FIRE AS DEMANDED BY THE SITUATION OR ON ORDER.

- He must : engage close, dangerous targets under extreme time pressure from the underarm position, from the shoulder position without using sights, and from the shoulder position using sights, as demanded by the situation, and recognize that other positions require excessive time to assume or result in the delivery of significantly less accurate fire. 31
- : determine his own capabilities and limitations by firing the rifle from each of the three positions at close, presumably dangerous, targets, demonstrating to himself the advantages and disadvantages of each. 32
- : provide instructions and practice for his men to ensure that each man determines his individual capabilities and limitations in the delivery of effective fire from each of the three positions. 33
- He will : know that the underarm position is the quickest position to assume and fire from; but is the least accurate of the three, particularly as range increases beyond 15 to 25 meters; and recognize that use of the underarm position magnifies the tendency of inexperienced riflemen to fire high. 34
- : during practice, emphasize the necessity to overcome the tendency to shoot high from the underarm position. 35
- He must : know that pointing fire delivered from the shoulder position, although slower than from the underarm position, is more accurate, and that use of the shoulder position reduces the tendency to fire high. 36
- He will : know that aimed fire delivered from the shoulder position is the slowest method of delivery, particularly with a peep sight, but will provide the most accurate fire, especially at ranges between 15 and 35 meters and beyond. 37
- He must : as required by time pressure when engaging close, dangerous targets, aim or point at the center of visible mass, e.g., the lower chest of a man in an erect position above ground, or the bottom center of assumed, penetrable mass, e.g., the base of a bush or thin tree behind which an enemy has concealed himself in an assumed prone position. 38
- He will : recognize the need for and provide realistic practice toward the effective engagement of close, dangerous targets while under fire or under the immediate threat of fire so each soldier's reaction will be almost automatic, i.e., immediately upon identifying an enemy target. 39

- (1) Fire from the standing position depending upon the effectiveness of his fire for protection.
- (2) Drop to prone or take any immediately available cover prior to firing.
- (3) Fire from an upright position while dropping to prone, particularly at point-blank targets.

He must : recognize and forewarn his men that to habitually follow a single reaction, e.g., to habitually go prone before firing, may permit the enemy to recognize and react to specific habit patterns with a resultant increase in friendly casualties.

40

: forewarn his men against purely reflexive delivery of fire against perceived, but unidentified, targets, particularly when visibility is limited by darkness, rain, dense brush, elephant grass, etc., to avoid the tragic delivery of lethal fire against friendly personnel.

41

He will : recognize the need for and require his men to carry their weapons in a ready-to-fire position as a matter of habit to permit immediate delivery of fire upon any target(s) that appear suddenly without forewarning, i.e., prohibit the slinging of arms except when riflemen must use both hands for load-bearing or climbing. (Muscular development over time through regular practice in training and in combat is vital to prolonged carrying of a fully loaded weapon in a ready-to-fire position. The time required to unsling a weapon or to move it from a shoulder carry to a firing position may cost the soldier his life or a serious wound when the enemy is encountered suddenly at short range.)

42

5. THE IRS WILL, DURING LIMITED VISIBILITY, AT RANGES OUT TO THE LIMITS OF VISIBILITY AND UNDER VARYING TIME PRESSURES, ENGAGE AND SUPERVISE ENGAGEMENT OF TARGETS OF ALL TYPES, INCLUDING STATIONARY, MOVING, SINGLE- AND MULTIPLE-LOCATED OR SUSPECTED ENEMY PERSONNEL, USING POINTING FIRE, COMMENCING AND TERMINATING FIRE AS THE SITUATION DEMANDS OR ON ORDER. HE WILL DIRECT AND SUPERVISE THE USE OF FIELD EXPEDIENTS TO DELIVER EFFECTIVE, PREARRANGED GRAZING FIRE.

He must : use and supervise the use of pointing ("Quick Kill") techniques from the shoulder firing position, looking directly at the target over the muzzle and sights with both eyes open to ensure alignment with the target.

43

: consider placing luminous material on the backs of rear and front sights facing the firer to aid in properly aligning the weapon with the target during darkness when the standard peep sight is not useful.

44

: anticipate that the tendency to fire high will increase when visibility is limited by darkness because the firer is unable to use his sights, and require a significant and deliberate depression of the muzzle once the firer decides that proper alignment has been achieved. 45

: know that prolonged focus of the eyes upon a target during darkness will cause the retinal image of the target to fade, and provide practice to demonstrate that the trained rifleman has time after he has spotted a target to position his weapon and fire effectively, using the pointing technique, before the image begins to fade. 46

He will : as soon as time permits when organizing a defensive position, ensure that preplanned individual grazing fires are organized to cover dangerous approaches and areas of level or uniformly sloping terrain by requiring his men to use: 47

- (1) Locally procured directional stakes marking the direction of specific target areas, e.g., mouth of a gulley leading toward friendly positions, and the lateral limits of assigned sectors of fire.
- (2) A combination of forked or notched stake or bipod and a rearward support such as a notched stake for a specific target area or a horizontal board or log to ensure coverage of a sector of grazing fire.
- (3) When firing a rifle within rests, firm butt support by the firer's shoulder with the weapon held in the exact position in which it was sighted in to cover a specific target or sector.
- (4) Verify sighting in, when the situation permits, to check both direction and elevation to achieve optimum graze effect during limited visibility.

: recognize that the use of field expedient rests to produce grazing fire from individual riflemen will significantly increase the effectiveness of FPL fire. 48

He must : know that tracer fire may create psychological fear in the enemy and illuminate targets, thus aiding the firer to increase the accuracy of fire. 49

: recognize that the firing of tracer ammunition will not expose the firer's position beyond the normal exposure common to all muzzle blast because tracer usually ignites 35 to 70 meters forward of the muzzle and has a deceiving, arcing effect. 50

6. THE IRSL WILL, DURING ALL CONDITIONS OF VISIBILITY AND FREQUENTLY UNDER EXTREME TIME PRESSURE, REMOVE EMPTY MAGAZINES AND RELOAD HIS WEAPON WITHOUT VISUALLY OBSERVING THE PROCEDURE, WITH A MINIMUM OF BETRAYING MOVEMENT, AND WHILE MAINTAINING SURVEILANCE OF THE TARGET AREA.

He must : consider, prior to entry into action, loading three tracer rounds as the bottom (last to be fired) rounds in each magazine to provide visual forwarning when each magazine is nearly empty and thus cue him to prepare to reload. 51

: habitually keep magazines clean; keep foreign matter out of ammunition pouches; inspect ammunition during loading of magazines (when time permits) to ensure against corroded, bent, loose, or short rounds, split cases, dirt, etc.; and place vertically positioned magazines top down in the ammunition pouches to facilitate rapid reloading, to protect ammunition from dirt, to keep magazine lips from bending, and to permit water to drain easily during rain or after stream crossings. 52

: when the last round (third tracer round) is fired and the bolt remains to the rear, deliberately and firmly press in on the magazine latch, rotate the base of the magazine toward the muzzle, remove the empty magazine from the magazine well, and stow it for later reloading. 53

: except when the intent is to continue the delivery of fire immediately upon reloading, place the safety in the safe position during removal of the empty magazine and reload. 54

: firmly grasp a loaded magazine, rapidly and deliberately insert it into the magazine well until the operating rod spring engages the magazine, then pull backward and upward until the magazine seats in position as indicated by the click of the magazine latch, seat the bolt, and continue fire delivery. 55

: provide practice in changing magazines by tactful discrimination ("feel") and require riflemen habitually to continue visual search for targets or to maintain visual reference to target locations already detected throughout the reloading procedure. (Use partially filled magazines during range firing to force practice in reloading.) 56

: as often as time permits, reload partially empty magazines by inserting rounds from clips through the magazine charger guide and require all riflemen to seek habitually to maintain a fully loaded rifle. 57

: use and supervise the use of the magazine filler to
reload cartridges from 5-round clips into empty maga-
zines and seek habitually to maintain the prescribed
basic load of fully loaded magazines. 58

: continually emphasize the necessity for all riflemen
to learn to reload rapidly by feel while maintaining a
vigilant watch for targets to avoid lulls in the delivery
of assault fire, to speed loading during limited visi-
bility, and to limit to an absolute minimum the time
during which a soldier is vulnerable because his rifle
is empty and he cannot deliver fire to protect himself. 59

: particularly in defensive positions, seek extra maga-
zines, require them to be loaded and placed in protected
but easily accessible positions (e.g., in ammunition con-
tainers inset into the sides of foxholes) for immediate use,
and require a basic load to be maintained on the web equip-
ment in the event a small unit must move on short notice,
e.g., to counterattack. 60

7. THE IRSL WILL MAINTAIN HIS RIFLE AND SUPERVISE THE MAINTENANCE
OF HIS RIFLEMEN'S WEAPONS, INCLUDING PROTECTION FROM HARMFUL
ENVIRONMENTS, DISASSEMBLY, CLEANING, PROCUREMENT AND REPLACEMENT
OF UNSERVICEABLE PARTS, LUBRICATION, ASSEMBLY, AND PROCUREMENT
AND MAINTENANCE OF TOOLS AND CLEANING MATERIALS.

He will : recognize and continually emphasize to his men that
all weapons in use under campaign conditions must be
maintained according to need to ensure adequate function-
ing and to avoid unnecessary wear and deterioration;
impress upon his men that their survival and the ac-
complishment of the mission are directly dependent upon
their ability to maintain their weapons and to deliver a
superior volume of lethal fire during each contact with
the enemy; and hold each IFTI, directly responsible for
adequate weapons maintenance and full participation in
the delivery of fire by his men. 61

He must : recognize the tools and cleaning and preserving
materials required (issued) for rifle maintenance (i.e.,
know when a necessity is missing); explain in detail and
demonstrate their proper use for any given environment
(temperate, hot-wet, hot-dry, extreme cold); require
each soldier to obtain and carry a toothbrush or shaving
brush as an additional aid to weapons maintenance; and
ensure replacement and resupply of non-expendable and
expendable items required for adequate weapons mainte-
nance. 62

- : ensure through instruction and inspection that each rifleman and each IFTL in his squad can disassemble (field strip) the rifle, clean and lubricate it properly for the governing climate and the specific environment, assemble the weapon, and check it for proper functioning. 63
- : set the example for weapons handling, care, and maintenance, and make it a practice to spot check and inspect weapons at random when time permits, i.e., conduct on-the-spot inspections of individual weapons, ammunition, magazines, and cleaning and preserving materials with a frequency that will condition each soldier in the squad to anticipate that his individual weapon is likely to be singled out for inspection at any time during contact with the IRSN. 64
- : recognize that detailed disassembly and needless ("busy-work") cleaning of weapons merely cause unnecessary wear and loss or deformation of parts; prohibit disassembly beyond field stripping except in an emergency under the supervision of the unit armorer or an experienced NCO; and require each soldier to report any malfunction of a weapon or ammunition that cannot quickly be corrected on the spot by the routine application of authorized procedures. 65
- : habitually provide time for essential weapons maintenance as soon after use as is practicable, e.g., it is as sensible, and possibly more vital, to secure an area and call a halt for weapons maintenance after use and exposure to unfavorable conditions (such as a fire fight in a swamp) as it is to permit men to gain rest and obtain food. 66
- : when weapons maintenance is conducted under any possible threat of enemy contact, require IFTL's to coordinate and schedule cleaning by individuals so that a minimum number of weapons are disassembled (inoperative) at any given time and that adequate firepower is available to ensure the security of the unit. (This applies to all weapons, of course, not merely to rifles.) 67
- He will : periodically, e.g., between campaigns, arrange for a detailed technical inspection of his squad's weapons and ensure the replacement of parts or repairs required by the unit armorer and/or an Ordnance small-arms technician. 68
- : periodically, e.g., prior to the beginning of a campaign or prior to a prolonged operation, provide opportunity to test fire and check the zero of weapons. 69

- He must : particularly after exposure to mud and snow, forewarn his men to inspect their flash suppressors and muzzles to ensure against blocking with resultant over-pressure that may injure the firer and destroy the weapon. 70
- : know that use of a thin plastic cover or covering with an olive drab handkerchief will prevent mud, snow, leaves, etc., from blocking a rifle muzzle or flash suppressor; forewarn his men to ensure that such covers do not cover front sights and thus interfere with the delivery of aimed fire. 71
- : recognize that the length of the M14 barrel with flash suppressor may cause a barrel to be bent or result in a misalignment of the flash suppressor; forewarn his men to safeguard their weapons and check frequently against bent barrels and misaligned flash suppressor to ensure accuracy and safety. 72
- : consider the use of thin plastic sheeting to cover receiver and magazine during windstorms in sandy terrain and when being helicopter landed into sandy areas where rotor downwash fills the air with abrasive dust and sand; use rubber bands to hold the thin plastic sheeting in place; ensure that the plastic covers can be ripped off quickly; and ensure that the weapon can be fired with the plastic sheeting in place in an emergency. 73
- : protect extra loaded magazines (those not carried in belt pouches) against mud, freezing rain, etc., by wrapping in light plastic; keep a minimum of one magazine ready for instant reloading at all times; and, as ammunition is expended, shift loaded magazines from the left-hand pouch to the right-hand pouch (right-handed firers) to speed reloading. 74
- : avoid bringing cold weapons into heated buildings or tents where condensation will occur and cause moisture-covered actions to freeze when again exposed to outside temperatures. 75
- : prohibit the taping or welding of magazines together because this exposes the open end of the magazine not in the magazine well to dust, dirt, etc., and may cause failure to feed. 76
- : particularly in hot, wet climates, anticipate frequent need to treat stocks with linseed oil, to replace hand guards, magazines, and slings, and to wipe ammunition with a dry cloth to prevent corrosion. 77

- : require loaded but unused magazines to be emptied 78
 periodically and cleaned to ensure against unseen rust
 and corrosion, particularly in hot-wet climates; oil the
 spring only and seek to keep magazines and ammunition
 clean and dry.
8. THE IRSL WILL APPLY IMMEDIATE ACTION TO REDUCE STOPPAGES DURING FIRING AND, WHEN IMMEDIATE ACTION FAILS TO REMEDY THE STOPPAGE, HE WILL DETERMINE THE CAUSE AND REDUCE THE STOPPAGE.
- He must : through instruction, inspection, and adequately supervised maintenance, seek to limit all weapons malfunctions in his squad to an absolute minimum with full realization that stoppages resulting from poor maintenance will increase casualties, reduce the squad's volume of fire, and may cause mission failure. 79
- : emphasize the need to load tracer as the last three rounds to be fired to avoid mistaking a stoppage due to lack of ammunition for a genuine malfunction. 80
- : recognize that an open bolt, i.e., when the operating rod handle is fully rearward, is usually an indication to reload and proceed accordingly. 81
- He will : know that immediate action is the unhesitating application of a probable remedy to reduce a stoppage without investigating the cause; that the application of immediate action is not instinctive, i.e., it is a learned skill; and deliberately condition his men to apply immediate action by forcing practice during all range and field firing. 82
- : know that a primary cause of weapons malfunctions is faulty ammunition and that the ejection of a faulty round and its replacement will reduce the majority of stoppages. 83
- He must : immediately upon the occurrence of a stoppage not caused by an empty magazine, pull the operating rod handle all the way to the rear with the right hand, palm up; release the operating rod handle, aim, and attempt to fire. (Emphasize keeping the palm up to avoid injury if a round hand-fires or cooks-off.) 84
- : if the first phase of immediate action fails to reduce the stoppage, apply the second phase, i.e.: 85
- (1) Take the rifle from the shoulder and pull the operating rod slowly to the rear.
 - (2) As the operating rod moves to the rear, look or feel (in darkness) to determine what is in the chamber and what is being ejected.

(3) Reduce the stoppage and continue to fire.

He will : if any weapon malfunctions repeatedly without apparent cause, request replacement and repair. 86

: if an unusual number of malfunctions appear to be occurring with a specific lot of ammunition, request resupply; identify and report the lot number (as shown on containers); and replace the ammunition in the hands of troops that is known or suspected of causing stoppages. 87

: seek habitually and deliberately to identify any causes of malfunction that appear to be peculiar to a specific environment and report the cause(s) and remedies without delay. 88

9. THE IRSL WILL ESTABLISH, DISSEMINATE, AND ENFORCE SAFETY PROCEDURES TO PREVENT ACCIDENTAL DISCHARGE OF WEAPONS.

He must : impress upon all members of his unit that the accidental discharge of any weapon may: 89

- (1) Kill or seriously wound a fellow soldier.
- (2) Damage or destroy valuable materiel, e.g., the accidental discharge of a tracer round into the fuel cell of a helicopter.
- (3) Cause the loss of tactical surprise with resultant friendly casualties and possible mission failure.

: emphasize weapons safety on a continuing basis as a regular part of maintenance and require all rifles to be locked on safety at all times except when the immediate intent is to deliberately fire the weapon. 90

: require all personnel to look or feel (in darkness) to ensure removal of the magazine and clearing of the chamber when weapons are unloaded for cleaning or storage. 91

: habitually emphasize and indoctrinate each man in the squad to emphasize and apply muzzle control, i.e., ensure that no weapon is pointed carelessly or unknowingly at anyone. 92

He will : issue specific orders in keeping with the situation as to when weapons are to be carried with a round chambered and the safety locked; hold each IFTL strictly responsible for the enforcement of orders pertinent to weapons safety; and treat each infraction of a weapons safety regulation as a serious matter to be brought directly to his attention. 93

He must : recognize that weapons safety practices are a part of combat discipline vital to the unhesitating delivery of effective fire; that the time required to chamber a round may cost several friendly casualties; avoid extremes (e.g., requiring men to risk contact with empty chambers); and patiently and persistently condition all of his men to handle weapons safely and professionally as a matter of ingrained habit. 94

10. THE IRS WILL, ON ORDER OR AS DEMANDED BY THE SITUATION, REQUIRE AND SUPERVISE THE DESTRUCTION OF RIFLES TO PREVENT CAPTURE.

He must : establish a priority for destruction, i.e.: 95

- (1) Night-vision devices mounted on the weapons.
- (2) Breech mechanisms.
- (3) Barrels.
- (4) Ammunition.
- (5) Bipods (if in use in defensive positions).

: use and supervise the use of the most practical and convenient method possible to prevent the enemy from salvaging parts or using parts for other purposes, such as making boobytraps, e.g.: 96

- (1) Dent, break, bend, or smash components with an ax, sledge, heavy stone, etc., or club the rifle and strike it against a tree or hard object to splinter the stock and bend the barrel.
- (2) Burn with incendiary grenades, gasoline, oil, or other flammable substance.
- (3) Smash with gunfire or grenades.
- (4) Disperse parts by burying, dumping in deep water or mud.
- (5) Use any or all of the above in combination.