

Handling Instructions: For MOD Use Only

CLOSE COMBAT- SURVIVABILITY FIELDCRAFT, BATTLE LESSONS & EXERCISES



2017



ARMY
BE THE BEST

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As directed by Head of Capability Ground Manoeuvre.

Contact details

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Fieldcraft, Battle Lessons And Exercises

Introduction

1. Fieldcraft is an integral part of Skill at Arms training. Unless the soldier learns Marksmanship, Technical Handling and Fieldcraft 'hand in hand' their progress towards becoming a proficient battle shot suffers.

Layout of the Pamphlet

2. The pamphlet, written in lesson form, is laid out in four chapters containing the following:

- a. Chapters 1 to 7. The lessons to teach and practice the skills required to become proficient in fieldcraft.
- b. Chapter 8. Demonstrations used to illustrate or confirm fieldcraft skills under a centralised presentation.
- c. Chapter 9. The theory of Small Arms Fire.
- d. Chapter 10. Battle lessons and Battle exercises.

3. Each lesson is divided into two parts:

- a. Part A — Instructors Notes. This contains the information required by the instructor to enable him to prepare for the lesson.
- b. Part B — Conduct of the Lesson. This contains the matter to be taught and is laid out in a proven sequence.

Instructional Techniques

4. Skill at Arms Instructors are taught how to deliver lessons on a qualifying course. They will have an understanding of those basic instructional techniques required to deliver SAA training. However, very rarely will a squad of soldiers all have the same learning style. It is therefore essential that the instructor has the skills and experience to be able to adapt their instructional methods to cater for the needs of those being trained. The guiding principle is that **all subject matter** must be delivered regardless of the level of experience and/or previous knowledge of the student.

5. There is of course latitude in the methods which can be employed by the instructor to deliver this matter, but ultimately the lesson must deliver and practice the students on the detail contained within the lesson in accordance with the Learning Specifications (LSPECs) for that lesson.

6. Instructors are **not** permitted to omit detail or adapt drills to save time. Instructors should always consult the chain of command if there is any doubt as to what is required.

Safety Precautions

7. Before every lesson all weapons, spare barrels, ammunition containers and drill cartridges must be inspected to ensure that no live ammunition is present.

8. Prior to the use of Infantry Weapons, AFVs or Pyrotechnics for Live or Blank firing Pamphlet 21, Regulations for Training with Armoured Fighting Vehicles, Infantry Weapon Systems and Pyrotechnics is to also be consulted. The user must also ensure they have the most up to date version of this publication by consulting the British Army Electronic Battle Box.

Risk to Hearing

9. Issued hearing protection is required by firers, supervisors and others in the close vicinity of the firing point or area during all firing.

References and Associated Publications

For the latest edition and/or amendments of each publication see 'Catalogue of Army Publications' Parts 1 and 2, Army Code No. 12123.

References	Code No	Title
A	71855	Pamphlet No.21, Training Regulations for Armoured Fighting Vehicles, Infantry Weapons and Pyrotechnics.
B	71807	The SA80 A2 (5.56 mm) System and Associated Equipment.
C	71271	Military Engineering Volume II, Field Engineering, Pamphlet No. 2, Field Fortifications.
D	71670	Military Engineering Volume II, Field Engineering,Pamphlet No. 4, Demolitions.

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Chapter 1

Dress, Equipment and Battlefield Discipline

Lesson 1. Dress

- 1-01 **Aim.** *The aim of the lesson is to:*
- Introduction to basic clothing*
 - Personal Protective Equipment (PPE).*
 - Personal First Aid equipment.*
 - Equipment carried on the person*
- 1-02 **Timings.** One 40 minute period.
- 1-03 **Method.** A basic instructional outdoor or indoor period. Ideally to be taught indoors.
- 1-04 **Stores.**
- | | |
|---|----------------------------|
| <i>Complete set of basic clothing issue</i> | <i>1 per soldier</i> |
| <i>Complete set of PPE</i> | <i>1 Set per assistant</i> |
| <i>Eqpt carried on the person</i> | <i>1 Set per assistant</i> |
- 1-05 **Preparation.**
- Soldiers will require the complete basic clothing issue laid out (specific to Arm and service issue).*
 - It is unlikely that the soldiers will have the full compliment of PPE and equipment to be worn on the body at this stage. Instructors should teach the level of PPE available and adjust the equipment carried on person in line with unit SOPs.*

Preliminaries

1-06 **Safety Precautions.** *Nil.*

1-07 **Revision.** *Nil.*

Introduction

1-08 **Explain:** Dress is an important matter for a soldier and never more so than on operations. A soldier's clothing not only provides him with protection against the elements and against enemy fire but also presents an important corporate image. The Services are judged on appearance not only by other British service personnel but by our Allies.

Multi Terrain Pattern (MTP) Camouflage

1-09 *Explain:* MTP camouflage, introduced for operations in Apr 2010, is a development of the US Multi-cam pattern. This was a private venture developed camouflage which has been in use for several years by various SF groups, across a wide range of different environments. The US designer, Crye Precision, has adapted Multi-cam to incorporate elements of DPM shapes in order to create a uniquely British camouflage. MTP replaces both Woodland and Desert DPM for use in training and on operations. While the Woodland and Desert camouflage patterns are very good in their very specific environments, MTP is the best performing across the widest range of environments.

Basic Clothing

1-10 **Personal Clothing System (PCS)** *Explain and demonstrate: Instructors should teach the relevant items of clothing issued within the unit* The Personal Clothing System (PCS) represents an evolution of CS95 rather than a radical new design and the 'layering system' remains at the heart of the design. It recognises the increased requirements for protection, both in the integration with body armour and incorporation of extremity protection and fittings for potential Combat ID systems. The clothing issued to soldiers is specifically designed to provide protection. The issued items have improved beyond recognition in the past ten years and there is genuinely no need for individuals to purchase clothing. The issued kit has been subjected to all kinds of tests which commercially available products do not have to meet; privately purchased items which melt when subjected to heat or flame are a prime example. It is a command responsibility to ensure that the clothing described below is not only worn but worn correctly.

- a. **Identity Disks and Medical Warning Tags.** Although not clothing, Identity disks ('dog tags') and Medical Warning Tags are included here in order to ensure these important items are always worn on operations. Patrol commanders must confirm that soldiers are wearing their ID disks and Medical Warning Tags around their necks, on the issued chain, during pre-patrol checks.
- b. **Underwear.** Soldiers must wear the issued anti-microbial unisex undershorts when deployed. The underwear is also designed to limit the damage to the groin area caused by blast – specifically the tightly woven silk stops dirt from being forced into the body and causing infection.
- c. **T-Shirt.** This base layer provides both thermal insulation and sweat wicking. (Based upon the current operational hot-weather t-shirt).
- d. **Thermal Shirt.** A micro-fleece base layer shirt with zippered collar (replacing the CS95 Norwegian Shirt).

- e. **Thermal Smock.** A micro-fleece lined mid-layer, with windproof and shower proof outer, to provide increased insulation under the Windproof Smock (replaces the CS95 Fleece).
- f. **Under Body Armour Combat Shirt (UBACS).** The UBACS is worn to wick away sweat and keep the body as cool as possible. If it is worn as the outer layer, as in hot climates, you must always wear your sleeves rolled down when on patrol. This reduces the chance of you becoming a casualty through such unnecessary medical problems such as insect bites and infected minor cuts and grazes. In the event of being subjected to flame, the likelihood of burns will be considerably reduced.
- g. **PCS Lightweight Jacket.** A shirt that can be worn over a thermal or sweat-wicking layer. It can be worn either tucked into trousers or loose depending on environmental conditions. In order to allow body armour to be worn over the top (in temperate conditions) buttons have been removed and replaced with "Touch and Close Fastenings" (eg Velcro) and a zip. External chest bellows pockets have been replaced with internal map pockets with pen and notebook/compass stowage. Bicep bellows pockets have been added to arms to allow stowage of ready access items when body armour is worn. In addition, pockets have been added to the outside forearms and elbows to allow for additional fragmentation/bump protection to be fitted if required. The collar can be secured up when wearing body armour to reduce chafing. The Bicep pockets have Touch and Close panels to allow Combat ID Badges to be fitted if required. A blanking plate protects the Touch and Close Fastening while also allowing non-tactical badges (eg Tactical Recognition Flashes) to be fitted while being removable in the field.
- h. **PCS Combat Trousers.** Thigh map pockets have been angled to allow easier access. A secure pocket has been added to waist pockets to allow stowage of small items. The draw cord has been removed. A seat panel has been added to reduce wear in the crotch. Map-Pocket Buttons have been shrouded to reduce snag hazards. Trousers should be tied at the ankle using the integral cords. This stops trousers snagging on vegetation and helps to prevent insects, leeches etc crawling up legs.
- i. **PCS Windproof Smock.** Ensure the windproof smock, in particular, is kept in a good state of repair. Loss of important small items of kit through holes in pockets could have potentially serious implications. The design of the existing Windproof Smock has been retained as an outer garment principally for when body armour is not being worn. A mesh drop liner and armpit vents have been added to help with thermal regulation. Buttons have been shrouded to reduce snag hazards. Behind the waist pockets, fleece-lined hand warmer pockets have been added. The Windproof Smock incorporates the same biceps pockets as the Lightweight Shirts.

j. **Goretex Jacket and Trousers.** The issued Goretex jacket and trousers provide excellent protection against wind and rain. Generally only wear the trousers when static or in extreme conditions. The entire suit can also be worn for river crossings, keeping the rest of clothing dry. Wearing ‘clip-on’ braces can help to keep the trousers up.

k. **Headdress.** The issued brimmed cloth hat provides shade for the eyes and protects the ears from sunburn. Do not be tempted to trim the brim so that it cannot provide shade and protection.

l. **Rank Slides.** In order not to compromise the MTP camouflage properties, only low contrast, all-arms rank slides are to be worn on MTP.

1-11 *Confirm by practice. Soldiers should be checked for correct wear and fitting of clothing.*

1-12 **Footwear. Explain:** It is said that an Army ‘marches on its stomach’ but if boots are in poor condition you won’t be marching anywhere.

a. **Boots.** It is important that the boots fit properly and provide proper ankle support. If boots are ill-fitting or unserviceable you will be unable to do your job. They will last longer if they are cleaned and polished/waxed regularly and stones removed from the soles. Before deploying, check for split soles, worn out treads, dry or cracked leather, rotten stitching, broken eyelets and frayed laces. Carry a spare pair of laces or enough paracord to do the job.

b. **Spare Footwear.** Carry spare footwear in the Bergen to change into when sleeping or otherwise off duty. This gives feet a chance to air and boots a chance to dry. At the same time, you can get up and fight if you have to. Issued trainers are fine but other options could be canvas baseball boots or sandals. Look for something light that takes up little space.

c. **Socks.** Socks are important. The issued socks are designed to wick sweat and keep feet as comfortable as possible. Do not wear thin sports type socks on patrol, these will cause blisters. Similarly, if there are holes in socks you are likely to get blisters.

1-13 *Confirm by practice.*

Personal Protective Equipment (PPE)

1-14 *Explain and demonstrate: Instructors should teach the relevant items of PPE issued within the unit.* It is a command responsibility to ensure PPE is worn and worn correctly.

a. **Helmet.** The issued combat helmets have been proven, not only in trials but in combat, to provide excellent protection. Soldiers can have confidence in their helmet but it needs to be worn correctly and treated with respect. Ensure you always do up your chin strap (do not change it for another type) and



Fig 1-1. Soldier in MTP Camouflage

do not drop it on the ground through carelessness. The Helmet, Parachutist ('Para Helmet') provides only limited ballistic protection and is only used on operations following an airborne insertion - it is not to be used for any training other than parachuting.

b. **Body Armour.** Do not carry loose items such as bayonets, cyalumes and pens tucked into the front loops. Serious injuries have been sustained by such items being blasted upwards into soldier's faces.

c. **Ballistic Eye Protection.** Issued Ballistic Eye Protection are designed to provide protection against blast and shrapnel injuries. Civilian sunglasses afford no protection and are not a substitute. Glasses must always be worn on patrol. Goggles, which have improved ballistic and dust protection, should be worn when appropriate (e.g armoured vehicle crews, top cover or when boarding aviation). Issued Ballistic Eye Protection is designed to be worn day and night and if you wear prescription lenses, glasses can be fitted with inserts. It is appreciated that both types can and do 'fog up' and become grimy. If they do, clean them and put them back on: you only get one pair of eyes. Even the dust generated in an explosion will blind you – never take chances with your eyes and always wear your Ballistic Eye Protection.

(1) Whichever set you are wearing, carry the other in your day sack as a back-up.

(2) Think carefully about which lenses to wear for your patrol. Wearing the dark lenses may seem the obvious choice in bright sunshine but if you are required to enter dark rooms as part of your mission they will be impractical. The yellow lenses are a good compromise.

d. **Hearing Protection.** Noise induced hearing loss is a serious problem for soldiers. The noise levels generated in combat are damaging and a soldier who becomes deaf cannot be deployed. All forms of issued Hearing Protection are effective. The latest, Tactical Hearing Protection System (THPS), allows you to hear the noises you need to hear and blocks out the damaging noises so situational awareness is maintained. Always wear hearing protection on patrol.

e. **Combat Gloves.** Combat gloves ensure that you can maintain your grip on your personal weapon when your hands are sweating and provide protection for the hands from cuts, abrasions and contamination from blood, dirt, faeces and chemical or biological contaminants. Do not remove the fingers from the gloves as this degrades the protection.

f. **Knee Pads.** Knee pads provide protection for your knees which are particularly vulnerable to injury in urban areas. You may choose to wear two or simply one on the knee you routinely kneel down on. When moving long distances they can be slipped down onto the ankle to make walking more comfortable.

Personal First Aid Equipment

1-15 *Explain and demonstrate:* Personal medical equipment must be carried in a standard location on your body, so that fellow soldiers can find it immediately if you are wounded. Unit Standard Operating Procedures (USOPs) must specify which pocket or pouch these items are to be carried in. Make a habit of checking your Personal First Aid Equipment before every patrol. Do not be tempted to tape the items together for any reason: Every second is precious when life is at stake.

- a. **Combat Application Tourniquet (CAT).** Regularly check your CAT for serviceability – never tape it up.
- b. **First Field Dressing (FFD).** Carry your FFD on your person (in the location specified by your USOPs - e.g left trouser pocket) but it is also worth carrying an additional FFD and CAT if available in your Fighting Order.
- c. **Morphine Autojector.** Do not remove this from its protective case or it is likely to be accidentally activated. This would render a soldier unfit for action and impact on mission success.

1-16 *Confirm by practice.*



Fig 1-2. Helmet worn with Ballistic Eye Protection and Hearing Protection

On The Person

1-17 Explain and demonstrate: Able to survive against the elements, CBRN and HE & SA).

Ser	Equipment	Category	Weight (kg)
1	Helmet (VIRTUS) 2.32	Surv/PPE	1.42
2	VIRTUS Torso sub-system (inc ECBA Plates @1.16kg ea) (4.987) + Load Carriage (ex-day sack & bergen) (2.262)		7.249
3	Ballistic Eye Protection		0.048
4	THPS		0.1
5	Combat gloves		0.082
6	Knee pads		0.296
7	Respirator & carrier		1.22
8	Spare canister		0.225
9	DKP No 1 Mk 1		0.105
10	3 x Autoject (combopen)		0.1
11	CBRN Suit (inc boots and gloves)		3.06
12	Underwear and socks	Surv/PPE	0.075
13	MTP jacket, trousers, smock,		2.4
14	Boots		1.089
15	Headover		0.036
16	Clasp Knife/Multi-tool	Sust	0.315
17	FFD/CAT/Morphine		0.192
18	Matches		0.01
19	ID discs		0.02
20	Snack pack		0.5
21	Compass (Silva)	CBM	0.038
22	Notebook & pencil/permanent pen		0.15
23	Watch		0.039
24	Whistle		0.2
25	Map		0.17
Total weight			14.429 (CBRN 4.71 extra) (OSPREY Plates 4.88 extra)

Conclusion

1-18 End of Lesson Drill.

- a. *Questions to and from the squad on the lesson.*
- b. *Final practice if time permits.*
- c. *Set tasks/homework for next lesson and pack kit.*
- d. *Summary. Allow soldiers a period of reflection and summarize learning To include the following:*
 - (1) *The importance of correctly fitted clothing.*
 - (2) *A forecast of the squad's next lesson in this subject.*

1-19 - 1-29 Reserved.

Lesson 2. Load Carrying Equipment

1-30 **Aim.** *The aim of the lesson is to demonstrate the assembly and wearing of the load carrying equipment including.*

- a. *Types of load carriage equipment.*
- b. *Construction of load carrying equipment.*
- c. *Packing.*

1-31 **Timings.** *Two 40 minute periods.*

1-32 **Method.** *Basic indoor or outdoor instructional periods prior to the use of the equipment in the field.*

1-33 **Stores:**

<i>Assembled equipment complete to scale</i>	<i>1 for instructor</i>
<i>Un-assembled equipment complete to scale</i>	<i>1 for instructor</i>
<i>Stores and personal equipment required for packing</i>	
<i>Assault Order, Patrol Order, Marching Order</i>	<i>1 of each for instructor</i>
<i>Combat helmet</i>	<i>1 per soldier and instructor</i>
<i>Un-assembled equipment complete to scale appropriate to Arm, Service and Role</i>	<i>1 per soldier</i>
<i>Stores and personal equipment for packing</i>	<i>1 of each per soldier</i>
<i>Tables</i>	<i>2 (optional)</i>

1-34 **Preparation.**

- a. *Set up tables with the un-assembled equipment.*
- b. *Place the bayonet next to the bayonet frog.*
- c. *Place the magazines next to the appropriate pouches.*

1-35 **Miscellaneous.**

- a. *When handling parts of the equipment, the instructor is to name them and their purpose.*
- b. *The instructor is to use the information, drills and techniques applicable to their Arm, Service or Role.*
- c. *The theatre of operations will dictate the best method of packing and carrying of equipment. For recruit training the method described in the lesson is to be used.*

Preliminaries

- 1-36 *Ensure the squad have their complete issue of equipment.*
- 1-37 *Form the squad in a semi-circle around the tables.*
- 1-38 **Revision.** *Nil.*

Introduction

1-39 *Explain:* A soldier's effectiveness in combat can be hindered greatly by excessive weight being carried. The soldier needs to understand what options are available regarding load carrying equipment, how it should be assembled and what kit and equipment should be packed in it. Knowing this will enable the soldier to best select the method of packing equipment to suit the operation thereby making them more effective on the battlefield.

The 'Fight Light' Mindset

1-40 *Explain:* During periods when the British Army has not been engaged in combat operations there has been a tendency to carry non-essential equipment. Once back in combat, whether in 1917, 1944 or 2010, soldiers naturally discarded all except what they really needed to fight and survive – the weight of ammunition, body armour and communications or ECM equipment being more than enough to carry. The average load carried on operations is currently around 60kg. To put this in perspective, the average soldier weighs 71 kg. Two clear lessons emerge from this:

- a. **Essentials Only.** Don't add any unnecessary kit to the fixed weights of body armour, ECM, weapons and ammunition. Cut your fighting order down to the essentials – FIGHT LIGHT!
- b. **Physical Fitness.** While work is continually underway to reduce the combat load on soldiers, the need for a high standard of physical fitness has never been more important and exercises must be conducted where realistic battle loads are carried. Unless men train with heavy loads in patrol and marching order, they will be unable to fight and carry them in war.

Load Carrying Equipment

1-41 *Explain* Load carrying equipment, commonly known as 'webbing' and its contents will vary with a unit's role and mission. For instance, the amount of ammunition carried on the person by soldiers of an Armoured Infantry battalion may be less than that carried by Light Role Infantry as they will not only have their vehicle's integral firepower to assist them but can also leave some ammunition in the vehicle. Similarly troops operating in the jungle or desert will expect to carry more than the one water bottle. In the past, British soldiers were issued only a single type of webbing, there are now several options and further change can be expected. This section gives guidance on the wearing, construction and, most importantly, the packing of webbing.

1-42 **Orders Of Equipment.** There are 3 basic orders of equipment:

- a. *Assault Order.*
- b. *Patrol Order.*
- c. *Marching Order.*

1-43 **Assault Order.** *Explain and demonstrate:* Able to operate in close proximity to the enemy that may involve dismounted close combat.

Ser	Equipment	Category	Weight (kg)
1	Personal weapon (SA80 A2) & sling	Leth	4.628
2	Laser Light Module (LLM)		0.208
3	4 x Magazines (SA80)		0.208
4	Grenades (1 x HE + 1 x Phos)		0.83
5	Bayonet & scabbard (where it can be fitted to the weapon)		0.3
6	Speed loader	STA	0.028
7	Combination tool, pull through, oil bottle & flannelette		0.15
8	HMNVS		0.45
9	CWS / FTS (weight based on FTS 1)	Sust	1.27
10	Water Bottle/hydration system		1.299
11	Sandbag		0.43
12	PRR	CBM	0.519
Total additional weight			12.552

1-44 Patrol Order. *Explain and demonstrate: Able to sustain dismounted operations for 24 hrs without routine resupply.*

Ser	Equipment	Category	Weight (kg)
1	Waterproof suit	Surv/PPE	0.98
2	Thermal Trousers (Softie)		1.2
3	Thermal Jacket (Softie)		0.8
4	Hat ECW		0.116
5	Bandolier (150 x 5.56mm)	Leth	2.065
6	50 x 7.62mm Link		1.383
7	Remainder of Weapon Maintenance Kit		0.315
8	CWS / FTS (if not on wpn) – weight captured in Asslt Order	STA	0
9	HMNVS (if not worn) – weight captured in Asslt Order		0
10	2nd Water Bottle	Sust	1.299
11	24-hr ration		2.100
12	Metal mug		0.131
13	Spoon		0.050
14	Hexamine cooker		0.386
15	Cylume		0.022
16	ETH		1.34
17	Torch		0.096
18	Insect repellent		0.75
19	Day sack		2.63
20	AATAM /Report & orders cards	CBM	0.360
21	Protractor		0.036
22	30m Paracord		0.036
Total additional weight			0.036

1-45 *Confirm the equipment fits by making the squad wear its own assembled Patrol Order.*

1-46 Marching Order. *Explain and demonstrate:* Able to conduct sustained dismounted operations for periods greater than 24 hours with routine resupply.

Ser	Equipment	Category	Weight (kg)
1	Sleeping Bag	Sust	3.500
2	Roll Mat		0.600
3	Bivvie bag		0.860
4	Shelter (sheet, pegs, bungees)		1.171
5	Thermal underwear		0.6
6	Spare trousers		0.450
7	Spare shirt		0.476
8	Spare socks		0.431
9	Foot powder		0.250
10	Washing and shaving kit		0.565
11	Sewing Kit		0.032
12	Boot cleaning kit		0.165
13	Towel		0.411
14	2nd x 24 hr ration pack		2.1
15	Mess tin		0.396
16	Trainers		0.725
17	Bergen		3.44
Total additional weight			16.172

1-47 Confirm the equipment fits by making the squad wear its own assembled Marching Order.

1-48 Total Weights.

Load	Total Weight (kg)	
On the Person	14.429kg (19.139 with CBRN)	19.309 with Osprey plates (24.019 with CBRN)
Assault Order	26.981kg (31.691 with CBRN)	31.861 with Osprey plates (36.571 with CBRN)
Patrol Order	43.24kg (47.94 with CBRN)	48.12 with Osprey plates (52.83 with CBRN)
Marching Order	59.412kg (64.122 with CBRN)	64.292 with Osprey plates (69.002 with CBRN)

Conclusion

1-49 End of Lesson Drill.

- a. *Questions from and to the squad on the lesson.*
- b. *Inspection of the squads assembled equipment by the instructor.*
- c. *Summary. To include the following:*
 - (1) *When packing the pouches consideration must be given to ease of access of essential items.*
 - (2) *The securing of pouches to prevent items falling out.*
 - (3) *The correct adjustment.*
 - (4) *A forecast of the next lesson.*

1-50 - 1-59 Reserved.

Lesson 3. Battlefield Discipline

1-160 **Aim.** *Describe battlefield discipline and standards to be upheld by serving soldiers.*

1-161 **Learning Outcomes.**

- a. *Role of the Commander.*
- b. *Appearance and carriage of equipment.*
- c. *Hygiene and personal maintenance.*
- d. *Protection.*
- e. *Equipment serviceability.*
- f. *Concealment and situational awareness.*

1-162 **Timings.** One 40 minute periods.

1-163 **Method.** Basic indoor lecture best delivered by the PI Comd/PI Sgt.

1-164 **Stores:**

*Powerpoint Presentation 1 for instructor
White Board 1 for instructor
Visual Aids As Required*

1-165 **Preparation.**

- a. *Set up and rehearse powerpoint presentation.*
- b. *Prepare and layout visual aids.*

1-166 **Revision.** Nil.

Introduction

1-167 **Explain:** Battlefield discipline ensures the coherence of a unit as a fighting force it will ultimately save lives, prevent injury and safe guard the army's reputation. Its enforcement by commanders and compliance by all is essential. Battlefield discipline is the responsibility of everyone.

Enforcing Battlefield Discipline

1-168 **Explain:** There are those who view Battlefield Discipline as an unnecessary hindrance and at odds with the operational environment. They miss the point. It is about the application of standards that will maintain operational effectiveness and projecting a justified image of professionalism, rather than parade ground smartness. Inevitably, the enforcement of good Battlefield Discipline will be difficult at times: requiring leadership by example, diligence, energy and moral courage from the commander.

The Role of the Commander

1-169 *Explain:* Irrespective of rank, the commander sets and maintains the standard. If Battlefield Discipline is poor it is the commander's fault. Following these simple, well proven guidelines will help:

- a. 'Never assume – check'. Be inquisitive and sceptical. If it doesn't look right to you, it probably isn't. Investigate and put things right.
- b. Keep your equipment as close to immediate readiness as security and sustainability allow. The motto 'Ready for anything' is sound advice.
- c. Think about how you carry out checks as a commander and what you do and don't delegate.
- d. Hold subordinate commanders accountable for any poor discipline in their command as well as the individual at fault.
- e. Take all field checks (e.g pre-patrol) seriously, never simply 'go through the motions'.
- f. Have the courage to do the right thing – it will earn you respect in the long run.

1-170 *Confirm by questions.*

Appearance and Equipment Carriage

1-171 *Explain:*

- a. Are troops dressed in presentable uniform in a good state of repair?
- b. Does the image presented support your higher commander's intent?
- c. Does dress and location of equipment match Notice-to-Move?
- d. Are FFD, CAT and Morphine Autoject carried in accordance with unit orders?
- e. Are weapons carried or stored in accordance with Notice-to-Move?
- f. If in a high threat environment, are personal weapons and ammunition within arm's reach?

1-172 *Confirm by questions.*

Hygiene and Personal Maintenance

1-173 *Explain:*

- a. Washed and shaved in the past 24 hour period?
- b. Washed, dried and powdered feet? Toenails cut? Fresh socks on?

- c. Hands washed or rubbed with alcohol gel before eating?
- d. Exposed skin covered?
- e. Malaria tablets taken (if applicable)?
- f. Rest routine? Are troops resting as soon as essential administration is completed?
- g. Are troops drinking enough?
- h. Are troops replenishing water whenever there is an opportunity?
- i. Are latrine arrangements effective, understood and followed?
- j. Is litter collected and disposed of correctly?
- k. ID disks and medical warning tags worn correctly around the neck?
- l. Dressed appropriately for the weather and task?

1-174 *Confirm by questions.*

Protection

1-175 *Explain:*

- a. Is PPE (body armour, helmet, gloves, eye and ear protection) worn?
- b. Are sentries posted, alert and concealed?
- c. Are sentries able to cover all potential approaches?
- d. Are sentries properly briefed (see duties of a sentry)?
- e. Can sentries raise the alarm effectively and, if necessary, silently?
- f. Are drills for ECM on and off being followed?
- g. Is all ECM serviceable and positioned correctly?
- h. Are troops taking a concealed fire position and able to engage effectively when static?
 - i. Are clearance patrols being conducted?
 - j. Are SF Guns laid on Final Protective Fire (FPF) targets?
 - k. Are fire hazards minimized?
 - l. Are C-IED drills being carried out correctly?
 - m. Are troops dispersed when static?

1-176 *Confirm by questions.*



Fig 1-7. Are Sentries Posted, Alert and Concealed?

Equipment Serviceability

1-177 *Explain:*

- a. Are weapons clean, serviceable and ready for immediate use?
- b. Are gas regulators correctly set?
- c. Ammunition counted, clean and serviceable?
- d. Are boots dried and polish/wax applied or suede finish brushed?
- e. Are radios and ancillaries clean and properly stowed?
- f. Radios on correct frequency?
- g. Is Night Vision equipment clean and cared for?
- h. Is Image Intensifying Night Vision equipment fitted at last light and removed at first light?
- i. Are spare batteries fully charged and available?
- j. Are spare batteries re-charged immediately?
- k. Is the Helicopter Landing Site clear of FOD (Foreign Object Damage – loose articles)?

1-178 *Confirm by questions.*

Situational Awareness

1-179 *Explain:*

- a. Is the Notice-to-Move state clear and understood by all?
- b. Does everyone know the likely directions and nature of the threat?
- c. Have all been briefed and rehearsed in 'Actions-On'?
- d. Does everyone know the location of the Emergency RV (ERV) and hard cover?
- e. Does everyone know the likely future tasks and the No Move Before (NMB) time?
- f. Are the locations of other friendly forces known?
- g. Does everyone know the location of friendly obstacles, ground sensors and tripflares?
- h. Are range cards made out for all static positions?
- i. Have range cards been improved in accordance with likely duration of stay?

1-180 *Confirm by questions.*

Concealment and OPSEC

1-181 *Explain:*

- a. Is the camouflage effective?
- b. Is light discipline observed? (Assume enemy has Night Vision capability).
- c. No unnecessary movement or noise?
- d. Is the track plan being observed and ground sign left unnecessarily?
- e. Is radio discipline being observed?
- f. Have you confirmed that personal letters and photographs etc are not being carried on patrol?
- g. Is the mobile phone policy being obeyed?
- h. Has everyone been reminded of OPSEC when there is access to the internet?

1-182 *Confirm by questions.*

Vehicles

1-183 *Explain:*

- a. Are first parade checks being conducted?
- b. Are vehicles refuelled and prepared for immediate redeployment on return from a patrol?
- c. Are vehicle keys immediately available?
- d. Are vehicles parked to allow immediate deployment?
- e. Is all cargo correctly stowed, presenting no secondary hazard or blocking escape routes?
- f. Are troops wearing seatbelts and harnesses?
- g. Have escape and drop-down drills been rehearsed?

1-184 *Confirm by questions.*

Conclusion

1-185 *End of Lesson Drill.*

- a. *Questions from and to the squad on the lesson.*
- b. *Set tasks/homework for next lesson.*
- c. *Summary. To include the following:*
 - (1) *Importance of maintaining standards within the unit.*
 - (2) *Being situational aware.*
 - (3) *Maintaining yourself and your equipment.*
 - (4) *A forecast of the next lesson.*

Chapter 2

Living In The Field

Lesson 4. Food and Water

2-01 **Aim.** *The aim of the lesson is to teach the soldier how to feed himself in the field including:*

- a. *Cooking equipment.*
- b. *The Ration Pack and cooking.*
- c. *Tactical and climatic considerations.*
- d. *Hygiene.*

2-02 **Timings.** Two 40 minute periods.

2-03 **Method.** Basic instructional outdoor periods.

2-04 **Stores.**

<i>Fighting Order</i>	<i>1 per soldier, and instructor</i>
<i>Issued Body Armour</i>	<i>1 per soldier and Instructor</i>
<i>Combat helmet</i>	<i>1 per soldier and Instructor</i>
<i>24 hour ration pack</i>	<i>1 per soldier and instructor</i>
<i>Hexamine cooker</i>	<i>1 per soldier and instructor</i>
<i>Mess tins</i>	<i>1 per soldier and instructor</i>
<i>KFS</i>	<i>1 per soldier and instructor</i>
<i>Water bottle (full) and mug</i>	<i>1 per soldier and instructor</i>

2-05 **Preparation.** Reconnoitre a suitable area bearing in mind the fire risk and try to select a site that resembles a 'basha' area.

2-06 **Miscellaneous.**

- a. *During the lesson the instructor should give additional practical cooking hints from their own experience.*
- b. *Practice is best conducted by allowing the squad to cook a meal at a later stage in the day or by employing imitation to the demonstration.*

Preliminaries

2-07 **Safety Precautions.** *Nil.*

2-08 **Revision.** *Nil*

Introduction

2-09 *Explain:* Soldiers, no matter how fit, require a nutritionally balanced diet to be effective in the field. Issued rations provide this nutrition and cater for the demand that combat places on the soldier's body. Soldiers will more than often be required to cook for themselves using rations and issued cookers and therefore a good knowledge of these rations and cooking methods will allow the individual soldier to sustain him/herself correctly and therefore be effective in battle.

Cooking Equipment

2-10 *Explain and demonstrate: In order to cook and eat the food in the ration pack, you need the following:*

- a. **A Boiling Vessel.** This could be a mess tin, metal mug or the Boiling Vessel (BV) fitted to most Armoured Vehicles.
- b. **Water.** Note that if preparing hot food, it is much easier to pour water from the issued 1 litre black plastic water bottle than a camelback. Water must be either from an official source or been purified:
 - (1) **The Lifesaver (i.e safe to drink).** The Lifesaver is an issued filtration system which will produce potable water.
 - (2) **Puritabs.** Normally issued to each soldier these will sterilise the filtered water for drinking. They can be used on their own, even if the water is very dirty.
 - (3) **Boiling.** This is the last resort and must be for at least ten minutes. Scum must be taken off the top, prior to cooling and then drinking.
- c. **Knife, Fork and Spoon.** Soldiers are issued with a metal knife, fork and spoon. Many soldiers carry only a spoon to eat with in the field. Plastic and metal spoons are easily cleaned and suitable.
- d. **Cooker.** The hexamine cooker ('hexi stove') has the advantages of being relatively small and light, working in all environments and, importantly, it is what you will be re-supplied with.
- e. **Matches or Gas Lighter.** The waterproof matches should be retained for lighting the hexamine blocks in very wet and windy conditions. It is worth carrying a gas lighter to light hexi, there is no need for an expensive type.

2-11 **The 24 Hour Multi Climate Ration (MCR).** Explain and demonstrate, the squad referring to their pack: (see Fig 2-1): The MCR is designed to produce two hot meals per day, a midday snack and lots of drinks. MCRs packs contain a mix of 'boil-in-the-bag' meals in foil pouches, powdered drinks and snacks. There are 38 different MCR packs. All the pouched food within the ration pack is designed to be eaten hot

but if the tactical situation means you cannot cook, it can all be eaten cold too. MCRs are carefully designed to provide all the energy and nutrients your body needs to stay effective when working hard and living in the field (a mean average of 4000 Kcals, 550gm Carbohydrate, 133gm Fat, 100 gm Protein). If you discard items, it cannot do this: you should aim to consume all the components in order to gain maximum benefit. On a short patrol, this may not matter but if you are reliant upon MCRs for extended periods it will become an important factor. There is now a wide selection of menus including vegetarian, kosher and halal packs. An example MCR (Menu 19) contains:

- a. **Breakfast.** Sausage, omelette and beans.
- b. **Snacks.** Mexican Tuna pasta, raspberry fruit grains, fruit and nut mix, golden oats snack bar, raspberry shortcake biscuit.
- c. **Main Meal.** Beef with Cassava, Fruit Cocktail in syrup.
- d. **Sundries and Drinks Pack.** Chewing gum, Tabasco sauce, weatherproof matches, paper tissues, water purification tablets, beverage whitener, sugar, tea, coffee, chocolate drink, an isotonic drink, wet-wipes and a menu sheet.



Fig 2-1. 24 Hour Multi Climate Ration Pack

2-12 Cooking the Food. *Explain and demonstrate:* Every soldier develops their own style of cooking rations and this is just a guide. To prepare a meal, follow the procedure below:

- a. **Lighting your Hexi Stove.** Find or make a level surface which is sheltered from the wind. An area twice the size of the stove should be cleared to ground level to prevent fire. You may need to dig a small hole to achieve this (make sure you replace the turf afterwards). Unfold the hexi stove, place it in position and break up a couple of hexi blocks onto it. Light the hexi blocks. If it is very wet and windy, the waterproof 'lifeboat' matches in the Ration Pack will always work.
- b. **Boiling a Meal.** Check the foil pouch of the 'boil-in-the-bag' meal and if it is punctured discard it. Place the pouch into a mess tin or metal mug and cover it with water. Then put the mess tin or mug on the hexi stove. Do this carefully, spilt boiling water is at best irritating but could also scald you or others. Covering the boiling vessel with a lid reduces the time it takes to boil and, therefore the amount of fuel used. Make sure that the water is properly boiling (i.e. bubbling a lot) and leave the meal in it for a couple of minutes. Lukewarm meals are miserable.



Fig 2-2. Cooking in the Field

c. **Eating a Meal and Making a Hot Drink.** Take the meal out of the boiling water carefully, perhaps using a spoon or the pliers on a multi-tool. It is obviously very hot and you may want to hold it in a gloved hand, cradled in a hat or similar. Use the boiling water to make a hot drink. Any extra hot water could be used for washing and shaving, or poured back into the water bottle. Never waste water!

Tactical Considerations

2-13 *Explain:* The tactical situation must be considered before a meal is prepared. The light, smoke and smells created by cooking can give away your position. Consider the following:

- a. Always post a sentry.
- b. Fire can be seen easily at night: as a rule, complete all cooking in daylight.
- c. The burning of paper and uneaten food as well as extinguishing hexamine with water causes unnecessary smoke.
- d. When in close proximity to the enemy (e.g. Observation Post), food should be eaten cold. This is known as 'hard routine'.

Climatic Considerations

- a. **Cold Weather.** When very cold there is a need to consume hot food and plenty of hot drinks. This will prevent the body temperature falling and also provide energy. The main meal, if possible, should be eaten late in the day, because it will keep energy levels high and provide warmth through the night. A main meal eaten prior to arduous exercise tends to burn off energy immediately.
- b. **Hot Weather.** In extreme heat there is a need to increase fluid intake (i.e lots of water) and also to replace the salts lost through sweating - the isotonic drink is provided to achieve this. The controlled intake of water after arduous exercise is essential.

Tidying Up

2-14 After eating always:

- a. Wash your mug and spoon before they are packed away.
- b. Pebbles, sand or grass tufts can be used to clean the bottom of the mess tin but a kitchen scourer is better.
- c. The quantity of rubbish produced is small. The clear wrap used on the boil-in-the-bag meals should be used as rubbish bags. Never leave or bury rubbish – you are creating Ground Sign for the enemy.
- d. Scorch marks left from cooking should always be camouflaged before leaving.

2-15 *Confirm by questions.*

Hygiene

2-16 *Explain:* It may seem difficult to maintain hygiene in the field but by following a few simple rules you can prevent illness and stop yourself becoming a non-battle casualty:

- a. Whenever possible, clean your hands before preparing food or opening rations. You can use an alcohol gel in the field.
- b. Only consume issued rations, never try to supplement rations from unknown or unsafe sources. If expected to consume local food as part of engagement with the local population or partnering forces, you should limit the risk by:
 - (1) Avoiding: un-bottled water, salad, fruit, and ice cream.
 - (2) Choosing: bottled or canned drinks from known sources, cooked food.
- c. Only drink issued water (either bottled or from an approved source) or, in emergency, water that has been correctly purified.
- d. Clean all eating and cooking utensils after use.
- e. Proper disposal of rubbish is essential otherwise it will attract flies and rodents.
- f. Keep the 'cooking area' clean and tidy. Use, clean and put away.

2-17 *Confirm by questions.*

Conclusion

2-18 *End of Lesson Drill.*

- a. *Questions from and to the squad on the lesson.*
- b. *Summary. To include the following:*
 - (1) *The importance of preparation and personal cooking skills tempered with hygienic practices in the field.*
 - (2) *The importance of maintaining energy output and conserving water.*
 - (3) *A forecast of the next lesson.*

2-19 - 2-29 Reserved.

Lesson 5. The Two Person Shelter

2-30 **Aim.** *The aim of the lesson is to teach the construction of a two person shelter including.*

- a. *Methods of Construction.*
- b. *Erecting the Shelter.*

2-31 **Timings.** *Two 40 minute lessons.*

2-32 **Method.** *Basic outdoor instructional periods.*

2-33 **Stores.**

<i>Rifle fitted with sights and sling</i>	<i>1 per soldier</i>
<i>Magazine</i>	<i>1 per soldier</i>
<i>Fighting Order</i>	<i>1 set per soldier</i>
<i>Combat helmet complete</i>	<i>1 per soldier</i>
<i>Sheet Shelter</i>	<i>1 per soldier</i>
<i>Cord assembly/string</i>	<i>As required</i>
<i>Issued Body Armour</i>	<i>1 per soldier</i>

2-34 **Preparation**

- a. *Reconnoitre an area that will best illustrate the construction of a shelter in a wooded area, and on open ground.*
- b. *Before the lesson prepare an example of each type of shelter.*

2-35 **Miscellaneous**

- a. *The lesson is best conducted, first showing the squad the constructed shelters, then demonstrating their construction. The squad should then prepare their own under supervision.*

- b. *The area of operations will normally dictate the best method of constructing a shelter. For recruit training all the methods described in the lesson are to be used.*

Preliminaries

2-36 **Safety Precautions. Normal.**

2-37 **Revision.** *Nil. Ensure the squad have got their sheet shelters and cord assemblies, demonstrate their safe use then split the squad into pairs.*

Introduction

2-38 **Explain:** Soldiers need to be rested to be effective. All climates require shelter for effective rest to be taken and soldiers should be able to erect their own temporary shelter using issued items. A good shelter will provide shelter from the elements and a base from which he/she can administer themselves. A knowledge of erecting shelter under all conditions will help the soldier to remain operationally effective.

Putting up a Basha

2-39 *Explain and demonstrate:* When living in the Field, it may be decided that the Platoon or Section will spend the night in a Harbour or Hide. It is your responsibility to build a basha, generally in pairs using ponchos. There are two methods of construction described below that are recommended for use in wooded areas and one for open areas but you will soon find your own preferred method. The poncho is best prepared beforehand by permanently attaching green bungees to all the loops. This will make life much easier when you are trying to put up a basha in darkness, in a woodblock, in torrential rain. Carry strong tent pegs to secure the bungees – six should be enough to cover the chance of losing a couple.

- a. **Method 1.** (See Fig 2-3a). Create a tent by taking string or a cord assembly from the centre loops on the poncho and secure them to two trees. The four corners can be secured using either pegs or rocks. To prevent water pooling on the outside of the basha a pole can be used to keep the shelter upright.
- b. **Method 2.** At two corners of the poncho attach string or cord assembly. Find two suitable trees far enough apart and attach one corner of the poncho to each tree. The corner attachments must be approximately half a metre up the tree in order to create a small downward slope. Pull the other two corners down towards the ground and secure them with either pegs or rocks. The bungee attached to the centre loop should then be looped over a branch above and be pulled tight, or tied to two sticks stuck in the ground. It can be a good idea to dig a small storm drain around the shelter area, to take away surface water.
- c. **Method 3.** (See Fig 2-3b). If in an open area with no trees, a variation of method 2 can be achieved using small tent poles or similar items.

2-40 **Points to Note.** When building a basha, the following points may seem obvious but they are worth remembering:

- a. Try to site the open side of the basha away from the prevailing direction of the wind and rain.
- b. Try to site your basha far enough into a wood that it cannot be seen from the wood line.
- c. It should either be taken down completely during the day or at the very least bungees loosened and lowered to the ground.

2-41 *Confirm by question and practice.*

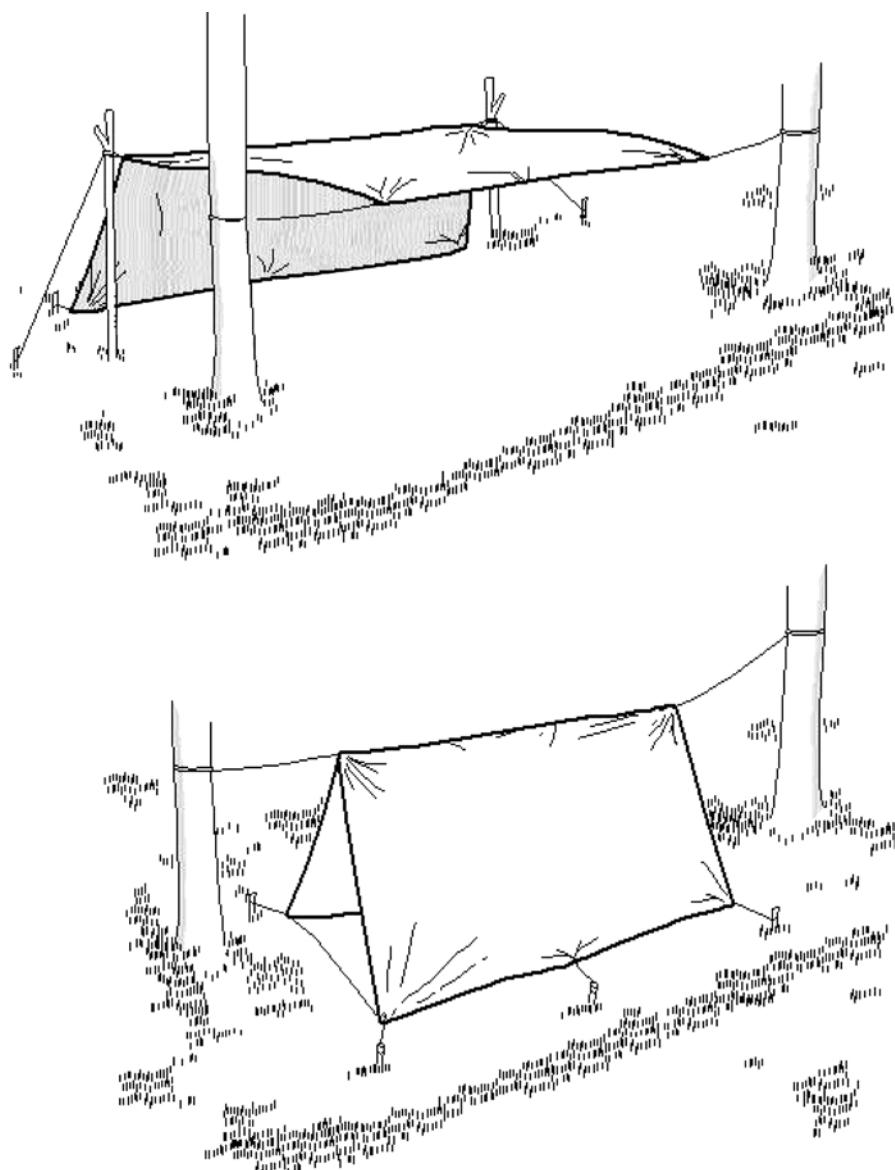


Fig 2-3. Making Shelters using a Poncho (a)

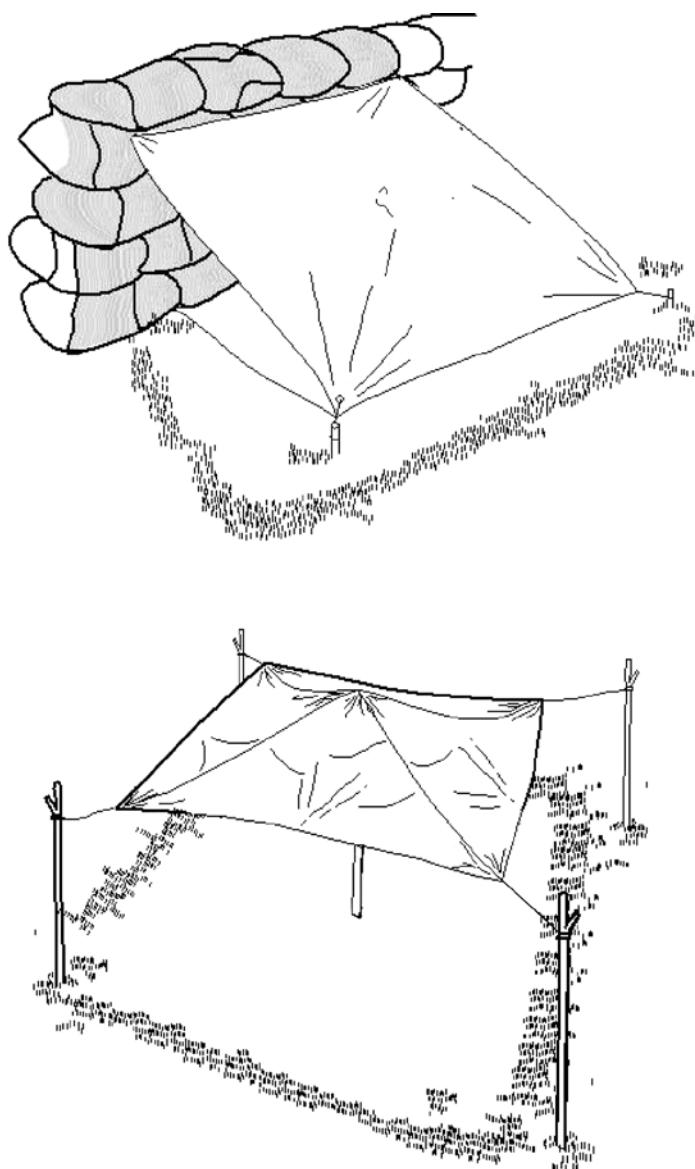


Fig 2-4. Making Shelters using a Poncho (b)

Conclusion

2-42 End of Lesson Drill.

- a. *Questions from the squad on the lesson.*
- b. *Normal safety precautions.*
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *The importance of keeping dry.*
 - (2) *The necessity for camouflage.*
 - (3) *The different ways of constructing a shelter, from using ground hollows to fallen trees, from fences or broken walls. They all have one purpose, to give protection from the elements.*
 - (4) *A forecast of the next lesson.*

2-43 - 2-49 Reserved.

Lesson 6. Survival

2-50 **Aim.** *The aim of the lesson is to teach basic survival requirements.*

- a. *Basic Requirements*
- b. *Contents of a survival tin.*

2-51 **Timings.** *One 40 minute lesson.*

2-52 **Method.** *Basic indoor/outdoor instructional periods.*

2-53 **Stores.**

<i>Rifle fitted with sights and sling</i>	<i>1 per soldier</i>
<i>Magazine</i>	<i>1 per soldier</i>
<i>Fighting Order</i>	<i>1 set per soldier</i>
<i>Combat helmet complete</i>	<i>1 per soldier</i>
<i>Survival Tin</i>	<i>1 per instructor</i>
<i>Table</i>	<i>As required</i>
<i>Issued Body Armour</i>	<i>1 per soldier</i>

2-54 **Preparation.**

- a. *Layout contents of the survival tin grouped into water, food, fire and utility.*
- b. *Print off and issue to soldiers the contents list contained within Chapter 2.*

2-55 **Miscellaneous.**

- a. *Purchased prepared survival tins are available from a number of sources and can prove to be expensive. Every encouragement should be made to construct a comprehensive survival tin from self help and resources already available.*

Preliminaries

2-56 **Safety Precautions.** *Normal.*

2-57 **Revision.** *Nil.*

Introduction

2-58 **Explain.** It is every soldier's duty to attempt escape if captured. All soldiers should be capable of surviving should they find themselves in a situation that requires it, for instance having escaped from a PW compound. A basic knowledge and some simple equipment carried on the person will allow the soldier to survive until he/she is able to link up with friendly forces.

2-59 **The Basic Requirements of Survival.** *Explain:* The basic requirements for survival are water, fire, shelter and food. The order of priority is not fixed – it will depend where you are. If you are in the desert, water will probably be top of the list: in the arctic, shelter and fire will take precedence.

- a. **Water.** Water is critical for survival and, in modern Western society, we take it for granted. An average person can survive for over 2 weeks without food but only about 2-3 days without any water. Look after what water you have and do not wait until you run out until you search for a fresh source.
- b. **Food.** It takes a healthy person a long time to die from starvation and the body will continue to function on its reserves.
- c. **Shelter.** Exposure to rain, wind and cold can kill quickly, even in temperate climates whilst exposure to baking sun will swiftly dehydrate you.
- d. **Fire.** The need for fire is closely linked to shelter and the need to keep warm. It also provides the means by which to purify water through boiling.

2-60 *Confirm by questions.*

Survival Tin

2-61 *Explain and demonstrate:* Every soldier should make up a survival tin and carry it in the field, depending on role and mission. There is a balance here with the ‘fight light mindset’ for example, if you are operating as a recce patrol far from your operating base then carry one. If you are on a framework patrol close to your base then don’t. If you have still got your Fighting Order with you, you will have the essentials anyway. The tin itself needs to be pocket sized, able to be used as a reflective surface for signalling and as an emergency boiling vessel. Some personnel, such as aircrew, are issued such tins. If you are not, such tins (tobacco tins) are very inexpensive. The following items are recommended:

- a. **Small ‘Dayglo’ square.** To attract attention, particularly from the air.
- b. **Small Heliograph.** To attract attention and as a mirror to help when treating any injuries to the face.
- c. **Button Compass.** A luminous, liquid filled button compass which swings freely. Make sure you know how to use it.
- d. **Stub of Pencil and Folded Paper.** For making notes and messages.
- e. **Local Currency.** Often the easiest way of getting food, help or directions.
- f. **Magnifying Glass (Lens Only).** To start fires using directed sunlight and to help when extracting splinters and stings.

- g. **Waterproof Matches and Striker.** The issued set from a Ration Pack are fine. Matches are an easy method to make fire so don't squander them. Use them when other methods have failed.
- h. **Stub of Candle.** To help start a fire and provide a source of light.
- i. **Flint and Steel.** A flint with a steel saw striker will work in the wet and long after you have run out of matches.
- j. **Lighter.** To quote a Jungle Warfare Instructor 'the best method of lighting a fire in the jungle' ...and in fact, anywhere.
- k. **Puritabs.** For use where the water may be impure and you cannot boil it.
- l. **Condom.** To make an improvised water bottle which can hold around 2 pints of water. Place it inside a sock or similar item to help support the weight when full.
- m. **Length of Fishing Line, Hooks and Weights.** Carry small hooks and a few split lead weights plus as much line as possible as it has many uses.
- n. **Sharp Blade.** This could be craft knife type blade or a scalpel – you can improvise a handle.
- o. **Brass Snares.** Brass snare wire has many potential uses as well as catching animals. Carry between 50cm – 100cm.
- p. **Beef Stock Drink.** From the ration pack. This is a guaranteed morale booster when you really need it.
- q. **Wire Saw.** Flexible wire saws are the best way to cut large branches.
- r. **Needle and Thread.** Include strong thread, a few needles and at least one with a large eye.
- s. **Safety Pins.** Lots of potential uses.
- t. **Analgesic Tablets.** Mild pain relief.
- u. **Plasters and Cotton Wool.** Useful for minor wounds. The cotton wool can be used as kindling and to pack out your tin to prevent rattling.



Fig 2-5. Survival Tin and Contents

Conclusion

2-63 End of Lesson Drill.

- a. *Questions from the squad on the lesson.*
- b. *Normal safety precautions.*
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *The importance of replacing items once used.*
 - (2) *Carriage of the survival tin at all times.*
 - (3) *Practice the skills during field training exercises until competent in their use.*
 - (4) *A forecast of the next lesson.*

2-64 - 2-69 Reserved.

Lesson 7. Maintaining Standards of Personal Hygiene

2-70 **Aim.** *The aim of this lesson is to teach basic health and hygiene in the field.*

- a. *Personal Cleanliness.*
- b. *Hot and cold weather considerations.*

2-71 **Timings.** *One 40 minute period.*

2-72 **Method.** *A basic instructional period.*

2-73 **Stores.**

<i>Marching Order, complete</i>	<i>1 set per soldier</i>
<i>Appropriate to Arm, Service or role</i>	<i>1 set per instructor</i>
<i>Combat helmet complete</i>	<i>1 per soldier and instructor</i>
<i>Issued Body Armour</i>	<i>1 per soldier</i>
<i>Bag Water Filter</i>	<i>1 set per soldier</i>
<i>Water Purifying Tablets</i>	<i>1 set per soldier</i>
<i>Tables</i>	<i>As required</i>

2-74 **Preparation.**

- a. *Select a suitable area for the lesson.*
- b. *Set up under the table.*
 - (1) *Marching Order.*
 - (2) *Contents of washing and shaving kit.*
 - (3) *Millbank bag.*
 - (4) *Puritabs.*
- c. *Ensure squad members have packed their washing and shaving kit.*

2-75 **Miscellaneous.**

- a. *The film 'Your Health at Risk' (Army Code No. C1616) should be shown as a follow up to this lesson.*

Preliminaries

2-76 **Safety Precautions. Nil.**

2-77 **Revision.** *Battlefield discipline (Lesson 3). Position the squad in a semi-circle around the table.*

Introduction

2-78 *Explain:* Maintaining good hygiene in the field is essential if you are to remain operationally effective. During many of the conflicts the British Army has been involved in it is poor hygiene and disease that has caused the most casualties. To avoid becoming a casualty and to ensure you are able to remain fit to fight, a good knowledge of personal hygiene techniques is needed.

Personal Cleanliness

2-79 *Explain and demonstrate:* Personal cleanliness requires self-discipline:

- a. **Hair.** The hair should be kept short to permit easy treatment of head injuries and combed regularly to prevent parasites. If possible, it should be washed at least once a week. When there is no barber available hair can be cut on a self-help basis in your Platoon.
- b. **Face.** The face must be washed daily and shaved regularly as this ensures the respirator fits correctly. It also keeps the skin clean and presents a professional image. After washing, fresh cam cream should be applied if appropriate.
- c. **Teeth.** The teeth should be cleaned at least twice a day to prevent oral infections and tooth decay. Particular attention should be given to the joins between the gums and the teeth. If possible teeth should be cleaned after every meal.
- d. **Body.** The body must be washed daily, with special attention to the arm pits and groin. These areas are warm and moist and if they are not washed regularly fungus will grow. Any cuts, especially to the hands must be cleaned and covered with a waterproof dressing to prevent infection. Always take the opportunity of having a shower when available. Washing in all climates is the most important part of a soldier's daily routine, however irksome.
- e. **Feet.** Feet must be kept clean and powdered and the nails cut to prevent in-growing toe nails. It is important to cut toe nails 'square' to prevent them ingrowing and worth having a proper scissors or clippers to do the job. Socks must be changed daily and the feet if possible kept dry. If practical loosen the boot laces, or even better massage the feet. If a soldier's feet are in a poor condition it will rapidly affect their ability to operate and it is therefore a command responsibility to ensure this does not occur. Section and Platoon Commanders must carry out foot inspections - they should not be dismissed as 'a thing of the past' or avoided because it isn't the most pleasant of tasks.

2-80 *Confirm by questions and practice.*

2-81 **Cold Weather.** *Explain:*

- a. Try to maintain body temperature by increasing the intake of food and hot drinks. Never take alcohol as it causes a reduction of the body's core temperature.
- b. Wear the appropriate clothing, keep it dry and change into dry clothing to sleep. Remember the rule 'loose and in layers'.
- c. Keep socks dry and the feet well massaged.
- d. Keep exposed skin protected and in extremely cold weather use vaseline and lip salve.
- e. Avoid frostbite by protecting the extremities, fingers, toes, ears and nose. Be sensible and if working hard take a layer of clothing off. If static put extra clothing on. Always keep limbs stretched, flex the toes, keep the mind alert, then the body will follow.

2-82 **Hot Weather.** The main dangers are from heat exhaustion, which can rapidly turn into heat stroke, and from sunburn. Heat exhaustion is caused by the loss of fluids and body salts, and this can occur in any climate, if sensible precautions are not taken.

- a. The fluid intake must be increased to at least eight to ten pints of safe water each day. If working extremely hard in a very hot climate an extra pint of water should be taken for every extra hour worked. Alcohol should not be consumed because it causes dehydration.
- b. The sun's rays can cause painful sunburn which will affect your performance in the Field. It is the soldier's responsibility to ensure they do not get sunburn.
 - (1) Wear sunblock to protect exposed skin.
 - (2) Wear your Ballistic Eye wear (dark lenses) to protect your eyes.
 - (3) Sleeves should be worn which cover the arm to the wrist.
 - (4) Do not cut down the brim of your hat such that it fails to cover your ears or give shade to your eyes.

2-83 **Sanitation.** Sanitation in the field is very important. Urination and defecation must be carried out within defined areas. When the location is left these areas must be marked. The basic rules are:

- a. If a latrine is constructed, it must be sited correctly and its use enforced.
- b. If there is no latrine, a hole must be dug and the excreta covered over with soil. Remember to retrieve the shovel as well as the personal weapon; all too often one or the other can be left behind.
- c. Wash your hands with soap and water or rub them with alcohol gel.

2-84 *Confirm by questions*

Trauma Risk Management (TRiM)

2-85 *Explain:* Staying fit and healthy in the field involves your mental health too. TRiM is the system by which soldiers who have experienced traumatic events are monitored and managed in order to provide support as required and reduce the impact upon their life. Your sub-unit will have trained TRiM practitioners who will consider TRiM interventions in the following circumstances.

- a. There has been serious injury to yourself or others – particularly fellow soldiers who you know.
- b. Personnel have been disabled or disfigured.
- c. The trauma involves death and particularly grotesque death.
- d. The trauma is complex, long-lasting or multiple.
- e. Personnel have been involved in a ‘near miss’.
- f. Personnel experience overwhelming distress after the event.



Fig 2-6. Washing in the Field

Make sure that everything has been correctly recorded at the time using the LFSO 3209 TRIM forms.

Note that Witnessing the mistreatment, death or injury of children, women, the elderly, the disabled, friends and colleagues is likely to be even more traumatic.

2-86 *Confirm by questions*

Conclusion

2-87 **End of Lesson Drill.**

- a. *Question to and from the squad on the lesson.*
- b. *Pack kit.*
- c. *Summary. To include the following:*
 - (1) *Good health means being combat effective.*
 - (2) *Apply good, sound common sense to personal hygiene and the body will remain healthy.*
 - (3) *A forecast of the squad's next lesson.*

2-88 - 2-89 Reserved.

Lesson 8. Care and Maintenance of Equipment

2-90 **Aim.** To teach the soldier how to maintain their weapons, clothing and equipment in the field.

- a. Weapons.
- b. Clothing.

2-91 **Timings.** One 40 minute period.

2-92 **Method.** A basic instructional period best taught during a soldiers first field training exercise

2-93 **Stores.**

Rifle fitted with sight and sling	1 per soldier and instructor
Magazine	1 per soldier and instructor
Maintenance Kit complete	1 per soldier and instructor
Fighting Order	1 set per soldier and instructor
Combat helmet complete	1 per soldier and instructor
Clothing to scale	1 set for instructor
Tables	2 (optional)
Issued body armour	As necessary

2-94 **Preparation.**

- a. Select a suitable area for the lesson.
- b. Set up tables with:
 - (1) Rifles and tool roll.
 - (2) Unpacked clothing and Fighting order.

2-95 **Miscellaneous.** For details of weapon maintenance refer to the appropriate pamphlet.

Preliminaries

2-96 **Safety Precautions. Normal.**

2-97 **Revision.** Nil. Position the squad where they can observe the prepared tables.

Introduction

2-98 **Explain:** Being able to maintain the kit and equipment issued to you is a sign of a professional soldier. All kit should be ready for use at a moments notice and only correctly maintained kit will allow for this. Your commander needs to be able to rely on you to maintain your personal weapon and equipment without constantly checking on you. Failure to maintain your kit will be that it will invariably let you down when you need it most.

Weapons

2-99 *Explain and demonstrate:* Lessons have been given on how to maintain personal weapons under normal and adverse weather conditions. Weapons must be kept clean, serviceable and absolutely free from rust. It is the responsibility of every soldier to ensure that this is carried out; it is a soldiers first priority maintenance task. Make sure you keep your weapon cleaning kit dry, wet flannelette is of little use.

Clothing

2-100 *Explain and demonstrate:* To maintain clothing to the required standard a soldier must:

- a. Prior to deploying on operations or training, ensure that the clothing taken is clean and serviceable.
- b. Have the capability of repairing their clothing by making up a small sewing kit with needles, cotton and buttons.
- c. In the field it is essential to keep clothing dry. Before packing it into webbing, pack the clothes into waterproof bags. Non-transparent bags may be labelled to make it easier to find items. Plastic bags should either be transparent or of an appropriate camouflage colour.
- d. Whenever possible, wet clothing should be taken off at night prior to getting into your sleeping bag. Wet or damp clothes must be dried if the opportunity arises. Slightly damp items can be dried at the bottom of the sleeping bag if its being used but beware of soaking your sleeping bag with wet clothing. Always try and keep one set of dry clothing. Keep wet clothing separate from dry clothing.
- e. Sweat can rot clothes. If the opportunity arises try to rinse or wash your clothes, particularly underwear and socks.
- f. Socks should be changed daily. Socks with holes will cause discomfort and blisters. Try to keep socks dry and clean. Rubbing socks vigorously can prevent matting and allow them to be used for longer.
- g. Boots should be cleaned once every 24 hours. Use an appropriate treatment such as polish, wax or dubbin for smooth leather. For suede finishes, the issued brush should be used. Always have a spare pair of laces.
- h. Always check the sleeping bag zip prior to deploying. Keep the bag dry by packing it into a rucksack liner. If sleeping in the open use your goretex bivvi bag to keep it dry. The sleeping bag occasionally needs to be aired and shaken. This is best achieved by opening the zip and two soldiers shaking it vigorously.

2-101 *Confirm by questions*

Conclusion

2-102 End of Lesson Drill.

- a. *Questions from and to the squad on the lesson.*
- b. *Normal safety precautions.*
- c. *Summary. To including the following:*
 - (1) *The importance of good 'husbandry'.*
 - (2) *A forecast of the squad's next lesson.*

Chapter 3

Awareness, Observation and Concealment

Lesson 9. Situational Awareness

3-01 **Aim.** To introduce soldiers to the situational awareness required for success on operations covering:

- a. *The soldier as a sensor.*
- b. *The decision action cycle.*
- c. *Instinct and awareness.*
- d. *Memory*
- e. *Knowledge.*

3-02 **Timings.** One 40 minute period.

3-03 **Method.** Basic indoor lecture best delivered by the PI Comd/PI Sgt.

3-04 **Stores:**

<i>Powerpoint Presentation</i>	1 for instructor
<i>White Board</i>	1 for instructor
<i>Visual Aids</i>	As Required

3-05 **Preparation.**

- a. *Set up and rehearse powerpoint presentation.*
- b. *Prepare and layout visual aids.*

3-06 **Revision.** Nil.

Introduction

3-07 **Explain:** Of all the sensors on the battlefield the human mind is the most sensitive. Tuned in and used correctly it may save your life and those of your unit. Switched on soldiers are key to the success on operations and those soldiers who are not pose a threat not only to themselves but to others and ultimately the success of the mission.

3-08 **The Soldier's Value as a Sensor.** Well trained and alert soldiers are able to sense vital changes in atmospherics which cannot be identified by machines. This speed of processing information will save lives by spotting the warning signs of hostile activity and enabling us to get ahead of the enemy.

3-09 **The Decision Action Cycle.** The true value of information, noted by a soldier and processed rapidly will only be gained if appropriate action is taken in a timely manner. It is all about having a faster Decision Action Cycle than the enemy, maintaining the initiative and catching him 'off guard'. The classic Decision Action Cycle – sometimes referred to as the OODA loop (observe, orientate, decide, act) is illustrated below. You, as an individual soldier on the ground, are critical to the process:

3-10 **Instinct and Awareness.** Soldiers need to be alert and aware of their surroundings – you may wish to think of it as being 'street wise' and that's a good analogy. Through practice, you can hone these skills and make the most of the natural skills. Examples are:

a. **Ambush.** Historically, many soldiers have 'sensed' something wrong prior to entering the killing area of an enemy ambush and this has enabled them to take the necessary counter-action. It may be that there just seems to be something different in the street (e.g. none of the street lamps are working, there are no children playing where they usually do, that 'rock' looks a strange shape) or it may simply be a hard to explain feeling. Do not dismiss such instinctive feelings lightly, you may have subconsciously picked up on something – always tell your commander.

b. **Crowd Dynamics.** An alert soldier will be able to sense initial changes in the atmosphere of a crowd well before violence breaks out, gaining vital time. Awareness, sharp observation and common sense borne of experience of similar situations are all factors in your favour. Expect that initial indications of trouble are more likely to occur in depth rather than at the front of a crowd. The crowd may be controlled by individuals using mobile phones but they are more likely to be slightly removed in order to avoid becoming entangled. Crowd size will be affected by factors such as football matches, weather and time of day. Knowledge of the pattern of life for the local area is invaluable.

3-11 **Awareness as a State of Mind.** Being alert and aware is not something that can be switched on and off overnight. It starts at home in the UK: in your daily life, around barracks and on exercise. It may not be immediately obvious but the traditional Army practice of saluting is a fair measure of awareness - it requires knowledge and recognition of who to salute. If you can't recognise your Commanding Officer in 'civvies' you aren't likely to be able to recognise a High Value Target insurgent from a photograph. Soldiers who walk around with their heads down in camp are the same soldiers who will fail to spot the warning signs of an IED. Being bright, sharp and street wise will also help you when you are 'out on the town'. You will be able to look out for your mates and spot early indicators of trouble. Cultivate 'awareness' as a state of mind. Two important aspects of awareness are Cultural Awareness and Ground Sign Awareness: they are covered in detail later in this Chapter.

3-12 **Memory.** Memory is a key part of awareness, remembering people's faces, what they are wearing and what they are doing, vehicle registration numbers, when market day is, when is there a call to prayer and so on. Remembering things like this improves with practice – and you can practice it almost anywhere. Once you are on operations, if you are in a previously occupied location, you will have access to a database compiled from patrol reports. This database will help to inform you of the normal pattern of life for the area. It is important to remember this as well as you can, noticing something 'out of the ordinary' may save your life or those of your mates. In turn, when out on patrol, be alert, look around and take in the surroundings and the atmosphere. Noticing mundane everyday things is important too, only by knowing what usually goes on somewhere can you tell when something is different. Use every patrol to learn more about where you are and help your Patrol Commander to compile a Patrol Report. In a Section, their must be eight human sensors operating constantly, not one.

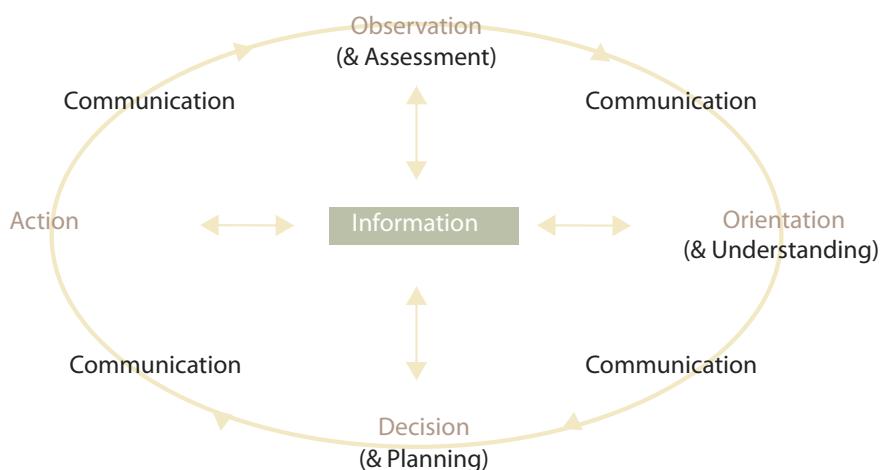


Fig 3-1. The Decision Action Cycle

3-13 **Knowledge.** To be properly aware, you also need background knowledge of where you are operating. If you think you are pretty street wise in your home town, remember that it is largely because you have built up a detailed 'database' in your mind of the roads and houses, the people who live and work there and what their normal behaviour is. You know what to expect, who the people with power are, who commands 'respect', which pubs and clubs are most likely to see trouble and which are quieter for example. If you are on operations in a foreign country, not only will the people and geography be different but also their culture. The better you know and understand their culture, the more aware you will become. Examples may be as simple as knowing when to expect people to gather at a church, mosque or market or if shops tend to close after lunch. Have the attitude that you will never stop learning - just think how long it took to gain that detailed knowledge of your home town.

Conclusion

3-14 **End of Lesson Drill.**

- a. *Questions from and to the squad on the lesson.*
- b. *Set tasks/homework for next lesson*
- c. *Summary. To include the following:*
 - (1) *Importance of the operational environment.*
 - (2) *Being situational aware.*
 - (3) *Maintaining awareness, memory and local knowledge.*
 - (4) *A forecast of the next lesson.*

3-15 - 3-19 Reserved.

Lesson 10. Cultural Awareness

3-20 **Aim.** To introduce soldiers to the situational awareness required for success on operations.

- a. Do's and don'ts.
- b. Key Leadership Engagement.
- c. Interpreters.
- d. Searches.
- e. Religious sites.

3-21 **Timings.** One 40 minute periods.

3-22 **Method.** Basic indoor lecture best delivered by the PI Comd/PI Sgt.

3-23 **Stores:**

Powerpoint Presentation	1 for instructor
White Board	1 for instructor
Visual Aids	As Required

3-24 **Preparation.**

- a. Set up and rehearse powerpoint presentation.
- b. Prepare and layout visual aids.

3-25 **Revision.** Nil.

Introduction

3-26 **Explain:** For operations to be successful, soldiers on the modern battlefield must have an awareness of the indigenous population. Soldiers need to be sympathetic to cultural differences and in doing so they will foster trust and good relations. This can lead to information sharing during meetings with village elders and can help in the hearts and minds campaign.

'Dos and Don'ts'

3-27 **Explain:** Many local customs may appear strange and even at odds with UK values however showing respect for these customs or even a basic understanding of them can be key to gaining local national support or even preventing support from being lost. Some basic ways of showing respect in any theatre are as follows:

- a. Use basic greetings in the local language.
- b. Accept hospitality where appropriate.

- c. Respect locals in authority.
- d. Ensure men do not search women.
- e. Remove headdress and sunglasses when talking to someone in authority – if safe to do so.
- f. Respect local religions and places of worship i.e. Churches, Mosques, Synagogues etc.

3-28 In any operational theatre there are also some basic things you can do to avoid disrespect:

- a. Don't ask about female members of the family in conversation.
- b. Don't admire a local national's personal belongings.
- c. Avoid using dogs in places of worship.
- d. Don't photograph someone unless you have their permission first.

3-29 *Confirm by questions.*

3-30 **Things to Learn. Explain:** There are some key areas of culture a soldier should learn about before deploying to a new country:

- a. **Language.** Learning basic greetings and key phrases is key in gaining respect from local nationals.
- b. **Religion.** Religion is one of the key areas where offence can be caused in another country. All soldiers should:
 - (1) Gain a basic understanding of major religions in the theatre of operations.
 - (2) Be able to identify places of worship and religious figures i.e. Priests or Mullahs.
 - (3) Show respect towards religious people, places and objects i.e. the Bible or Koran.
- c. **Females.** The attitude of some societies towards females can differ wildly to those in Britain. Be careful not to cause offence, if in doubt always err on the side of caution and use a female to conduct any searches / interviews of females.

3-31 *Confirm by questions.*

Leadership Engagement

3-32 *Explain:* Identifying those who are most important and/or respected in your area of responsibility can be decisive in gaining the support of locals. All soldiers have a part to play in identifying such individuals, whose importance or influence on the community may become apparent through their own behaviour, through the behaviour of others towards them (awareness again!) or through discussion with locals or interpreters.

a. **Identifying Key Leaders.** Key Leaders can be:

- (1) Elders.
- (2) The Rich (e.g. land owners).
- (3) Educated people (e.g. Engineers, Doctors, Teachers).
- (4) Religious leaders.
- (5) Politicians (e.g. local government representatives).
- (6) Civil or military personnel (e.g. Chief of Police).

b. **Approaching Key Leaders.** When first approaching Key Leaders you should:

- (1) Treat them with respect.
- (2) Ideally get introduced to them by someone who knows them.
- (3) Try to build a rapport by engaging in small talk and getting a positive response.
- (4) Read the mood of the situation.
- (5) Move on if the response is negative.

c. **Behaviour During KLE.** During a Key Leader Engagement you should:

- (1) Shake hands with and greet everyone present. In some cultures hugging may also be used in greeting. You may need to 'get over' a natural British reluctance to do this!
- (2) Accept offers of food and drink, avoid only if hygiene is questionable - do your best to eat or drink something, sticking to canned drinks and boiled rice for example).
- (3) Raise specific points that you want to address with the senior figure at the meeting. Be prepared for them to discuss this with other people present (note who these are as they will also have influence and are potentially secondary points of contact) before they answers you.

- (4) Do not expect answers to the points you raise immediately. It may be necessary to conduct follow up meetings. Consider subsequent approaches to key persons in their place of work or in a social environment.
- (5) Conduct detailed negotiations in private. Consider a location away from distractions and unwanted listeners.
- (6) Do not accept offers of alcohol. Warm drinks (e.g tea) rather than cold can help to create a friendlier atmosphere.
- (7) Wear Regimental headdress if safe to do so rather than helmet and sunglasses.
- (8) Avoid taking long barrelled weapons into meetings if safe to do so. A discreetly carried pistol will likely be acceptable.



Fig 3-2. Understanding the Human Terrain

- d. **Organising a KLE.** When organising a meeting with a Key Leader you should:
- (1) Consider the seating plan and where you sit influential persons.
 - (2) Make time for social chat before starting business.
 - (3) Use and explain an agenda.
 - (4) Defuse heated discussion and avoid contention.
 - (5) Listen.
 - (6) Pay attention to detail. Note relationships between people at meetings (where do they sit in relation to each other, who shakes hands with who, does someone ignore you when they leave the meeting etc.). All of this informs situational awareness.
 - (7) Always record and report the outcome of meetings. Do not limit this to the agenda. Note the interaction between people and how they react to your comments / issues.
 - (8) Never promise anything that you cannot deliver.

3-33 *Confirm by questions.*

Interpreters

3-34 *Explain:* In many operational theatres it may be necessary to employ interpreters or 'TERPs' in order to hold detailed conversations with local nationals. Interpreters should be treated with the same courtesy and respect that you should show other locals, indeed in many cases your interpreter will become as much one of the team as the LMG gunner. In some theatres interpreters could be in serious danger as a result of working with UK troops and may become targets of intimidation or violence. In-theatre SOIs for working with interpreters should be adhered to but some basic tenets are:

- a. Know your interpreters background in order to avoid potential frictions during any activity they will be supporting.
- b. Brief interpreters to translate word for word.
- c. Remember that English translations of local dialect are likely to be shorter.
- d. Talk to your audience, not the interpreter – brief your interpreter that you will not be looking directly at him.
- e. Question your interpreter if you are not confident that they are translating properly.
- f. Make sure your interpreter is happy to translate in a given situation. They might not want to go into certain areas or meet certain individuals for fear of reprisals.
- g. De-brief your interpreter after your meeting and away from local nationals and find out what was said 'between the lines'.

Searches

3-35 *Explain:* Conducting searches during counter-insurgency operations can be culturally very sensitive, particularly property searches. In some operational theatres rules may apply as to when searches of property can or cannot be conducted and the method of search may be prescribed. In theatre SOIs will give specific security or administrative details for conducting searches but in broad outline:

- a. Respect cultural sensitivities towards women during house searches – give them time to cover up before entering a female's room.
- b. Treat the elderly with respect during a search.
- c. Use female searchers to search women where possible. If none available use metal detectors (e.g. HOODLUM) in a straight up and down motion – do not follow body contours.
- d. Keep women, children and elderly family members in shelter – do not make them stand in the cold or rain.
- e. Understand local attitudes / sensitivities towards dogs before using them in house or vehicle searches.
- f. Use local civil or military personnel to gain entry to buildings and to deal with crowds / onlookers where practicable i.e. local police.
- g. Understand local laws and attitudes to weapons systems. In some countries it is legal to hold small arms in houses or even to walk about with them.
- h. Search outbuildings or structures like haystacks or woodpiles etc., even those some distance away from the buildings – think outside the box, where would you hide something!
- i. Treat people and property with respect when conducting person, building or vehicle searches.
- j. Enduring messages should inform the population of the reasons for and methods used in house searches and set the general conditions for their conduct.
- k. Engage with local leaders. Ideally have them present in the house as the search is conducted.
- l. Explain to elders and the local community what is happening and why. Do not allow an information vacuum to develop that can be exploited by the enemy.
- m. Conduct follow-up info campaigns to explain the results of the search.
- n. Be as open and honest as you can be about what has happened and why.
- o. Use normal procedures for damage claims. Explain these to local leaders.

Dealing with Religious Sites

3-36 *Explain:* Places of worship, shrines, graveyards etc. are significant in every potential theatre of operations. In some cultures these will be the hub of the community and will double up as the school, meeting place or even seat of local government. Consideration should be given to the following:

- a. Know where these are on your patch. Understand their significance to the local nationals.
- b. If practicable use local civil or military personnel to enter them in the first instance.
- c. Avoid causing collateral damage to them as far as is reasonably possible.
- d. If it is necessary to conduct operations on or near religious areas ensure local leaders are informed (where possible) and negotiate acceptable procedures with them.
- e. Do not fire onto religious areas first. If you are perceived to attack them the enemy becomes defenders of the church / mosque. If they fire first then the situation is changed.
- f. Consider the wider implications of your actions. It may be better to back off and lose the chance to capture one or two of the enemy than risk alienating yourself completely from the local population. In these cases exploit Information Operation (IO) opportunities.

Conclusion

3-37 **End of Lesson Drill.**

- a. *Questions from and to the squad on the lesson.*
- b. *Set tasks/homework for next lesson*
- c. *Summary. To include the following:*
 - (1) *Being situational aware.*
 - (2) *Maintaining awareness, memory and local knowledge.*
 - (3) *A forecast of the next lesson.*

3-38 - 3-39 Reserved.

Lesson 11. Observation and Why Things Are Seen

3-40 **Aim.** *The aim of the lesson is to teach how to systematically observe an area of ground.*

3-41 **Timings.** *One 40 minute period.*

3-42 **Method.** *A basic instructional outdoor period.*

3-43 **Stores.**

Various items of military equipment

Target Indicator	1 (minimum)
Check sheet	1 per soldier
Loud hailer	As available
Signal flag	1
Visual aid	1
Demonstrators wearing Fighting Order	As necessary

3-44 **Preparation.**

a. *Reconnoitre the area and select ground which can be easily divided into foreground, middle distance and distance, ideally up to 600 metres, with an arc of at least 800 mils.*

b. *Position demonstrators and equipment so that they provide varying degrees of contrast in colour, tone, texture, shape and shadow. This is best done as close to the lesson start time as is possible.*

c. *Position the squad so they are able to see the objects within the specified arc. If this is not possible the squad must be moved to another 'stand' so they can see.*

d. *Prepare a suitable visual aid as per Fig 3-15 .*

3-45 **Miscellaneous.**

a. *Rehearse the demonstrators in their actions prior to sending them to their locations.*

b. *Some equipment need not be too well concealed but all demonstrators should provide realistic battle type targets.*

c. *During practice, get the squad to write down what they have observed. Then discuss how they identified the object and finally get them to confirm the locations using the target indicator.*

Preliminaries

3-46 **Safety Precautions.** *Nil.*

3-47 **Revision.** Revise why things are seen then indicate areas of observation.

Introduction

3-48 **Explain:** Visual training is training to observe, coupled with a knowledge of how to conceal. To observe is to see through the enemy's concealment; to conceal is to defeat their observation. Once trained in both, the soldier can locate and kill the enemy without being seen themselves.

Why Things are Seen

3-49 **Visual Spectrum.** *Explain and demonstrate:* Whether an object is easy or difficult to see with either the naked eye or binoculars depends upon several factors. They can be remembered as the 'Seven Ss' (see Figs 3-9 to 3-14):

- a. **Shape.** Some things can be recognized instantly by their shape, particularly if they contrast with their surroundings. Two easily distinguished shapes which require disguise for concealment are:
 - (1) The clear cut shape of a soldier's outline.
 - (2) The smooth round top of a combat helmet.
- b. **Silhouette.** Any object silhouetted against a contrasting background is clearly visible. Smooth flat backgrounds such as water, a field, or worst of all the sky, should be considered dangerous. An object may also be silhouetted if it is against the background of another colour. For concealment, choose an uneven background such as a hedge, bush, trees or broken ground.
- c. **Shine.** If an object has a texture that contrasts with its surroundings it is clearly visible. The surface of the combat helmet and white skin contrast violently with most backgrounds and need to be disguised to assist concealment. Be aware of items that glint in sunlight which can be seen from long distances.
- d. **Shadow.** In sunlight, an object casts a shadow which gives away its presence. For concealment, keep in the shade if possible. The shade affords cover and there are no 'tell-tale' shadows. Remember that as the sun moves, so do the shadows.
- e. **Spacing.** Natural objects are never regularly spaced. Regular spacing means man-made objects. For concealment avoid regular spacing.
- f. **Sudden Movement.** The eye is attracted to any movement but especially sudden movement. For concealment, movement has to be slow and cautious.

g. **Signature.** People, vehicles and equipment all have a Thermal Signature. While camouflaged in every other way, it is possible to see heat sources such as an engine block, a hot gun barrel, hexi stove and a human body when using a Thermal Imager. Equipment and dress also have different levels of Infra-Red relativity. Issued equipment has all been tested to minimise such signature.

3-50 *Confirm by practice.*

3-51 **Biological Night Vision and why we use Red Torches.** *Explain:* Humans have a natural capability to see at night and it takes from roughly 10 to 30 minutes to fully adapt. This is why we use red filtered torches at night to help preserve natural night vision. While even a flash of white light will ruin your night vision make the adapting process start again, red light has much less of an effect.

3-52 **Thermal Imagery.** *Explain:* Thermal imager systems (eg FIST Thermal Imager) convert energy in the Infra Red (IR) wavelength into a visible light display. All objects hotter than absolute zero emit thermal infra-red energy, so thermal cameras can passively see all objects, regardless of ambient light. The amount of thermal energy released depends on an object's surface temperature. Radiation also originates from the surroundings and is reflected in the object, and the radiation from the object and the reflected radiation will also be influenced by the absorption of the atmosphere.

3-53 **Image Intensification.** *Explain:* The image intensifier (eg Common Weapon Sight (CWS)) is a vacuum-tube based device that converts visible light from an image so that a dimly lit scene can be viewed by a camera or the naked eye. When light strikes a charged photocathode plate, electrons are emitted through a vacuum tube. These strike a micro channel plate which causes the image screen to illuminate with a picture in the same pattern as the light that strikes the photocathode but on a frequency that the human eye can see. This is very like how a television works. The image is said to be 'intensified' because the output visible light is brighter than the incoming Infra Red light.

3-54 **Active Illumination.** *Explain:* Active illumination technologies work on the principle of coupling imaging intensification technology with an active source of illumination in the near Infra Red (NIR) or shortwave Infra Red (SWIR) band. Examples of such technologies include low light cameras. Active infrared night vision is now commonly found in commercial, residential and government security applications, where it enables effective night time imaging under low light conditions. However, since active infrared light, such as the Infra Red (IR) torch on your Laser Light Module (LLM) can be detected by night vision goggles it must be used with care in tactical military operations.

3-55 *Confirm by questions.*



Fig 3-3. Shape



Fig 3-4. Silhouette



Fig 3-5. Shine



Fig 3-6. Shadow



Fig 3-7. Spacing



Fig 3-8. Sudden Movement

Techniques

3-56 **Explain and demonstrate:** In order to locate an enemy, who will be adept in the skills of camouflage and concealment, a soldier needs to learn how to observe, by scanning and searching. Scanning is a general and systematic examination of an area, to detect any unusual or significant object or movement. Searching is a thorough examination of certain features in the area. Both require complete concentration, combined with the knowledge of why things are seen and the principles of camouflage and concealment.

3-57 **Scanning.**

- a. Divide the area into foreground, middle distance and far distance.
- b. Scan each area horizontally starting with the foreground. To obtain maximum efficiency, move the eyes in short overlapping movements (see Fig 3-9. Moving the head will minimize eye fatigue. The speed at which scanning is carried out will depend upon the type of country being observed and the amount of cover it affords to possible targets.
- c. When horizontal scanning is completed, scan along the line of any features which are angled away from the observation position.

3-58 **Searching.** Searching may take place at any stage during scanning i.e., if the soldier's position is dominated by a piece of ground, they should search that area thoroughly before continuing with scanning. Furthermore, any significant movement or object, suspected camouflage, etc., spotted during scanning requires an immediate search of that area. An optical sight is a useful aid when searching ground in detail, likewise binoculars. Other aids to searching are the 'family' of Thermal Imaging (TI) equipment. Dead ground can be covered using remote control sensors. Search for each of the factors of why things are seen in turn. The weather may assist, i.e., frost will reveal tracks made during the night or a hot sun will alter the tone and colour of foliage used for camouflage by withering its leaves. Search across hedgerows or a row of trees, not along them.

3-59 **Confirm by practice.**

Conclusion

3-60 End of Lesson Drill.

- a. *Questions to and from the squad on the lesson.*
- b. *Pack kit.*
- c. *Summary. To include the following:*
 - (1) *The fact that the key to good observation is a thorough knowledge of the principles of concealment.*
 - (2) *Diligent and systematic searching of a feature, hedgerow, etc. will give clues and this will lead, with practice, to locating the enemy.*
 - (3) *A forecast of the squad's next lesson in this subject.*

3-61 - 3-69 Reserved.

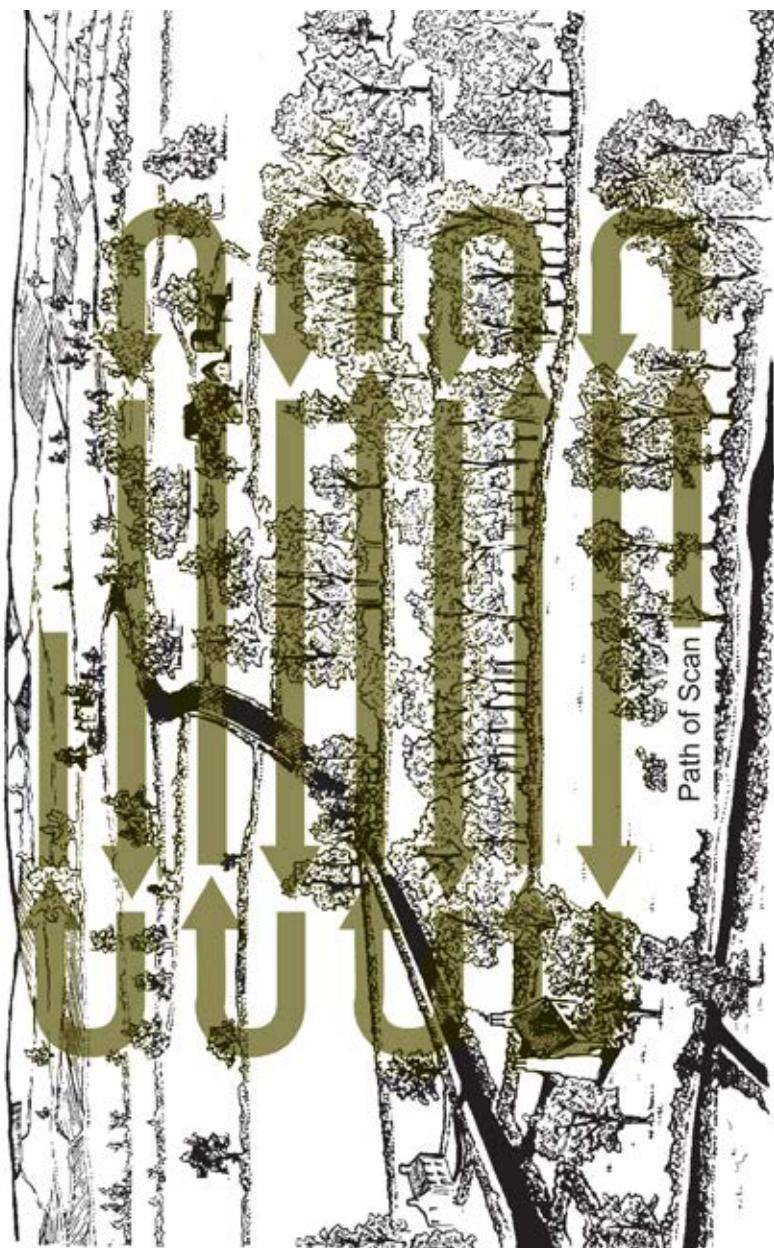


Fig 3-9. Scanning

Lesson 12. Personal Camouflage and Concealment

3-70 **Aim.** The aim of the period is to teach personal camouflage and concealment.

3-71 **Timings.** Two 40 minute periods.

3-72 **Method.** Basic instructional outdoor periods.

3-73 **Stores.**

Rifle fitted with sight and sling	1 per soldier
Magazine	1 per soldier
Fighting Order	1 set per soldier
Combat helmet complete	1 per soldier
Camouflage cream	As required
Scrim	As required
Loud hailer	As available
Signal flag 1	
Demonstrators	As necessary

3-74 **Preparation.**

- Reconnoitre the training area and select positions to best illustrate the factors given and shown in the 'Concealment' paragraphs.
- Rehearse the demonstrators, preferably immediately prior to the squad arriving.

3-75 **Miscellaneous.**

- When the squad have finished their practice in camouflage, order them to go forward 5-10 metres and adopt a fire position. This will ensure that any foliage used is secure, and they can aim their weapons correctly.
- If using a signal flag to control demonstrators during the concealment phase, rehearse the signals and actions before sending them to their positions.
- Questions on the rules for concealment should be carefully prepared to avoid ambiguity.

Preliminaries

3-76 **Safety Precautions. Normal.**

3-77 **Revision.** Question the squad on 'Why things are seen', then indicate area of observation for the demonstration.

Introduction

3-78 *Explain:* Camouflage and concealment are key skills for the soldier in the Field. By mastering these skills, you will make yourself harder to detect and therefore harder to be acquired and engaged as a target. Ultimately it can save your life. You also need to understand the psychological effect of camouflage and how it could support or undermine your mission. Finally, you need to balance your camouflage with the ability to move without restriction, access your equipment and use your weapon and optics.

The Aim of Camouflage

3-79 The aim of camouflage is to make you blend with your environment, disguise distinctive shapes and break the engagement cycle as early as possible. In order to kill you, an enemy goes through the process of detecting a person, identifying that person as their opponent, acquiring a sight picture and finally pulling the trigger. The best solution is to prevent detection, if that isn't possible then making it difficult to identify and acquire you will all push the odds back in your favour. Camouflage can be seen as working in three different ways:

- a. **Blending with the Background.** The need to blend with the background is the factor that most people associate immediately with camouflage. In the most obvious terms, a person wearing a red football shirt will stand out more clearly against a desert backdrop than a person in a sandy coloured shirt. British Army camouflage uniform, particularly Multi-Terrain Pattern (MTP) dress, is designed as a compromise which will provide a good level of blending with many different environments.
- b. **Breaking up Distinctive Shapes.** The human shape is instinctively recognizable as are features such as a human face. To a soldier, shapes such as weapons, helmets and bergens are so familiar as to be instantly recognizable. Effective camouflage seeks to disrupt these shapes through contrasting colours and breaking up outlines.
- c. **Reducing Signature.** It is sometimes easy to forget that we also generate a signature outside the visual spectrum including human body heat, hot weapon barrels, mugs of hot drinks etc. Thermal signature can be reduced by operating on 'hard routine' (see Chapter 1, Section 1- Food and Water) when in close proximity to the enemy. Never fall into the trap of assuming that your enemy does not have a night vision capability. Assume that even irregular combatants from the developing world will have acquired such equipment even if in limited quantities.

When to use Camouflage Cream

3-80 Whether to use camouflage cream ('cam cream') is a decision which will be made by the local commander. The following factors should be considered:

- a. **Psychological Effect.** Wearing cam cream has an undeniable psychological effect, both on the wearer and an observer. It could even be viewed in a similar way to the warpaint worn by our ancestors. Consider whether wearing cam cream will support or undermine your mission. For example, it may not be appropriate when you expect to engage with the people of a local village but entirely appropriate for a night ambush or fighting patrol.
- b. **Weather.** Cam cream may also not be applied for climatic reasons but again, there may be a requirement for wearing it for short periods for specific reasons:
 - (1) **Arctic.** The need to identify early signs of cold injuries and the negative effect of cam cream on skin in very cold conditions means that it is not generally worn for Arctic operations.
 - (2) **Desert.** The beneficial effect of cam cream in the open desert from a camouflage perspective is negligible. The need to wear suncream to protect against, and allow early identification of, sunburn is probably greater.

Applying Cam Cream

3-81 Cam cream is the best method of camouflaging your face and neck (hands should also be camouflaged in the event that combat gloves are not worn). In the past, burnt cork and mud have been used and these options are better than nothing. When applying cam cream, you are aiming to reduce shine, blend with the background and disrupt the instantly recognizable features of the face (see Fig 3-10). Apply it as follows:

- a. **Base Layer.** Apply a light base layer all over your face and neck. Make sure you don't miss the ears and the exposed part of your neck. If combat gloves are not worn (and they should be routinely), the back of the hands should be cammed.
- b. **Disruptive Layer.** Now apply bold stripes of a darker colour across the face and neck in a roughly diagonal direction in order to disrupt the line of the nose.
- c. **How Much?** It is not an exact science. You may need to apply more of the dark coloured cam cream at night as white skin reflects light at night. Don't apply so much that it stops achieving the disruptive effect.

Camouflaging your Helmet

3-82 The shape of your combat helmet is a distinctive one. The camouflaged material of its cover reduces shine and visual signature but only the addition of foliage or scrim will disguise the shape (see Fig 3-11). Whether you use the fitted elastic loops or a helmet net is not an issue, as long as you can attach camouflage effectively. Use locally found, freshly cut grass, moss and foliage and renew it daily and whenever you move to a different backdrop. Grass and foliage should be placed in carefully, making sure that the lighter, underside is not facing outwards. Never choose any large, bright or distinctive foliage (such as flowers) as it will draw the enemy's eye – and you will also look rather foolish.

3-83 **When you camouflage your helmet and when you don't.** The decision as to whether to wear camouflage in your helmet will be made by the local commander. The old debate over 'night and day' has been largely overtaken by night vision capability – the factors detailed below will all inform the decision:

- a. **Mission.** If you are expecting to be part of a mission such as a deliberate attack where contact with the enemy is planned, you should make it as difficult as possible for the enemy to engage you effectively. Hard won experience from many modern conflicts shows that camouflaging the distinctive, critical and most often exposed part of your body will help. If you are conducting a peace-keeping mission in a low threat environment, the image presented by helmet camouflage is probably inappropriate.
- b. **Environment.** In general, helmet camouflage would be appropriate in areas of vegetation such as scrub and woodland but unnecessary in sandy desert. In urban terrain, when there is a high threat, there is still a need to break-up the outline. This may be achieved simply because the equipment mounted to your helmet (goggles, night vision system, IFF marking) breaks up the outline but other options include using locally found strips of material that blend well with the background (sand and black hessian, grey or brown blanket).
- c. **Equipment.** If helmet mounted equipment is worn (Night Vision Systems, IFF marking, goggles), care should be taken to ensure that any camouflage worn does not interfere with it. On balance, it may be decided that the combined effect of such equipment achieves the 'breaking up' of the outline in itself and no further cam is needed.
- d. **Noise.** Sounds carry further at night and in specific environments such as primary jungle are first clue as to someone's presence. Balance whether, or to what extent, to cam helmets (and equipment) against whether it is likely to snag or make a noise, particularly for tasks such as Close Target Reconnaissance in close country.



Fig 3-10. Applying Cam Cream



Fig 3-11. Camouflage breaks up the distinctive outline of the helmet and blends well with the background

Camouflaging your Equipment

3-84 If you are ordered to camouflage your equipment, it is likely to be for a specific operation such as an ambush. Elastic and MOLLE loops on your Fighting Order may be used on your kit for securing foliage in order to break up the outline and blend with the environment. It is essential that access your Fighting Order (particularly ammo and water bottle pouches) is not impaired, and there is freedom of movement. Generally, you should concentrate on your back and shoulders and leave the front of your body clear.

Camouflaging your Weapon

3-85 Unless operating as a Sniper, there is generally no requirement to camouflage your personal weapon. It is far more important that you can employ your weapon swiftly and effectively - ie the sights are not obscured nor the working parts impaired.

Concealment – the Guidelines

3-86 Concealment for a soldier means using the ground effectively to avoid being seen while still being able to make maximum use of your weapon systems. Remember 'why things are seen' and bear it in mind when you are trying to conceal yourself. The following guidelines are enduring: they have been learned the hard way, with lives lost, over many years and are just as applicable today and for the future:

a. **Don't Expose your Head Over Cover.** You should look or fire your weapon round or through cover, rather than over it. One of the most common, and potentially fatal, errors a soldier can make is to fire over the top of cover and silhouette themselves against the wall or building to their rear, providing the enemy with a clear target picture. If you need to look over cover, don't put your head up – use a Lightweight Periscope. If neither of these is an option improvise with the mirror in your cam cream box. If none of these are an option, pick a 'broken' area to look over rather than a straight line. The best technique for firing from a covered position is to fire around the side of the cover, reducing your exposure to the enemy.

b. **Stay in the Shadows.** Try to make use of any available shadow and be aware of any shadow you cast. Remember that when in the sun your own shadow is very conspicuous and that shadows move with the sun. Buildings in built-up areas throw sharp shadows, which can be used to good effect for concealment. Areas that are not in shadows should be avoided. If you are operating from inside a building, avoid the lighted areas around windows and loopholes – you will be better concealed if they fire from the shadowed interior of a room (or a Sangar). A lace curtain provides additional concealment to soldiers in the interior of rooms if curtains are common to the area. Interior lights should never be used when observing or firing out of a window or Sangar.

- c. **Avoid Sky Lining.** The silhouette of a soldier or patrol against a skyline is always a good target. Be aware of your background and avoid ridges. Silhouette will be visible against blank walls as well as in open areas and you should aim to select your next covered position before making any move.
- d. **Avoid Isolated Cover.** The only tree stump in a field may seem a perfect place to hide behind but if it's obvious and isolated, the enemy is likely to be observing it and will find it easy to control fire onto. Think about when you give Fire Control Orders yourself, "300, centre of field, lone stump, enemy" will work far better than "300, dip in field, enemy".
- e. **Crossing a Wall or Fence.** After you have looked over the other side, you should roll over the wall, keeping a low silhouette. The speed of movement and a low silhouette will deny the enemy a target. This method of movement must be practised by all soldiers.
- f. **Movement Around Corners.** The area around a corner should be observed before you move to it. A common mistake is to allow a personal weapon to extend beyond the corner, giving away your position and intention. A capable enemy will have taken aim and be waiting to fire when you expose your head.
- g. **Movement Past Windows.** Movement past windows presents another hazard. This time, the most common mistake is to expose the head. The correct technique to pass a window is to stay below the window level. The same technique is used to pass basement windows where the most common mistake is not being aware of it (awareness again!). The correct procedure for negotiating a basement window is either to avoid it or to stay close to the wall of the building and step or jump past the window and provide minimum exposure to view.
- h. **Use of Doorways.** Doorways and old mouse holes or entry points should not be used if possible. They may be covered by fire or booby trapped.
- i. **Moving Parallel to Buildings.** Soldiers will not always be able to use the inside of buildings to advance, so movement forward may be necessary outside buildings. When in contact movement should always be concealed and covered by smoke and covering fire. Correctly moving outside a building, the soldier 'hugs' the side of the building, stays in the shadow, present a low silhouette, and moves rapidly to the next fire position. If an enemy inside the building fires on a soldier, they expose themselves to fire from other fire-team and section members. Enemy further away or to a flank should be engaged by flank sub-units or other fire support.
- j. **Crossing Open Areas.** Open areas, including streets and alleys, cannot be avoided. They are natural killing areas, but can be crossed safely if certain fundamental rules are applied:

(1) **Preparation.** Before moving, you should select the next position that offers the best cover. Then, select the best route to take to get to that position, offering concealment or speed. Ensure your Section can provide direct fire support prior to any move.

(2) **Least Exposure.** The shortest distance across streets and between buildings should be used and smoke from hand grenades can be used to conceal movement. The cover provided by walls should be exploited for as long as possible. By doing so, you will reduce the evidence of your intentions and the time you are exposed to enemy fire.

3-87 Moving as a Fire Team, from building to building, is the best method of tactical movement. The Fire Team must ensure that every room is clear of enemy and should use the protection of the buildings as cover for as long as possible. Fire Team movement between buildings must be covered by fire, preferably by another Fire Team – Never move in contact without covering fire. Bunching should be avoided to minimize the effect of automatic weapons and booby traps. Movement can be made at street level or by using roofs and underground systems. When moving from position to position, each soldier must ensure that they do not mask their supporting fire. When they reach the next position, they should be prepared to cover the movement of other members of their Fire Team or Section.

Conclusion

3-88 **End of Lesson Drill.**

- a. *Questions from the squad on the lesson.*
- b. *Confirm by questions and practice.*
- c. *Normal safety precautions.*
- d. *Pack kit.*
- e. *Summary. To include the following:*
 - (1) *Good camouflage and concealment allow the soldier to see without being seen in order to kill without being killed.*
 - (2) *A forecast of the squad's next lesson.*

Chapter 4

Moving On Foot

Lesson 13. Individual Movement

4-01 **Aim.** *The aim of the lesson is to teach how to maintain concealment when moving with personal weapons including:*

- a. Considerations when moving with or without weapons.
- b. Methods of individual movement.

4-02 **Timings.** Two 40 minute periods.

4-03 **Method.** Basic instructional outdoor periods.

4-04 **Stores.**

Personal weapon fitted with sight and sling	per soldier
Magazine	1 per soldier
Fighting Order	1 per soldier
Combat helmet complete	1 per soldier

4-05 **Preparation.**

- a. Reconnoitre the training area and select an area of ground for the demonstration and practice of each type of movement.
- b. For advanced practice, select an arc for 'movers' and positions for 'observers'.

4-06 **Miscellaneous.**

- a. Practise the squad as a whole then divide them into two groups, 'movers' and 'observers'. Use the observers to criticise the 'movers'.
- b. This lesson covers movement with section weapons such as the Rifle, LSW, LMG, Carbine and UGL if issued. For methods of movement with other weapons refer to the relevant GSPs.

Preliminaries

4-07 **Safety Precautions. Normal.**

4-08 **Revision.** Question the squad on camouflage and concealment, indicate the area to be used and allow the squad to camouflage.

Introduction

4-09 *Explain:* It is important that each soldier knows how to combine the art of concealment with that of movement. The same characteristics of why things are seen equally applies to that of the enemy. It is also fundamental that in addition to moving stealthily that the soldier does so whilst keeping weapons clean and in a position where they can be brought to bear easily.

Movement with Weapons

4-10 *Explain:* Different methods of movement provide concealment for different types of cover and these can be used by the soldier when moving with weapons:

- a. Movement with the Light Support Weapon (LSW) is the same as the rifle, but extra care is needed to protect the extended barrel.
- b. When movement requires the rifle and the LSW to be in contact with the ground, the soldier must guard against:
 - (1) The safety catch inadvertently moving to fire.
 - (2) The magazine being released.
 - (3) The muzzle becoming clogged with dirt. The muzzle cover should be used and the dust cover should be closed.
 - (4) The sights being damaged.
- c. Movement with the carbine is the same as for the rifle however will be easier due to the short barreled nature of the weapon. The position of the left hand should be on the front hand grip instead of the hand guard of the rifle.
- d. If the rifle is fitted with the Underslung Grenade Launcher (UGL) the muzzle cover should be fitted. Care should be taken to avoid dirt entering the muzzle of the weapon at all times.
- e. If moving with the Light Machine Gun (LMG) then care should be taken to ensure that dirt does not enter the weapon. The soldier must ensure that;
 - (1) The muzzle cover is fitted.
 - (2) The safety catch is applied whilst moving.
 - (3) Guards against the soft pouch becoming dislodged during movement.
 - (4) That the bipod is folded during movement.

Methods of Movement (Individual)

The Monkey Run

4-11 *Explain and demonstrate:* The monkey run is crawling on hands and knees and is useful when moving behind low cover (see Fig 4-1):

- a. Movement can be quite fast but the faster the movement, the more the noise.
- b. To reduce noise to a minimum put the hands down in a place that is free of twigs or anything which might crack, and then move the knees forward to the position where the hands have been.
- c. Keep the buttocks and head low but observe whilst advancing.
- d. The weapon may be carried in the following ways:
 - (1) Slung across the chest with the sling pulled tight.
 - (2) Slung across the chest with the sling in the quick release position held by the pistol grip in the right hand with the fore finger along the trigger guard.
 - (3) At the point of balance with one hand.

4-12 *Confirm by practice.*

The Leopard Crawl

4-13 *Explain and demonstrate:* The leopard crawl is crawling on the elbows and the inside of the knees. It is useful when moving behind very low cover (see Fig 4-2):

- a. Movement is achieved by moving alternative elbows and knees; the body is rolled slightly as each knee is bent. The same effect can be achieved by trailing one leg and using only one knee.
- b. Keep the heels, head, body and elbows low down but observe whilst advancing.
- c. If carrying a weapon, it can be carried in the following ways:
 - (1) By the butt and the hand guard.
 - (2) By the front sling loop with the personal weapon resting on the right arm with the muzzle pointing forward.
 - (3) Which ever method is used, remember the cocking handle should be uppermost and the safety catch set at 'S'.

4-14 *Confirm by practice.*

The Roll

4-15 *Explain and demonstrate:* The roll is a very quick method of moving away from a position. Movement is achieved by rolling with the arms tucked close into the side (see Fig 4-3). If carrying the personal weapon hold the bottom of the butt with the right hand, the hand guard with the left hand ensuring the magazine and pistol grip is tucked well into the body before commencing the roll. Question the use of teaching this matter as a soldier cannot roll with all of their personal equipment fitted.

The Walk

4-16 *Explain and demonstrate:* The weapon is held in the alert position with the sling in the quick release position (see Fig 4-4). Advance slowly, circulating the leading foot to clear the undergrowth. If on hard ground put the sole of the boot down first. This deliberate movement requires balance, so keep the knees slightly bent.

4-17 *Confirm by practice.*

Conclusion

4-18 **End of Lesson Drill.**

- a. *Questions to and from the squad on the lesson.*
- b. *Confirm by practice.*
- c. *Normal safety precautions.*
- d. *Pack kit.*
- e. *Summary. To include the following:*
 - (1) *The importance of selecting the best method of movement for the type of cover available.*
 - (2) *A forecast of the squad's next lesson in this subject.*

4-19 - 4-29 Reserved.



Fig 4-1. The Monkey Run



Fig 4-2. The Leopard Crawl



Fig 4-3. The Roll



Fig 4-4. The Walk

Lesson 14. Methods of Movement

4-30 **Aim.** *The aim of the lesson is to teach the principles of individual Fire and manoeuvre including:*

- a. *Movement out of Contact.*
- b. *Fire and Manoeuvre and Withdrawing from Contact.*
- c. *Communication.*
- d. *Movement at Night.*

4-31 **Timings.** Two 40 minute periods.

4-32 **Method.** Basic instructional outdoor periods best taught in the initial lesson by using NCOs as demonstrators.

4-33 **Stores.**

Rifle fitted with sight and sling	1 per soldier and instructor
Magazine	1 per soldier and instructor
Fighting Order	1 set per soldier and instructor
Combat helmet	1 per soldier and instructor
Ammunition 5.56 mm blank	30 rounds per soldier 10 rounds per instructor

IW/LSW Blank Firing Attachments (BFA)

Targets:

a. Fig 11 (stick-in)	3
b. Fig 12 (stick-in)	3
Loud hailer	As available
Camouflage cream	As required
Ear defence	1 per soldier and instructor

4-34 **Preparation.**

- a. Select suitable ground with various types of cover for the demonstration.
- b. Site the figure targets in suitable positions relative to the types of cover so the demonstrators may engage the targets from a number of positions.
- c. Rehearse the demonstrators.
- d. Ensure further suitable ground is available for squad practice.

4-35 **Miscellaneous.**

- a. The initial lesson will be a simple demonstration with an officer/WO or SNCO giving the commentary using two NCOs as demonstrators.
- b. The demonstration is to show two individuals working as a pair demonstrating F & M.

- c. *The demonstrators are to be camouflaged.*
- d. *The second period will be squad practice.*
- e. *In accordance with Reference A, a written instruction is to be produced for any activity involving the use of blank ammunition.*
- f. *In accordance with Reference A, the wearing of issued ear protection is compulsory during blank firing.*

Preliminaries

4-36 **Safety Precautions.** *Normal safety precautions.*

4-37 **Revision.** *Individual movement.*

Introduction

4-38 *Explain:* The basic principle to be remembered when moving is that one soldier covers or fires whilst the other moves. The movement is known as tactical balance, or is more normally described as keeping “one foot on the ground”. The movement from cover to cover is known as a tactical bound.

Fire and Manoeuvre

4-39 *Explain:* This is the basic principle which should be employed during any move. To manoeuvre is to move tactically. At its simplest you should remember the phrases ‘no movement without fire’ or keeping ‘one foot on the ground’. This means that one soldier covers or fires whilst the other moves when in contact. On any type of patrol you should identify likely pieces of cover in case of contact. This movement from cover to cover is known as a tactical bound. This principle applies whether it involves two soldiers, two fire teams, two multiples etc.

‘Buddy – Buddy’ System

4-40 *Explain:* This describes the method of pairing with a battle partner prior to, during and post patrols. Working in a pair means you can check each others kit and equipment during pre and post patrol checks but importantly also means that you have someone who you can work with during patrols. Working together will become an integral part of patrolling and will mean you know you always have someone who has ‘got your back’.

Movement Out of Contact

4-41 *Explain:* When moving, whether it is walking, dashing, running or crawling you must be covered by your battle partner or ‘buddy’ who must have a good field of fire to ensure the move or bound is covered, i.e. must be able to fire at the enemy if under contact. As you move, scan the ground ahead to identify possible enemy firing or observation points. Where would you be if you were the enemy? Think what you would do if you came under fire and where you would take cover.

Movement in Contact

4-42 *Explain:* Movement in contact could mean the patrol is being engaged from small arms, IED, IDF etc. Regardless of the form of contact, you must only move if you are being supported by someone else from the patrol. At its most basic:

- a. If under fire you should only move if you are being supported by the fire from your buddy. You must ensure that you only move when your buddy is firing or you are getting supporting fire from elsewhere (vehicles, aviation etc.) and not solely on words of command. The best teams train together constantly and practise so that this becomes instinctive. Different tactical situations in different environments may change who moves when and where but the underlying principle remains the same. Each bound or distance covered when you move will depend on the ground but as a rule of thumb short bounds (about 10 metres) will mean you can keep the momentum and are not exposed for too long.
- b. The next stage is movement to close with the enemy or if the patrol commander thinks it is necessary the patrol may extract from the contact area to conduct further operations. In either case, the movement will be conducted in a series of bounds. During each bound your buddy will be providing the covering fire whilst you are moving. Movement could be quick or slow depending on the ground, enemy strength, weight of fire etc. it may even be necessary to crawl forward but regardless, movement must be supported by fire.
- c. In some circumstances it may be necessary to fire into the likely area of cover from where you think the enemy fire is coming from without seeing the individual enemy but this fire must be the minimum necessary to dominate the enemy area. Careful attention must be paid to the Rules of Engagement (RoE) to see whether this is allowed – if unsure speak to your commander.
- d. Situational awareness is key when moving during contact situations. Know and identify where the enemy are and know where the other members of your team are at all times. Do not become too focussed down the sights of your weapon this is called ‘tunnel vision’. Take the time to look around you, listen to your PRR and the shouts of your team so that you know where they are and what they are going to do next. You must take care not to run into the line of fire of someone from the patrol. Likewise you should also ensure that you are 100% aware of where you are firing. In Counter-Insurgency (COIN) operations you may find that the enemy could attack from literally any direction. In these circumstances situational awareness becomes more crucial.

Methods of Fire and Manoeuvre (F&M)

4-43 *Explain and demonstrate:* There are a number of different ways you can conduct fire and movement and you can do this at different levels: as a pair (one soldier moves, one covers), as a Fireteam (one pair moves, one pair covers) and as a Section (one Fireteam moves, one Fireteam covers). These depend upon the terrain, enemy and threat. There are two basic methods which can be used as a framework to develop new TTPs.

- a. **Caterpillar.** (See Fig 4-5). Each bound you take moves you level with your buddy.
- b. **Leapfrogging.** (See Fig 4-6). Each bound you take will move you past your buddy.

4-44 *Confirm by practice.*

Communication

4-45 *Explain:* As mentioned above, situational awareness is key during fire and movement. You must do your part too and communicate wherever practicable to ensure the remainder of your team know what you are doing, ensure that momentum is maintained and that soldiers don't move without covering fire. Remember the adage – ‘every soldier is a link man’. Communication between troops can be conducted by whatever means is practical (PRR, VHF, voice) however you should not become over reliant on one method alone. Examples of where you must communicate are:

- a. Changing magazines.
- b. Carrying out the immediate action or stoppage drills.
- c. Changing direction or moving into a new piece of cover.
- d. Passing orders or messages from the team commander or others in the team (everyman's a linkman!).

Withdrawing from Contact

4-46 *Explain:* As mentioned above, it may be necessary to withdraw from contact. If this happens then the principle of ‘one foot on the ground’ remains. When withdrawing from contact:

- a. The principles of fire and manoeuvre when withdrawing are the same as when advancing.
- b. You should continue moving until you have broken contact with the enemy or have received further orders from your commander.
- c. Situational awareness is crucial. Care must be taken that you don't stray into another's line of fire when moving or that you do not get tunnel vision when firing.

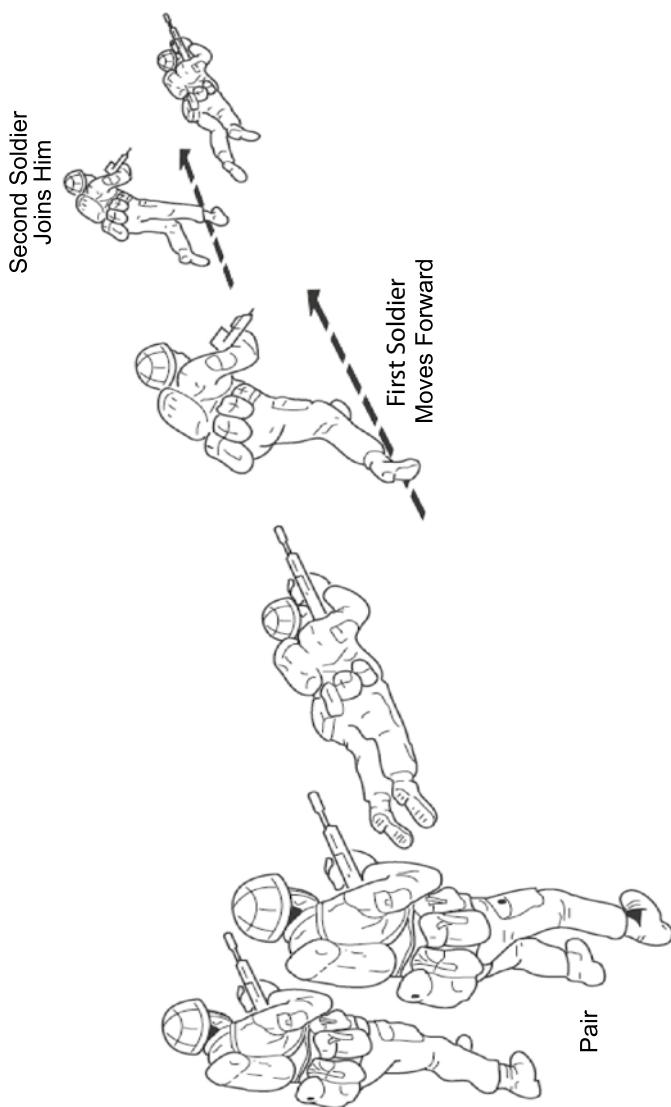


Fig 4-5. Fire and Movement (Caterpillar Method)

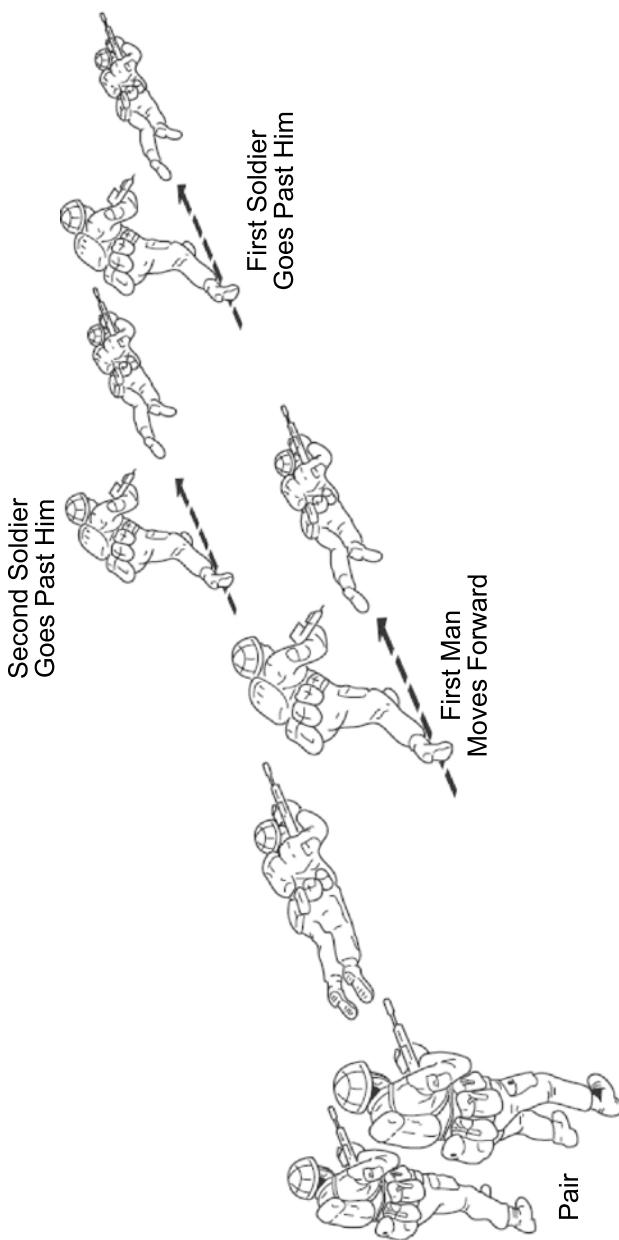


Fig 4-6. Fire and Movement (Leapfrog Method)

5 and 20 Metre Check (5 and 20s)

4-47 *Explain and demonstrate:* This is predominantly used as a C-IED drill however it should become second nature to all soldiers on every patrol as it gives a level of assuredness against other forms of close quarter attack and promotes situational awareness by troops during a patrol. As soon as a patrol goes static, the immediate surrounding area must be secured and searched by 5 and 20m checks. Wire laid for a Command Wire IED (CWIED), poorly camouflaged IED components, and ground sign may all be discovered when the area is investigated by a thorough visual search. By removing the threat from the immediate area, if a device is initiated outside the 20 metres searched it is far less likely to cause any casualties. Once an area or route has been cleared and rigorously marked, personnel need to stick to it.

- a. 5m check is carried out in the immediate vicinity of the Vulnerable Point using equipment and ensuring a visual search is carried out.
- b. Once the 5 m check is done a 20m check is then carried out, ideally this is an equipment search out to a radius of 20, however depending on the tactical situation it may be an equipment or visual search to 20m.
- c. This drill does not only apply to vehicle moves, any time you take a knee while on patrol you should be carrying out your own 5m checks and if stationary for a period 20m checks.

4-48 *Confirm by practice.*

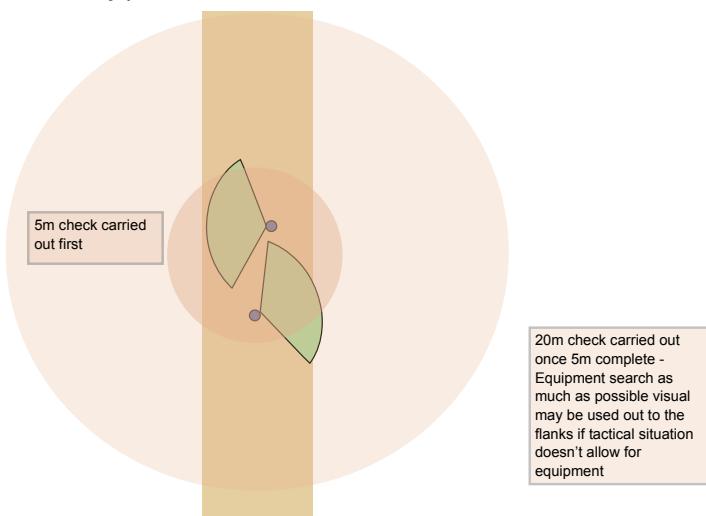


Fig 4-7. Five and 20 metre checks

Light Discipline

4-49 *Explain:* Modern thermal imaging (TI) and image intensifying sights (II) give us the ability to move at night relatively unhindered by the darkness. This coupled with new vehicle sighting systems, Base ISTAR camera systems and advances in UAVs plus improvements in 'black light' (Infra-Red (IR) cyalumes, rockets and mortars) give us unparalleled night-time freedom of manoeuvre. However it must be assumed that the enemy possess the same night viewing technology. As a result, light discipline with black or white light is vital during patrols. Units will develop their own TTPs on light discipline, you must know what your own units SOPs are.

Movement at Night

4-50 *Explain:* A good enemy will always be alert at night. It is important therefore that you know how to move at night without being detected and what action to take if caught in unexpected flares or lights. As a general rule of thumb for moving at night you should: Move Silently - Stop — Scan — Listen (frequently). If you hear a sound you should: Stop or Lie Down (if situation allows). Remember:

- a. Move slowly, stop at frequent intervals, listen and scan using your night viewing aids. Remember sound travels further at night and even the smallest sound could carry to a potential enemy. If you hear a sound get as low to the ground as possible and turn the ears in the direction of a sound. Opening the mouth a little will assist in picking up of a sound.
- b. Make use of the thickest cover and use shadows to avoid being silhouetted; if necessary lie down.
- c. If in the open try to move to cover.
- d. If you are caught in an unexpected light you have to assume that it is an enemy and that the illuminated area is covered by fire. How you react to light at night will be determined by the ground, the type of patrol you are on and the type of light you have seen:
 - (1) Where there is not much cover, it is usually best to go to ground immediately.
 - (2) If you know or suspect that you have been spotted, but the enemy has not opened fire, you must get into cover, away from the source of light as quickly as possible.

Spacing and Depth

4-51 *Explain:* The best mitigation from an explosion is standoff. The further apart you are from each other during a patrol that comes under contact the smaller the chance the enemy has to afflict casualties. Commanders should try, wherever possible, to achieve depth by patrolling with more than one manoeuvre unit. This will not only make the patrol more resilient to attack but will also put doubt in the mind of the enemy as to where all elements of the patrol are and therefore potentially deny him the opportunity to attack.

Deception

4-52 *Explain:* Deception while moving should be conducted at every opportunity. Being unpredictable will keep the enemy guessing and make it more difficult for him to attack. Consider different ways that you and your unit can 'mix things up' and prevent pattern setting.

4-53 *Confirm by practice.*

Conclusion

4-54 **End of Lesson Drill.**

- a. a. *Questions to and from the squad on the lesson.*
- b. b. *Safety Precautions. Normal safety precautions.*
- c. c. *Summary. To include the following:*
 - (1) (1) *Always cover movement with fire, or the capability of fire both in and out of contact.*
 - (2) (2) *The importance of using ground to ensure tactical bounds are not too long.*
 - (3) (3) *The importance of good communication between battle partners.*
 - (4) (4) *Individuals must ensure that they only move when their battle partner is firing and not solely on words of command.*
 - (5) (5) *The importance of good weapon handling at all times.*
 - (6) (6) *A forecast of the squad's next lesson in this subject.*

4-55 - 4-59 Reserved.

Lesson 15. Hand Signals

4-60 **Aim.** The aim of the lesson is to teach patrol hand signals.

4-61 **Timings.** One 40 minute periods.

4-62 **Method.** Basic instructional outdoor periods.

4-63 **Stores.**

Personal weapon fitted with sight and sling	per soldier
Magazine	1 per soldier
Fighting Order	1 per soldier
Combat helmet	1 per soldier

4-64 **Preparation.**

- Reconnoitre the training area and select an area of ground for the demonstration and practice of each type of hand signal.
- For advanced practice, select an arc for 'movers' and positions for 'observers'.

4-65 **Miscellaneous.**

- Practise the squad as a whole then divide them into two groups, 'movers' and 'observers'. Use the observers to criticise the 'movers'.
- This lesson covers signalling and movement with section weapons such as the Rifle, LSW, LMG, Carbine and UGL if issued.

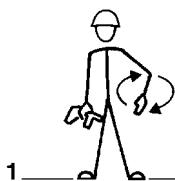
Preliminaries

4-66 **Safety Precautions. Normal.**

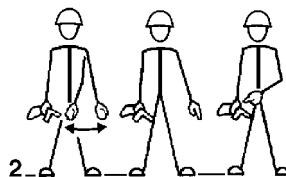
4-67 **Revision.** Question the squad on camouflage and concealment, indicate the area to be used and allow the squad to camouflage.

Introduction

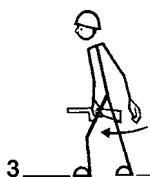
4-68 **Explain:** Although the introduction of the Personal Role Radio has alleviated the necessities for hand signals there will be occasion when hand signals will have to be reverted back to. Battlefield noise or tactical situation may well mean that hand signals are the only form of communicating concisely within the patrol.



READY TO MOVE. Move hand as if cranking car handle.



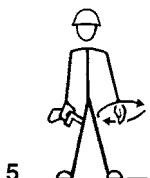
DEPLOY. Arm extended below shoulder level and waved slowly from side to side, hand open. If deployment to either flank is wanted, the commander points to the flank concerned, after completing the signal.



ADVANCE OR FOLLOW ME. Arm swung from rear to front below the shoulder.



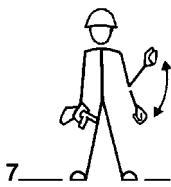
HALT/REST. Arm raised until the hand is level with the shoulder. Indicate length of halt by fingers. Point to rest area.



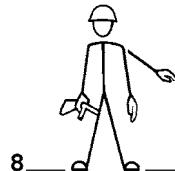
GO BACK OR TURN ROUND. Hand circled at hip height.



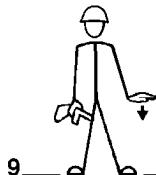
CLOSE OR JOIN ME. Hand placed circled at hip height. on top of head, elbow square to the right or left, according to which hand is used. Point to RV.



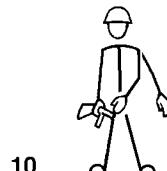
DOUBLE. Clenched hand moved up and down between thigh and shoulder.



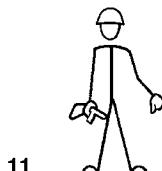
SLOW DOWN (Veh). Arm extended to the side below the shoulder, palm downwards, moved slowly up and down, wrist loose.



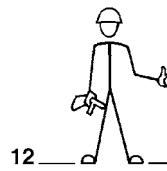
LIE DOWN OR DISMOUNT (Veh). Two or three slight movements with the open hand towards the ground (palm downwards).



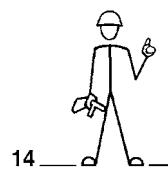
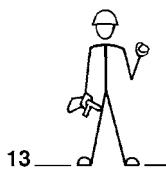
AS YOU WERE, OR SWITCH OFF (Veh). Forearm extended downwards, hand open, waved across the body parallel to the ground.



ENEMY SEEN OR SUSPECTED. Thumb pointed towards the ground from a clenched fist.

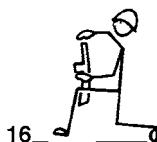


NO ENEMY IN SIGHT OR ALL CLEAR. Thumb pointed upwards from a clenched fist.

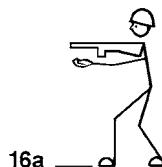


GUNNER (GUN GROUP). Clenched fist raised to shoulder height.

GUN GROUP. 'Victory' sign — first and second fingers extended and open in V, remainder of fist closed.



Light Mortar.
Weapons held vertical. Imitate loading
of rounds.



UGL. Weapon brought to aim. Tap
bottom of hand grip.



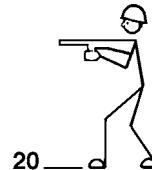
NLAW. Weapon placed on shoulder and
held like a LAW.



SECTION COMMANDER. Two
opened fingers held against arm to
indicate Corporal's stripes.



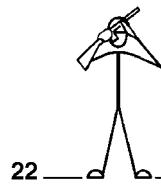
PLATOON COMMANDER. Two opened fingers held on shoulder to indicate a Lieutenant's stars.



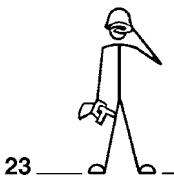
GIVE COVERING FIRE. Weapon brought into aim.



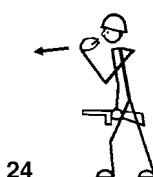
OBSTACLES OR CROSSING OR VUNERABLE POINT. Arms crossed. For water obstacle make waves.



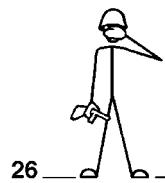
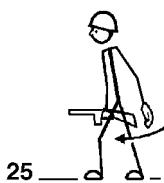
HOUSE OR HUT. Hands folded in inverted V to indicate shape of roof.



RECONNAISSANCE. Hand held to eye, as though using monocular.



ATTACK. A chopping movement with edge of hand in direction attack is required.

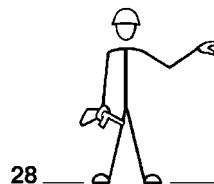


MOVE UP. Fingers spread, arm swung slowly in direction movement is required.

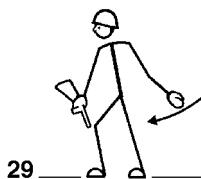
FORM AMBUSH. Hand placed over face, followed by pointing to place of ambush.



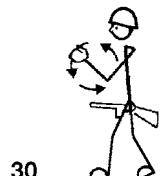
FREEZE AND LISTEN. Hand cupped to ear.



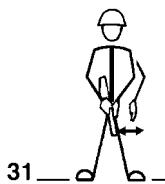
O GROUP. Fingers together, moved in conjunction with thumb to indicate person talking.



RIGHT/LEFT FLANKING. A curved sweeping movement of the arm in the direction concerned.



FIRE AND MOVEMENT. One hand used in a rolling forward action in front of the body.



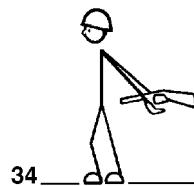
SPACE OUT. Palm of hands held against weapon and moved away several times.



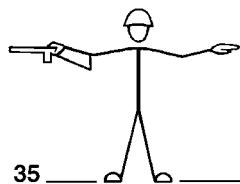
SINGLE FILE. One arm fully extended above the head.



FILE. Both arms fully extended above the head.



ARROWHEAD. Both arms forced backwards or forwards at an angle of 800 mils, depending on whether arrow is to the back or forward.



EXTENDED LINE. Arms raised to the side level with the ground, indicate which side gun group is to go.

Conclusion

4-69 **End of Lesson Drill.**

- a. *Questions to and from the squad on the lesson.*
- b. *Confirm by practice.*
- c. *Normal safety precautions.*
- d. *Pack kit.*
- e. *Summary. To include the following:*
 - (1) *The importance of accurate passage of information using hand signals.*
 - (2) *A forecast of the squad's next lesson in this subject.*

4-70 - 4-79 Reserved.

Lesson 16. Stalking

4-80 **Aim.** *The aim of the lesson is to teach how to stalk including.*

- a. *Considerations for stalking.*
- b. *Risk taking and being compromised.*
- c. *Detection devices*

4-81 **Timings.** *Two 40 minute periods.*

4-82 **Method.** *Basic instructional outdoor periods.*

4-83 **Stores.**

<i>Rifle fitted with sight and sling</i>	<i>1 per soldier</i>
<i>Magazine</i>	<i>1 per soldier</i>
<i>Fighting Order</i>	<i>1 set per soldier</i>
<i>Combat helmet complete</i>	<i>1 per soldier</i>

4-84 **Preparation.**

- a. *Reconnoitre the training area and select a start point and one objective, approximately 200 metres distant.*
- b. *Prepare a solution for the best fire position against each of the enemy locations.*

4-85 **Miscellaneous.**

- a. *The practice is best conducted as follows:*
 - (1) *Divide the squad into two groups. Send one group to act as standing enemy on the distant objective and the other group to act as stalkers from the start point.*
 - (2) *Give a time limit for the stalkers to plan and conduct their stalk.*
 - (3) *Discuss, on the objective, the success or failure of each stalker.*
 - (4) *Change the groups round. Send one group as enemy to the original start point and the other to start their stalk from the objective.*
- b. *The instructor should follow behind the stalkers and be in such a position as to observe faults in movement, fire positions, etc., without betraying the stalkers' position to the enemy.*

Preliminaries

4-86 **Safety Precautions. Normal.**

4-87 **Revision.** Question the squad on:

- a. *Methods of movement.*
- b. *Selecting a route across country and the points to note about different types of cover.*
- c. *Indicate the area to be used and allow the squad to camouflage.*

Introduction

4-88 **Explain:** The object of stalking is for the soldier to move unseen, and unheard, to a fire position within such range of the target to ensure a first round kill.

4-89 **Considerations before Stalking** **Explain: What needs to be achieved?**

You may be required to stalk an enemy position for several reasons but predominantly it will be to move undetected into a final assault position during an attack, or as part of a recce patrol to gather information on the enemy. Each requires you to remain undetected but clearly there are different factors to consider. If you are moving to a final assault position you will more than likely be covered by your section with direct fire and you may also have indirect fire supporting you: in this instance you will want to remain undetected but your movement may be somewhat quicker than if you were conducting a recce of a position, where remaining undetected is essential. Knowing what you need to achieve will have an influence on your route and importantly, how you choose to move.

Locations

4-90 **Enemy's Position** **Explain:** Before you embark on a stalk, it is essential to know the exact position of the enemy and any depth or flanking positions. Your view and perspective of the enemy position will change as you move position. It is essential that you are able to maintain your 'fix' on the enemy if you are to close with him and remain undetected. Before moving, study the enemy position and its position relative to its surroundings, as you move this will help you maintain your bearings. Use features in the distance or ground features close by such as wood lines, ditches or scars to assist you in this.

4-91 **Final Position** **Explain.** The final position should be selected (or at least its rough position) before you start your stalk. The final position will require different qualities again depending on what effect is required once there. If it is to be a fire position then you will need to be able to employ your weapon system once there, so any rear blast danger areas or other weapon danger areas will need to be considered. Muzzle clearance and launch considerations for systems such as NLAW and JAVELIN must be borne in mind.

4-92 If your final position is one from which you will observe the enemy then it should afford enough cover to view the enemy without being seen. The use of optical day sights and night viewing aids require a clear line of sight to be effective and the observation position should allow for this. Normally UAV flights are tasked to provide real time video or photographic images, but DCC role soldiers can be called upon to provide digital imagery and as such be required to use digital recording devices during a recce. The capabilities or limitations of the equipment must be known as they may require you to be relatively close to a position to be effective.

During the Stalk

4-93 **Maintenance of Direction** *Explain.* Whilst moving it is possible to become disorientated, this is especially true when crawling as little of the landscape in the distance is visible and orientation is affected. The importance of identifying key features in proximity of the enemy comes into its use here as they allow the soldier to maintain their bearings.

4-94 **Halts.** Frequent halts and checks should be made to maintain orientation to the enemy. Map, compass and air photographs are all methods to aid this process. These checks also provide the ideal opportunity to listen.

4-95 **Bounds.** The route should be planned as much as possible before the stalk begins. You should be prepared to modify your route and bounds as you progress and see the ground and cover more clearly. You should keep bounds deliberate and stop to conduct frequent checks on position as well as resting - slow, deliberate movement can be tiring. Any type of movement can be employed that best fits the ground and cover available. Lack of cover will mean that progress is slow and this should be considered before moving as there may be limited time to carry out the task.

4-96 **Camouflage.** The camouflage of skin and personal equipment should be carried out to help you remain undetected. The use of camouflage can help you remain undetected both visually and when the enemy are using more complex detection devices such as Image Intensifiers (II) and Thermal Imagers (TI) as they still break up outline and shape even at night. TI detects those objects that are 'hotter' than their surroundings and therefore contrast more and are more difficult to defeat, but personal camouflage is a key battlefield skill. Don't forget that you may have to change your personal camouflage as the terrain changes.

4-97 **Staying Alert.** During stalks, particularly long ones, you may become too focussed on your actual movement and not your surroundings and this can ultimately lead to your detection. Successful stalking is hard work and requires concentration from start to finish. Remain alert, stop frequently and think. Strive to maintain your situational awareness at all times.

4-98 **Being Compromised.** No matter how stealthy your movement, you may be compromised. Your actions when compromised, or you suspect you are compromised are key to ensure survival and should be rehearsed before the operation. Remember that there are other threats on the modern battlefield including civilians, who may or may not be sympathetic to your presence. Depending where you are in relation to the enemy and the type of task you're involved in will dictate what you do but there are a number of options.

- a. Freeze if you think you may have been seen; remember that movement is a key reason why things are seen. You should only do this if you believe the enemy is unsure of your exact position. Freezing at night is still relevant as movement will inevitable cause noise which will also get you noticed.
- b. Move into better cover and move away as quickly as you are able if you think that you have definitely been seen. Any detected movement is likely to draw interest from the enemy and will be investigated further. They may send out a patrol to investigate or more than likely they will direct fire into the area.
- c. You may well have to fight your way out of the area. Other team members will need to support this and again the drill for extracting in contact should be well rehearsed.

4-99 **Risk Taking.** You should try and take advantage of any local disturbances or distractions such as gunfire, explosions and low flying aircraft etc. These will allow you to move somewhat quicker than would be normal as any noise you make is masked and the enemy's attention may be drawn to the distraction. It is about assessing the situation and making a judgement at the time; it should not however be attempted when close to the enemy. Take risks early in the stalk rather than later.

4-100 **Animals.** Wildlife and domestic animals can bring to an abrupt end what would otherwise have been an effective stalk. Cows are very inquisitive beasts and have a habit of herding around and following something that it is out of the ordinary. Birds tend to take flight if disturbed and while one or two may not be a problem, the sudden move of a flock will draw attention.

4-101 **Stalking at Night.** The problems faced when stalking at night are largely similar to those experienced during the day. The fact that you may be required to move during the hours of darkness is no guarantee that you will not be seen. You should treat night as day when moving. At night the hearing takes over as the humans main detection sense, this combined with night viewing equipment, effectively turns night into day.

4-102 **Detection Devices.** There is an array of detection devices available to the enemy and they give TV quality images in almost all weather conditions, it is vital to consider this when moving at night. That said darkness does afford a degree of protection against aimed fire.

4-103 *Confirm by practice.*

Conclusion

4-104 *End of Lesson Drill.*

- a. *Questions from the squad on the lesson.*
- b. *Confirm by questions.*
- c. *Normal safety precautions.*
- d. *Pack kit.*
- e. *Summary. To include the following:*
 - (1) *The main faults noted.*
 - (2) *The art of stalking is the difference between being the 'hunter' or the 'hunted'.*
 - (3) *It requires continuous practice to remember all the skills which are needed to become proficient at stalking. Hence the importance of planning a stalk.*
 - (4) *A forecast of the squad's next lesson in this subject.*

4-105 - 4-109 Reserved.

Lesson 17. Basic Actions On

4-110 **Aim.** The aim of the lesson is to teach patrol actions on.

4-111 **Timings.** One 40 minute periods.

4-112 **Method.** Basic instructional outdoor periods.

4-113 **Stores.**

Personal weapon fitted with sight and sling	per soldier
Magazine	1 per soldier
Fighting Order	1 per soldier
Combat helmet complete	1 per soldier

4-114 **Preparation.**

- Reconnoitre the training area and select an area of ground for the demonstration and practice of each type of action on.
- For advanced practice, select an arc for 'movers' and positions for 'observers'.

4-115 **Miscellaneous.**

- Practise the squad as a whole then divide them into two groups, 'movers' and 'observers'. Use the observers to criticise the 'movers'.
- This lesson covers signalling and movement with section weapons such as the Rifle, LSW, LMG, Carbine and UGL if issued.

Preliminaries

4-116 **Safety Precautions. Normal.**

4-117 **Revision.** Question the squad on camouflage and concealment, indicate the area to be used and allow the squad to camouflage.

Introduction

4-118 **Explain:** When you are operating as part of a Fire Team or Section, you should have basic 'Actions On' which are well understood and rehearsed. This gives you confidence in knowing how to react rapidly in numerous situations. The Actions-On which are described below are those taught at the Infantry Battle School on its courses – your own unit Standard Operating Procedure may differ.

Halts and Lying Up

4-119 *Explain and demonstrate if necessary:* During patrolling there may well be a requirement to stop for a period. The length and purpose of the halts will vary dependant on the task that needs to be carried out. Some basic forms of halts and considerations are:

- a. **Short Halt.** A halt for 1-5 minutes (e.g. map check). Close up in all round defence and conduct activity in pairs on a '50-50' basis (e.g. with one soldier maintaining overwatch from a fire position whilst the other takes a drink of water).
- b. **Long Halt.** A halt from 5-25 minutes (e.g. for a meal). Break track and conduct a snap ambush on the route the patrol has just taken. Then moves into cover and all round defence. Sentries are posted on the route in and most likely direction of enemy threat. Consider 50-50 activity if the threat is high.
- c. **Lying Up Position (LUP).** A halt for more than 25 minutes (e.g. harbouring). As for a long halt but with the positioning of Claymores for additional protection will be considered.

4-120 *Confirm by practice.*

RV Procedure

4-121 *Explain and demonstrate if necessary:* RVs are an essential part of operational planning. They form a means of re-grouping and combining forces during a patrol task or prior to and after contact with the enemy:

- a. **RV.** As for a short halt. The Patrol Commander briefs 'RV1' on the PRR or indicates with hand signals.
- b. **ERV.** Emergency RVs are previously recce'd safe areas that the patrol can recover to if it is split or contacted by the enemy. This is more often than not the last RV.
- c. **Stop Short.** As for a Long Halt. The Patrol Commander plus one leave the patrol at the Stop Short as they go to recce the FRV.
- d. **FRV.** The Final RV is the 'safe area' from which the Patrol conducts its mission against the Objective. It is always checked before occupation, hence the Stop Short. Here the Patrol prepares for the Action on Objective.

4-122 *Confirm by practice.*

Actions On

4-123 *Explain and demonstrate if necessary:* 'Actions on' are a number well understood and rehearsed drills that cover situations that may occur during an operational task or patrol. It is important that in all cases you understand and rehearse your role within these standard procedures and what action you will need to take when faced in these situations:

- a. **FRV Compromised.** If the FRV is compromised, the Patrol falls back to the Stop Short (if far enough away) or the previous RV.
- b. **Return to FRV from Objective Area.** The returning group approaches from the same direction it departed, staying in communication with the PRR. Once very close, a visual signal such as raising the left arm level with the shoulder is used as confirmation.
- c. **Patrol Split.** If you fail to link up at any nominated RV/FRV, wait for the period of time that has been given in Orders then move to the previous one.
- d. **Obstacles.** Obstacles are crossed depending on the threat and type of ground. Plan and rehearse how you will cross anticipated obstacles before deploying.
- e. **Enemy Pre-Seen.** If you see the enemy before they see you, your reaction will depend on your mission. If you are conducting a recce, you should go to ground and observe but be prepared to engage if necessary. If you are seeking contact, immediately opening fire may be appropriate – fully exploiting the element of surprise.
- f. **Enemy Contact (including SRSAF).** Break contact (drills explained in Chapter 6), moving rapidly out of the killing area to your 'rally point'. Carry out a head check and put fresh magazines on your weapons. Move back to the ERV and continue or withdraw as appropriate.
- g. **Enemy Ambush (against foot patrol).** Either fight through immediately and aggressively or break contact, withdrawing on the route in.
- h. **Enemy Follow-Up.** Use a baseline to maintain the initiative until you can either conduct a hasty ambush or break contact.
- i. **Trip Flares.** Withdraw from the illuminated area immediately, assume it will be covered by fire. Be ready to conduct contact drills as you are probably in a killing area.
- j. **Illumination (Artillery, Mortar or handheld).** Take cover immediately and prepare to fight, you are probably in a killing area.
- k. **Minefields.** Conduct a controlled withdrawal along the route in. Prod carefully and mark the safe lane. Record the location accurately and 'box' around it if possible.

- I. **Minestrike.** Conduct a controlled CASEVAC. Minefields can be covered by fire so be prepared to move quickly and fight if the balance of threat changes. It is the Commander's job to assess this balance of risk.
- m. **Separated.** Go firm on the route for 20 minutes. If the rest of the Patrol do not return for you, move back to the last RV and wait for 2 hours. If no one returns, make your way back to the Patrol Base via the RV chain. Timings are examples, local Orders should be applied.
- n. **Lost.** Lost is when you are totally disorientated, separated from the rest of your Patrol and cannot raise anyone on your PRR. Go firm and hide. Look out for any Friendly Forces while trying to orientate yourself to the ground as described in Orders and shown on the map or model. When safe, try to locate any recognizable feature then move back through the RV chain to your Patrol Base.
- o. **CPERS.** Captured Persons must be treated strictly in accordance with JDP 1.10. Refer to Chapter 6 of this Pam for guidance.
- p. **Casualties.** Give first aid and CASEVAC in accordance with your orders. If necessary, casualties may need to be left, accompanied, at an RV until the mission has been achieved. This will be dependant on the local situation and your orders. Always discuss and rehearse your 'Action-On Casualty'.
- q. **Displaced Persons and Refugees (DPREs).** Avoid or approach civilians according to your mission. They may be a valuable source of intelligence or they may compromise your patrol. Always treat them in a professional manner and with respect.

4-124 *Confirm by practice.*

Conclusion

4-125 **End of Lesson Drill.**

- a. *Questions to and from the squad on the lesson.*
- b. *Confirm by practice.*
- c. *Normal safety precautions.*
- d. *Pack kit.*
- e. *Summary. To include the following:*
 - (1) *The importance of accurate passage of information using hand signals.*
 - (2) *A forecast of the squad's next lesson in this subject.*

Chapter 5

Target Acquisition

Lesson 18. Judging Distance

5-01 **Aim.** The aim of the period is to teach how to judge distance by using the Unit of Measure and Appearance method.

5-02 **Timings.** One 40 minute period.

5-03 **Method.** A basic instructional outdoor period best taught by an officer/ WO or SNCO using NCOs as demonstrators.

5-04 **Stores.**

Rifle fitted with sight or sling	1 per demonstrator
Magazine	1 per demonstrator
Demonstrators (wearing Fighting Order)	3 (minimum requirement)
Combat helmet complete	1 per demonstrator
Loud hailer	1
Fig 11 targets (staked)	4
Small flags on sticks	12
100 metre measuring tape	1
Signal flag	1

5-05 **Preparation.**

a. Put out the Fig 11 targets, or demonstrators, each at 100 metres from a central viewpoint, so that they can be seen across different types of ground, open or broken, rising, falling and flat. All the ground from the viewpoint to each target must be visible.

b. Rehearse the demonstrators, preferably immediately prior to the squad arriving. If using a signal flag to control them, rehearse the signals and actions before sending them to their positions.

c. Choose three objects up to 400 metres from the viewpoint and lay a small flag on the ground every 100 metres between the viewpoint and object. Ensure that distances are accurate.

5-06 **Miscellaneous.**

a. A suggested practice is get the squad to look at the figure targets from all firing positions and try to remember what a 100 metres distance looks like.

- (1) Order the squad to go to a position 100 metres from a given object. Discuss each soldier's error with him and continue this type of practice until the squad is consistent. Some may regularly over or under estimate, and they must take this into consideration when fitting in their 100 metre units.
- (2) Get the squad to judge the distance to each object prepared beforehand, and to explain how they fitted in their units. Order one of the soldiers to raise the small 100 metre spaced flag and discuss the results obtained.
- (3) Get each squad member to count the paces over a measured 100 metre stretch on varying types of ground. Doing this the soldier will obtain their 'own pace' which can then be used on patrol or when map reading.
 - b. It is important that having been taught this method, soldiers are practised in its use at every opportunity during rest periods and in barracks.

Preliminaries

5-07 **Safety Precautions. Normal.**

5-08 **Revision.** Nil. Indicate area of observation for the demonstration.

Introduction

5-09 **Explain:** In order to locate an enemy's position and engage him effectively with fire without wasting ammunition, the soldier has to judge distance accurately. You are now likely to have access to equipment to help you but if not there are other methods of judging distance too.

Equipment Solutions

5-10 **Laser Range Finder (LRF).** *Explain:* A LRF is by far the quickest and most accurate method of judging distance. Within the Platoon you may have access to a Commanders' Target Locating System (CTLS) which incorporates a daylight optic, image intensifier and LRF. Trained observers, such as Mortar Fire Controllers and Royal Artillery Forward Observation Officers, will also carry LRFs.

5-11 **Binoculars.** *Explain:* These are not generally available to all soldiers unless issued for specific duties. The graticule pattern of the binoculars can be used in much the same way as the sight picture of an optical sight, to compare the appearance of objects or targets at various distances (see Fig 5-1). Practice is needed to understand and relate the size of the lines in relation to objects at different distances.

The Unit of Measure Method

5-12 *Explain and demonstrate:* Provided that all the ground between the soldier and the object is visible, use can be made of any unit of measure familiar to the soldier. This may be the length of a football pitch etc., but must be a unit with which the soldier is very familiar. If no particular unit is familiar to the soldier, they should become trained to recognize a unit of 100 metres. Estimate how many units of the familiar length can be fitted in between the position and the object to which the distance is required. A simple multiplication should give a figure which can be used as an estimate of the distance. This method is not reliable at distances in excess of 400 metres.

5-13 *Confirm by practice.*

The Appearance Method

5-14 *Explain and demonstrate:* The Appearance method of judging distance is based on what an object looks like compared to its surroundings. The soldier must know what various objects, e.g. trees, gates, houses, etc., look like at various ranges.

- a. At 100 metres — clear in all detail.
- b. At 200 metres — clear in all detail, colour of skin and equipment identifiable.
- c. At 300 metres — clear body outline, face colour good, remaining detail blurred.
- d. At 400 metres — body outline clear, remaining detail blurred.
- e. At 500 metres — body begins to taper, head becomes indistinct.
- f. At 600 metres — body now wedge shaped, no head apparent.
- g. It is useful to know the amount of foresight or pointer that will cover a soldier for ranges up to 600 metres.
- h. Optical sight magnification gives the target more definition, therefore it is important for the firer to know what a soldier will look like at ranges from 100 to 600 metres.

5-15 *Confirm by practice.*

5-16 **Conditions Affecting Appearance.** *Explain:* The following factors affect appearance.

- a. Objects seem closer than they are when:
 - (1) Light is bright or the sun is shining from behind the observer.
 - (2) They are bigger than the other objects around them.

- (3) There is dead ground between them and the observer.
 - (4) They are higher up than the observer.
- b. Objects seem further away than they are when:
- (1) The light is bad or the sun is in the observer's eyes.
 - (2) They are smaller than the other objects around them.
 - (3) Looking across a valley or down a street.
 - (4) The observer is lying down.

5-17 **The Bracketing Technique.** *Explain:* The bracketing technique is a useful aid under most conditions. It requires the soldier to use the Appearance or Unit of Measure method to estimate the maximum feasible distance to the object and then the minimum possible distance. The estimate of the actual distance should be set midway between the two extremes e.g. maximum distance 800 metres; minimum distance 500 metres. Estimated distance = 650 metres.

5-18 **Halving.** *Explain:* To a distances of about 1000 metres it should be possible to select an area, or object about midway between the position and the target and in direct line with it. Since it is generally easier to judge distance to closer objects, use the Appearance or Unit of Measure method to judge the distance to the midway area or object. Doubling this estimation produces a reasonably accurate judgment of range to the intended target. Care must be taken when judging the distance to the half way point as any error at this stage will be doubled in the final solution.

5-19 **Group Average.** *Explain:* When in a group, get each soldier individually to judge the distance to an object using either the Appearance or Unit of Measure method. They can use any of the aids to judging distance that they are familiar with, but the judged distance must be an individual effort. Because some will overestimate and others underestimate, their errors will cancel out. Taking an average of the estimates, an accurate range can often be produced.

5-20 **Key Ranges.** *Explain:* If the range to any area or object in an arc is known (and probably recorded on a Range Card), it is possible to use that known range to judge the distance to nearby areas or objects. Key ranges may have been obtained using either of the methods of judging distance, by laser range finder, by maps or from targets that have already been successfully engaged with specific sight settings.

Conclusion

5-21 End of Lesson Drill.

- a. *Questions to and from the squad on the lesson.*
- b. *Confirm by final practice.*
- c. *Pack kit.*
- d. *Normal safety precautions.*
- e. *Summary. To include the following:*
 - (1) *The importance of remembering the tendency to under or over estimate when using these methods.*
 - (2) *A forecast of the squad's next lesson in this subject.*

5-22 - 5-29 Reserved.

Lesson 19. Indication of Targets

5-30 **Aim.** The aim of the lesson is to teach how to recognise and indicate targets including:

- a. Locating the Enemy and the Arc of Fire.
- b. Target Marking.
- c. Methods of Indicating targets

5-31 **Timings.** One 40 minute period.

5-32 **Method.** A basic instructional outdoor or indoor period. Ideally to be taught indoors.

5-33 **Stores.**

<i>Target Indicator, Representative sight picture and Mini landscape target.</i>	<i>1 per soldier</i>
<i>Landscape targets</i>	<i>3 (indoor only)</i>
<i>Clock face (black figures on talc)</i>	<i>1</i>
<i>Mils measuring chart</i>	<i>1</i>
<i>Visual aid</i>	<i>1</i>
<i>Binoculars</i>	<i>As available</i>

5-34 **Preparation.**

- a. Reconnoitre the training area and select:
 - (1) An arc of fire and reference points.
 - (2) Realistic battle targets to use during demonstration and practice in Direct, Reference Point, Clock Ray and Hand Angle methods of indication.
- b. Prepare a suitable visual aid, listing the methods of indication, by headings only.
- c. If taking the lesson is taken indoors, position three adjoining landscapes against one wall and mark the squad's position not more than 10 metres from them. Issue each soldier with a sight picture and mini landscape target for indication of targets.
- d. This lesson can also be taught utilising the DCCT. Powerpoint slides can be prepared to display the factual information then discuss authoring scenarios with the system manager in order to practice during confirmation. The scenario can then be saved for future use.

- e. *During practice in recognition of targets, allow the soldier to indicate the answer using a target indicator.*
- f. *During practice in indication:*
 - (1) *Indicate the target using the target indicator.*
 - (2) *Note everything that the soldier says during the indication.*
 - (3) *Confirm recognition of the target with the squad using the target indicator.*
 - (4) *Discuss the method and manner of the indication.*
- g. *If the lesson has to be taken indoors, it is essential that the soldier is given practice outdoors at the earliest opportunity. An indoor lesson does not give the soldier the opportunity either to judge the distance to the target or to use a realistic arc of fire.*
- h. *Check that the target indicated has been recognised correctly and encourage the use of the word “Again” if it has not.*

Preliminaries

5-35 **Safety Precautions. Nil.**

5-36 **Revision.** Revise the methods and aids for judging distance.

Introduction

5-37 **Explain:** All section members should be able to indicate a target to the remaining section members. An inability to do so will cause delay and possibly confusion in getting accurate fire onto an enemy position thereby increasing the risk of causalities and mission failure.

Locating the Enemy

5-38 **Explain:** Target indication can only happen once you have located the enemy. Make maximum use of any technological advantage you may have and do not forget that Thermal Imagers (TI) such as the FIST Thermal Sight (FTS) are useful in daylight as well as at night.

Target Marking

5-39 The target can be marked using a laser ‘such as the Laser Light Module (LLM)’ which can be viewed by other members of the section using Image Intensifying (II) Optics, such as the Head Mounted Night Vision System (HMNVS). Targets can also be marked in this way by aviation assets and indirectly fired munitions (Mortar or Artillery delivered) such as the 81mm Smoke round.

Arc of Fire

5-40 *Explain and demonstrate:* It is easier to recognize a target if the area of ground in which it is likely to be known; such an area is called an 'Arc of Fire'. It is indicated in the following sequence:

- a. **The Axis.** This is the centre of the arc.
- b. **The Left and Right of Arc.** These indicate the extent of the arc.
- c. **Reference Points.** These are prominent features or objects which should be as permanent as possible, e.g. woods and mounds, a reasonable distance apart and easy to identify. A specific point on the object or feature should be chosen, it should be named simply to avoid confusion. When issuing a Reference Point the object is given with a name and range, i.e., "Hut — bottom left corner — to be known as 'hut' — range 300".

Direct Method

5-41 *Explain and demonstrate:* This method is used to indicate obvious targets. The range, where to look and a description of the target are given. Terms used for where to look are:

- a. 'Axis'. For targets on or very near the axis.
- b. 'Left' or 'Right'. For targets 1600 mils from the axis.
- c. 'Slightly', 'quarter', 'half' or 'three quarters' and 'left' or 'right'. For targets between the axis and 'left' or 'right'.

Reference Points

5-42 *Explain and demonstrate:* To indicate less obvious targets, the Reference Points issued as part of the Arc of Fire can be used in conjunction with the Direct Method, if necessary the words "above" and "below" can be incorporated. For example:

"200 — wall (the reference point) — slightly right — small bush — enemy with RPG" (the target).

Clock Ray

5-43 *Explain and demonstrate:* To indicate more difficult targets a reference point together with a clock ray is used. During indication imagine a clock face standing up on the landscape with its centre on the reference point. To indicate a target the range, the reference point and whether the target is to the left or right of it and the appropriate hour on the clock face are given as follows:

"300 — tower — right — 4 o'clock — small bush — enemy".

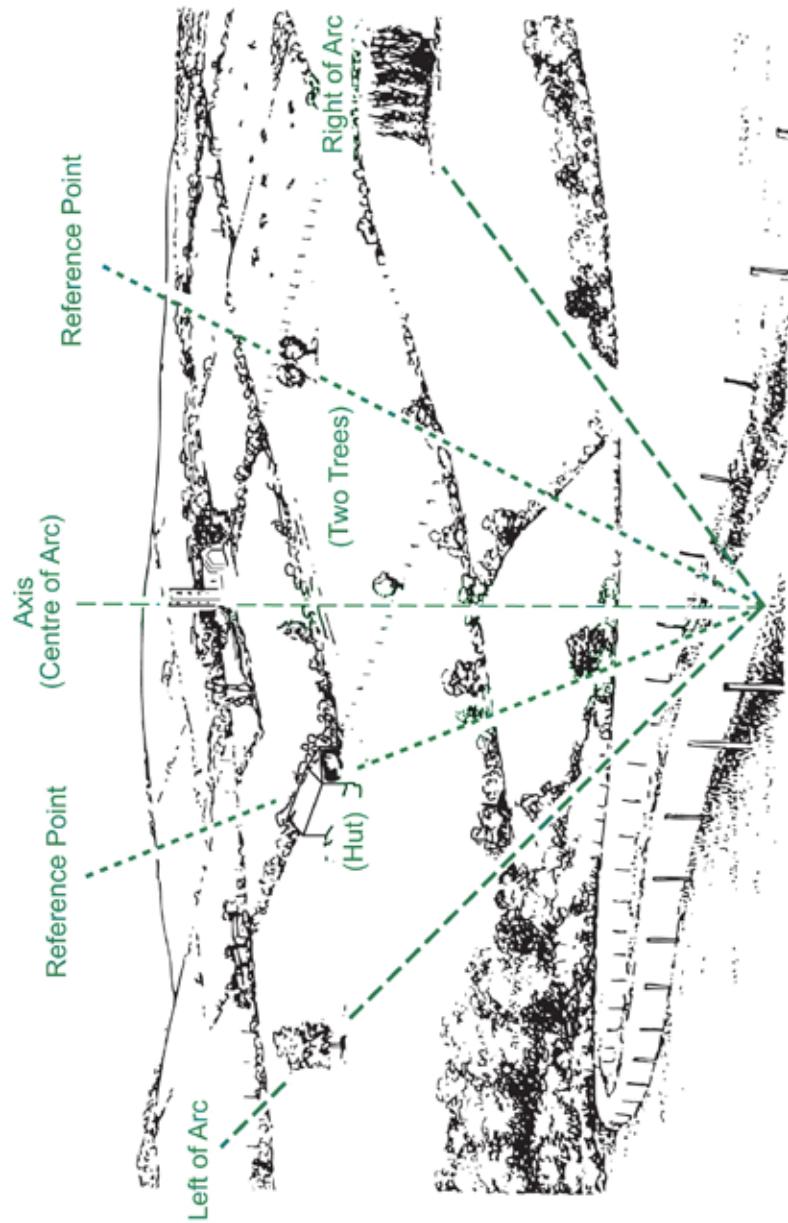


Fig 5-1. Arc of Fire

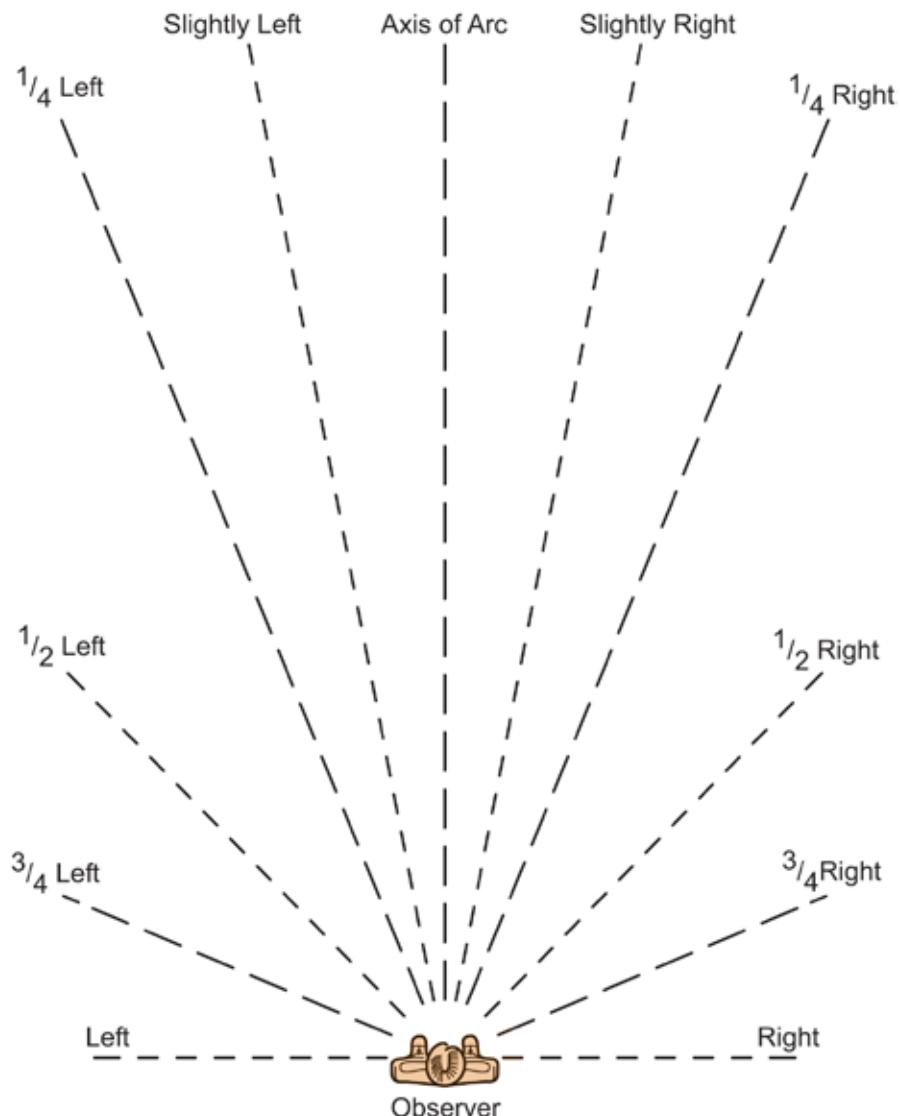


Fig 5-2. The Direct Method

Tracer

5-44 *Explain and demonstrate* To indicate a target, particularly one which is very difficult to see, tracer ammunition is a useful aid. Once a soldier has located the enemy, the range and area of the target is indicated, tracer is fired and the strike is used as a reference point. 5.56 mm tracer can be difficult to see, so the indication may well be:

"200 — half right — far end of compound — go right 10 metres — watch my tracer (the tracer is fired and when the tracer strikes) enemy".

Hand Angles.

5-45 Hand angles are another method of indicating targets. The illustrations in Fig 29 detail common measurements of hand angles, soldiers should measure their own angles using a compass and practice regularly. Difficult targets at longer ranges, may be indicated by using a reference point together with a hand angle:

"300 — wood line — left 60 mils". Left edge of gorse — enemy.

Binoculars

5-46 *Explain* The binocular's graticule are spaced at intervals of approximately 10 mils across a field of view of about 80 mils (see Fig 5-4) and these may be used when appropriate to assist in indication, e.g.,

"300 — copse — left — 30 mils (or left three graticules)"

Conclusion

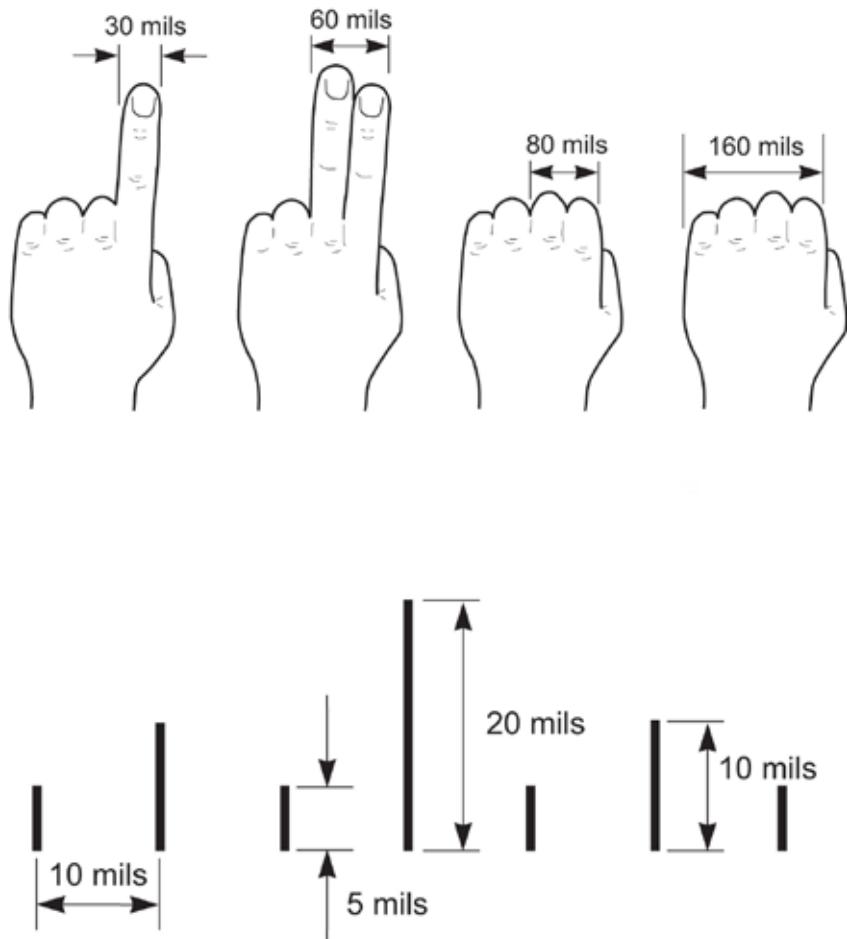
5-47 End of Lesson Drill.

- a. *Questions to and from the squad on the lesson.*
- b. *Confirm by practice.*
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *The importance of clear indication.*
 - (2) *A forecast of the squad's next lesson in this subject.*

5-48 - 5-49 Reserved.



Fig 5-3. The Clockray Method of Indication



Note: All Dimensions are Approximate

Fig 5-4. Hand Angles and Binoculars

Lesson 20. Reaction to Fire Control Orders

5-50 **Aim.** The aim of the lesson is to teach how to react on being given a fire control order.

- a. Sequence of a FCO.
- b. Types of FCO.

5-51 **Timings.** One 40 minute period.

5-52 **Method.** A basic instructional indoor or outdoor period.

5-53 **Stores.**

<i>Target Indicator, Representative sight picture and</i>	
<i>Mini landscape target</i>	1 per soldier
<i>Rifle fitted with sight and sling</i>	1 per soldier
<i>Magazine</i>	1 per soldier
<i>Visual aids</i>	2
<i>Landscape targets</i>	3(indoors only)
<i>Fighting Order</i>	1 set per soldier
<i>Combat helmet complete</i>	1 per soldier

5-54 **Preparation.**

- a. Prepare a suitable visual aid to show the following details:

SEQUENCE OF A FIRE CONTROL ORDER

Group
Range
Indication
Type of fire

TYPES OF FIRE CONTROL ORDER

Full
Brief
Delayed
Individual

- b. Select arc of fire and reference points.

- c. Prepare at least four fire control orders of each type using various methods of indication.

- d. If possible issue each soldier with a representative sight picture and mini landscape target for indicating the position of the target.

e. This lesson can also be taught utilising the DCCT. Powerpoint slides can be prepared to display the factual information then discuss authoring scenarios with the system manager in order to practice during confirmation. The scenario can then be saved for future use.

5-55 **Miscellaneous.**

- a. Check that the targets indicated have been recognised correctly and encourage the use of the word "Again" if they have not.
- b. When practising the squad in each type of fire control order, check after each stage that there actions are correct. Order "Stop" on completion of each engagement.

Preliminaries

5-56 **Safety Precautions.** Normal. (Issue an arc of fire, number the squad i.e., C fire team, D fire team etc.).

5-57 **Revision.** Revise indication of targets.

Introduction

5-58 **Explain:** A fire control order is given so that the soldier can recognise the target and fire at it effectively. It is important that the soldier knows how to react to the fire control order sequence.

5-59 Ammunition is a limited commodity and should be used with care to avoid wastage. Enough should be used to bring about the desired effect on the target without causing collateral damage or civilian injuries or deaths.

Sequence of a Fire Control Order

5-60 **Explain and demonstrate:** All soldiers must understand the sequence in which a FCO is given so that they are able to anticipate what is coming next and prepare for it. Understanding the sequence and understanding what is expected during the FCO will ensure soldiers are able to apply fire to the target quickly and effectively. The sequence of the FCO is as follows:

- a. **Group.** This indicates who the FCO is directed at for instance, Charlie Fire Team, Rifleman 3, UGL Gunner etc.
- b. **Range.** This is the distance in meters to the target.
- c. **Indication.** This tells you where and what the target is using any of the methods of target indication.
- d. **Type of Fire.** This tells those involved in the FCO the type of fire that is to be directed onto the target, for instance, rapid, deliberate or automatic fire.

5-61 The order is completed by giving the word of command "Fire" and can be stopped once the task is complete by using the word of command "Stop". The word of command "Go on" may be used following a lull to re initiate fire onto the target.

5-62 *Confirm by practice.*

The Types of Fire Control Order

5-63 *Explain and demonstrate:* There are a number of types of FCO that can be used to cover all situations. The person issuing the FCO must have considered the points highlighted below prior to making the selection of FCO which is best suited to the task. The types of FCO available for use are:

- a. **Full.** Used when there is plenty of time and troops are able to align onto the target: "Delta Fire Team – 400m – burnt out vehicle – 2 fingers right of vehicle, enemy – Fire".
- b. **Brief.** Given when there is little time and when the target is very obvious: "Section – $\frac{3}{4}$ left – rapid – Fire".
- c. **Individual.** This can be used when it is impractical for the person issuing the FCO to control the exact time to open fire, so they pass this responsibility to the individual(s) involved: "Sharpshooter – 500m – $\frac{1}{2}$ right – bundline – enemy seen in that area – watch and shoot".
- d. **Delayed.** This is used when the movements of friendly forces or the enemy are known or can be estimated. The order "fire" is delayed until the right moment comes to open fire: "Charlie Fire Team – slightly left – group of small buildings – left edge of buildings – rapid – await my order – Fire".

5-64 *Confirm by practice.*

Conclusion

5-65 **End of Lesson Drill.**

- a. *Questions to and from the squad on the lesson.*
- b. *Confirm by practice.*
- c. *Normal safety precautions.*
- d. *Pack kit.*
- e. *Summary. To include the following:*
 - (1) *The importance of implicitly obeying the order as given.*
 - (2) *A forecast of the squad's next lesson in this subject.*

5-66 - 5-69 Reserved.

Lesson 21. Issuing Fire Control Orders (FCO)

5-70 **Aim.** *The aim of the lesson is to teach the terms involved in fire control and how to issue FCOs.*

- a. Common Terms.
- b. Issuing FCOs.

5-71 **Timings.** One 40 minute period.

5-72 **Method.** A basic instructional period best suited for potential JNCOs.

5-73 **Stores.**

<i>Visual aid</i>	2
<i>Landscape target</i>	1 (if indoors)
<i>Target Indicator, Representative sight picture and</i>	
<i>Mini landscape target.</i>	1 per soldier

5-74 **Preparation.**

- a. Prepare a suitable visual aid to show the following details:

COMMON TERMS

Fire Unit
Fire Direction Orders
FCO
Arc of Fire
Axis of Arc
Field of Fire

ISSUING FIRE CONTROL ORDERS

ASSESS: *Target*
 Weapon
 Type of Fire

ISSUE: *Clear*
 Loud
 As An Order
 Pauses

- b. Prepare at least three FCOs of each type, for use during demonstrations and squad practice. Ensure that all 'indications' are clear and concise.

- c. If possible each soldier should be issued with a representative sight picture and mini landscape target for indication of targets.

d. This lesson can also be taught utilising the DCCT. Powerpoint slides can be prepared to display the factual information then discuss authoring scenarios with the system manager in order to practice during confirmation. The scenario can then be saved for future use.

5-75 **Miscellaneous.** The practice is best conducted as follows:

- a. Depicting a situation to the squad.
- b. Nominating a fire team commander and writing down everything said during the FCO.
- c. Discussing the fire control order with the squad paying particular attention to the following:
 - (1) The correct sequence.
 - (2) The correct type of order for the situation.
 - (3) An accurate range.
 - (4) Clear and concise indication.
 - (5) The correct rate of fire for the situation.

Preliminaries

5-76 **Safety Precautions.** Issue arc of fire and reference points.

5-77 **Revision.** Revise the types of FCOs.

Introduction

5-78 **Explain:** A successful FCO is one which brings controlled effective fire down on the enemy and takes them by surprise. It is essential that all soldiers and NCOs know the meaning of the terms used in fire control and can decide quickly on the best type of FCO to be used for each particular situation.

Common Terminology involved in Fire Control at Section Level

5-79 **Explain:** As a commander you must understand the more common terms associated with fire control, the main ones are as follows:

- a. **Fire Unit.** This can be any number of soldiers firing under one commander, but in the case of the rifle section this would be a section under the section commander.

b. **Fire Direction Orders.** These are orders that a fire unit commander receives from their superior. They may include key ranges, special orders to withhold fire, when to open fire, at what targets and at what rates. They are normally issued before a task or mission, but may be updated and changed as the mission progresses. Commanders should read the situation and anticipate change, moving fire units and their weapons accordingly so they can continue to influence the mission.

c. **Fire Control Orders (FCO).** These are orders that the Fire Unit Commander gives to control and direct the fire of those under their command. For example; a Section, controlled by the Section Commander or a Point of Fire controlled by the Section 2IC.

d. **Arc of Fire.** This is the ground for which the section is responsible and in which it engages targets.

e. **Axis of Arc of Fire.** This is the approximate centre of the arc.

f. **Field of Fire.** This is the area of ground on which an individual soldier or a fire unit can fire effectively.

5-80 **Target Effects.** If a target is engaged effectively, it will be unable or unwilling to fire, move or observe. Target effect is dependent on accuracy, ammunition nature, range and rates of fire employed. Commanders will need to decide which weapon systems in a section are best able to deliver the target effect they require.

5-81 **Incapacitation.** A soldier is incapacitated when unable to carry out their primary task, at the required level of performance, because of being wounded. The ability of a system to incapacitate is governed firstly by the probability of it hitting a target and secondly by the probability of the hit inflicting sufficient damage. Factors affecting these probabilities are range, accuracy of the system, ammunition nature, levels of target protection and the part of the target that is actually hit.

5-82 **Suppressive Fire.** *Explain:* Suppressive Fire is fire that prevents an enemy from moving, observing and, most importantly, using their weapon systems. It therefore allows friendly forces to move. This movement may be to close with and defeat the enemy or to extract from their killing area. It is a crucial component of close combat and to be effective, it must convince the enemy that the chance of being killed or wounded is very likely indeed. Effective Suppressive Fire has been defined as 'one round within one metre or the target every five seconds' but there is more to it than that!

a. **Accuracy.** Accuracy is critical for effective suppression. The enemy must feel a 'danger bubble' around him which stops him operating. If the fire isn't close enough, it will be useless and valuable ammunition will be wasted. This is a really important point: with 5.56mm rounds fired at 200 metres range, hits within 3 metres of the enemy will have some effect – hits must be within 1 metre to guarantee suppression.

- b. **Volume.** At relatively close ranges and in the initial phase of a contact, a higher rate of fire can compensate to some degree for accuracy as the noise of rapid, automatic fire has an undeniable psychological impact. Wildly inaccurate fire will still be useless though and you need to beware of using up your ammunition too quickly.
- c. **Kinetic Energy.** Kinetic energy is the ‘punch’ of the round. Larger calibre rounds, such as Heavy Machine Gun .50 Calibre, can easily knock lumps off walls for example. The increased visual effect, shockwave and noise will contribute to suppression. Note that noise also increases dramatically at the target end with accuracy.
- d. **Targeted Enemy.** The morale and determination of the targeted enemy, the proximity of their comrades and the quality of their leader will affect the effectiveness of your suppressive fire. In short, the better your enemy, the more accurate you need to be.
- e. **Time.** The effects of suppression are temporary and the targeted enemy’s recovery time could be a matter of seconds. Fire must be maintained over time to maintain suppression which takes careful calculation of ammunition states and rates of fire.
- f. **Point and Area Suppression.** If the enemy position is identified, it will be possible to bring accurate fire to bear upon it. Point Suppression can be achieved well with accurate Rifle fire. If, as is often the case in combat, the target can only be located in a general area, a larger volume of fire will be necessary to compensate – this is area suppression, and belt-fed weapons are more suited to this. Area suppression brings with it greater potential for collateral damage and the risk to non-combatants must also be considered. You must, as always, operate within your rules of engagement.
- g. **Winning the Firefight.** In the early stages of a contact, the side which brings down the highest volume of accurate fire will come out on top. It is dependant upon high standards of marksmanship skills, target indication and fire control.

5-83 *Confirm by practice.*

Issuing a Fire Control Order

5-84 *Explain and demonstrate:* Before a commander orders troops to fire onto a target they need to consider several factors:

- a. **The Target.** Is the target near, clear and vulnerable enough to warrant firing onto it? Has the target been positively identified as the enemy? Getting it wrong can have a detrimental effect on the mission. Is the target in a position where you can inflict the desired effect or is too protected, is it worth waiting for him to become more vulnerable?
- b. **Which Weapon System.** The section has a range of weapons available which deliver differing effect on targets at various ranges. Knowing the capabilities and limitations of these weapons is key if they are to be employed effectively. Advice should be sought from operators of those systems attached to you if you are not certain of their characteristics. Some weapons become ineffective if fired rapidly and lend themselves more to precision use, where as others are designed to provide a large beaten zone for maximum effect. Collateral damage should be considered when selecting the weapon system and target 'overkill' should be avoided. Damage inflicted on dwellings or property not associated with the mission is against the law and only serves to aggravate locals.
- c. **Type of Fire.** Each weapon system has different rates of fire, therefore knowing the weapon system characteristic is essential. Weapon systems can overheat quickly when firing rapid rates; they can also become damaged through excessive wear and become inaccurate. Rapid fire is best employed to cover movement and during the final stages of the assault, but is not sustainable for lengthy periods. Consider carefully ammunition expenditure and your proximity to the resupply chain. Once the enemy is suppressed, deliberate fire should produce the desired effect, it is sustainable, generally more accurate and obviously uses less ammunition.

Other Considerations

5-85 The Rules of Engagement (ROI) must be applied robustly. Are you acting within the ROI if you direct fire onto the target?

5-86 Non hostiles must be considered before directing any fire onto a target, their proximity to the target and weapon you intend to use will affect their safety. Their presence in or around the objective should be covered during orders and mission rehearsals.

- 5-87 When issuing a fire control order to troops the following should be remembered:
- a. Issue the order in a CLEAR voice, calmly and concise. Confusion during fire fights is very common and mumbled orders will only add to the confusion. Be clear in what you want your troops to engage.
 - b. The order should be delivered LOUD enough so that all can here it. The section may be spread out over a large area and this can be difficult to achieve, the use of Personal Role Radio (PRR) will assist in this and will also maintain surprise.
 - c. Issue it AS AN ORDER. You are telling your troops to fire upon the enemy - to kill them. They must react positively to your order for it to be effective.
 - d. Make sure that you leave PAUSES in your order to allow troops to identify the target, change magazine or change range settings on sights.

5-88 Only give an individual FCO when it is impracticable to control the time of opening fire. When engaging a large target, direct fire at one point on it at a time.

Conclusion

5-89 **End of Lesson Drill.**

- a. *Questions from the squad on the lesson.*
- b. *Confirm by questions and practice.*
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *The importance of assessing each situation before starting a FCO.*
 - (2) *A forecast of the squad's next lesson in this subject.*

5-90 - 5-99 Reserved.

Lesson 22. Range Cards

5-100 **Aim.** The aim of the lesson is to teach how to make and use a range card.

- a. Simple Range Card.
- b. Detailed Range Card.
- c. The Panoramic sketch and Photography.

5-101 **Timings.** Two 40 minute periods.

5-102 **Method.** Basic instructional periods; the instruction indoors and squad practice out of doors.

5-103 **Stores.**

Blank range cards	3 per soldier
Pencils	1 per soldier
Compass	1 (minimum requirement)
Protractor	1 per soldier
Clipboards	1 per soldier

5-104 **Preparation.** Reconnoitre the training area and select:

- a. A central point for each of the squad.
- b. Arcs of fire, a setting ray, and objects to be plotted and their range.

5-105 **Miscellaneous.** During practice, ensure that ranges are accurately estimated.

Preliminaries

5-106 **Safety Precautions.** Nil.

5-107 **Revision.** Nil.

Introduction

5-108 **Explain:** A range card is a useful fire control aid and wherever possible, those responsible for control of fire should make one out for their arcs of fire. Whenever a position is to be occupied for a short time, a simple range card should be produced. If the position is to be occupied for a long time then a more detailed one should be prepared. It is important that the soldier knows how each type is made.

5-109 Those individuals constructing range cards should use Laser Range Finders (LRF) to ensure ranges to objects are accurate; Commander's Target Locating System (CTLS) is ideal.

Simple Range Card

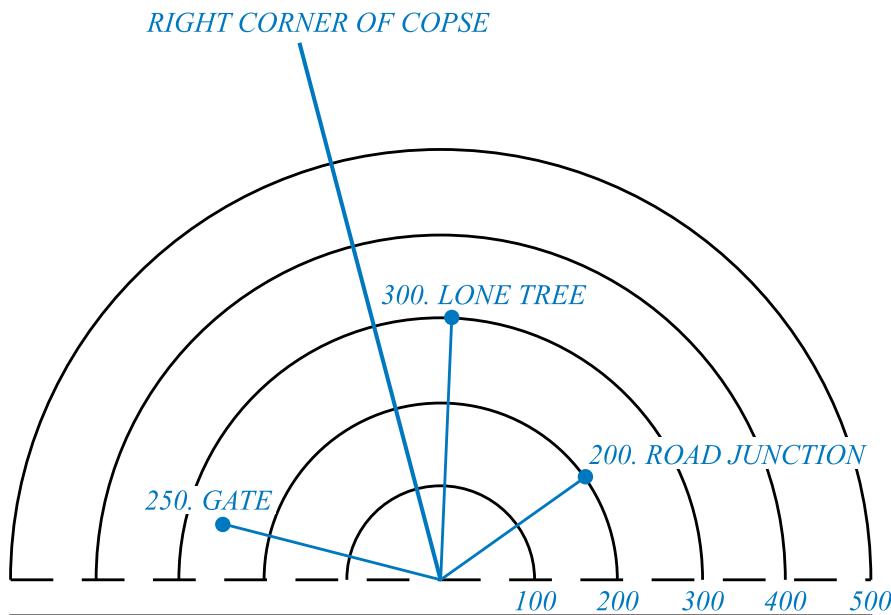
5-110 *Explain:* Whenever troops stop for a short period of time they should produce a range card. There is no laid down time frame for this, but as a guide, if a sentry is posted then a range card, all be it a simple one, and should be produced. The range card will enable commanders and rifleman to quickly orientate the section onto a particular feature, whether to observe it or to put fire onto it.

5-111 **Construction.** *Explain and demonstrate:* The range card can be made on any suitable material which is robust enough to withstand the weather and use in the position. If the weather is wet, clearly paper will not last very long. Waterproof paper, the type found in TAMs is a good medium on which to produce range cards as it is waterproof, tough and is reusable. Cardboard, paper ammunition packing etc are however all suitable materials. Dependant on the material used, fine permanent pens or pencils can be used to write on it.

5-112 The simple range card will normally only show the arc forward of the position which it is made from. The bottom centre of the range card is the originators position and the remainder of the range card will fan out covering the arc forward of the position.

5-113 To make the range card you should act as follows:

- a. Plot your location on the range card in the centre at its base.
- b. Draw a series of concentric semi circles centred on your location and write in the ranges which they represent beside them.
- c. Choose one unmistakable object to the front; mark it on the range card and draw a line to it. This is called the setting ray.
- d. Decide on the objects required to be recorded. These can be possible enemy positions, obstacles, pieces of cover anything really that helps to direct fire to a position on the ground.
- e. To record each object, fold the card, hold it level with the eye and line up the setting ray. Hold a pencil upright in the direction of the object to be recorded and mark the card. Draw a line from the central point to the object and to its correct range.
- f. Against the position of each object, print, horizontally, a short description of how it looks to the naked eye and its range.
- g. Check your work for accuracy, make sure your name is on the range card somewhere and date it.



Point from which made out: LEFT CORNER OF WOOD GR 16424250

Method of taking ranges: VISUAL ESTIMATION

Made out by: C. HARRISON Cpl Date: 22/06/15

Fig 5-5. A Simple Range Card

The Detailed Range Card – Type A

5-114 **Explain:** The detailed card differs from the simple one in that it covers a complete 6400 mil arc around a designated position. This type is especially useful when the position is elevated and the entire area is visible. It takes longer to produce, but is more accurate and detailed. More information can be placed on it to assist in directing accurate fire onto known or potential enemy positions. It can also show other friendly positions, arcs or fire and killing areas.

5-115 **Construction. Explain and demonstrate:** Making the detailed range card is similar to that of the simple type however a compass and protractor are used for greater accuracy. The same materials can be used for writing on and with.

5-116 To make the range card you should act as follows:

- a. Plot your location in the centre of the range card.
- b. Draw a series of concentric circles centred on your location and write in the ranges which they represent beside them.
- c. Draw in the setting ray and decide on the objects required to be recorded.
- d. To plot each object, take the bearing to the setting ray and then a bearing to the object. This will give the angle between the two, i.e., setting ray 200 mils, object 840 mils — angle 640 mils. Use a protractor to mark this angle from the central point and draw a line to the correct range of the object.
- e. Mark the position of the object and write the range and a brief description next to it.

The Detailed Range Card – Type B

5-117 **Explain:** This range card is constructed on Army Form B9933. On top of the card a box is provided for the insertion of information relating to the card. The card has a 6400 mil circle printed onto a gridded background, this is useful as the horizontal and vertical axis can be marked with letters and numbers similar to a 'Battleships' grid, thereby providing a rapid method of passing location information to others in possession of the card. For example, "enemy in Hotel Eight, next to burnt out car".

5-118 **Construction. Explain and demonstrate:** When making this range card, you should use permanent fine markers. This can be removed with any product containing alcohol such as deodorant or nail varnish removing pads.

5-119 To make the range card you should act as follows:

- a. Using the compass on the card orientate to both the ground and the map.
- b. Range each square from the centre position.
- c. Draw the aiming point (setting ray) and decide on the objects to be recorded.

- d. Using your compass take a bearing to each object and then draw a line on the range card using the printed compass. Draw the line from your position, through the object and onto the outer scale.
- e. Place a dot at the range to the object, number it and insert the information into the boxes at the top of the range card.
- f. Plot in the FPF and any DFs.
- g. Plot and mark any sub unit positions.
- h. Plot any other information.

5-120 **Additional Information.** There are no hard and fast rules as to exactly what is recorded on the range card. Anything that helps the commander or indeed any soldier to direct observation or fire onto a target should be included. You should however avoid making the range card unusable due to a clutter of excess information. In addition to the information above commanders may wish to include the following:

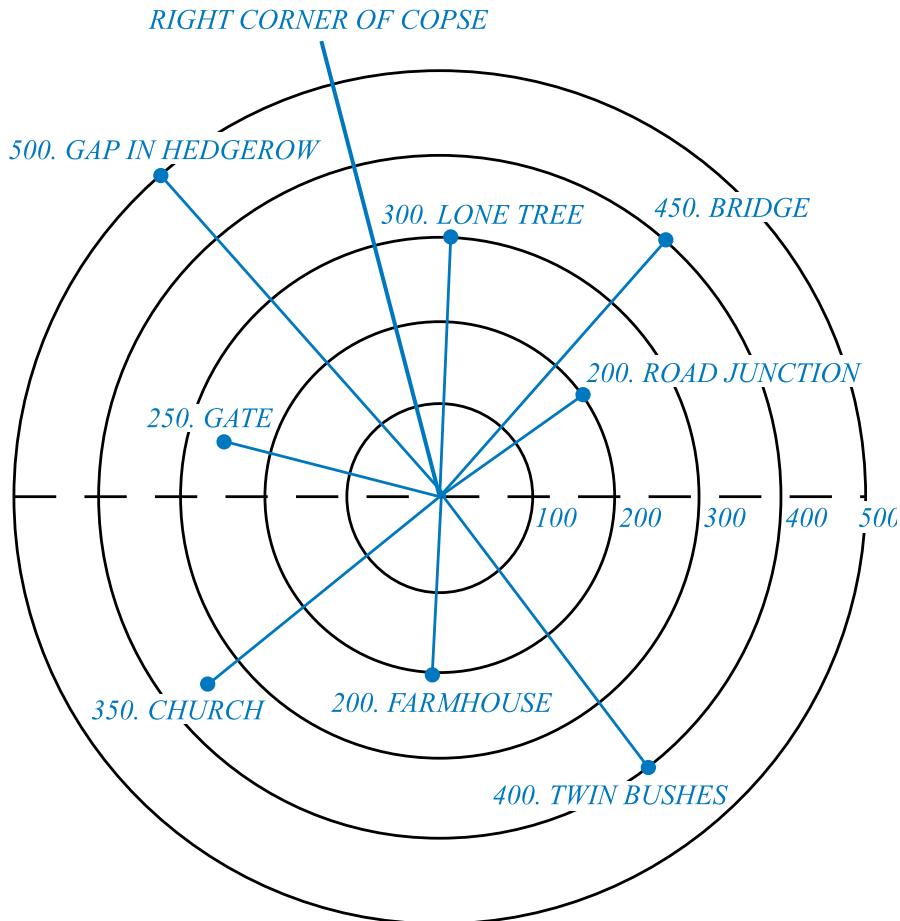
- a. Dead ground.
- b. Obstacles, natural and man made, including minefields etc.
- c. Key points such as friendly positions and ranges to them.
- d. Pre-recorded DFs.

The Panoramic Sketch or Photograph

5-121 Another method of showing the ground is by using a panoramic sketch or better still a photograph. You do not need to be an artist to produce an adequate sketch that can be used to good effect by commanders but make use of any soldiers with artistic talent to get the best results. Sketches are particularly effective as they are three dimensional and show near, middle and distance as seen from the observer's position. They can be used on their own, but will generally be used in conjunction with the more traditional methods described above. The best solution of course, is a photograph and this is a more realistic option now than ever before. Get Photographic Panoramas made as soon as you can for all 'permanent' positions. That said, there will always be a need for a back-up method as described below:

5-122 **Equipment.** You will need the following equipment to produce a panoramic sketch:

- a. Issued protractor and ruler.
- b. Pencils, both graphite and coloured and a sharpener.
- c. Paper, squared is good as it assists with scale and perspective.



Point from which made out: LEFT CORNER OF WOOD GR 16424250

Method of taking ranges: VISUAL ESTIMATION

Made out by: C. HARRISON Cpl Date: 22/06/15

Fig 5-6. A Detailed Range Card Type A

Range Card

Army Form B9933

No	Grid ref	Bearing μ	Tgt description or DF No	Range m	Line switch μ	Angle of sight μ	QE μ	Own position GR 437774
1	437885	1400	UM 1010(FPF)	440				Aiming point GR 430281.....
2	437814	5320	Farm House	175				Bearing 5900.....
3	434829	700	Corner of wood	400				Description Lane.....
4	434829	4260	PL HQ Trench	200				Range 350.m.....
5								Made out by 2.Sect.Comd.....
6								Date 10.Jan.01.....
7								Map sheet SPTA(W).....
8								Scale 1:50,000.....
9								

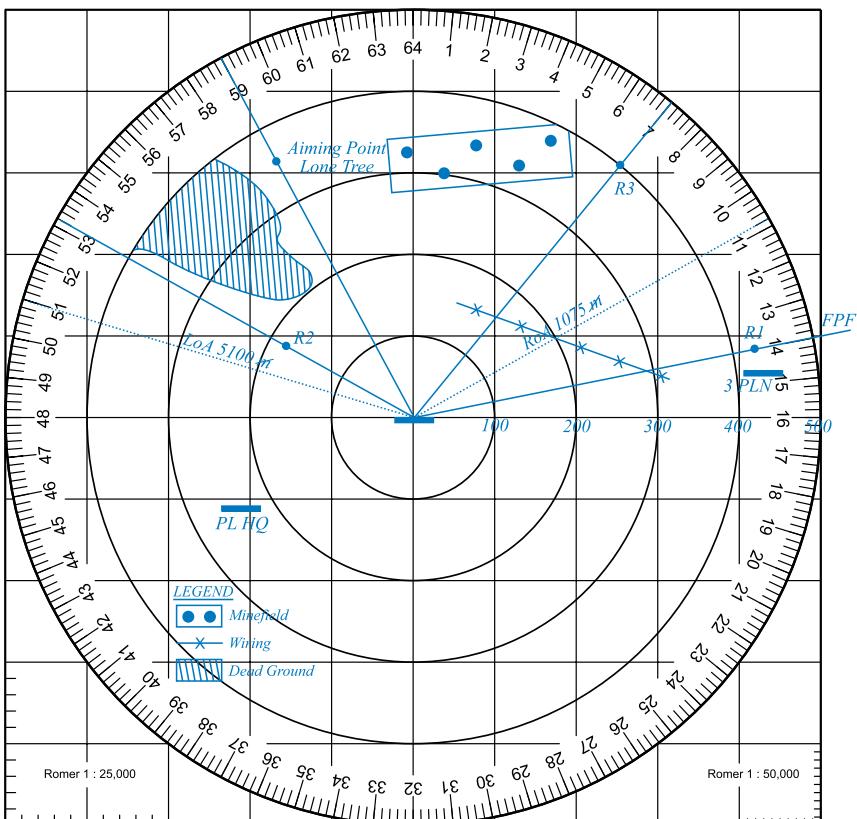


Fig 5-7. A Detailed Range Card Type B

5-123 Construction. Prior to starting the sketch, consider carefully how much ground you want to portray, this will stop the sketch becoming unwieldy. Be bold and get an outline of the area onto paper using large blocks and shapes to represent the terrain. This will give you an idea of perspective which you can add and subtract from as required.

5-124 Scale and Perspective. Getting this right is key to the effectiveness of the sketch. The human eye tends to exaggerate the vertical perspective of what it sees and this should be accounted for when producing your drawing. Remember you are not producing a work of art, merely your view of the ground in front of you but it does need to be representative. Use the protractor as a measure to maintain an idea of perspective by holding it about 30 cm in front of you, closing one eye and then using the scale on it to measure how far distant objects are from the edges of the area to be drawn. These measurements can then be transferred to your drawing.

5-125 Filling in the Detail. Once you have the important features on paper in their correct positions, more detail should be added to enhance the sketch. The temptation here can be to add too much detail and detract from the intent of the sketch. Anything of military significance should of course be included, but other features should be omitted unless they add value and make the sketch more useful.

5-126 Representation of Features. When adding features such as roads, rivers etc to the sketch, you should use the following methods which will ensure acceptable results:

- a. **Key Points.**
- b. **Rivers and Roads.** Represented by parallel or double lines which diminish in width as they recede.
- c. **Trees and Woods.** Individual trees should not be shown unless they are a particularly odd shape. Both trees and woods should be shown in outline only. In the foreground of woods, the tops of trees may be indicated and woods should be shaded, the depth of which becomes less with distance.
- d. **Railways.** In the near distance these are best shown by parallel lines with small perpendicular lines drawn in to represent the sleepers. In the distance they should be shown by a single line which has vertical ticks representing telegraph poles.
- e. **Towns and Villages.** These should be shown in outline only. Where a particular feature sticks out such as a factory chimney or tower then it should be highlighted within the outline. Houses and buildings worthy of note should be drawn in a definite rectangle. Churches should be shown with either their spire or tower being depicted.

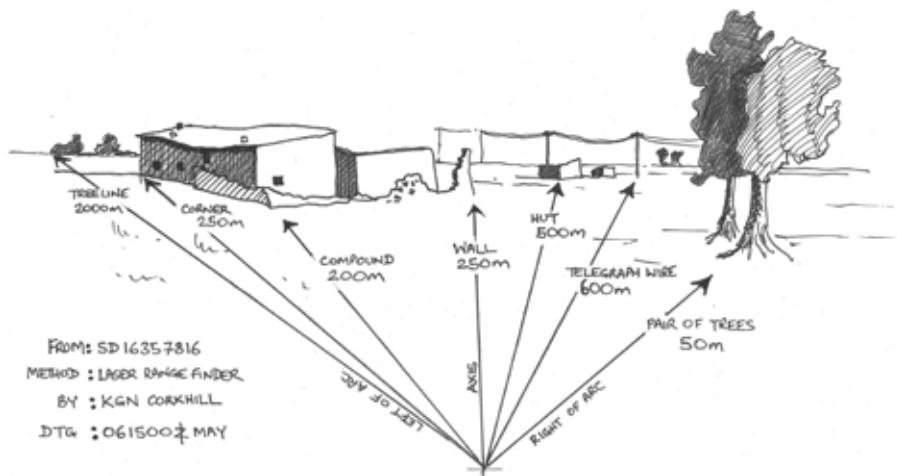
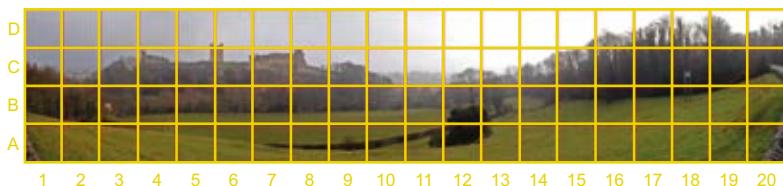


Fig 5-8. Photographic Panoramic and Sketch showing Indicative Ranges

f. **Cuttings and Embankments.** These are best shown using conventional OS map symbols with ticks diminishing in thickness from top to bottom. A line should run along the top the slope to show a cutting.

Conclusion

5-127 End of Lesson Drill.

- a. *Questions from the squad on the lesson.*
- b. *Confirm by questions and practice.*
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *The importance of accurately describing the central point of the card and the method of obtaining ranges.*
 - (2) *A forecast of the squad's next lesson in this subject.*

Chapter 6

Troops In Contact

Lesson 23. Section Battle Drills - Preparation For Battle

6-01 **Aim.** *The aim of the lesson is to teach a introduction to the Section Battle Drills and the first battle drill of preparation for battle:*

- a. *Introduction to Section Battle Drills.*
- b. *Principles.*
- c. *Prep for Battle.*

6-02 **Timings.** *Two 40 minute periods.*

6-03 **Method.** *Basic instructional outdoor period.*

6-04 **Stores.**

<i>Rifle fitted with sight and sling</i>	<i>1 per soldier and instructor</i>
<i>Magazine</i>	<i>1 per soldier and instructor</i>
<i>Fighting Order</i>	<i>1 set per soldier and instructor</i>
<i>Combat helmet</i>	<i>1 per soldier and instructor</i>
<i>Ammunition 5.56 mm blank</i>	<i>30 rounds per soldier</i>
<i>IW/LSW Blank Firing Attachments (BFA)</i>	
<i>Loud hailer</i>	<i>As available</i>
<i>Camouflage cream</i>	<i>As required</i>
<i>Ear defence</i>	<i>1 per soldier and instructor</i>

6-05 **Preparation.**

- a. *Select suitable ground with various types of cover for the demonstration.*
- b. *Rehearse the demonstrators.*
- c. *Ensure further suitable ground is available for squad practice.*

6-06 **Miscellaneous.**

- a. *The initial lesson will be a simple demonstration with an officer/WO or SNCO giving the commentary using two of his/her NCOs as demonstrators.*
- b. *The demonstration is to show all aspects of preparation for battle*
- c. *The demonstrators are to be camouflaged.*
- d. *The second period will be squad practice.*

- e. *The teaching phase of these drills can also be taught using various visual aids such as a model or taught using powerpoint animation prior to outdoor practice.*
- f. *In accordance with Reference A, a written instruction is to be produced for any activity involving the use of blank ammunition.*
- g. *In accordance with Reference A, the wearing of issued ear protection is compulsory during blank firing.*

Preliminaries

6-07 **Safety Precautions.** *Normal safety precautions.*

Introduction

6-08 **Explain:** The section battle drills are the absolute building blocks on which the section bases its offensive actions upon. They are a series of sequential, logical stages through which a section will transit as it deals with the enemy. All members of the section must understand their role during each stage and be able to react accordingly as the attack progresses. Commanders will be extremely busy and soldiers must be thinking for themselves and anticipating what is coming next in order to be assets to the section commander.

Battle Drills

6-09 **Explain:** At section level there are battle drills to assist a commander to attack an enemy position quickly and effectively. These drills are part of battle procedure and aim to ensure commanders and men react positively and instinctively to enemy fire. They are not a template for the attack to be applied to all situations. Commanders must consider the situation and subsequently give orders for the assault and fight through, having assessed the effects of ground, enemy and their own resources. Commanders must continually re-evaluate the situation as the fight through progresses, in the light of discovery of new enemy positions and our own casualties. Further battle orders will be given at each stage of the fight through.

6-10 **Confirm by questions.**

Principles

6-11 **Explain:** Even at section level, knowing and understanding the principles behind successful offensive (attacking) operations is really worthwhile. The principles are:

- a. **Surprise.** Surprise is achieved by the speed, timing or direction of the attack.
- b. **Concentration of Fire.** The rapid and synchronised fire from available direct and indirect fire weapons.

c. **Maintenance of Momentum.** This is essential for retaining the initiative and preventing the enemy from launching a counterattack. In a dismounted attack momentum will be achieved by:

- (1) Attacking in depth (echeloning).
- (2) Maximum fire support.
- (3) Keeping as close to fire support as possible during the assault.
- (4) Rapid exploitation of enemy weakness and loss of balance.
- (5) Accurate and rapid passage of information to commanders on enemy and ground.

d. **Security.** The line of departure (LD) must be secured and the flanks of the assault protected against mutually supporting enemy positions.

e. **Simplicity.**

6-12 *Confirm by questions.*

Section Battle Drills

6-13 *Explain:* The section hasty attack may take place from the line of march (a meeting engagement) or as part of a contact when the lead section may be required to mount a hasty attack to overcome a pocket of resistance or determine the strength of the enemy. There are 6 section battle drills:

- a. Preparation.
- b. Reaction to effective enemy fire.
- c. Locating the enemy.
- d. Suppressing the enemy.
- e. The attack.
- f. Regroup.

6-14 *Confirm by questions.*

Section Battle Drill 1 — Preparation

6-15 **Preparation for Battle.** *Explain and demonstrate:* Preparation for battle will take place prior to the start of the task. Section/Patrol commanders must ensure:

- a. **Protection.** That correct Personal Protective Equipment is worn and sentries are briefed and posted.
- b. **Ammunition.** That ammunition is clean and magazines and grenades are properly distributed. Flank men in open country should have smoke grenades, depending on the direction of the wind. Shoulder launched weapon systems are clean and checked that they can be prepared for firing quickly.
- c. **Weapons.** That weapons are clean, serviceable and appropriately oiled. Laser Light Module function check is to be carried out.
- d. **Personal Camouflage.** That personal camouflage is satisfactory and corresponds to the environment that the task is being conducted in.
- e. **Equipment.** A full check of personal equipment and equipment that is required for the specific task is present, held by the right person and functions correctly. To reduce the weight burden commanders should check that unnecessary items are not taken and that equipment is correctly distributed within the section.
- f. **Radios.** Functional checks on radios and ECM are to be carried out.
- g. **Specialist Equipment.** Specialist equipment including specialist personnel attached to the section should be correctly briefed and equipment checked for operation and serviceability.
- h. **Orders.** See below.

6-16 *Confirm by practice.*

6-17 **Section/Patrol Commander's Orders.** *Explain:* The Section/Patrol commander is to make it clear within the orders what action they require the patrol to take should it encounter the enemy. Their intent is the key factor. For a recce patrol, it is far more important to return unscathed with detailed information about a large enemy position than it is to destroy one of its outlying sentry posts. The Section/Patrol commander therefore orders the patrol to break contact should it be engaged by the enemy or be in a situation where contact is immediately imminent and unavoidable.

6-18 **Reference Points and Anticipatory Orders.** *Explain:* During the advance to contact, the section commander will plan and give anticipatory orders:

- a. Positions giving cover in the event of effective enemy fire; e.g., "If we come under fire, Charlie take cover in scrub, Delta line that bank."

- b. Reference points for fire control orders. Two or three should be picked out. These must be given when a section is firm on a bound, not while it is moving.

6-19 *Confirm by questions*

Conclusion

6-20 **End of Lesson Drill.**

- a. *Questions to and from the squad on the lesson.*
- b. *Safety Precautions. Normal safety precautions, declaration and signing of AFB 159 to be conducted in accordance with Reference A.*
- c. *Summary. To include the following:*
 - (1) The importance of protection before conducting administrative tasks.
 - (2) 'Check and test'.
 - (3) The importance of good communication and clear orders.
 - (4) Working as a pair..
 - (5) A forecast of the squad's next lesson in this subject.

6-21 - 6-29 Reserved.

Lesson 24. Section Battle Drills - Reaction To Effective Enemy Fire

6-30 **Aim.** To teach the section how to react to effective enemy fire.

6-31 **Timings.** Two 40 minute periods.

6-32 **Method.** Basic instructional outdoor period.

6-33 **Stores.**

Personnel	Two for demonstration and later for enemy.
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Fighting order

Rifles with blank firing attachments	1 per soldier and instructor
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5.56 mm blank	30 rounds per rifle
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Smoke grenades	As available
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Targets

Fig 11 (stick in)	4
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Fig 12 (stick in)	4
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6-34 **Preparation.**

a. Recce and select ground with various types of cover such as banks, ditches, bushes, trenches, walls and trees.

b. Put out figure targets in suitable positions relative to the cover so the demonstrators may engage the targets from a number of positions.

c. Select an area about 200 metres long to practice 'Reaction to Effective Enemy Fire' while moving as a section.

d. Rehearse the demonstrations.

6-35 **Miscellaneous.**

a. Do not teach the lesson as a drill but encourage the soldiers to improve their positions by suggestion and reasoning.

b. The use of various types of cover may be taken in any sequence.

c. To practice the squad, give them an area in which to select their firing positions covering an allotted arc. Split the soldiers into pairs and make them select a fire position. Then ask the squad to comment on each fire position in turn.

Preliminaries

- 6-36 On arrival of demonstration troops:
- Lay out stores and ammunition.
 - Brief and rehearse demonstration troops/enemy.
 - Carry out normal safety precautions and checks.**
- 6-37 On arrival of troops:
- Carry out normal safety precautions.**
 - Check all weapons and blank firing attachments.
 - Issue safety brief applicable to the lesson.
 - Give out squad organisation and detail command appointments.
 - Distribute stores and ammunition.
 - Carry out initial battle preparation.
 - Allocate arcs of fire.
- 6-38 **Revision.** Revise firing from other positions and use of cover (standing, squatting, sitting and kneeling).

Introduction

- 6-39 *Explain:* In defence, fighting is normally carried out from a fire trench. In attack or when patrolling, the soldier makes the best use of cover to conceal himself from view, to protect him from enemy fire, and to provide a firing position. On operations the enemy presence is usually indicated by their fire. The speedy reaction and the efficient use of cover by our troops can help survival and bring about the destruction of the enemy in battle.

Section Battle Drill 2 — Reaction to Effective Enemy Fire

- 6-40 *Explain and demonstrate:* Sections must be trained to continue the advance in spite of the noise of fire directed at someone else and regardless of stray rounds near them. Effective enemy fire is fire which is causing, or would cause significant casualties if the section continued on its course. The reaction to effective enemy fire must be for the whole section to remove itself from the killing area immediately. They should move to the nearest cover then every soldier in the section should observe and return fire, with tracer if appropriate to indicate the enemy's position. If the enemy is not seen, the third battle drill to locate the enemy should be used. It is important to note that if the enemy is not located fire should still be put down in the general direction. No movement of troops should take place without covering fire unless it is in dead ground to the enemy.

6-41 The initial drill, therefore, is: ***Return fire – take cover – return appropriate fire.*** It is recognised that the initial return of fire will be largely inaccurate, however, it assists with locating the enemy and will disrupt enemy fire. Even after this individual drill has been completed it may be necessary for the section commander to organise further extraction of the section from the killing area under the cover of smoke and F &M, especially if casualties have been taken.

6-42 *Confirm by practice.*

Conclusion

6-43 **End of Lesson Drill.**

- a. *Questions from and to the squad.*
- b. *Unload, clear weapons, empty magazines and centralise ammunition.*
- c. *Carry out normal safety precautions.*
- d. *Pack up all stores.*
- e. *Declaration.*
- f. *Summary. Emphasise three or four main points from the practice. For example: "Today an important infantry skill has been covered. The actions learnt are basically the same for all personal weapons whether advancing or moving forward on patrol."*
- g. *A forecast of the squad's next lesson in this subject.*

6-44 - 6-49 Reserved.

Lesson 25. Section Battle Drills. Locating The Enemy And Suppression

6-50 **Aim.** To teach the section how to locate the enemy and control fires in order to win the fire fight.

6-51 **Timings.** Two 40 minute periods.

6-52 **Method.** Basic instructional outdoor period.

6-53 **Stores.**

Personnel	Two for demonstration and later for enemy.
Fighting order	
Rifles with SBFS	1 per soldier and instructor
5.56 mm blank	30 rounds per rifle
Smoke grenades	As available
Targets	
Fig 11 (stick in)	4
Fig 12 (stick in)	4

6-54 **Preparation.**

- Recce and select ground with various types of cover such as banks, ditches, bushes, trenches, walls and trees.
- Put out figure targets in suitable positions relative to the cover so the demonstrators may engage the targets from a number of positions.
- Select an area about 200 metres long to practice 'Reaction to Effective Enemy Fire' while moving as a section.
- Rehearse the demonstrations.

6-55 **Miscellaneous.**

- Do not teach the lesson as a drill but encourage the soldiers to improve their positions by suggestion and reasoning.
- The use of various types of cover may be taken in any sequence.
- This lesson can also be taught utilising the DCCT. Powerpoint slides can be prepared to display the factual information then discuss authoring scenarios with the system manager in order to practice during confirmation. The scenario can then be saved for future use.

Preliminaries

6-56 ***On arrival of demonstration troops:***

- a. Lay out stores and ammunition.
- b. Brief and rehearse demonstration troops/enemy.
- c. ***Carry out normal safety precautions and checks.***

6-57 ***On arrival of troops:***

- a. ***Carry out normal safety precautions.***
- b. Check all weapons and blank firing attachments.
- c. Issue safety brief applicable to the lesson.
- d. Give out squad organisation and detail command appointments.
- e. Distribute stores and ammunition.
- f. Carry out initial battle preparation.
- g. Allocate arcs of fire.

6-58 ***Revision. Reaction to effective enemy fire***

Introduction

6-59 ***Explain:*** One of the hardest aspects whilst coming under contact is the ability to locate the enemy. Often conditions are extreme and the enemy will value its life as much as you do, using cover and cunning to disguise their position. All the lessons you have been taught until now will assist in you being able to identify the signs that will indicate where the enemy is however; of more importance is your ability to issue clear indications of where the enemy is to allow the section commander to issue a FCO and bring that fire to bear accurately.

Section Battle Drill 3 — Locating the Enemy

6-60 ***Explain and demonstrate:*** Failure to locate the enemy may prevent the section from moving without suffering heavy casualties. It could lead rapidly to loss of initiative by the section and the halting of the platoon advance. There are three stages to this drill:

- a. ***Observation.*** Look in the area from which the thump came. The time between the crack and the thump gives a clue to the range, each second representing 600 metres. Look for movement, smoke, radio antennas or anything unusual. If nothing is seen after thirty seconds or so, it is unlikely that the enemy will be located by observation.

b. **Fire.** The section commander should give a fire control order to two rifle men to fire shots into likely cover. The rest of the section should keep a careful watch on their arcs of observation. If there is no answering fire, the section commander should try some other likely target.

6-61 **Target Indication.** Any member of the section can do this, ideally using Tracer, laser or any other appropriate means.

6-62 *Confirm by practice.*

Section Battle Drill 4 — Suppressing the Enemy

6-63 *Explain and demonstrate:* As soon as the section commander has identified the enemy position of greatest threat to the section, they must give a fire control order to bring concentrated fire to bear onto that position. The aim of this fire is to suppress the enemy and thereby regain initiative prior to mounting an attack at either section, platoon or company level. Suppressive fire will also provide cover for withdrawal of casualties, movement off exposed ground or to better fire positions and regrouping. The immediate use of local smoke should be considered to reduce the effectiveness of the enemy's fire. If fire has been opened by the section, the section commander must regain control by shouting "Stop!" before giving the fire control order. This will allow them to allocate tasks to fire teams.

6-64 While suppressing the enemy the section commander must do an estimate. This is an extremely rapid and simple process and should follow the standard 7 Questions format, albeit in an abbreviated form. In the vast majority of tactical circumstances the section will not be mounting its own independent attack but will be forming an element of an attack mounted by a platoon-size or larger operation (a section attacking on its own is likely to be successful only against an isolated pocket of enemy, such as an OP, equipped solely with small arms). The estimate will, therefore, concentrate on how best use can be made of the ground over which the section will assault and the method for that assault (see Section Battle Drill 5). While the section commander is gathering their thoughts, the 2IC must be prepared to take on all aspects of the section's fight.

6-65 Although the section commander will use the section's organic weapons to suppress the enemy, they may also be able to call on or make use of suppressive fire from air, aviation, artillery, mortars and direct fire weapons such as tanks, and medium and heavy machine guns. In such circumstances it may still be necessary for the section assaulting an individual position to provide suppressive fire from its own organic weapons.

6-66 *Confirm by practice.*

Conclusion

6-67 End of Lesson Drill.

- a. *Questions from and to the squad.*
- b. *Unload, clear weapons, empty magazines and centralise ammunition.*
- c. *Carry out normal safety precautions.*
- d. *Pack up all stores.*
- e. *Declaration.*
- f. *Summary. Emphasise three or four main points from the practice.*
- g. *A forecast of the squad's next lesson in this subject.*

6-68 - 6-69 Reserved.

Lesson 26. Section Battle Drills - The Attack

6-70 **Aim.** To teach the section how to attack and fight through the objective.

6-71 **Timings.** Two 40 minute periods.

6-72 **Method.** Basic instructional outdoor period.

6-73 **Stores.**

Fighting order

Weapons

Normal section scale with blank firing attachments

Ammunition Blank and pyrotechnics

As available

General Model for:

Enemy defensive position

Enemy weapons and arcs of fire

Own fire teams

2

6-74 **Preparation.** Ground. Select a piece of ground suitable for sitting positions in depth where shell scrapes or trenches should be made. A model should be made to assist in the initial teaching of the basic moves.

6-75 **Miscellaneous.**

a. *Enemy.* At least one soldier per trench will be required and should be dressed and equipped as far as is possible like the enemy. A separate briefing is required and should include the following:

- (1) When to open fire.
- (2) Signals.
- (3) Action when their location is attacked.
- (4) Faults to look for.

b. *Section Commander.* The instructor should act as the section commander for all phases of the lesson, first explaining the mechanics of the 'Attack' using a model. During the second stage the section is talked through the tactical sequence and in the third stage the section is given a short exercise designed to confirm the instruction.

c. The following points should be highlighted throughout the lesson:

- (1) Speed.
- (2) Momentum.
- (3) Control.

- (4) *Thoroughness.*
- (5) *Initiative.*
- (6) *Covering Fire.*

Preliminaries

6-76 ***On arrival of demonstration troops:***

- a. *Lay out stores and ammunition.*
- b. *Brief and rehearse demonstration troops.*
- c. *Carry out normal safety precautions and checks.*

6-77 ***On arrival of troops:***

- a. *Carry out normal safety precautions.*
- b. *Check all weapons and blank firing attachments.*
- c. *Issue safety brief applicable to the lesson.*
- d. *Distribute stores and magazines.*
- e. *Load magazines if there is to be firing during Stage 2. This will depend on availability of ammunition.*

6-78 ***Revision.***

- a. *Battle preparation.*
- b. *Reaction to effective enemy fire.*
- c. *Locating the enemy.*
- d. *Suppression.*
- e. *The FUP drills and methods of assaulting a position.*

Note. The revision of sub-paragraphs **a. – d.** above may be carried out by question and answer but sub-paragraph **e.** is best done practically. The time available will be the dictating factor.

Introduction

6-79 ***Explain:*** The ‘fight through’ is the term used to describe the systematic clearing or killing of the enemy. Without doubt it is the most difficult stage of any attack as it is unlikely that all enemy trenches or bunker positions will have been located. The key to success in this type of operation is teamwork both within the section and platoon.

Section Battle Drill 5 — The Attack

6-80 **Attack Briefs.** Attack briefs should be as concise as possible and should as a minimum consist of the following:

- a. *Section Mission — “Destroy enemy position at GR 123 456”.*
- b. *Concept of Operations — “Section left/right flanking breaking down into assault and point of fire pair”.* Left or right flanking merely indicates which side of the fire support team the assault fire team is to work.
- c. *Fire Team Tasks — “C assault, assault team is..../ Point of fire is.... D fire sp”.*
- d. *“Any Questions? — Move now”*

6-81 **The Assault.** *Explain and demonstrate:* F & M will be used to move the section from the area where contact is made onto the objective which at section level is likely to be a single trench, sniper or bunker. Although all movement in the open must be covered by fire and must be carried out as quickly as possible to conserve ammunition, casualties should not be risked needlessly.

6-82 **Pairs F & M.** *Explain and demonstrate:* The movement of pairs in the assault must be done in the following way: while a pair suppresses their objective with fire, the other pair crawl or roll out of their old fire position, get up and zig-zags forward for 5–10 metres to their next fire position. Only when they are there and firing should the other pair move. When fighting through a heavily defended position all movement from fire position to fire position is likely to be at the crawl.

6-83 **Fire Team and Section F & M.** *Explain and demonstrate:* The method of movement employed by the fire team and section in the assault will depend on the ground, the section strength and the nature of the enemy resistance. The method chosen will be a key decision for the section commander to take. There are three methods:

- a. **Method 1.** As a complete section with F & M in pairs. This method is the simplest allowing the section to close rapidly with the enemy and deliver the full manpower of the section simultaneously onto the objective. Control is easier for the section commander. However, as the complete section is involved in assaulting it is more vulnerable to fire from other positions. This method will, therefore, depend on the enemy being effectively suppressed from other sources and is best suited for use against an enemy with little depth to their position.
- b. **Method 2.** As two separate fire teams with F & M either as teams or pairs. Method 2 has most of the advantages of Method 1 but allows the section commander to create a fire support team more easily if one is needed. It is therefore more balanced. This method provides maximum flexibility and is suitable for assaulting a stronger enemy position which is likely to have some depth.

c. **Method 3.** With an assault team and a fire support team. Method 3 is suitable for assaulting an objective which has not been fully suppressed and the section needs to gain its own freedom of manoeuvre. In Method 3 groups can be based on fire teams or weapons, i.e., either two balanced fire teams or an assault group of section commander, UGL Gunner, Rifleman and two LSW gunners supported by a fire support group of the 2IC (UGL) and 2 LMG gunners. While the fire support team commanded by the section 2IC suppresses the objective the other group will assault. The ground, flanking enemy positions and other friendly force activity are likely to limit severely the angle of attack between the fire support team and the assault team. Certain objectives, such as a bunker with loopholes only facing the front, may dictate the angle of fire support. Command and control between the section commander and their fire support may be difficult and the provision of a fire support team reduces the section manpower immediately available for close combat. Assuming balanced fire teams, the tactics used by the assault and fire support teams in Method 3 can be further developed as follows:

(1) **Assault Team.** The assault fire team could either assault as an entity or it can break down into pairs. In certain circumstances such as an assault on a bunker loophole, it may be appropriate for one pair to provide local fire support for the other. The fire support pair is then known as the 'Point of Fire'. The best weapon to provide this suppression is the LMG, maximising its sustained fire capability and suitability to short range engagements. Care must be taken however with ammunition conservation.

(2) **Fire Support Team.** As the assault closes, the fire support team should fire at the objective for as long as possible before switching its fire onto other enemy positions. The section 2IC must be alert to deal with any previously unseen enemy positions which may be concentrating its fire onto the assault troops and to call for indirect fire.

6-84

Fighting Through. *Explain and demonstrate:*

- a. When the assault team arrives on the objective it should fight through using F & M. The section commander will need to re-assess the situation and issue further snap orders before assaulting depth positions.
- b. As individual enemy positions are assaulted, fire support must be provided. The assaulting troops must be aware of threats to their flanks and be prepared to go firm to provide fire support to other assaulting troops who can clear these threats. Local smoke must be available and the use of SLW should be considered.

- c. The fire support team must be prepared at this stage to prevent enemy interference from the flanks or beyond the objective. It must also be ready to move forward automatically as soon as the assault fire team is established of the objective.
- d. During the fight through the section commander must continually re-estimate the situation and issue orders to reflect the changing battle.

6-85 **Exploitation.** *Explain and demonstrate:* As soon as the objective is taken the section commander should immediately seek ways to exploit their success either by continuing the assault or by providing fire support for other attacks. The tempo of the attack must be sustained. A limit of exploitation should only be given if there is a danger of the section running into another assault; it should never be given as a routine control measure. It is likely, therefore, to be allocated on the ground by the platoon commander to prevent a friendly fire incident. Rapid and accurate passage of information will be essential to successful exploitation.

6-86 *Confirm by practice.*

Conclusion

6-87 **End of Lesson Drill.**

- a. *Questions from and to the squad.*
- b. *Unload, clear weapons, empty magazines and centralise ammunition.*
- c. *Carry out normal safety precautions.*
- d. *Pack up all stores.*
- e. *Declaration.*
- f. *Summary. Stress the following:*
 - (1) *The section has covered one of the most vital points of the attack.*
 - (2) *The importance of team work, initiative, covering fire, control, thoroughness, speed and momentum.*
- g. *Look Forward.*

6-88 - 6-99 Reserved.

Lesson 27. Section Battle Drills - Regrouping

6-100 **Aim.** To teach the section how to re-group once the enemy position has been fought through .

6-101 **Timings.** Two 40 minute periods.

6-102 **Method.** Basic instructional outdoor period.

6-103 **Stores.**

Fighting order

Weapons

Normal section scale with blank firing attachments

Ammunition Blank and pyrotechnics

As available

General Model for:

Enemy defensive position

Enemy weapons and arcs of fire

Own fire teams

2

6-104 **Preparation.** Ground. Select a piece of ground suitable for sitting positions in depth where shell scrapes or trenches should be made. A model should be made to assist in the initial teaching of the basic moves.

6-105 **Miscellaneous.**

a. **Enemy.** At least soldier man per trench will be required one should be dressed and equipped as far as is possible like the enemy the other to act as a friendly force casualty.

b. **Section Commander.** The instructor should act as the section commander for all phases of the lesson, first explaining the mechanics of the 'regroup' using a model. During the second stage the section is talked through the tactical sequence and in the third stage the section is given a short exercise designed to confirm the instruction.

Preliminaries

6-106 **On arrival of demonstration troops:**

- a. Lay out stores and ammunition.
- b. Brief and rehearse demonstration troops.
- c. **Carry out normal safety precautions and checks.**

6-107 **On arrival of troops:**

- a. **Carry out normal safety precautions.**

- b. *Check all weapons and blank firing attachments.*
- c. *Issue safety brief applicable to the lesson.*
- d. *Distribute stores and magazines.*
- e. *Load magazines if there is to be firing during Stage 2. This will depend on availability of ammunition.*

6-108 **Revision.**

- a. *The FUP drills and methods of assaulting a position.*
- b. *The attack.*

Note. The revision of sub-paragraphs above may be carried out by question and answer but sub-paragraph b. is best done practically. The time available will be the dictating factor.

Introduction

6-109 *Explain:* The section will be highly vulnerable once an enemy position has been taken. First and foremost the protection of the sub unit is vital then, within priorities a vast array of tasks will be required. It is likely that there may be casualties both friendly and enemy that will require attention as well as the Section Commander and the 2IC conducting administrative tasks to allow the section to continue their task. Section Battle Drill 6 — Regrouping.

6-110 Regrouping will only take place when the section can assault no further due to enemy resistance, casualties, lack of ammunition or the platoon commander's mission being achieved. Regrouping is not to take place as an automatic drill once an objective is taken; the section commander is to continue the assault in line with the platoon commander's intent. When regrouping becomes necessary the following actions should happen:

- a. The section commander will *Explain and demonstrate:*
 - (1) Allot arcs and fire tasks to each rifleman paying particular attention to key weapon systems.
 - (2) Check on casualties and ammunition, then report details to the platoon sergeant.
 - (3) Arrange for redistribution of ammunition.
 - (4) Supervise digging of trenches.
 - (5) Ensure that prisoners of war (PW) and captured equipment are sent to platoon HQ.

- (6) If necessary check with the platoon commander and confirm future intentions.
- b. The fire support team will:
 - (1) Rejoin the assault fire team as quickly as possible (unless otherwise ordered) once the section has gone firm on the objective. Often the section commander will give a prearranged signal for the fire support team to close up if they have not done so automatically.
 - (2) Check the weapons and redistribute ammunition.
- c. Rifleman should:
 - (1) Check weapons and equipment.
 - (2) Check ammunition and grenades.
 - (3) Recharge all magazines.
- d. In principle the section commander is responsible for the tactical disposition of the section (arcs, positions, etc), whilst the 2IC deals with administrative reorganisation (ammunition, casualties, etc). It should be stressed that during the fight through the completion of the mission is critical. Casualties are therefore left until the whole position is cleared.

6-111 *Confirm by practice.*

Conclusion

6-112 ***End of Lesson Drill.***

- a. *Questions from and to the squad.*
- b. *Unload, clear weapons, empty magazines and centralise ammunition.*
- c. *Carry out normal safety precautions.*
- d. *Pack up all stores.*
- e. *Declaration.*
- f. *Summary. Stress the following:*
 - (1) *The section has covered one of the most vital points of the attack.*
 - (2) *The importance of team work, protection, casualties and POW.*
- g. *Look Forward.*

6-113 - 6-119 Reserved.

Lesson 28. Section Break Contact Drills

6-120 **Aim.** *The aim of the lesson is to teach the principles of section break contact drills.*

- a. *Baseline Break contact drills.*
- b. *Tunnel Break Contact drills.*
- c. *Casualties.*

6-121 **Timings.** *Two 40 minute periods.*

6-122 **Method.** *Basic instructional outdoor period.*

6-123 **Stores.**

<i>Rifle fitted with sight and sling</i>	<i>1 per soldier and instructor</i>
<i>Magazine</i>	<i>1 per soldier and instructor</i>
<i>Fighting Order</i>	<i>1 set per soldier and instructor</i>
<i>Combat helmet</i>	<i>1 per soldier and instructor</i>
<i>Ammunition 5.56 mm blank</i>	<i>30 rounds per soldier</i> <i>10 rounds per instructor</i>

IW/LSW Blank Firing Attachments (BFA)

Targets:

- a. *Fig 11 (stick-in)* 3
- b. *Fig 12 (stick-in)* 3

Loud hailer As available

Camouflage cream As required

Ear defence 1 per soldier and instructor

6-124 **Preparation.**

- a. *Select suitable ground with various types of cover for the demonstration.*
- b. *Site the figure targets in suitable positions relative to the types of cover so the demonstrators may engage the targets from a number of positions.*
- c. *Rehearse the demonstrators.*
- d. *Ensure further suitable ground is available for squad practice.*

6-125 **Miscellaneous.**

- a. *The initial lesson will be a simple demonstration with an officer/WO or SNCO giving the commentary using two of his/her NCOs as demonstrators.*
- b. *The demonstration is to show all aspects of the baseline contact drill followed by the tunnel method.*

- c. *The demonstrators are to be camouflaged.*
- d. *The second period will be squad practice.*
- e. *The teaching phase of these drills can also be taught using various visual aids such as a model or taught using powerpoint animation prior to outdoor practice.*
- f. *In accordance with Reference A, a written instruction is to be produced for any activity involving the use of blank ammunition.*
- g. *In accordance with Reference A, the wearing of issued ear protection is compulsory during blank firing.*

Preliminaries

6-126 **Safety Precautions.** *Normal safety precautions,*

6-127 **Revision.** *Fire and Manoeuvre.*

Introduction

6-128 **Explain:** At some point whilst on operations you will be required to break contact with the enemy, either to minimise casualties or to get into a more favourable position, in any case the drills to be employed must be known by all section members so that the drill is second nature.

Break Contact Drills – Preparation

6-129 **Long Term Preparation.** *Explain:* All sections and other small sized patrol groupings should practice their break contact drills until they are second nature. As will be described later, there are different drills depending if you are in open country, sparse woodland or channelled on a track and whether the enemy engages you from front, side or rear. Ideally, you should practice dry, then with blank ammunition and ultimately as part of Live Firing Tactical Training. Your rehearsals should include how you would extract casualties in different positions within the patrol whilst maintaining fire and manoeuvre (F&M). You cannot practice this too many times, down to details such as the slick and instinctive changing of magazines.

6-130 **Weapon States.** *Explain:* Weapon states will be governed by the situation and the Rules of Engagement under which you are operating. If the legal requirements allow it, the point soldier (or second if the lead soldier is operating C-IED equipment) should have their rifle set to automatic. They are to be ready to fire short (approximately 3-4 round) controlled bursts. Where tracer rounds are available, the top 2 rounds should be Ball, followed by 2-4 rounds of Tracer to assist target indication. A number of tracer rounds could also be loaded close to the bottom of the magazine to indicate when you are running low.

Break Contact Drills – Reaction to contact with the enemy

6-131 *Explain:* Whether the enemy open fire first or you have a moment's advantage, it is vital that the following takes place immediately:

- a. Any member of the patrol who realises what is happening shouts 'contact front' (left/right or rear as applicable) and immediately opens fire.
- b. For the drill to be successful, the patrol must gain or retain the initiative and rapidly get out of the Killing Area. All patrol members in a safe position to do so are to immediately fire at the identified enemy. The lead soldier and those with LMGs will fire short, controlled bursts. Everyone else should repeatedly fire two aimed single shots in quick succession ('double tap'). It is imperative that an overwhelming weight of fire is provided as swiftly as possible. It is recognised that the initial return of fire may be largely inaccurate but it will disrupt enemy fire by making him take cover and gain you vital seconds.
- c. The instant that fire support is being provided, rearward movement is to begin. The golden rule remains no movement without fire.
- d. The patrol moves rearward, individually, then in pairs (see Figs 6-1 to 6-4) until it forms a baseline. It then conducts Fire team F&M rearward until contact has been broken and a safe Rally Point is identified.

6-132 *Confirm by questions.*

Break Contact Drills – Reorganisation ('Reorg') at Rally Point

6-133 *Explain:* At the Rally Point, the Section/Patrol commander will check that all members of the patrol are present, ensure that ammunition is redistributed if necessary and give quick battle orders.

Baseline Break Contact Drills

6-134 **Introduction.** Baseline break contact drills are used when both the tactical situation and the terrain enables freedom of manoeuvre as you withdraw. It would generally not be appropriate in an IED high threat environment.

6-135 **Contact Front.** *Explain and demonstrate:* The point soldier returns automatic fire and, simultaneously, shouts 'contact front'. The second soldier takes a single pace to their left, the third soldier a single pace to their right and the fourth soldier 2 paces to the right: all return fire as soon as they have clear line of sight. This enables the lead Fire team to all engage the enemy. The rear Fire team, under the 2ic's direction should move left or right into a position to lay down suppressive fire. The point man then turns and runs back until level with the second soldier. They then move back as a pair whilst soldiers 3 and 4 provide fire support (along with Delta Fire team). They run back as far as in line with Soldier 4. This leaves Soldier 3 forward of a Fire team baseline and will move back next. The Fire team is now complete in a baseline. Fire team F&M can now commence until contact is broken and a safe rally point is reached.

6-136 **Contact Rear.** *Explain and demonstrate:* Everyone turns around. The drill is then the same as for Contact Front except for the patrol continuing to move in its original direction of advance.

6-137 **Contact Left or Right.** *Explain and demonstrate:* If the contact comes from the side, it is particularly important that any member of the patrol who identifies where the enemy is firing from shouts 'contact left' (or 'right' as appropriate) the patrol simply turns to the left and returns fire. The patrol can then withdraw using Fire team F&M until contact is broken and a safe rally point reached.

Tunnel Break Contact Drills

6-138 **Introduction.** The Tunnel Break Contact Drill drill applies when the patrol is severely restricted in its manoeuvre by the terrain or tactical situation. It will therefore usually be moving in single file or file along a track, road or in a defile with no realistic option to break off it. This may be because it is physically impossible to do so because of dense vegetation or it may be because of a high threat of IEDs or mines. As the patrol enters such an area, the commander must remind the patrol that the Tunnel Break Contact Drill is now to be used.

6-139 **Contact Front.** *Explain and demonstrate:* The point soldiers (or soldier if in single file) immediately return fire. The rest of the patrol kneel and take aim towards the enemy. The point soldiers then turn inward and run down the centre of the track whilst the next pair continue to provide fire support. The pair move beyond the end of the section and go to ground. This 'peeling back' continues rapidly until contact is broken. This method has 2 disadvantages:

- a. Only enabling 2 soldiers to bring down fire at any one time. If it is possible for the next 2 members of the patrol to safely and effective engage as well, possibly by taking a pace to their left and right, they should do so to increase the initial weight of fire.
- b. The withdrawal is channelled and predictable, presenting a relatively easy target to the enemy. You could consider using screening smoke but bear in mind that it will also affect your own ability to accurately target the enemy.

6-140 **Contact Rear.** *Explain and demonstrate:* Everyone turns around. The drill is then the same as for Contact Front except for the patrol continuing to move in its original direction of advance.

6-141 **Contact Left/Right.** *Explain and demonstrate:* If the contact comes from a side, everyone turns to face the enemy and opens fire. The patrol then starts peeling off from the point man. If the patrol is in single file, this can be done immediately. If in file, those on the 'far' side of the track need to move forward into a baseline in order to allow those running back to pass safely behind them whilst they lay down suppressive fire.

6-142 *Confirm by practice.*

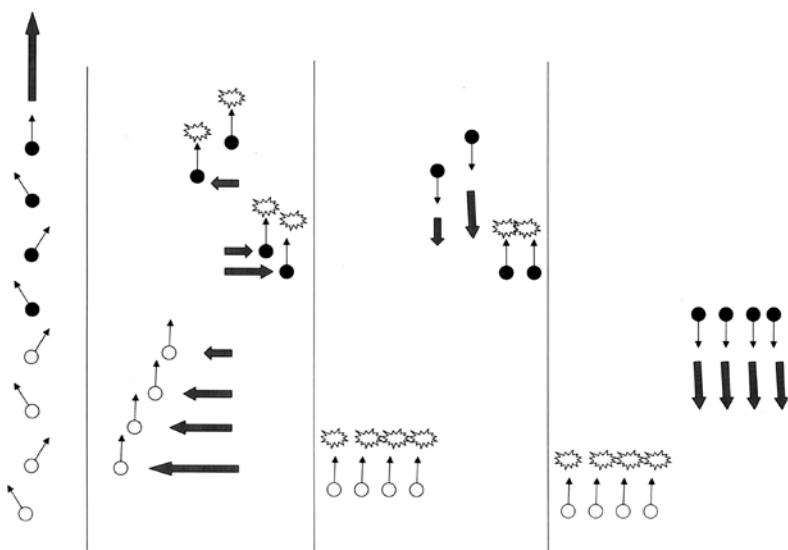


Fig 6-1. Contact Front

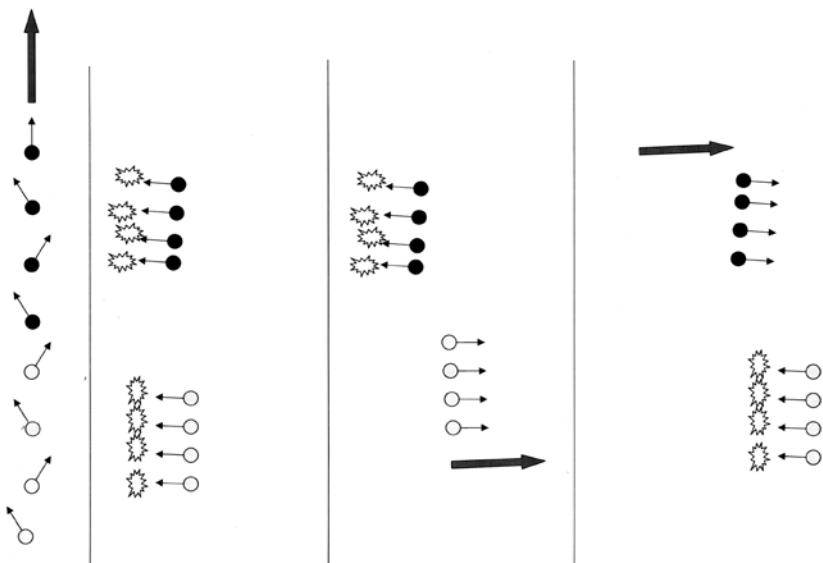


Fig 6-2. Contact Left/Right

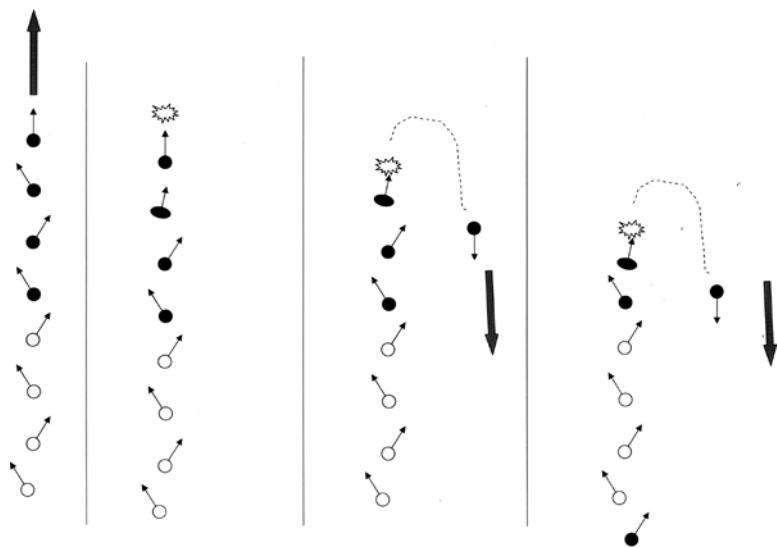


Fig 6-3. Contact Front on a Track

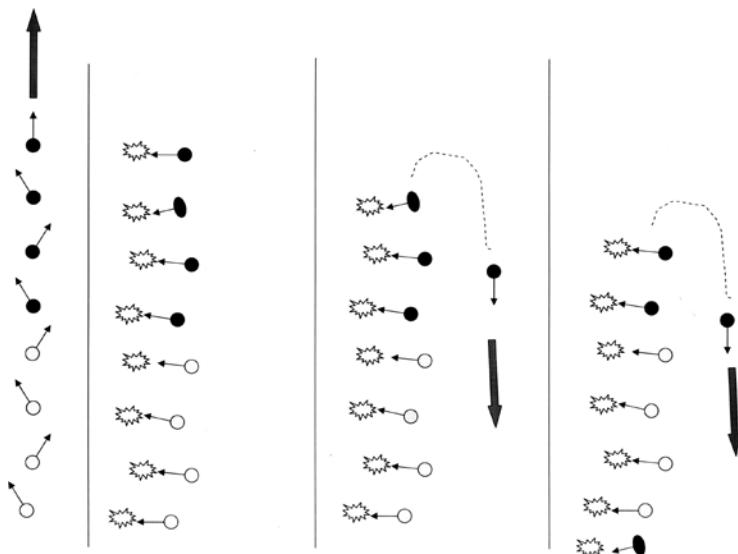


Fig 6-4. Contact Left on a Track

Casualties

6-143 If the enemy surprise you, it is more than likely that you will have suffered a casualty. You must rehearse how you will carry out modified forms of these drills depending upon which member of the patrol is hit. Note that it will undoubtedly require the soldier on each side of the casualty to drag him backwards. The golden rule remains – no movement without fire.

Conclusion

6-144 **End of Lesson Drill.**

- a. *Questions to and from the squad on the lesson.*
- b. *Safety Precautions.*
- c. *Summary. To include the following:*
 - (1) *Always cover movement with fire, or the capability of fire both in and out of contact.*
 - (2) *The importance of good communication and clear orders.*
 - (3) *A forecast of the squad's next lesson in this subject.*

6-145 - 6-149 Reserved.

Lesson 29. Captured Persons (CPERS) Handling

6-150 **Aim.** To introduce the section how conduct CPERS handling including:

- a. Define the CPERS Handling Drill:
- b. Conduct a person search.
- c. Secure personal property, criminal evidence and J2 Intelligence.
- d. Safeguard CPERS.

6-151 **Timings.** Two 40 minute periods.

6-152 **Method.** Basic instructional outdoor period.

6-153 **Stores:**

Metallic Board

CPERS Handling visual aids (5S & PRIME)

Safety Cut scissors

4 x Plasticuffs

Blacked out goggles

Clear Plastic Bags (property, evidence)

Permanent Marker

Surgical gloves

Rifle fitted with sight and sling

1 per soldier

Magazine

1 per soldier

Fighting Order

1 set per soldier

Combat helmet complete

1 per soldier

Issued Body Armour

1 per soldier

PRR

1 for Comd

Desert or foreign uniform

1 per CPERS

Rifle fitted with sight and sling

1 per CPERS

Magazine

1 per CPERS

Mobile phone (Training purposes)

1 per CPERS

Maps / Notebooks

Various (min 1)

Preliminaries

6-154 On arrival of demonstration troops:

- a. Lay out stores and prepare visual aids.
- b. Brief and rehearse demonstration troops/CPERS.
- c. **Carry out normal safety precautions and checks.**

6-155 *On arrival of troops:*

- a. *Carry out normal safety precautions.*
- b. *Carry out initial battle preparation.*

Introduction

6-156 *Explain:* The capturing of persons on operations is a natural consequence and must be planned for at all levels. As a member of the Armed Forces you must be able to handle CPERS correctly whilst ensuring they are treated humanely at all times and during all conditions. CPERS Handling is a core skill and all personnel must be competent in conducting this drill.

Basic Principles

6-157 *Explain:* International Law lays down the minimum standards of treatment that are required when handling CPERS. All CPERS must be treated humanely at all times and are entitled to respect for their person, honour and religion. The application of cruel, inhumane or de- grading treatment (CIDT), as well as being unlawful, will have a strategic impact on the success of the mission. Mistreatment of CPERS will:

- a. Forms the basis of powerful propaganda;
- b. Undermines our credibility and that of our partner alliance / coalition forces;
- c. Strengthens the resolve of the enemy;
- d. Acts as a very effective enemy recruiting tool.

6-158 Treat CPERS as you would want to be treated and consistently apply the Values and Standards.

CPERS Handling Drill (5S)

6-159 *Explain:* To effectively handle CPERS the following five stages must be completed:

- a. Safety;
- b. Search;
- c. Secure;
- d. Segregate;
- e. Safeguard.

6-160 *Confirm by questions.*

CPERS Drill 1 - Safety

6-161 *Explain and demonstrate:* The commander is responsible for ensuring that the area is safe and that the CPERS presents no visible threat prior to their handling. The following action is to be conducted prior to moving to the next drill:

- a. **Location.** The commander is to assess the situation and identify any potential threats to themselves, their unit or the local population.
- b. **Weapons.** CPERS must surrender any visible weapons systems prior to being approached. If caught by surprise, the commander may direct that personnel remove the weapon systems from the CPERS. Proportionate and justifiable force may be used to remove the threat.
- c. **Improvised Explosive Devices.** The commander may initiate an IED check at a distance. The CPERS may be ordered to lift their shirt and turn around to show that they are not wearing an IED.
- d. **Defence.** The commander will secure the location to provide a defensive capability in the event of in depth positions, IDF attacks or other threats.
- e. **Initiate Search.** On securing the site, the commander will direct the search team to conduct a search of the CPERS. The search team will identify a suitable area (out of sight of other locals and other personnel) and move one CPERS at a time to conduct the next phase.

6-162 *Confirm by questions and practice.*

CPERS Drill 2 – Search

6-163 *Explain and demonstrate:* Impact of Searching. The searching of a person must be conducted professionally whilst giving due regard to the CPERS' personal dignity, taking into account religious and cultural sensitivities. The conducting of searches carries significant risk in relation to criticism and complaints. Searchers should be aware that CPERS are likely to feel stressed and therefore this could lead to the CPERS experiencing self-induced pressure. You are not, under any circumstances, to deliberately increase self-induced pressure as this could be seen as cruel, inhuman or degrading treatment.

6-164 Types of Person Search. Four levels of searching are:

- a. Initial.
- b. Detailed.
- c. Strip.
- d. Intimate.

6-165 A description of the purpose of each level of search is as follows:

- a. **Initial Search.** An initial search would normally be carried out when dealing with a large number of CPERS after capture or surrender with its purpose to remove any items which may be used as a weapon or as a means of communication. This search is carried out quickly and is likely to be conducted during the re-organisation prior to the CPERS evacuation to a safe area to conduct a detailed search. An initial search would also be conducted if the CPERS is injured, as it provides surely to the medical evacuation team that the CPERS possesses no threat to them.
- b. **Detailed Search.** A detailed search will involve the investigation all of the CPERS property and is focussed on the gaining of intelligence, the protection of personal property and the securing of criminal evidence.
- c. **Strip Search.** A strip search is similar in principle to the detailed search, except that it involves the removal of all clothing by the CPERS. This may only be conducted on authorisation of the FPM or Provost Officer.
- d. **Intimate Search.** Intimate searches involve the internal examination of body orifices and can only be conducted by a medical practitioner or nurse after authority has been obtained from the Chain of Command.

6-166 You are only permitted to conduct initial and detailed searches on CPERS. Non-compliance will constitute cruel, inhumane and degrading treatment and will lead to disciplinary action against you.

6-167 **Position of Search Team.** Searching of CPERS is to be carried out by two members of the section, one searcher and the other providing cover and protection.

6-168 The Cover Man is responsible for protecting the searcher and ensuring that the CPERS does not escape. Minimum force may be applied to restrain the CPERS and the Rules of Engagement must be complied to at all times. The coverman is to be positioned well out of reach of the CPERS and at right angles to the searcher. Their weapon will have a clear view and line of fire to the CPERS.

6-169 The searcher should not stand directly in front or behind a CPERS so as to avoid being kicked, kneed or head-butted. When weapons are being used, the searcher should avoid crossing the line of fire of the person providing cover.

6-170 The searcher should not be distracted or intimidated and should avoid eye contact with the subject. The coverman should watch for verbal and signs of non-verbal communication, e.g increased nervousness or tension. During the search, the coverman must immediately inform the searcher if they witness the CPERS attempt to discard or dispose any items.

6-171 Prior to the commencement of the search, the searcher must don medical gloves. The purpose of the gloves is to prevent any transfer of forensics and to protect the searcher from contracting diseases from the CPERS.

6-172 **Search Method.** The searcher must communicate with the CPERS informing them that they are going to be searched and question them if they have any items on their possession which cause injury to the searcher or themselves. The searcher must also ask if the CPERS has any injuries. The searcher should still search the injured area but must be cautious and be aware that the CPERS may make a sudden movement or react.

6-173 The searcher should inform the CPERS to remove outer garments, webbing or any other baggage. Clothing and baggage must be searched thoroughly ensuring care is taken when searching pockets. Searchers should take caution and not place their hands into pockets without first looking or feeling to see if there are any foreign or sharp objects that could cause injury to the searcher. All items found should be placed in an area where the CPERS can see. All property and equipment on the CPERS must be treated with dignity and respect.

6-174 The CPERS should stand with legs slightly apart and arms hanging naturally and not extended sideways. CPERS must not be spread-eagled against a wall nor placed into any stress or other position that may cause the CPERS stress.

6-175 A search should be conducted quickly in a systematic way from head to foot, down one side and then the other side. This should cover all parts of the body, front and back. Particular attention should be paid to collars, pockets, linings and footwear where weapons or other items may be concealed. Care must also be taken to search all external body depressions such as the small of the back, armpits, the crutch and closed hands.

6-176 The Searcher is allowed to look into the mouth and ears but not allowed to insert fingers or objects as this is considered an intimate search. **Intimate searches must not be carried out under any circumstances.**

6-177 When searching limbs, both hands are to be used with thumbs and index fingers touching where possible. The limb is searched by rubbing the hands down the limb feeling for foreign objects. When searching a CPERS arm, the hand is to be placed on the opposite shoulder of the searcher. This creates an unrestricted access to the armpit and provides the searcher the ability to push away the arm if the CPERS become aggressive.

6-178 When searching the leg, the searcher must adopt a kneeling position with the leg closest to the CPERS providing protection from being kicked.

6-179 When checking footwear the CPERS must be allowed to sit down to remove their footwear.

6-180 **Searching of Females.** Female soldiers should search female CPERS, juveniles and children. When this is not possible, hand held metal detectors should be used. In extremis, a male may conduct a rub down search using the back of their hands but authorisation must be gained from higher authority.

6-181 **Non Attributable Finds.** Ensure that all enemy positions, vehicles or equipment in or near where CPERS are captured are searched. Any documents or equipment associated with the CPERS, which are found, should be evacuated wherever possible along with the CPERS.

6-182 **Recording of Searches.** All searches of CPERS must be recorded. Both searcher and the coverman are to record the activity in their notebooks using the 'TALONS' format. Information to be recorded is:

- a. Time of Search;
- b. Authorised by;
- c. Location of Search;
- d. Occupants (if vehicle or building search);
- e. Unit (details of unit, call sign and individual conducting searches);
- f. Search results (Items found, observations, damage caused as result of search, complaints made).

6-183 **Overarching Principle.** All searches must be conducted with due respect for the CPERS' dignity and religious or cultural sensitivities must be considered and, when tactically able, observed.

6-184 *Confirm by questions and practice.*

CPERS Drill 3 – Secure

6-185 *Explain and demonstrate:* On completion of the search the searcher must secure all personal property belonging to the CPERS, all criminal evidence and any items of intelligence value.

6-186 On conclusion of the search the commander will confirm their intent to move the CPERS through the handling chain. The searcher must ensure that, dependant on CPERS category, that all personal property, criminal evidence and /or items of intelligence value are secured in a transparent sealed bag and clearly identifiable as belonging to the individual CPERS.

6-187 Aids to senses, including spectacles and hearing aids, must never be removed from CPERS, except during the search and only for the minimum time or where it is absolutely necessary.

6-188 During an International Armed Conflict, CPERS are likely to be classified as Prisoners of War and, on completion of being searched, must have the following items returned to them:

- a. Clothing including that for their protection such as CBRN suits;
- b. Protective military equipment, i.e. helmet, body armour and respirators;
- c. Feeding utensils ration packs and water bottles;
- d. Badges of rank and nationality, military insignia; Identity cards and discs;
- e. Decorations and medals;
- f. Personal property which the CPERS are able to carry with them, such as watches, wallets and articles of sentimental value like letters and family photographs;
- g. Medicine for personal use of the CPERS.

6-189 **Means of Communication.** On capture, CPERS are to be denied the use of communication systems (radios, mobile phones, smart watches etc). Searchers are not to use the communication systems or alter the operating status in which they were found, i.e. turned on or off. Under no circumstances are CPERS to be allowed to respond to any incoming communication. Exploitation of the captured equipment will be conducted by Battlegroup assets once the CPERS has been evacuated.

6-190 **Recording Search Finds.** If tactically viable, all items and equipment found must be recorded with a property receipt. All property, evidence and documentation must accompany the CPERS throughout the evacuation chain and be protected from being destroyed or damaged.

6-191 Property and evidence bags must be serial numbered to ensure that they can be associated with the individual CPERS throughout the CPERS evacuation chain. Serial numbers should consist of the ZAP number of the searcher and the number of the CPERS in chronological order in which the searches were conducted. This enables the identity of the searcher to be specified thus enabling future clarification of search finds. It is imperative that the number written on the bag is the same as recorded on the capture tag.

6-192 **Securing Information - Tactical Questioning.** During the initial stages of capture CPERS may willingly divulge information which must be recorded and passed up the Chain of Command. All personnel may only question CPERS to establish their identity, status, age and any information directly and immediately pertaining to Force Protection. Outside of this information, CPERS must not be questioned by anyone other than a Tactical Questioner who has been professionally trained, is course qualified and in-date. Children and juveniles must not be tactically questioned.

6-193 *Confirm by practice.*

CPERS Drill 4 – Segregate

6-194 *Explain and demonstrate:* During processing it may be appropriate to segregate CPERS from each other. Reasons for segregation are:

- a. Officers from Other Ranks (Prisoner of War only);
- b. Females from males;
- c. Children and juveniles from adults (unless part of a family and therefore they should be held together);
- d. Vulnerable CPERS (Unable to take care of themselves due to disability, age, or illness);
- e. CPERS deemed a disruptive influence or increased threat to security.

6-195 Females and children should be guarded by female service personnel. Children (age under 15) must be guarded by a minimum of two personnel.

6-196 *Confirm by questions and practice.*

CPERS Drill 5 – Safeguard (PRIME)

6-197 *Explain and demonstrate:* Once captured, the physical and psychological wellbeing of the CPERS must be maintained and the CPERS must be safeguarded prior to their movement through the CPERS evacuation chain. The standards and minimum requirements to be met are:

- a. Protection;
- b. Reporting and recording;
- c. Individual Rights;
- d. Medical;
- e. Evacuation.

6-198 **Safeguard - Protection.** Once captured, the liberties and freedom of the CPERS are restricted and constrained and therefore the protection of CPERS becomes the responsibility of the capturing unit. CPERS must be protected from the:

- a. Environment (Provided shelter from the elements);
- b. Further hostility or harm (including excessive noise);
- c. Media and public curiosity (no trophy photographs to be taken).

6-199 **Safeguard - Reporting and recording.** CPERS has a significant impact on the operations and the early reporting of the capture will enable key appointments and branches within the Battlegroup to plan for the expedient evacuation of the CPERS from the Point of Capture and initiate the receiving of the CPERS at the Unit Holding Area or PW Camp / Temporary Holding Facility.

6-200 The reporting of CPERS must be communicated using the Initial CPERS Report format (See Fig 6-6).

6-201 All activity conducted with the CPERS from the point of capture must be recorded and passed through the chain of command. Accurate and concise records will provide proof of treatment and the provisions provided to the CPERS during the initial stages of capture. All events involving the capturing and handling of CPERS are likely to result in future judicial reviews and therefore accurate records will provide corporate memory in defending and justifying decisions and actions made.

6-202 **Safeguard - Individual Rights.** During their captivity, CPERS have non-discretionary rights which must be facilitated. Units are likely to have limited resources but must ensure that parity of treatment is monitored and that CPERS receive the same standards as that of the capturing unit:

- a. **Right to water.** CPERS must have unrestricted access to water whilst captured. Commanders must consider feeding if there is a delay in the evacuation of the CPERS from the Point of Capture.
- b. **Right to complain.** CPERS must be able to make a complaint to the Chain of Command of which must be investigated. All complaints must be reported to Service Police for recording and consideration to investigate;
- c. Right to communicate with the ICRC (in person if the ICRC is aware of the capture and if tactically possible);
- d. **Right to conduct religious practices.**

6-203 **Safeguard - Medical.** Whilst captured, CPERS are entitled to the same level of medical care as the capturing unit. In the event of a CPERS being injured at point of capture, the CPERS must be treated in order of medical need but is still required to be searched.

6-204 On evacuation, the escorts must be aware that the casualty is a CPERS and all property, evidence and intelligence must accompany the CPERS back through the casualty handling chain. On arrival, the efforts of the medical team should never be impeded.

6-205 All CPERS are to be medically examined as soon as is reasonably practicable and must undergo a medical examination within four hours of capture – unless operational circumstances make such an examination impossible.

6-206 **Safeguard - Evacuation.** The capturing unit are to process and evacuate CPERS as soon as practicable. Subject to operational constraints, CPERS should be moved to a Unit Holding Area within six hours from the Point of Capture.

6-207 **Evacuation Request.** Evacuation of the CPERS must be requested through the Battle- group using the CPERS Evacuation Request (see Fig 6-7).

6-208 **Preparation for Evacuation.** Prior to evacuation the capturing unit must ensure that all capture cards have been completed and all property and evidence is accounted for. To promote compliancy, CPERS are to be informed that they are being evacuated to a safer and more complex location where their provision of care will be better. Geographical specifics in relation to location names are not be divulged due to the sensitivity of the information. The capturing unit must only communicate accurate information as stating falsehoods will impact on the compliancy of the CPERS later during the process.

6-209 *Confirm by questions.*

6-210 **Use Of Plasticuffs.** In preparing the CPERS for evacuation, commanders are authorised to use plasticuffs to restrain CPERS. Reasons for using plasticuffs may include:

- a. CPERS appears violent or is non-compliant;
- b. Quantity of CPERS outnumber the amount of escorts and guards;
- c. Commander's direction. Decision must be justifiable and recorded.

6-211 Plasticuffs should only be used to secure the hands to the front of the body and the decision to apply the plasticuffs must be recorded. To prevent injury to the CPERS, plasticuffs must be applied using the 'Rule of Thumb' ensuring that when applied, they are not too tight resulting discomfort and pain.

6-212 As soon as the reason for restraining has passed they should be removed. Plasticuffs should only be removed by using safety cutters or a similar blunt edged scissors. Under no circumstances is a bladed to be used as this may result in injury to the CPERS.

6-213 *Confirm by questions and practice.*

6-214 **Restriction of Sight.** CPERS are not to have their sight restricted unless there is a genuine operational sensitivity and there is no other way to prevent the CPERS seeing operationally sensitive matters. All efforts should be taken to avoid the need for CPERS to ever be present in, or pass through, sensitive areas. Where, on a case by case basis, no other physical alternative is available and no other measure is possible, CPERS may be required to wear blacked out goggles specifically issued for that purpose as a last resort, and for the minimum time necessary. Sight deprivation must never become routine, and must not be used as a means of segregating CPERS.

6-215 Blacked out goggles are the best method to restrict vision however, if they are not available, an improvised blindfold can be used as long as it does not cover the nose and mouth. The blindfold must not cause pain or discomfort and must never be a full hood or bag over the face. CPERS are not to be subjected to tactical questioning or interrogation whilst their vision is obscured. You must explain to the CPERS the reason why sight deprivation is being applied and for how long it is likely to last.

6-216 The decision to restrict vision must be recorded by the commander. Once the reason for restriction of vision has passed it must be removed as unjustifiable use could be deemed as CIDT.

6-217 *Confirm by questions and practice.*

6-218 **Restraint Positions.** There may be an operational requirement to use a restraint position on CPERS as a temporary measure to gain control of a situation. For example, restraint may be necessary where an individual is attempting to escape or is assaulting those engaged in handling or tactical questioning and interrogation. If such restraint positions are imposed, it must be for the shortest period of time and the CPERS must be allowed to change position regularly to prevent pain, extreme discomfort or exhaustion and positional asphyxia. **The restraining of CPERS must be conducted only in extremis and must be proportionate, necessary and justifiable.**

6-219 **Handover of CPERS.** The capturing unit must ensure that the handover of CPERS is conducted efficiently. All property, evidence and intelligence must accompany the CPERS and all supporting documentation must be forwarded through the handling chain.

6-220 **Multiple CPERS Handling.** During operations there is likelihood that multiple persons will be captured at the same time. In an International Armed Conflict the numbers of CPERS may be significant and therefore the processing of CPERS at the point of capture must be conducted efficiently and effectively.

6-221 At the point of capture all CPERS will be instructed to disarm, move away from any weapon systems and sit down facing away from the designated search area.

6-222 The Commander will establish all round defence or if limited assets, form a protective screen in front of the CPERS separating them from the weapon systems but facing the direction of threat. A coverman will be nominated to monitor the group of CPERS.

6-223 Nominated search teams will collect the CPERS, one at a time, from the Point of Capture and search them in the designated Search Area. On completion, the search team will relocate the individual to the Evacuation Point and hand over the property and evidence bag to the coverman as the Evacuation Point. This process will continue until all CPERS have been searched.

6-224 On completion of the searching, the CPERS weapons systems will be made safe and form part of the evidence. The point of capture will then be searched for any objects that may have been discarded by the CPERS. Once collapsed, the Search Area will be searched. Once collapsed, both covermen and the searcher can assist with security of the Evacuation Point.

6-225 The commander should stand in a position where they can monitor all three areas. This will also enable the search team to visually inform the commander if equipment is found on an individual of which may be of immediate interest. The commander can then decide if that individual should be segregated from the other CPERS.

6-226 An example of a multiple CPERS Handling area can be found below:

6-227 *Confirm by questions and practice.*

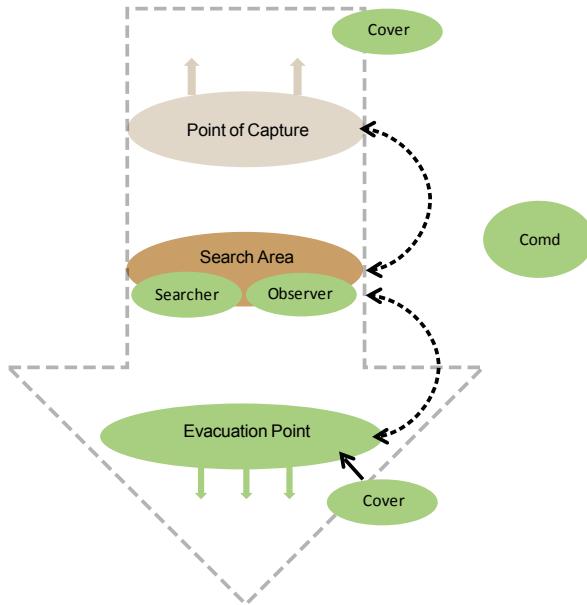


Fig 6-5. CPERS Handling Area

INITIAL CPERS REPORT			
1	Capturing Callsign	(1)	
2	DTG of Capture	(2) e.g. 221500Nov09	
3	Place of Capture	(3) Use full UTM GR	
4	Number of CPERS (Total)	(4)	
5	CPERS Category	(5) A..... B C D	
	A –HVT / Officer / Person of Interest	B –Combatants / Male Civilians	C – Females
6	Reason for Capture	(6)	
7	Current Location	(7) Use full UTM GR	
Safety – Search – Secure – Segregate - Safeguard Protection, Reporting & Recording, Individual Rights, Medical, Evacuate			

Fig 6-6. Initial CPERS Report

CPERS EVACUATION REQUEST				
1	Requesting Callsign	(1)		
2	Location (Grid of Collection point)	(2) Use full UTM GR		
3	Number of Pax (Total)	(3) A..... B C		
		A – CPERS	B – Escorts	C - Other
4	CPERS Category	(4) A..... B C D.....		
		B – Combatants / Male Civilians	C – Females	D – Children / Juveniles
5	Cargo / Addtl Load (Evidence, IED components, Weapons, Property, Intelligence (Documents / Mobiles))	(5)		
6	Security at Collection Point	(6)		
	N – No Enemy			E – Enemy in Area
7	P – Possible Enemy	X – Escort required	(7)	
	A – Panels	B - Pyro		
C – Smoke (colour?)	D - None	E - Other		
8	Collection Point Terrain / Obstacles	(8)		
Safety – Search – Secure – Segregate - Safeguard Protection, Reporting & Recording, Individual Rights, Medical, Evacuate				

Fig 6-7. CPERS Evacuation Request

Conclusion

6-228 **End of Lesson Drill (Administrative Area).**

- a. a. Questions from and to the squad.
- b. b. *Carry out normal safety precautions.*
- c. c. *Summary. "Today you have learnt an important core skill in CPERS Handling. CPERS will remain a natural consequence in the future battle space and therefore individual conduct will have an impact on the overall success of the mission. All CPERS must be treated humanely at all times and in all conditions and therefore you must carry out this drill with dignity and respect for the CPERS and ensure you uphold the V&S at all times"*
- d. d. *A forecast of the squad's next lesson in this subject.*

6-229 - 6-239 Reserved.

Lesson 30. Casualty Evacuation

6-240 **Aim.** To teach the section the drills and procedures for casualty evacuation under fire.

- a. The treatment and marking of a battle casualty.
- b. Methods of moving the casualty.
- c. The evacuation of a casualty under fire.

6-241 **Timings.** Two 40 minute periods.

6-242 **Method.** Basic instructional outdoor period.

6-243 **Stores:**

Personnel	Two for enemy/casualty
Dress	Fighting Order
Weapons	Section scale with blank firing attachments
Ammunition	Blank and pyrotechnics as available
General	All sections to carry rifle slings
Lightweight stretcher	1
Chinagraph pencils	4
Dummy morphine syrettes	
Field dressings	As available
Shell dressings	As available
Wound/casualty simulator kit	As available but to include artificial blood
Scrap wood or strong branches	

6-244 **Preparation.**

a. **Ground.** A thorough reconnaissance should be made to select the following:

- (1) An administrative and teaching area.
- (2) An area to which a casualty can be evacuated and treated.

b. **Assistants.** Two men are required — one to simulate enemy activity and the other to act as a pre-positioned casualty. In the initial stages both assistants are required to demonstrate different types of wounds and treatment of those wounds. Rehearsal of both assistants is essential.

6-245 **Miscellaneous.**

a. **Artificial Wounds/Casualty Simulation Kit.** Most Medical Centres have both wounds and other casualty simulation kits. However the instructor should use their imagination in the search to portray realistic wounds.

- b. **Artificial Skin.** Used when the section is practiced in administering morphine.

Preliminaries

6-246 **On arrival of demonstration troops:**

- a. Lay out stores and ammunition.
- b. Brief and rehearse demonstration troops/enemy.
- c. **Carry out normal safety precautions and checks.**

6-247 **On arrival of troops:**

- a. **Carry out normal safety precautions.**
- b. Check all weapons and blank firing attachments.
- c. Issue safety brief applicable to the lesson.
- d. Organise the squad into five teams and nominate a section 2IC, riflemen and LSW men.
- e. Distribute stores and ammunition. Ensure that all stores are placed in pouches or out of the way during the instruction.

6-248 **Revision.** This must be carried out in detail covering:

- a. Improvised stretcher.
- b. Head wounds.
- c. Flesh wounds.
- d. Fractures.
- e. Shock and symptoms.
- f. Internal injuries — signs and symptoms.
- g. Treatment of sub-paragraphs b. – f. above.

Instructor's Note. All the squad should be involved in all stages of the revision. A good question and answer technique is important at this stage.

Introduction

6-249 **Explain.** If you have to move a casualty, various methods can be used depending on the casualty's condition, the equipment you are wearing and the tactical situation. Do not underestimate how difficult it is to carry a soldier single-handed, use at least two people if you can. Clearly, the easiest method is with a stretcher: carry one in your patrol whenever you can and prepare them before crossing the Line of Departure if possible.

6-250 **Fireman's Lift.** *Explain and demonstrate:* To carry out a Fireman's Lift:

- a. Help the casualty to stand up. If unconscious or unable to stand, turn them face-down and stand at their head. Place your arms under the armpits and raise them to their knees and then to the feet.
- b. Grasp the casualty's right wrist with your left hand. Bend down with your head under their extended right arm so that your shoulder is level with the lower part of the abdomen: allow the casualty to fall gently across your shoulders. Place your right arm between or around their legs.
- c. Taking the weight on your right shoulder, stand and gently pull the casualty across both shoulders. Transfer the right wrist to your right hand, leaving your left hand free to carry your weapon.

6-251 *Confirm by practice.*

6-252 **Human Crutch.** *Explain and demonstrate:* To carry out a Human Crutch:

- a. Stand at the casualty's injured side. Place their nearer arm around your neck and hold the hand with your free hand.
- b. Put your other hand round their waist and grasp the clothing at the hip.
- c. The casualty can be given additional support with an improvised walking stick.

6-253 *Confirm by practice.*

6-254 **Two-Handed Seat.** *Explain and demonstrate:* To carry out a Two-Handed Seat.

- a. Squat facing each other, one on each side of the casualty. Both of you pass your arms nearest the casualty's body under and round the back just below the shoulders and, if possible, grasp each other's wrist. Otherwise grasp the casualty's clothing.
- b. Raise the casualty's legs slightly, pass your other arms under the middle of their thighs and grasp each other's wrist.
- c. Rise together, step off with the outside feet and walk at an ordinary pace.

6-255 *Confirm by practice.*

6-256 **Shovel Lift.** *Explain and demonstrate:* Using a shovel, pole or branch.

- a. Stand facing each other, grasp the shovel with both hands and stoop down.
- b. Tell the casualty to place their arms round both your necks, sit back on the shovel and steady themselves.
- c. Rise together, step off with outside feet and walk at an ordinary pace.

6-257 *Confirm by practice.*

6-258 **Dragging.** *Explain and demonstrate:* When dragging a casualty: Fold the casualty's arms across their chest. Grasp the smock, webbing straps or grab handle on their body armour and drag them along the ground.

6-259 *Confirm by practice.*

6-260 **Neck Drag.** *Explain and demonstrate:* To carry out the Neck Drag:
a. Place the casualty on their back and fix the wrists together firmly (eg plasticuffs).
b. Kneel astride the casualty and place their tied hands over your head.
c. Take the casualty's weight on your neck and crawl forward, dragging them.

6-261 **Rope Drag.** *Explain and demonstrate:* To carry out a Rope drag:

- a. Place a rope, loopline or similar across the casualty's chest and under their armpits.
- b. Grasp both ends of the rope and drag.

6-262 *Confirm by practice.*



Fig 6-8. Moving a Casualty – The Easiest Carrying Method



Fig 6-9. Fireman's Lift



Fig 6-10. Two Handed Seat



Fig 6-11. Shovel Lift



Fig 6-12. Dragging a Casualty to Safety

Conclusion

6-263 End of Lesson Drill.

- a. *Questions from and to the squad.*
- b. *Unload, clear weapons, empty magazines and centralise ammunition.*
- c. *Normal safety precautions.*
- d. *Pack up all stores.*
- e. *Declaration.*
- f. *Summary. Emphasise the need for all infantrymen to know what to do with a casualty. Explain the effect on morale if the section is unable to treat a casualty.*
- g. *Look Forward. This will depend on the section commander/instructor.*

Chapter 7

Defending Your Location

Lesson 31. Duties Of A Ground Sentry

7-01 **Aim.** *The aim of the lesson is to teach the duties of a sentry by day and night including:*

- a. *The ground sentry.*
- b. *Sighting the sentry.*
- c. *Posting and challenging procedure.*
- d. *Specialist sentries.*

7-02 **Timings.** *Two 40 minute periods.*

7-03 **Method.** *Basic instructional outdoor periods.*

7-04 **Stores.**

<i>Rifle fitted with sight and sling</i>	<i>1 per soldier</i>
<i>Magazine</i>	<i>1 per soldier</i>
<i>Fighting Order</i>	<i>1 set per soldier</i>
<i>Combat helmet complete</i>	<i>1 per soldier</i>
<i>Issued body armour</i>	<i>1 per soldier</i>
<i>Blank Ammunition</i>	<i>10 rounds per soldier</i>
<i>Blank Firing System</i>	<i>1 per soldier</i>
<i>PRR</i>	<i>1 per soldier</i>
<i>Camouflage materials</i>	<i>As required</i>
<i>Visual aid</i>	<i>1</i>

7-05 **Preparation.**

- a. *Reconnoitre the training area and select ground with a variety of cover from which the enemy can be sky lined.*

7-06 **Miscellaneous.** *The practice is best conducted as follows:*

- a. *Post the pairs of one team as double sentries, then get the pairs of the other teams to stalk their posts.*
- b. *Change the teams over frequently.*
- c. *In accordance with Reference A, a written instruction is to be produced for any activity involving the use of blank ammunition.*
- d. *In accordance with Reference A, the wearing of issued ear protection is compulsory during blank firing.*

Preliminaries

7-07 **Safety Precautions.** Normal safety precautions, declaration and signing of AFB 159 to be conducted in accordance with Reference C.

7-08 **Revision.** Range cards as taught in the Basic Lesson then divide the squad into two teams, and each team into pairs.

Introduction

7-09 *Explain:* The sentry is the eyes and ears of the unit; they allow administration and rest to take place safely. All soldiers will be employed as sentries at some point and they must have the confidence to do so effectively. Sentry duty requires the soldier to be alert and disciplined as they will often be alone and some distance away from the platoon. They must be confident and completely aware of their responsibilities to be effective and to warn of any attack or other activity.

Ground Sentry

7-10 *Explain.* The Ground Sentry (usually known simply as 'the sentry') is posted by day and night. They are there to protect any body of troops, to give early warning of enemy movement or attack and to check the identity of visitors or suspicious persons in the vicinity.

7-11 **Siting the Sentry.** Ideally, the platoon commander will site all the sentry posts for the platoon. In practice, the section commanders will assist by making recommendations. For a small patrol, the patrol commander will site the sentry post. Sentry posts must cover the likely enemy approaches and offer a good view and arc of fire. The number of sentries posted will depend on the tactical situation but, as a guide, a platoon triangular harbour would have three sentry posts – one at each apex. Roving sentries are given a specific beat to cover and they patrol back and forth during their duty: they are easily targeted and bypassed and therefore are not recommended for a high threat environment.

7-12 **Sentry Roster.** The sentry roster is usually drawn up by the Section Second-in-Command. During daylight, sentries are usually posted on their own while during darkness they are posted in pairs to prevent them falling asleep and so that a sentry position is never left unmanned when waking the next sentry. If manpower permits, double sentries in daylight is recommended in a high threat environment. The time they start their duty is staggered to ensure one sentry is always fresher than the other. This is why the sentry roster is usually known as 'the stag list' and, in turn, sentry duty itself as 'stag'. The number of sentries posted will depend on the tactical situation. The duration of the stag will depend on the situation. The commander must consider how tired the troops are and other factors such as the weather: They may need to shorten stags accordingly.

7-13 *Confirm by questions.*

Posting the Sentry

7-14 *Explain and demonstrate: Sentries are posted by either the section commander or their second-in-command.* When a sentry is posted in the field, the orders must include the following:

- a. Where they must be whilst on duty and what is their 'post' or 'beat'.
- b. The grid reference and location of his section or platoon commander and how to get in touch with him. If radio is used they must know the frequency changes and callsigns. There should be at least two methods of communication.
- c. If posted forward of the main position by day, the route that they must take to return to the position.
- d. The most likely direction of the enemy (which may be 360 degrees) and the type of threats expected.
- e. The sentry's arcs of observation and fire. Arc markers should be placed out (tent pegs or sticks with a small dayglo tab facing towards the sentry).
- f. The positions of flanking sentry posts and any other friendly force locations.
- g. The names of landmarks and Defensive Fire targets ('DFs') to the front. A range card must be produced as soon as practicable.
- h. Details and positions of any intruder alarms, remote ground sensors or aids such as trip flares.
- i. The procedure for challenging.
- j. The password and the time it changes.
- k. The password for the next 24 hours if a change is due.
- l. Orders for opening fire (Rules of Engagement).
- m. Particulars of friendly patrols in the area.
- n. The signal for defensive fire. The sentry may well be collocated with a GPMG(SF) gunner.
- o. Times of mounting relief and details of the relief system.
- p. The Chemical Biological Radiological and Nuclear (CBRN) threat if applicable.

7-15 *Confirm by practice.*

Challenging

7-16 *Explain.* Physical recognition of individual members of a friendly patrol is a routinely used method of allowing troops to pass through a sentry post unchallenged. When there is any doubt whatsoever, the full challenging procedure must always be followed. Failure to do so may result in casualties being inflicted on our troops, particularly returning patrols. The section commander must always be alerted if any unexpected person or group approaches the position and, if the situation warrants, they will 'stand to' the section. The challenge should be given quietly at a distance that will enable the section to kill any enemy who try to run away but not so close that the enemy can rush the post. If the order to halt is not obeyed, it is repeated and if still not obeyed, the orders for opening fire must be followed (in accordance with the Rules of Engagement).

7-17 Passwords are changed every 24 hours at 1200 hours daily. Passwords are promulgated as part of Communications and Electronic Instructions (CEIs) and should not be invented locally. They consist of two parts each consisting of two letters, for example 'SNOW':

Challenge: SIERRA NOVEMBER

Reply: OSCAR WHISKY

Passwords can be compromised so they must therefore be considered as only one of a number of methods of establishing whether or not troops are friendly. Therefore, the correct response to a challenge must not be regarded as complete proof of identity. Other methods of confirming identity are visual recognition of a member of your unit (or someone you know from another unit) and Identity Cards. Carriage of an Identity Card alone is no proof of identity, you must check the photograph and be prepared to question the individual as to their service number or other detail.

7-18 *Confirm by questions and practice.*

Specialist Sentries

7-19 *Explain.* In addition to ground sentries, there may be a need to post specialist sentries such as a Chemical Sentry or Air Sentry:

a. **Chemical Sentry.** A chemical sentry is posted by day and night to give early warning of a chemical attack whenever the Chemical Safety Rule is in force. They must wear full individual CBRN Individual Protective Equipment (IPE) and have access to detector and alarm equipment. They are normally collocated with either a ground sentry or an air sentry. A chemical sentry cannot double as the ground sentry.

b. **Air Sentry.** An air sentry is posted by day to give early warning on enemy aircraft movement, they are normally collocated with a ground or chemical sentry.

Serial	Action by Sentry	Action by Person or Group Challenged
(a)	(b)	(c)
1	Alerts their immediate commander of the approach of a person/group and covers them with his weapon.	
2	Waits until the person/group approaching is within audible range, but not so close that the position can be rushed, and then orders him/them to stop with the command "HALT HANDS UP".	Halts and raises hands.
3	Orders by voice or sign for one person to approach — "ADVANCE ONE".	One person advances towards sentry's position.
4	Allows the unknown person to approach close enough for visual recognition, or to give the challenge in a quiet voice, and then orders him to stop — "HALT".	Halts
5	Gives the challenge quietly, e.g. "SIERRA NOVEMBER" — if they do not recognise the person. Only repeat if circumstances warrant, e.g. windy night, friendly forces in the vicinity etc.	Gives the reply — e.g. "OSCAR WHISKY".
6	Calls the remainder of the group forward, either as individuals — "ADVANCE ONE" or altogether — "ADVANCE" — as the situation or orders dictate.	Second unknown person, or the remainder of the group, advance to be recognised by the sentry, assisted by the group leader who stays with the sentry until all have passed.

7-20 *Confirm by questions and practice.*

Conclusion

7-21 End of Lesson Drill.

- a. *Questions from the squad on the lesson.*
- b. *Confirm by questions and practice.*
- c. *Safety Precautions. Normal safety precautions,*
- d. *Pack kit.*
- e. *Summary. To include the following:*
 - (1) *Always challenge just loud enough to be heard.*
 - (2) *If in doubt give the alarm quietly before you challenge.*
 - (3) *Do not allow an enemy to find out who you are and then get away to report it.*
 - (4) *Do not shoot unless you must and then shoot to kill.*
 - (5) *A forecast of the squad's next lesson in this subject.*

7-22 - 7-29 Reserved.

Lesson 32. Sentry Duty in a Base Location

7-30 **Aim.** The aim of the lesson is to teach the duties of a sentry located within a base location.

- a. The sangar sentry.
- b. Types of Alarm.
- c. Orders, equipment and handover/takeover procedure.
- d. Logging and reporting.

7-31 **Timings.** Two 40 minute periods.

7-32 **Method.** Basic instructional outdoor periods.

7-33 **Stores.**

Rifle fitted with sight and sling	1 per soldier
Magazine	1 per soldier
Fighting Order	1 set per soldier
Combat helmet complete	1 per soldier
Issued body armour	1 per soldier
PRR	1 per soldier
Visual aid	1

7-34 **Preparation.**

- a. Lesson should be taught using either a purpose built sangar within a training facility or even the front gate barrier of the barracks.

7-35 **Miscellaneous.** The practice is best conducted as follows:

- a. Post the pairs of one team as double sentries, then get the pairs of the other teams to stalk their posts.
- b. Change the teams over frequently.

Preliminaries

7-36 **Safety Precautions.** Normal safety precautions.

7-37 **Revision.** Range cards as taught in the Basic Lesson then divide the squad into two teams, and each team into pairs.

Introduction

7-38 **Explain:** The sentry is the eyes and ears of the unit; they allow administration and rest to take place safely. All soldiers will be employed as sentries at a base location at some point and they must have the confidence to do so effectively. They must be confident and completely aware of their responsibilities to be effective and to warn of any attack or other activity.

The Sangar Sentry Post

7-39 *Explain.* The following factors are taken into consideration for a sangar sentry position:

- a. **Interlocking arcs of fire.** Sangars will be sighted so that the arc of fire of your sangar will join up (interlock) with those on your left and right, ensuring 360 degree coverage of the base. Overlapping arcs provide the potential for devastating crossfire to be brought to bear on an area from two or more sangars.
- b. **A Clear View of the Immediate Area.** The sangar must have a good clear view of the approaches and immediate area. This may mean buying land so that crops or trees can be cleared to prevent 'blind spots'.
- c. **Camouflage.** At a fixed location, camouflage on a sangar is not intended to conceal its position (which will be well known to local people). Instead, it will make target acquisition more difficult. There should be camouflage over the front of the sangar and it should have a solid back. This is to prevent the enemy having a clear sight of the sentry or silhouetting him against a bright backdrop. It should be expected that, at some point, an observation slit in any sangar will be subjected to single round small arms fire – the sentry must be located in the dark and well back from the front in order to be best protected.
- d. **Range Cards and Panoramas.** The production of range cards and panoramas has been covered in Chapter 5 Section 4. All sangars should have a photographic panorama which is replicated in the Ops Room. This will enable the sentry to rapidly and accurately inform the Ops Room duty watchkeeper of the location of any incident or threat.
- e. **Suspect Person and Vehicle Recognition Material.** Each sangar should have a folder containing suspect recognition material and suspect vehicle lists. These will be provided by the Intelligence Cell and updated regularly.

7-40 *Confirm by questions.*

Types of Alarm

7-41 *Explain.* The sangar will have several methods of raising the alarm. The primary method should be a special audio attack alarm but with a loud hailer and air horn as back-up.

Types of Communications Equipment

7-42 *Explain.* In order to speak to the Ops Room and other sangar sentries, the sentry can expect to have all or some of the following: PRR, BOWMAN radio, commercial radio, field telephone, intercom. There should be sufficient spare batteries for all communications equipment in the sangar and a battery management plan in place.

Orders

7-43 *Explain and demonstrate:* A full set of written orders should be contained within the sangar. These should include:

- a. Comprehensive Range Card/Map Boards including compounds of interest, ISTAR coverage and Dead Ground Trace. Range Cards and Points can be marked up for quick reference.
- b. Locations of friendly Forces (FF) weapon systems and ammunition.
- c. Weapon states & Rules of Engagement (ROE).
- d. Standard Operational Procedures including 'Actions on' (eg SIED).
- e. Friendly Forces (FF) activity in the area.
- f. Enemy Forces (EF) activity in the area.
- g. Pattern of Life (POL) activity in the area.
- h. Time on duty and method of relief.
- i. A standard visitors brief.
- j. A handover-takeover checklist.
- k. Command & Control (C2) – The sangars will be controlled by the Watch keeper or Battle Captain in the Ops Room but commanded by their sub-unit commander.

7-44 *Confirm by questions and practice.*

Sentry Equipment

7-45 *Explain and demonstrate: The following equipment is required:*

- a. Log books x 2 (one for routine occurrences and the second to record Pattern of Life (POL) and incidents).
- b. A detailed range card.
- c. A weapon system that fits the range and capability required.
- d. Optics (eg binoculars).
- e. ROE card.
- f. A language card for basic commands.
- g. Sentry roster (Stag list).
- h. Night viewing device/or devices.

- i. Local mapping.
- j. Standard Operational Procedures (Actions on Attack, Etc).

7-46 *Confirm by questions and practice.*

Handover/Takeover Procedure

7-47 *Explain and demonstrate:* The following must be briefed when one sentry hands over to another. Sentries will be posted by the Section Commander or Second-in-Command. If you are on duty as a sentry, you must ensure you are fully content that you understand the following:

- a. Detailed brief of the ground, comprehensive range card/ Mapping, Map boards including compounds etc of interest.
- b. Locations of weapon systems and ammunition.
- c. Location & type of Base ISTAR assets available.
- d. Method of tasking ISTAR assets.
- e. Weapon states & ROE.
- f. The methods of raising the alarm.
- g. Standard Operational Procedures (Actions on attack, etc).
- h. Friendly Forces (FF) activity in the area and any expected events (eg Patrols in or out).
- i. Enemy Forces (EF) activity in the area.
- j. A Communications check ('comms check') to ensure all modes are working.
- k. Time on duty and method of relief.

7-48 *Confirm by questions and practice.*

Surveillance Target Acquisition Plan (STAP)

7-49 *Explain.* In all circumstances the capabilities in the Ops room and the Base ISTAR assets need to be configured in support of the sangars as part of the local STAP. Sangars should ask for information or request sensors/ISTAR to look at certain points against their range card (and likely pre-sets in the CORTEZ system). Sangars can trigger Base ISTAR using marked map/photo and visual/acoustic and weapon sights. The interaction between sangar and Ops Room is essential if ISTAR assets are to be harnessed effectively to support the STAP.

7-50 *Confirm by questions and practice.*

Logging and Reporting

7-51 *Explain and demonstrate:* The logging and reporting of the routine activity in an area is mundane but important. Only by knowing what normally goes on in the daily life of a street, village or town can you quickly recognise when something 'out of the ordinary' is happening - a key Combat Indicator. Therefore, sangar sentries are required to note the routine daily activity they see, noting timings, individual and vehicle descriptions and movements carefully. This record builds up to show a Pattern of Life (POL). Descriptions are recorded in a standard way, which is described below.

7-52 **Describing individuals.** Individuals are described using the 'A to H' method as described below:

- a. A = AGE (attempt to bracket by 2 years, eg 26-28).
- b. B = BUILD (eg tall, short, fat, stocky, skinny). Avoid 'medium' or 'average'.
- c. C = CLOTHING (start at head and work down: colour, brands, buttons, zips, etc).
- d. D = DISTINGUISHING FEATURES (eg scars, tattoos, burns, facial hair).
- e. E = ELEVATION (height; use height of average door as a guide, ie 6 feet 6 inches).
- f. F = FACE (eg long, thin, high cheek bones, spots, wrinkles, ears).
- g. G = GAIT (how do they walk? Do they limp?).
- h. H = HAIR (colour, thickness, style, are they going bald? receding hairline, sideburns).
- i. S = SEX (m/f).

7-53 **Describing vehicles (SCRIM).** Vehicles are described using the 'SCRIM' method:

- a. S = SHAPE (e.g. saloon, pick up, 4x4, van, lorry, mini bus, motor bike, bicycle).
- b. C = COLOUR
- c. R = REGISTRATION (Plates will differ considerably according to Theatre)
- d. I = IDENTIFYING FEATURES (eg writing, signs, spoilers / trim / unusual contents, antennae, etc).
- e. M = MAKE (Toyota, Mercedes – which MODEL is even better eg Audi A4 Avant).

7-54 *Confirm by questions and practice.*

Conclusion

7-55 End of Lesson Drill:

- a. *Questions from the squad on the lesson.*
- b. ***Safety Precautions. Normal safety precautions***
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *Always challenge just loud enough to be heard.*
 - (2) *If in doubt give the alarm quietly before you challenge.*
 - (3) *A forecast of the squad's next lesson in this subject.*

7-56 - 7-59 Reserved.

Lesson 33. Vehicle Check Points

7-60 **Aim.** *The aim of the lesson is to teach the procedures for the conduct of a Vehicle Check Point (VCP).*

- a. Types of VCP.
- b. Sighting.
- c. Setting up, threat profile and legal issues.
- d. Actions in the VCP and extraction.

7-61 **Timings.** Two 40 minute periods.

7-62 **Method.** Basic instructional outdoor periods.

7-63 **Stores.**

Rifle fitted with sight and sling	1 per soldier
Magazine	1 per soldier
Fighting Order	1 set per soldier
Combat helmet complete	1 per soldier
Issued body armour	1 per soldier
PRR	1 per soldier
Visual aid	1

7-64 **Preparation.**

- a. The procedures are best taught by means of demonstration but will require demonstration troops and civ pop role play with access to civilian vehicles.
- b. Lesson should be taught using either a purpose FOB within a training facility or even the front gate barrier of the barracks.

7-65 **Miscellaneous.** The practice is best conducted as follows:

- a. Soldiers will not be expected to set up and conduct a VCP but can be incorporated to fulfil individual responsibilities under the guidance of the section or team commander.
- b. Ensure that common items of equipment such as cones, lamps and search equipment are made available.

Preliminaries

7-66 **Safety Precautions.** Normal safety precautions.

7-67 **Revision.** Range cards as taught in the Basic Lesson then divide the squad into two teams, and each team into pairs.

Introduction

7-68 *Explain:* The sentry is the eyes and ears of the unit; They allow administration and rest to take place safely. All soldiers will be employed as sentries at a base location at some point and they must have the confidence to do so effectively. They must be confident and completely aware of their responsibilities to be effective and to warn of any attack or other activity.

- a. To maintain a broad check on road movement in order to provide reassurance to the local population.
- b. To frustrate the movement of arms, ammunition and explosives.
- c. To assist in the enforcement of controls of movement of both people and material.
- d. To gather information and data on suspected persons and vehicles.

Threat Profile

7-69 *Explain:* The exact deployment of any VCP will depend on the threat. When there is a high threat from suicide VBIEDs different procedures will need to be in place. In particular, the VCP will need to have a stand-off area, where drivers must be forced to stop prior to entering the VCP location. Drivers can then be instructed to get out of the vehicles and show that they are not suicide bombers prior to being brought into the VCP area.

Legal Issues

7-70 *Explain:* In addition to the extant ROE, when manning a VCP you must be well briefed and fully understand your powers of search, arrest and the use of force.

Types of VCP

7-71 *Explain:* There are eight types of VCP which are listed and described below. In addition, you may hear the term 'IVCP' referring to an Illegal VCP, in other words one established by the enemy.

- a. **Snap.** A Snap VCP is rapidly executed VCP put in place by a patrol which had a different original mission or task. Snap VCPs may exploit time sensitive information in order to arrest and detain insurgents.
- b. **Deliberate.** A Deliberate VCP is one which is planned in advance and is probably the main task of the patrol.
- c. **Permanent.** Permanent VCPs (PVCP) will be established at the entrances to Operating Bases or on main roads into controlled areas. They are likely to have the advantages of blast wall protection, search bays and observation towers. Their disadvantages are that they are in a fixed (and therefore known to the enemy) location, will have a very high through-flow



Fig 7-1. Searching a Vehicle During a VCP

of traffic and a danger of boredom dulling awareness. This is an issue for Commanders to tackle (changing routines, surges, regular visits and close attention to the standard of living accommodation will all help).

- d. **Triggered.** A snap VCP of very short duration which is 'triggered' by intelligence in order to stop a specific vehicle.
- e. **Eagle.** A VCP which is deployed by helicopter. Typically of short duration on the ground. It has the advantages of speed and flexibility.
- f. **Dolphin.** A VCP which is deployed by boat.
- g. **Mobile.** A mobile VCP is one which is moving about during a patrol and prepared to stop and establish a VCP on orders.
- h. **Rat Trap.** Rat Trap VCPs are rehearsed locations to which patrols deploy to cut-off escape routes.
- i. **Cordon.** VCPs form an integral part of a cordon during cordon and search operations or in the vicinity of a suspected IED. In such a case, it is likely that only specific military vehicles will be allowed through.

7-72 *Confirm by questions.*

Siting of VCPs

7-73 *Explain:* When siting a VCP, consider the following tactical guidelines:

- a. **Concealment.** Where the ground permits, the VCP should be sited where it cannot be seen from more than a short distance away. Sharp bends or dips in the road provide good positions provided that the requirements of road safety are met. Ideally there should be no room for an approaching vehicle to take avoiding action by turning, leaving the road or reversing.
- b. **Security.** There must be enough troops to protect the VCP, particularly during the initial occupation. Sentries should be sited as cut offs on both sides well clear of the search area to watch approaching traffic and prevent evasion. All but the shortest duration VCPs should have a reserve force available to it. The use of a QRF from the nearest Operating Base should also be considered. The site of a VCP must always be checked for IEDs and ambushes before occupation and a pattern of use should be avoided.
- c. **Construction and Layout.** A simple construction is two parallel lines of knife rests, each with a gap, across the road approximately 50 metres apart. The enclosure formed can then be used as a search and administrative area. Within the search area there could be:

- (1) Separate male and female search areas.

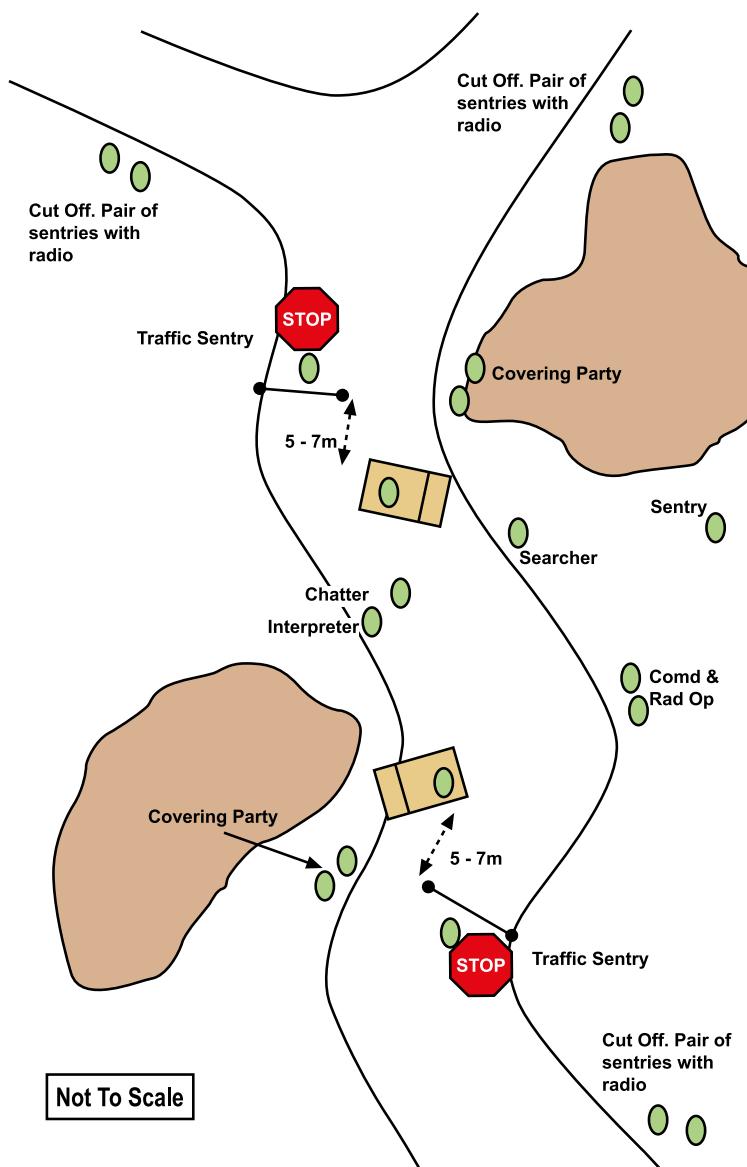


Fig 7-2. Possible Layout for a VCP in a Rural Area

- (2) Vehicle waiting area.
- (3) Vehicle search area.
- (4) A guarded area for detaining people prior to being passed on to other agencies.
- (5) VCP HQ.
- (6) Admin area.
- (7) Signs in the local language and, in theatres where there is a high level of illiteracy, recorded loudspeaker broadcasts giving the instructions/information that is on the signs.

7-74 *Confirm by questions.*

Manning

7-75 *Explain:* The number of troops required will depend on the number of roads to be covered and how much traffic you expect. If people are going to be searched then female searchers must be available and special accommodation should be provided. Whenever possible or practical there should be a police presence at the VCP and interpreters will be required.

- a. **Equipment.** Specialist search equipment may be required particularly for heavy vehicles and certain types of load.
- b. **Communications.** External communications are essential so that revised instructions may be given, information about wanted persons passed quickly and incidents at the VCP reported. Internal communications can be achieved with PRR.
- c. **ECM.** Remember the ECM footprint and only operate within it.

Actions in a VCP

- d. **Search.** One of the principal activities within a VCP is the searching of vehicles and people. Search is an activity which requires specialist training beyond the scope of this Pamphlet (You should refer initially to AFM Vol 1 Stability Operations). As an introduction, the areas to search in a basic saloon car are as follows:
- e. **Checking Identity Documents.** An identity document may be an ID Card, a driving license or some other official document issued by a government department or a company. When several documents have been offered they should all be checked against each other and against any list of wanted persons. Questions should be asked about details contained in the documents (eg address, occupation etc). The following points may be helpful when checking documents.

(1) **Photograph.** Compare the photo on the document to the individual. When making a comparison try to recreate the conditions under which the photo was originally taken (eg if the photo was taken hatless then ask the person to remove their hat). The subject's hair style and colour may have changed so it may help to cover the hair in the photo so as to compare only the facial features. A check of age will also assist in making a comparison.

(2) **Stamp.** Careful examination of the stamp across the corner of the photo will show whether the original photo has been removed and another substituted. The authenticity of the stamp should also be checked.

Setting up a VCP

7-76 *Explain and demonstrate:* Experience has highlighted the following siting criteria:

- a. The road party should be in a position where a vehicle has sufficient time to stop (avoid bends, brows of hills etc).
- b. Cut offs should be sited at a point where vehicles pass them before sighting the road party but still have time to give early warning and sufficient time, if necessary, to deploy blocking equipment.
- c. The patrol should be mutually supported.
- d. The area of the VCP and immediate surrounds should be checked before occupation.

Insertion Drill

7-77 *Explain and demonstrate:* Assuming that the patrol is of at least 12 men (3 x four man teams) insertion could be as follows:

- a. The patrol goes firm and the commander visually sites the road party and cut offs. Having carried out a visual appreciation the commander decides whether to put all the teams on the road or to have one in an overwatch location or conducting satellite patrol activity.
- b. The patrol commander's team, which will be the road party, remains in overwatch while the cut offs insert.
- c. Cut offs approach their locations, go firm and carry out 5 and 20m checks on their positions. The team commander and lead man occupy a position by the road, also conducting 5 and 20m checks. The remainder cover from an overwatch position about 50 - 100m away. The lead man positions vehicle immobilising equipment which is concealed but ready for deployment.

- d. The road party carries out a check of its position. Detailed tasks include:
 - (1) **Patrol Commander.** The patrol commander remains off the road and uses the radio to run a check of Vehicle Registration Numbers (VRNs) (if such a database exists in that theatre), selects vehicles to be searched and must have an alternate signal to trigger the cut offs eg whistle blasts.
 - (2) **The Chatter.** The chatter stops vehicles, chats up the occupants (in conjunction with an interpreter if necessary) and completes any forms as required. Use someone who has confidence and is naturally good at 'chat'. Note that in some theatres there may be strict guidelines detailing the exact requirement for telling occupants of the intention to search the vehicle.
 - (3) **Searcher.** The searcher removes weapon and webbing leaving it with a coverman and conducts a search of the vehicle and its occupants as required. It is good practice for the searcher to wear forensic gloves. Where items have been confiscated, theatre SOIs will give guidance on the procedures for giving receipts for those goods. Such SOIs must be followed rigorously.
 - (4) **Coverman.** The coverman covers the vehicle occupants from a concealed position and protects the searcher's equipment.

Note: The road party should not close in to a small space but stay spread out in case a problem should arise.

7-78 *Confirm by practice.*

Extraction Drill

7-79 *Explain and demonstrate:* A normal extraction drill could be as follows:

- a. The road party moves off to an overwatch position.
- b. The cut offs regroup, collect any road block equipment and extract from their positions.
- c. The patrol commander should consider deception when moving off as hostile forces may have identified the VCP and be considering an attack against it.
- d. Where practical a basic search should be conducted along the roadside in both directions to the limit of visibility. This may reveal arms, explosives or other items which may have been discarded as a vehicle approached the VCP.

Basic Equipment and Stores

a. Barrier Equipment.

- (1) Knife rests.
- (2) Dannert wire.
- (3) Wiring gloves.
- (4) Wire cutters.
- (5) Caltrops or other tyre puncturing device.

b. Signs and Lights.

- (1) 'Stop and Dip Headlights' signs (reflective paint) in local language.
One for each barrier.
- (2) Warning signs and recorded loudspeaker broadcast equipment.
- (3) Flashing warning lights or red hurricane-lamps.
- (4) Torches
- (5) Portable searchlights.

c. Communication Equipment.

- (1) Radios for internal and external use.
- (2) Telephones

d. Miscellaneous.

- (1) Night surveillance equipment.
- (2) Portable tape recorder.
- (3) Camera.
- (4) Megaphone and whistles (one for each sentry).
- (5) Evidence handling kits for finds.
- (6) Chalk and labels (for identification purposes).
- (7) Sandbags.
- (8) Handcuffs.
- (9) Probes.
- (10) Mine tape to delineate search area.
- (11) Spring balance for weighing suspicious packages.
- (12) Tape measure for searching for hidden compartments.

- (13) Under car mirrors.
- (14) Explosives detection devices.
- (15) Lists of wanted persons and vehicles (to be kept in protective covers).
- (16) Photographs of wanted persons (to be kept in protective covers).
- (17) Hand-held metal detectors (especially for searching women, when female searchers are not available).
- (18) Patrol Search Records.

Conclusion

7-80 End of Lesson Drill.

- a. *Questions from the squad on the lesson.*
- b. *Safety Precautions. Normal safety precautions*
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *Awareness of threat profiles and legal issues*
 - (2) *Systematic and thorough searching.*
 - (3) *Don't get tunnelled in to what is happening at the vehicle be spatially and situational aware.*

7-81 - 7-89 Reserved.

Lesson 34. Construction of a Sandbag Sangar

7-90 **Aim.** The aim of the lesson is to teach the construction of a simple sandbag sangar measuring two metres by two metres, approximately shoulder high with no overhead protection and a bolt hole.

7-91 **Timings.** Four 40 minute periods.

7-92 **Method.** Basic instructional outdoor periods best taught in the initial lesson by an officer prior to squad practice on a centrally constructed sangar.

7-93 **Stores.**

Sandbags	200
Sand/earth 3m3	(sufficient for 200 sandbags)
Shovels	1 per soldier
Pick helves/beaters	5
Pickets 0.6m	6
Pickets 1.8m	12
Visual aid	1
Measurement tape/stick	As required

7-94 **Preparation.**

- Select a realistic area in barracks or local training area which best suits a Home Defence (HD) scenario.
- Have prepared a correctly bonded two sandbag high wall of a certain length to demonstrate how the sandbags are laid.
- Prepare a suitable visual aid showing Fig.

7-95 **Miscellaneous.**

- The initial lesson should be conducted as a small platoon demonstration with the subsequent lessons used by the platoon to build a centrally constructed sangar.
- Approximately 60 sandbags can be filled by three men in one hour.
- Using 200 sandbags, a sangar two metre by two metres, will be 0.7 metres high.
- Prior to the lesson expert advice should be taken. The sangar if built to approximately 1.8 metres, is liable to collapse. Sandbags with free standing walls, must have a slope not steeper than 1 in 4 (see Reference F).

Preliminaries

7-96 **Safety Precautions.** Nil.

7-97 **Revision.** Nil.

Introduction

7-98 *Explain.* On operations soldiers may be called upon to guard camps or Check Points (CP). It may not be possible to defend these by building fire trenches, so constructions consisting of sandbags filled with sand or earth will have to be built from ground level upwards. This construction is known as a 'Sangar' and soldiers have to know how to build them.

Filling the Sandbag

7-99 *Explain and demonstrate:* Filling a sandbag is best performed by two soldiers, one holding the sandbag whilst the other fills. Sandbags are three-quarters filled with sand and their necks, called 'chokes', tied using a simple shoe lace bow, with the string attached.

7-100 *Confirm by practice.*

Constructing a Sangar

7-101 *Explain and demonstrate:* To construct a sangar:

- a. Sandbags are laid in horizontal courses like bricks. The bottom course consists of sandbags laid head on, termed 'headers', while the next course consists of sandbags laid lengthwise along the wall called 'stretchers'. Subsequent courses are composed alternately of 'headers' and 'stretchers' (see Fig 7-3a). The initial layer will be two sandbags deep.
- b. Sandbags are laid so that neither their chokes nor side seams are in the outer face of the wall, because when filled these are the places where they tend to burst. The corners of each bag should be tucked in as they are laid.
- c. Each sandbags when laid must be beaten with a pick helve or other beater into a standard sizes rectangular block 500 x 250 x 125 mm. The chokes are tucked under the bag to prevent bursting.
- d. Joints in adjacent courses are staggered. A wall so constructed is said to be correctly bonded (see Fig 7-3b).
- e. It is important to maintain the bonding when the wall turns a corner. Fig 7-3c illustrates how this is achieved.
- f. The sangar when built should be approximately shoulder height with fire ports. Pickets 0.6 metres can be used to reinforce the sandbags across the top of the fire port. If the ground permits 1.8 metre pickets can be used to support the sangar. If possible it should be constructed with a slope not steeper than 1 in 4.
- g. The sangar once completed should be camouflaged to match its background. A camouflage net will break its outline.

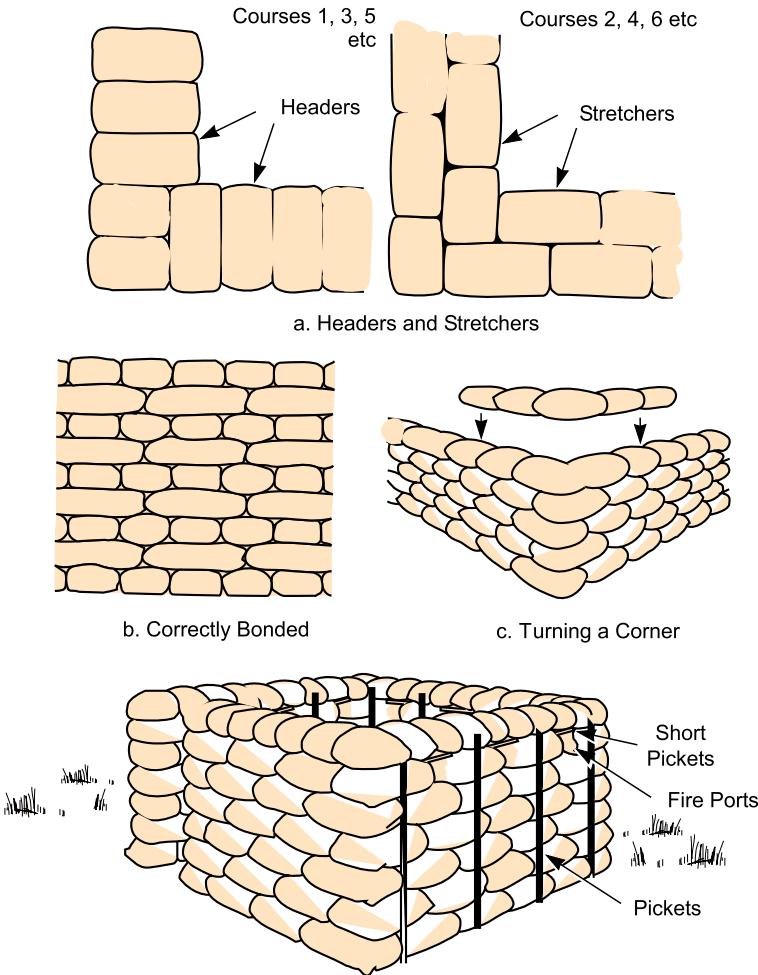


Fig 7-3. Construction of a Sandbag Sangar

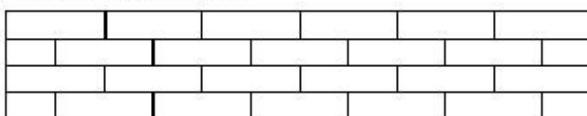
Bolthole

7-102 *Explain and demonstrate:* Where there is a high threat of Indirect Fire within a Forward Operating Base (FOB) a successful method to mitigate the effect of a ground burst is to construct a "bolthole". In more established FOBs where there is a considerable threat from IDF these are likely to already be constructed. If they are not or the likelihood of IDF threat increases these guidelines will assist you the ability to construct protection that you can "Bolt to" or be protected when off duty in your Basha.

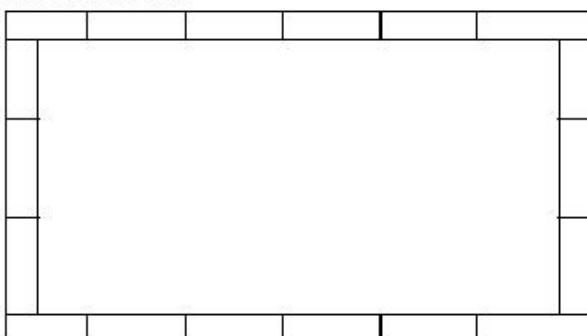
7-103 **Basic Construction.** (6 blocks long and 3 blocks wide) around an individuals sleeping area using 400 x 200 x200mm High Density concrete blocks obtained through the Royal Engineers. This will protect the occupant from the fragments from an adjacent ground bursting rocket or mortar.

Note. The blocks are heavy (38Kg) and need a firm base and to be handled with care.

Side View & Elevation



Plan & Overhead



End View & Elevation

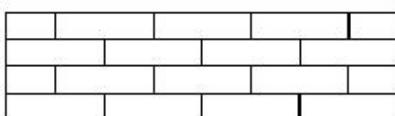


Fig 7-4. Construction of a Bolthole

Conclusion

7-104 End of Lesson Drill.

- a. *Questions from the squad on the lesson.*
- b. *Safety Precautions. Normal safety precautions*
- c. *Pack kit.*
- d. *Summary. To include the following:*
 - (1) *Awareness of threat profiles and legal issues*
 - (2) *Systematic and thorough searching.*
 - (3) *Don't get tunnelled in to what is happening at the vehicle be spatially and situational aware.*

Chapter 8

Demonstrations

Section 1. Introduction

8-01 **Introduction.** As an instructor, you will appreciate that demonstrations are a good way to get soldiers interested in a topic they need to learn and can cater for relatively large numbers of spectators. The demonstrations contained in this Section are designed to illustrate the skills and techniques taught in Pamphlet 2 and are based on demonstrations conducted within The School of Infantry.

8-02 **Organisations and Preparation.** A demonstration requires a great deal of careful organisation and preparation particularly in the following points:

- a. Rehearsals in detail are vital.
- b. Ensure that all the spectators can see all of the demonstration.
- c. The area chosen for the demonstrations should be free of distractions.
- d. Such things as direction boards and taped enclosures not only assist in the control of spectators but ensure efficient organisation.
- e. A loudspeaker is necessary if the audience is large. Stand upwind when talking.
- f. Signals to demonstrators should be so arranged so that the spectators can not see them being relayed. It is more effective if things appear to happen naturally. Using a PRR is probably the best solution, although fallback solutions such as flags can still be used.
- g. Consider action to be taken in case of weather interference.

Demonstration 1. Personal Camouflage and Concealment

8-03 **Aim.** The aim of the demonstration bring Chapter 3 (Awareness, observation and concealment) to life. It should show just how effective British MTP is, how it can be enhanced by personal camouflage and how to apply camouflage properly. At the core of the lesson are the reasons why things are seen and how to conceal yourself. It is worth reminding your students of the value of disrupting the process of detection, identification, target acquisition and engagement – ultimately it may save your life. Finally, remind students of the psychological effects of camouflage – that helmet cam is not appropriate for within a Key Leadership Engagement meeting but entirely appropriate for a deliberate rural ambush.

8-04 **Timings.** One 40 minute period.

8-05 **Method.** An outdoor demonstration.

8-06 **Stores.**

Rifles fitted with sights and slings	3
Magazines	3
Lightweight periscope	1
Combat helmet (camouflaged with natural vegetation)	1
Combat helmet (MTP cover only)	2
Combat helmet (no cover)	2
Plain green coveralls	2
Camouflage cream	As available
Picks	2
Shovels	3
Sharp knife or razor blade	1
Sandbags	6
PRR	10
Lectern	1
Loud hailer or public address (PA) system	1
Table	1
Landrover	2 (one with camouflage net)

8-07 **Personnel.**

a. Two Drivers.

b. One NCO and eight soldiers/instructors to act as demo troops, dressed in Patrol Order.

8-08 Preparation.

- a. Recce the training area, and by adapting the cover available, plan the layout for all phases to be demonstrated. A guide is at Fig 8-1.
- b. Nominate the demonstrators for each incident and allocate a callsign.
- c. Rehearse the demonstration fully immediately before it is due to commence to ensure smooth running and to permit any necessary adjustments for changes in light conditions.
- d. Set up the table for the demonstration, placing under it and out of sight:
 - (1) A rifle.
 - (2) A camouflaged combat helmet with natural vegetation.

8-09 Miscellaneous.

- a. Brief the demonstrators on their actions before sending them to their positions.
- b. Ensure that the demonstrators, depicting 'Too Little', 'Too Much', and 'Just Right' are dressed and camouflaged to fit their descriptions in the text.
- c. The two camouflaged soldiers should be in positions of observation at the start of the demonstration.
- d. This demonstration can be shown to a single squad, but it is best suited for a number of squads, so the instructors can be used as demonstrators.

Preliminaries**8-10 Safety Precautions. Normal.**

8-11 **Revision.** Questions the spectators on why things are seen related to the shape, silhouette, shine, shadow, spacing, sudden movement and signature. Indicate the arc for the demonstration.

Narrative and Phase 1 of the Demonstration

8-12 **Camouflage and Concealment. Explain:** Camouflage and concealment are two very important skills which the soldier has to master. They are the skills which enable him to see without being seen and to kill without being killed. The two are closely linked within battlefield discipline, and must be clearly understood:

- a. **Camouflage.** This consists of destroying the contrasts of shape, silhouette, shine, signature and, to some extent, shadow, so that the soldier is less conspicuous on the battlefield.

b. **Concealment.** This is making the best use of cover from view without sacrificing the minimum required fields of fire.

8-13 **Camouflage (Phase 1).** *Explain:* Camouflage will be considered first of all. Instruct the spectators to search the arc previously indicated where there are some camouflaged soldiers in positions of observation. Question on how many and where they are, then order the spectators to look down whilst the demonstrators move on a pre-arranged signal to position:

- a. Two non-camouflaged soldiers wearing plain green coveralls and helmets without covers in positions.
- b. Landrover without a camouflage net moves onto the skyline.
- c. Three combat helmets are positioned.

8-14 When ready order the spectators to look up and explain: There are now more things visible and each will be dealt with in turn. A number of positions were altered and un-camouflaged soldiers took over from camouflaged ones. Obviously the previously camouflaged soldiers were more difficult to see. Order the spectators to look in the direction of the un-camouflaged soldier standing in the open and point out:

- a. How their SHAPE gives him away.
- b. How the SURFACE of their plain green coveralls, and un-cammed face and hands contrast in tone and colour with their surroundings.

8-15 Tell the spectators to watch carefully as the camouflaged soldier takes over from the non camouflaged soldier (signal). Point out: How a camouflaged soldier who has taken care to break up their SHAPE, and tone down their SURFACE merges in completely with the surroundings.

8-16 Tell the spectators to look beyond that position to the skyline and ask: What is the object they can see. Point out: The silhouette of a Landrover even at that long distance is very striking. To make it more difficult to detect, it has to move off the skyline and use a little camouflage, signal and point out: The Landrover is now moving off the skyline, and is being replaced by a Landrover with a camouflage net, this too is now moving off the skyline. Note firstly, its SILHOUETTE is not quite so obvious, and secondly, as it moves away from the skyline how it blends into its surroundings.

8-17 Order the spectators to look on the axis of the arc and explain: To the trained eye there is something unusual there. Give the spectators a few moments to observe and continue: There are a number of combat helmets evenly spaced, this looks artificial and man-made. Signal and direct the spectators attention to the un-camouflaged soldier slightly right of the helmets and in front of the trees, and then point out: The un-camouflaged soldier CONTRASTS vividly with the background. Signal: Note how the camouflaged soldier replacing the un-camouflaged soldier, once

in position is very difficult to detect due to the effectiveness of MTP and the additional foliage breaking up the outline of their helmet. If they make a sudden movement they will attract attention and give away their position. Signal and direct the spectators attention to the sudden movement and point out: That sudden movement could have lost the soldier their life and given away the position of the section. If the soldier has to move they must do it slowly, so watch very carefully. Signal and give the spectators time to observe the slow movement and then say: Note how the slower movement is very much more difficult to attract, and indeed if observation had not been directed to the soldiers position the chances are they would not have been seen. They will have a closer look at those camouflaged soldiers in a moment. Give the signal for these demonstrators to close to the spectator's location.

8-18 **Artificial Aids (Phase 1).** The NCO demonstrator takes up a position at the table in front of the class. Draw the spectators' attention to the table and explain: There are certain artificial aids which are available for personal camouflage, and the main aspects requiring camouflage are SURFACE and SHAPE. The NCO demonstrator will show and point out: These aids are:

- a. **Combat Helmet.** The combat helmet is issued with a camouflaged cover and an elasticated harness. The shape becomes more natural with foliage attached to the harness, this breaks up the distinctive shape and the brim line. Add foliage to suit the surroundings and change it as the surroundings change. Take care not to impair the operation of HMNVS if fitted.
- b. **Face and Hands.** The surface has to be camouflaged. If camouflage cream is not available use mud or burnt cork to dull the surface.
- c. **Rifle.** The rifle is coloured green and black to assist with camouflage. There should be no further requirements for camouflage however special circumstances may deem it necessary, if so ensure the working parts and the sight of the rifle is not impaired.

8-19 **Camouflaged Demonstrators (Phase 1).** The three demonstrators in the first half of the demonstration having arrived back at the spectators location wait until the above is finished, and then move in front of the class. Direct the spectator's attention to these soldiers and state: We will now discuss each of them in turn:

- a. **Too Little.** This is the soldier who was easily detected, slightly left and in the open. The surface of the face, hands and helmet are not camouflaged. They are wearing non-disruptive clothing (plain green coveralls) and a helmet with no cover. The outline of their equipment has not been considered.
- b. **Too Much.** This is the soldier who could not be detected in front of the trees near the helmets. The equipment is camouflaged so much that they cannot easily get at his magazines in the pouch. The rifle is unnecessarily camouflaged and will prevent the working parts from moving freely. They may be invisible to the enemy but is of no use as a soldier as they cannot fight.

c. **Just Right.** This is the soldier who changed places with 'Too Little' during the demonstration has observed all the rules.

8-20 Turn the soldiers about and discuss the camouflage from the rear as follows:

a. **Too Little.** No attempt to break the surface of the equipment. The shape of the shoulders is easily seen. The face and hands are not cammed so reflect light, show up easily and are not disrupted.

b. **Too Much.** Could not get at the water bottle, ammo pouches or bayonet although they are all under there, somewhere. Would find it difficult moving through close country silently and cannot operate their weapon.

c. **Just Right.** Note the use of camouflage to cover the helmet and break up the outline of the daysack/bergen side pouches. There is nothing to interfere with getting to magazines or water bottle.

Narrative and Phase 2 of the Demonstration

8-21 **Concealment (Phase 2).** Having completed Phase 1 of the demonstration instruct the spectators to look up and search the arc carefully. Explain: Concealment remember is making the best use of cover without sacrificing fields of fire. You have observed a number of correctly camouflaged soldiers who are clearly visible, this is due to bad concealment. Direct the spectators to look quarter left: This soldier made the mistake of pausing in a gap to observe, he is therefore silhouetted against contrasting background. There is another soldier concealed very close and can observe just as much. I will get them to wave their hand to indicate their position. Signal and the demonstrator is to wave.

8-22 Instruct the spectators to look slightly left 100 metres to a lone bush and explain: This soldier unfortunately has selected an isolated piece of cover, which makes it so much easier to search for them, locate and indicate the position. Instruct the spectators to now look slightly right to the area of the low brick wall and continue: The soldier behind this wall is very visible because of breaking the straight line along the top of the wall. Remember when observing from this type of cover, you must look around it and not over it. There is another soldier doing just that and I will get to wave a hand to indicate their position. Signal and ensure the demonstrator waves. Now direct the spectators to look in the area of the bushes slightly left and explain: This soldier although using a different type of cover is making a similar mistake to the last one. The soldier can observe just as well by kneeling down and looking through, as opposed to over the bushes. One soldier has been observing our position throughout the whole demonstration. The soldier is concealed by clever use of SHADOW. I will get them to move from their position and then back into position. Ensure the spectators are observing within the given arc, signal to move the demonstrator forward and then back to his position.

8-23 Once the soldier has returned to the shadows explain: That completes this small demonstration on camouflage and concealment. The skills you have seen are vital for the survival of the soldier in battle. Remember they must be correctly camouflaged and:

- a. Look through and not over cover.
- b. Look around cover if you can not look through it (use a lightweight periscope if possible).
- c. Avoid isolated cover.
- d. Avoid breaking a straight line.
- e. Consider the effect of background contrast.
- f. Use shadow.

8-24 Give completion signal for the demonstrators to return to the spectators location. Give instructions to class for dispersal.

Conclusion

8-25 **End of Lesson Drill for Demonstrators.**

- a. *Normal safety precautions.*
- b. *Pack kit.*
- c. *Summary. To include the overall success of the demonstration and any weak points noted.*

8-26 - 8-29 Reserved.

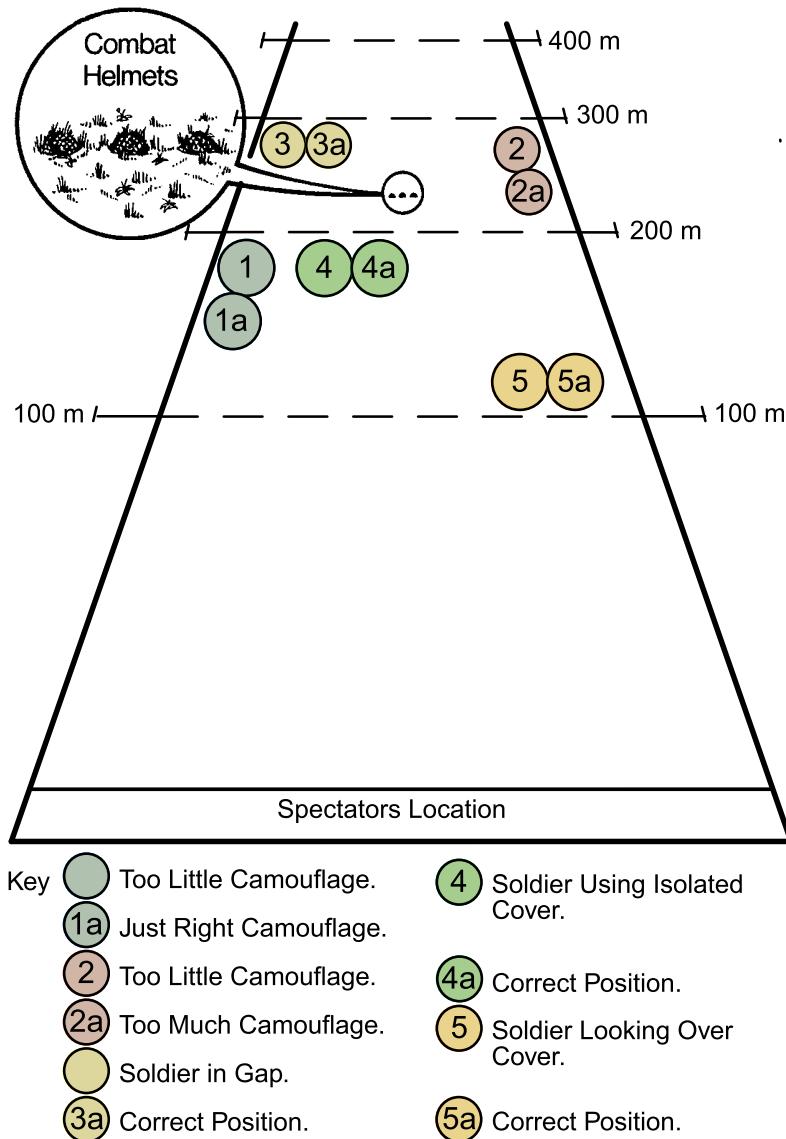


Fig 8-1. Suggested Layout for Demonstration No. 1
(Personal Camouflage and Concealment)

Demonstration 2. Observation

8-30 **Aim.** This demonstration aims to bring to life what is contained in Chapter 3 (Awareness, observation and concealment). Specifically, it demonstrates the best use of the eyes to locate and identify objects.

8-31 **Timings.** Two 40 minute periods.

8-32 **Method.** An outdoor demonstration.

8-33 **Stores.**

Rifle fitted with sight and sling	1 per soldier and demonstrator
Magazine	1 per soldier and demonstrator
LMG fitted with sight and sling	1
Magazine	1
PRRs	1 per instructor and demonstrator
Pick	1
Shovel	1
Wire cutters	1
Metal pickets and white mine tape for Spectators enclosure	As required
Lectern	1
Loud hailer/PA system	1
Sledge hammer	1

8-34 **Personnel.** One NCO to act as demonstrators, dressed in Patrol Order.

8-35 **Preparation.**

a. Recce the training area to be used and select:

(1) Central stand for the spectators.

(2) The position of each common military item to be demonstrated (see Fig 8-2).

b. Position the common military items at the respective ranges. Draw a sketch map indicating where the items are and produce answer sheets for the soldiers to fill in during the demonstration.

c. Rehearse the demonstration fully.

d. Determine the best method of controlling the demonstration, i.e., either by using the loud hailer/PA system or via PRR.

8-36 *Miscellaneous.*

- a. *Confirm the actions required of the demonstrator before positioning.*
- b. *This demonstration can be shown to a number of squads , but it is best suited for a single squad*

Preliminaries**8-37 *Safety Precautions. Normal.*****8-38 *Revision. Nil. Indicate the arc for the demonstration.*****Narrative and Phase 1 of the Demonstration**

8-39 Order the spectators to line off in the spectators area and explain: It is extremely important that each soldier knows how best to use their eyes to locate and identify equipment and signs that will alert you to the enemies presence. There are various viewing devices which enhance locating the enemy but it is also important to understand how well you can operate without them and the need to develop the body's natural senses.

8-40 Signal the start of Phase 1, and instruct the spectators to search the arc to try and locate the common military items. Whilst they are doing this point out:

- a. That movement is very quickly spotted.
- b. How objects are dark, especially in front of sparse or light foliage, therefore be aware of the effect of different backgrounds.
- c. Remember small or dim objects are extremely difficult to see so that techniques of off-centre vision and scanning should be used. At this stage pause and instruct the spectators to practice these techniques.
- d. Pause and instruct the spectators to take up a proper fire position and explain: As the profile of the soldier becomes level with the terrain the ability to identify objects is lessened. Order the spectators to aim at different objects within the arc using their Lightweight Day Sights and to note these changes.

8-41 Get the spectators to stand up. Explain: That is the end of Phase 1 of the demonstration and it will have emphasised to you the importance of being able to adapt your searching and scanning techniques.

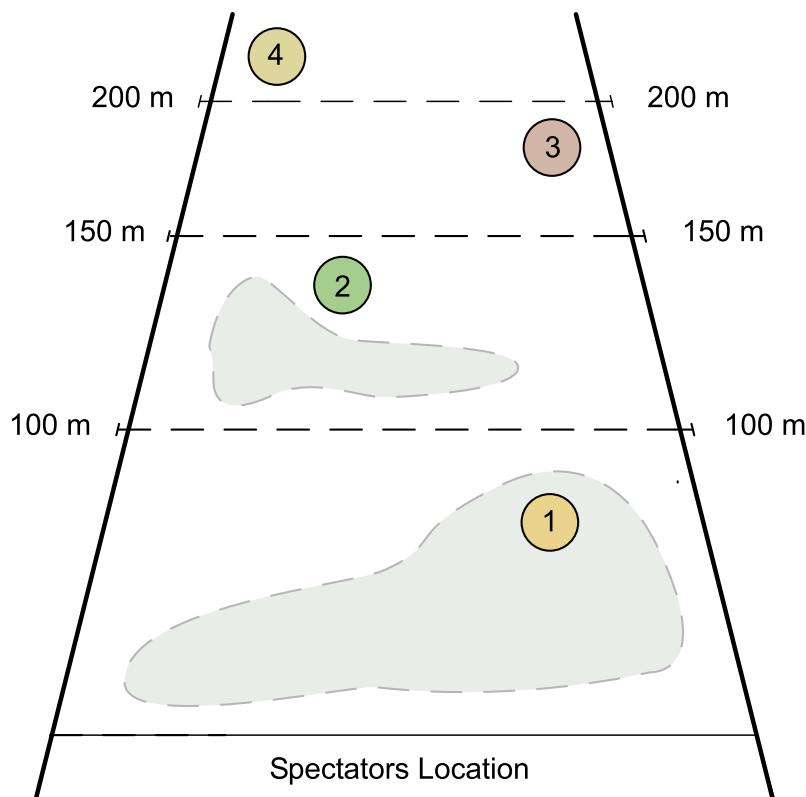
8-42 Get the demonstrator to reveal himself from cover move to each common military item and hold them up, re-placing them back into position ready for the next demonstration.

Conclusion

8-43 End of Lesson Drills for Demonstrators.

- a. *Normal safety precautions*
- b. *Pack kit.*
- c. *Summary. To include for the demonstrators, success or weak points if any on the demonstration. Collect in and mark the soldiers answer sheets and discuss scores.*

8-44 - 8-49 Reserved.



- Key**
- (1) Small common military items x 6
 - (2) Medium sized military items x 4
 - (3) Demonstrator camouflaged in cover
 - (4) Poncho set up partially obscured

Fig 8-2. Suggested Layout for Demonstration No. 2
(Observation)

Demonstration 3. Observation At Night

8-50 **Aim.** This demonstration aims to bring to life what is contained in Chapter 3 (Awareness, observation and concealment). Specifically, it demonstrates the best use of the eyes and ears to locate and identify sounds and actions by night, enables the soldier to understand biological night vision and introduces him to value of Image Intensification and Thermal Imaging.

8-51 **Timings.** Two 40 minute periods.

8-52 **Method.** A night time demonstration, to start 30 minutes before dusk.

8-53 **Stores.**

Rifle fitted with sight and sling	1 per soldier and demonstrator
Magazine	1 per soldier and demonstrator
LMG fitted with sight and sling	1
Magazine	1
HMNVS	1 per soldier and demonstrator
FIST Thermal Imager	2 per squad
LED Head torches (red mode)	As required
PRRs	1 per instructor and demonstrator
Pick	1
Shovel	1
Wire cutters	1
Metal pickets and white mine tape for Spectators enclosure	As required
Lectern	1
Loud hailer/PA system	1
Sledge hammer	1

8-54 **Personnel.** One NCO and five soldiers/instructors to act as demonstrators, dressed in Patrol Order.

8-55 **Preparation.**

a. Recce the training area to be used and select:

- (1) Central stand for the spectators.
- (2) The position of each incident to be demonstrated (see Fig 8-3).

b. Check the time of dusk on the day before the demonstration, but be prepared to alter timings to suit conditions on the actual night.

c. Nominate each demonstrator to an incident, and allocate stores accordingly.

- d. *Rehearse both phases of the demonstration fully the night before.*
- e. *Determine the best method of controlling the demonstration, i.e., either by using the loud hailer/PA system or via PRR. Torch flash signals can be arranged as a back-up.*

8-56 **Miscellaneous.**

- a. *Confirm the actions required of each demonstrators before sending them out to their positions.*
- b. *This demonstration can be shown to a single squad, but it is best suited for a number of squads, so the instructors can be used as demonstrators.*

Preliminaries

8-57 **Safety Precautions. Normal.**

8-58 **Revision.** *Nil. Indicate the arc for the demonstration.*

Narrative and Phase 1 of the Demonstration

8-59 Order the spectators to lie down and explain: It is extremely important that each soldier knows how best to use their eyes and ears to locate and identify sounds and actions by night. There are various night viewing devices which enhance locating the enemy at night but it is also important to understand how well you can operate without them and the need to develop the body's natural senses.

8-60 Signal the start of Phase 1, and instruct the spectators to search the arc to try and locate the enemy. Whilst they are doing this point out:

- a. That movement is very quickly spotted.
- b. How objects at night are dark, especially in front of sparse or light foliage, therefore be aware of the effect of different backgrounds.
- c. Remember small or dim objects are extremely difficult to see at night so that techniques of off-centre vision and scanning should be used. At this stage pause and instruct the spectators to practice these techniques.
- d. Continue and make the spectators note:
 - (1) The ranges to prominent objects.
 - (2) The skylines and prominent silhouettes.
 - (3) How as dusk turns to night, colours fade and become shades of grey.
 - (4) How landmarks once prominent appear to change shape, so reference points at night have to be selected with great care.
 - (5) As it becomes darker so does it become more difficult to judge distance.

e. Pause and instruct the spectators to take up a proper fire position and explain: As light fails the difference in the 'sight picture' will change. Order the spectators to aim at different objects within the arc using their Lightweight Day Sights and to note these changes.

8-61 As dusk is almost failing signal the end of Phase 1 and instruct the spectators to stand up. Explain: That is the end of Phase 1 of the demonstration and it will have emphasised to you the importance of being able to adapt your night vision, so that you can still operate effectively at night. Do remember:

- a. The eyes night cells are very sensitive to light, so protect them if necessary.
- b. Night adaptation for the eyes takes at least 30-45 minutes.
- c. Darkness will play tricks with your vision unless you practice the lessons you have been taught.

8-62 As the summary to Phase 1 is being explained to the spectators, the demonstrators move into position for Phase 2.

Narrative and Phase 2 of the Demonstration

8-63 When completely dark signal the start of Phase 2 and explain: Identifying sounds at night requires a good deal of practice. The technique of half opening the mouth and turning an ear towards the sound will help, as the mouth will act as a resonator. If a moving object cannot be seen and the noise is not obvious, putting an ear to the ground will give a indication of movement within a certain distance. Do not cover your ears at night, as this would be the same as a blindfold over the eyes during the day. Instruct the spectators to observe the arc and explain: In the arc several incidents will be demonstrated separately, try and determine:

- a. How many people are involved?
- b. What they are doing.
- c. Their direction and range.

8-64 *Explain:* After you have determined each incident I will repeat and then declare it. Instruct the spectators to observe and listen.

8-65 Signal for the first incident and give spectators time to listen and then inform the spectators: LISTEN AGAIN. Signal for the incident to be repeated, pause and declare: There were two people involved, they were digging, and were slightly left of arc, at a range of about 150 metres. Now allow the spectators to view using their HMNVS and, in turn with a FIST TI. Discuss how effective they are.

8-66 *Instruct the spectators to listen out for the second incident.*

8-67 Signal for the second incident and give the spectators time to listen - pause and instruct the spectators: LISTEN AGAIN. Signal for the incident to be repeated - pause and declare: Again two people, both slightly left at about 150 metres, one was loading the rifle, . At this stage remind the spectators to practice the techniques of night observation and hearing which they have been taught. Again, allow the spectators to view using their HMNVS and, in turn with a FIST TI. Discuss how effective they are.

8-68 *Then instruct them to listen out for the third incident.*

8-69 Signal for the third incident and give spectators time to listen – pause and instruct the spectators: LISTEN AGAIN. Signal for the incident to be repeated –pause and declare: That was a person cutting wire using wire cutters, they were half right at about 140 metres. It was not easy. Now allow the spectators to view using their HMNVS and, in turn with a FIST TI.

8-70 *Instruct the spectators to listen out for the fourth incident.*

8-71 Signal for the fourth incident and give spectators time to listen – pause and instruct the spectators: LISTEN AGAIN. Signal for the incident to be repeated –pause and declare: That was reasonably obvious, a person on the axis at about 250 metres lighting a cigarette and smoking it. Notice how even the glow of a cigarette is very easily seen, even at 250 metres. Now allow the spectators to view using their HMNVS and, in turn with a FIST TI.

8-72 *Instruct the spectators to listen out for the fifth incident.*

8-73 Signal for the fifth incident and give spectators time to listen – pause and instruct the spectators: LISTEN AGAIN. Signal for the incident to be repeated –pause and declare: That was a person walking on a metal road, slightly left at about 100 metres. Now allow the spectators to view using their HMNVS and, in turn with a FIST TI.

8-74 *Instruct the spectators to listen out for the sixth and last incident.*

8-75 Signal for the sixth incident and give spectators time to listen – pause and instruct the spectators: LISTEN AGAIN. Signal for the incident to be repeated – pause and declare: That was difficult, but it was a person reading with a 'pin' prick of light at about 300 metres. Now allow the spectators to view using their HMNVS and, in turn with a FIST TI. Give the signal for the end of demonstration and for the demonstrators to return to the spectators stand, and inform the spectators: That is the end of this demonstration, remember every soldier must be capable of retaining his effectiveness at night. The lessons taught you so far, and again demonstrated tonight, will enable you to be that effective soldier. Instruct spectators on dispersal and safety precautions.

Conclusion

8-76 End of Lesson Drills for Demonstrators.

- a. *Normal safety precautions for:*
 - (1) *Spectators.*
 - (2) *Demonstrators.*
- b. *Pack kit.*
- c. *Summary. To include for the demonstrators, success or weak points if any on the demonstration.*

8-77 - 8-99 Reserved.

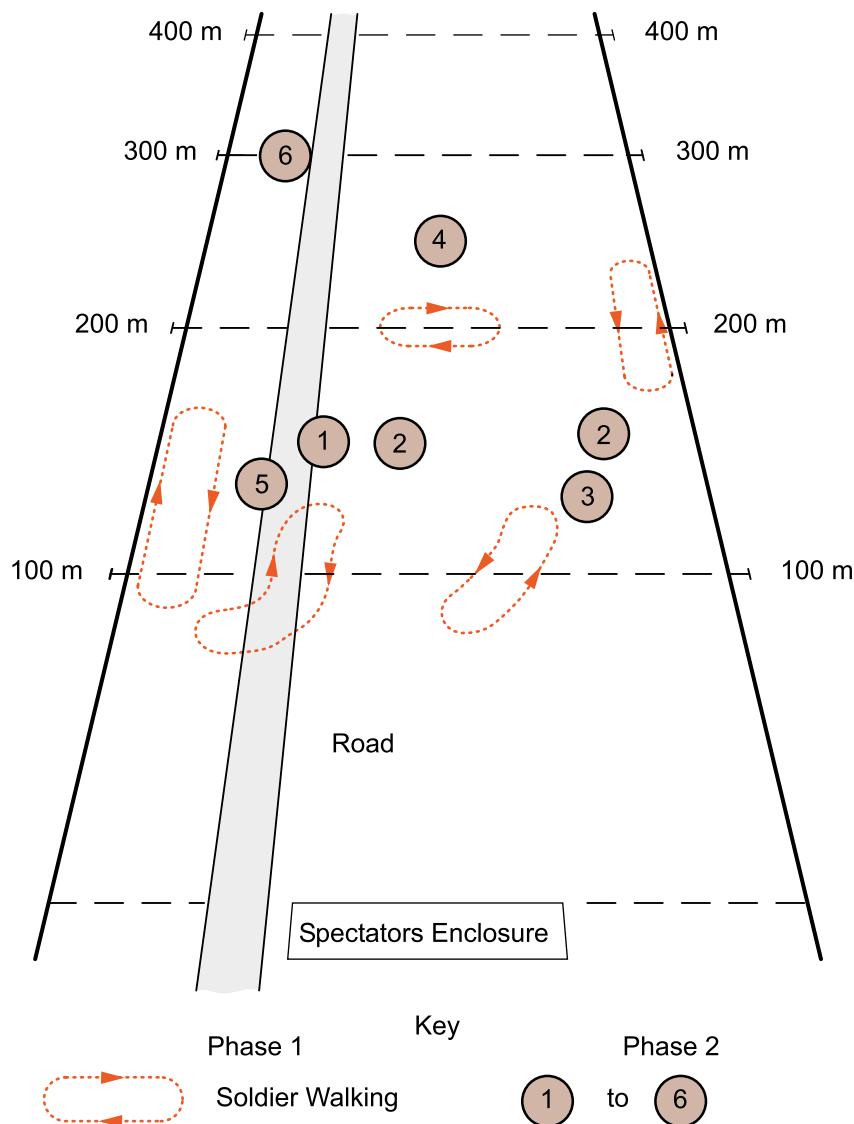


Fig 8-3. Suggested Layout for Demonstration No. 3 (Observation at Night)

Demonstration 4. Judging Distance

8-100 **Aim.** The aim of the demonstration is to teach how to judge distance by using the Unit of Measure and the appearance method.

8-101 **Timings.** Two 40 minute periods.

8-102 **Method.** A basic instructional outdoor demonstration best taught by an officer/ WO or SNCO using NCOs as demonstrators.

8-103 **Stores.**

Rifle fitted with sight or sling	1 per demonstrator
Magazine	1 per demonstrator
Demonstrators	3 (minimum requirement)
Combat helmet complete	1 per demonstrator
Issued body armour	1 per demonstrator
Loud hailer	1
Fig 11 targets (staked)	4
Small flags on sticks	12
100 metre measuring tape	1
Signal flag	1
PRR	As necessary

8-104 **Phase 1 Preparation.**

a. Put out the Fig 11 targets, or demonstrators, each at 100 metres from a central viewpoint, so that they can be seen across different types of ground, open or broken, rising, falling and flat. All the ground from the viewpoint to each target must be visible.

b. Rehearse the demonstrators, preferably immediately prior to the squad arriving. If using a signal flag to control them, rehearse the signals and actions before sending them to their positions.

c. Choose three objects up to 400 metres from the viewpoint and lay a small flag on the ground every 100 metres between the viewpoint and object. Ensure that distances are accurate.

8-105 **Miscellaneous.**

a. A suggested practice is:

(1) Get the squad to look at the figure targets from all firing positions and try to remember what a 100 metres distance looks like.

(2) Order the squad to go to a position 100 metres from a given object. Discuss each soldier's error with him and continue this type of practice until the squad is consistent. Some may regularly over or under estimate, and they must take this into consideration when fitting in their 100 metre units.

(3) Get the squad to judge the distance to each object prepared before-hand, and to explain how they fitted in their units. Order one of the soldiers to raise the small 100 metre spaced flag and discuss the results obtained.

(4) Get each squad member to count their paces over a measured 100 metre stretch on varying types of ground. Doing this will obtain their 'own pace' which can then be used on patrol or when map reading.

b. It is important that having been taught this method, soldiers are practiced in its use at every opportunity during rest periods and in barracks.

8-106 Phase 2 Preparation.

a. Prepare a range card of the area and include soldiers and items of military equipment at ranges up to 100 metres.

b. Position demonstrators at 100 metre intervals up to 600 metres for the first demonstration and tell them their position for the practice. If a gallery range is available, put the demonstrator on, or in line with the firing points. Rehearse the demonstrators, preferably immediately prior to the squad arriving. If using a signal flag to control the demonstrators, rehearse the signals and actions before sending them to their positions.

c. Select objects which will demonstrate most clearly the conditions that make objects seem closer or further away. This is best done immediately prior to the arrival of the squad, so that there is less chance of light conditions changing.

d. Prepare a suitable visual aid listing the detail in the 'Conditions Affecting Appearance' paragraph.

8-107 Miscellaneous.

a. Using demonstrators show what an individual soldier looks like at ranges up to 600 metres in the standing, kneeling and lying positions.

b. Set a time limit for each problem.

Preliminaries

8-108 **Safety Precautions. Normal.**

Introduction

8-109 *Explain:* In order to locate an enemy's position and engage him with fire, the soldier has to judge distance accurately. There are several methods of judging distance and this demonstration deals with the 'Unit of Measure' and the 'Appearance' method.

The Unit of Measure

8-110 *Explain:* The Unit of Measure method is as follows:

- a. Provided that all the ground between the soldier and the object is visible, use can be made of any unit of measure familiar to the soldier. This may be the length of a football pitch etc., but must be a unit with which the soldier is very familiar. If no particular unit is familiar to the soldier, they should become trained to recognise a unit of 100 metres.
- b. Estimate how many units of the familiar length can be fitted in between the position and the object to which the distance is required. A simple multiplication should give a figure which can be used as an estimate of the distance. This method is not reliable at distances in excess of 400 metres.

Appearance Method

8-111 *Explain and demonstrate:*

- a. The amount of visible detail of a soldier at various ranges gives a good indication of the distance they are away.
 - (1) At 100 metres — clear in all detail.
 - (2) At 200 metres — clear in all detail, colour of skin and equipment identifiable.
 - (3) At 300 metres — clear body outline, face colour good, remaining detail blurred.
 - (4) At 400 metres — body outline clear, remaining detail blurred.
 - (5) At 500 metres — body begins to taper, head becomes indistinct.
 - (6) At 600 metres — body now wedge shaped, no head apparent.
- b. It is useful to know the amount of foresight or pointer that will cover a soldier for ranges up to 600 metres. Practice the squad in this for 300 and 600 metres.

- c. The x4 Sight Unit Small Arms Trilux (SUSAT), Lightweight Day Sight (LDS) sight magnification gives the target more definition, therefore it is important for the firer to know what a soldier will look like at ranges from 100 to 600 metres. Allow the squad to note these differences.

Conditions Affecting Appearance

8-112 Move the demonstrators to the second location then using the prepared visual aid, explain and demonstrate:

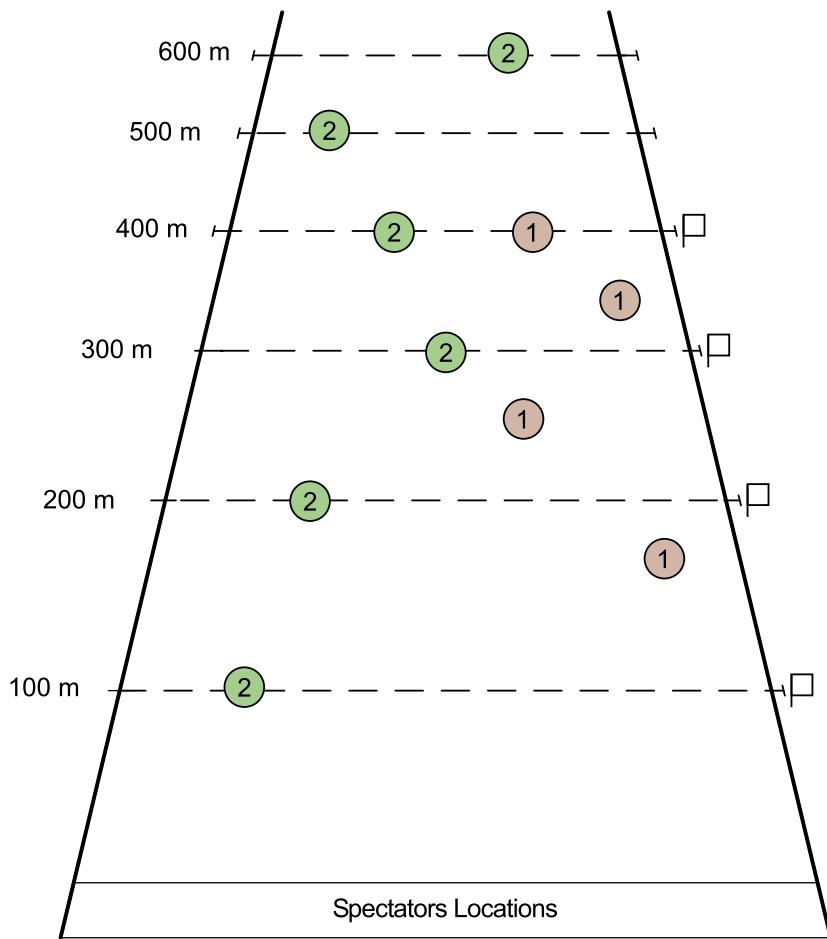
- a. Objects seem closer than they are when:
 - (1) The light is bright or the sun is shining from behind the observer.
 - (2) They are bigger than the other objects around them.
 - (3) There is dead ground between them and the observer.
 - (4) They are higher up than the observer.
- b. Objects seem further away than they are when:
 - (1) The light is bad or the sun is in the observer's eyes.
 - (2) They are smaller than the other objects around them.
 - (3) Looking across a valley or down a street.
 - (4) The observer is lying down.

Conclusion

8-113 **End of Lesson Drills for Demonstrators.**

- a. *Normal safety precautions for:*
 - (1) *Spectators.*
 - (2) *Demonstrators.*
- b. *Pack kit.*
- c. *Summary. To include for the demonstrators, success or weak points if any on the demonstration.*

8-114 - 8-119 Reserved.



Key ① Phase 1 Demonstrators' Position

□ Flags indicate 100m intervals

② Phase 2 Demonstrators' Position

Fig 8-4. Suggested Layout for Demonstration No. 4 (Judging Distance)

Demonstration 5. Locating The Enemy By Fire – Day (LIVE FIRING)

8-120 **Aim.** The aim of the demonstration is to show how the enemy is located during daylight by fire. This is a key skill on operations, as the quicker you can identify the enemy's location, the quicker you can bring effective fire to bear on him whether that is direct or indirect. It is a particularly useful demonstration for soldiers under training who are very unlikely to have been under fire in combat prior to joining the Army.

8-121 **Timings.** One 40 minute period.

8-122 **Method.**

a. A live firing demonstration conducted by day on a Live Fire Tactical Training (LFTT) Area.

b. It should be a central demonstration, taken by an officer, using NCOs as demonstrators.

8-123 **Stores.**

Rifles fitted with sights and slings	4
Magazines	As required
7.62 mm GPMGs on tripods	2

Dress: All personnel are to be dressed in accordance with the requirements of Reference C for LFTT.

Ammunition:

a. 5.56 mm ball) As
b. 7.62 mm belted ball) required

Flags:

a. Large (White/blue/green/yellow/black)	1 each
b. Small (White)	6
c. Range (red on poles)	6

Demonstration chart

Demonstration layout (Fig 11-3)

Medical cover (ambulance)

*Metal pickets and white mine tape
for spectators enclosure*

As required

Lectern

1

Binoculars (for spectators)

As available

Loud hailer or PA system

1

PRRs

As required

Shovels

2

Sandbags (filled)

10

8-124 *Personnel.*

- a. *Conducting officer/commentator.*
- b. *One NCO as flag controller.*
- c. *Five instructor demonstrators dressed in Fighting Order.*
- d. *One medical orderly with ambulance.*

8-125 *Preparation.*

- a. Recce the LFTT area and decide on the locations for weapons and spectators enclosure (see Fig 8-5).
- b. Any rifle used for this demonstration must have a sighting system capable of complying with the rules laid out in the relevant section of Reference A.
- c. ALL weapons must be sited, arcs and elevations checked by the officer in charge of the demonstration. Conducting officers must ensure they read and comply fully with the safety rules set out in the relevant section of Reference A.
- d. At least one 40 minute period is necessary for a complete rehearsal of the demonstration, which if possible should take place prior to the demonstration.
- e. Signals must be clear and tested during the rehearsal. Each demonstrator should have a copy of the demonstration chart, (which can be found at the end of this lesson) and the demonstration layout (see Fig 8-3).
- f. Each demonstrator is to have a red flag which is to remain up in position until the order to load is given.
- g. Ensure that all the demonstrators fully understand the safety regulations for flanking fire, the safety rules and signal to cease firing in the event of an accident.
- h. GPMGs and tripods are to be inspected and gauged by an armourer in accordance with current EMERs and a certificate rendered to this effect. (See the relevant section of Reference A.)

8-126 *Miscellaneous.*

- a. The position of demonstrators may have to be modified to suit local field firing areas, but the safety regulations are NOT to be altered.
- b. Single shots are achieved with the GPMG by loading with one round of 7.62 mm ball in a link. Care must be exercised to ensure that each round is placed on the feed tray fully up against the cartridge stop and remains there are the top cover is closed.

c. Demonstrators must have 'eyeball' contact with the 'flag' controller. If the weather closes in the demonstrators must if loaded, automatically unload and make safe and await further orders, either physically, or over the PA system. PRRs may be used to give the orders but it is recommended that the Flag system also be retained as a back-up.

Preliminaries

8-127 Safety Precautions. *Normal for the demonstrators only, to be completed prior to the spectators arrival.*

8-128 Revision. *If time permits question the squad on the method and aids to judging distance, prior to arrival at the demonstration area.*

8-129 Arrival. Ensure:

- a. That the spectators know that they must not move out of the 'marked enclosure'.
- b. That safety rules in the event of an accident are known.
- c. That the spectators are familiar with the ground, point out that the red flags are the firing positions, and that the demonstration is live.
- d. That after each incident/phase the spectators will be given an explanation.

Narrative and Phases of the Demonstration

8-130 Introduction and Phase 1. (Three single shots from 300 metres from the rifle). Once the preliminaries have been completed explain: The area in which the enemy is concealed can often be located if they fire a shot. How can this be done? When a bullet travels through the air it displaces the air around and behind it. The space created behind the bullet is immediately closed, making a noise like the crack of a whip. This 'crack' tells us very little. It does not tell us where the bullet is going or where it has come from. Signal the demonstrator for Phase 1 to load and prepare to fire. I will now demonstrate this to you, listen out for the 'crack'. Signal the demonstrator for Phase 1 to fire three deliberate shots from 300 metres PAUSE and continue: Three very distinct 'cracks' which might have come from anywhere.

8-131 Phase 2. (Three shots from 300 metres from the rifle). Explain: The explosion, when the round is being fired in the weapon makes a dull thud or thump. This 'thump' gives a good indication to the direction from which the weapon is being fired. Signal the demonstrator for Phase 2 to prepare to fire: Listen again and concentrate on the 'thump' which follows the 'crack'. Signal the demonstrator for Phase 2 to fire three deliberate shots from 300 metres PAUSE and then explain: We now have a good idea from the 'thump' as to where the enemy is, and the next stage is to find out how far away they are. A knowledge of the following facts will help:

- a. A bullet in its first second of flight travels approximately 600 metres.
- b. Sound travels at approximately 300 metres per second.

8-132 Based on these facts, if a shot were fired from 600 metres away, the 'crack' travelling at 600 metres per second would be heard one second later. The 'thump' travelling at 300 metres per second would take two seconds. Therefore a delay of one second between the 'crack' and the 'thump' places the enemy about 600 metres away. By a similar calculation a delay of half a second between the 'crack' and the 'thump' means the shot is fired from about 300 metres away.

8-133 **Phase 3.** (Three single rounds from 600 metres from a GPMG). The next difficulty, which can only be overcome by practice, is to be able to distinguish the differences between fractions of a second. Signal the demonstrator for Phase 3 to load and prepare to fire: Listen to this weapon which will illustrate the difference in the delay between 'crack' and 'thump'. The weapon is 600 metres away. Signal for the demonstrator for Phase 3 to fire three single rounds with the GPMG at 600 metres – PAUSE – and continue. It is very difficult, so I will get two weapons, one at 300 metres and the other at 600 metres, to fire alternatively to illustrate the different delay at these two ranges. Signal the demonstrators for Phase 4 to load and prepare to fire.

8-134 **Phase 4.** (Three shots from 300 metres from a rifle, three single shots from 600 metres from a GPMG alternatively). Listen very carefully. Signal the demonstrator to open fire. Then remark – between the shots: Three hundred, half a second, or six hundred, one second. On completion of firing continue: It is not a very easy thing to do to distinguish between, what after all is a fraction of a second. It will require practice. Signal the demonstrator for Phase 5 to load and prepare to fire.

8-135 **Phase 5.** (Three bursts from 600 metres from a GPMG). Explain: The GPMG is slightly more difficult to locate when firing automatic. The last 'crack' and the last 'thump' of a burst must be picked out before it is possible to calculate the distance to the weapon. This will now be demonstrated Signal the demonstrator for Phase 5 to fire three bursts of four to five rounds from 600 metres – PAUSE – and state: I think you will agree that the 'cracks' and 'thumps' tend to merge into one, so it is important to pick out that last 'crack' and that last 'thump'.

8-136 **Order the spectators to turn about and face you.** Signal the demonstrator to move to new locations for the next part of the demonstration and explain: 'Crack' and 'thump' gives the general area in which the enemy are concealed. However, to find the exact location, the other visual training lessons which you have been taught must be applied. Remember, first judge the distance to the enemy area, secondly search systematically and thoroughly to pierce their camouflage, and thirdly once the target is found indicate it to the section commander. Order the spectators to turn about and face the front. Signal the demonstrators for Phase 6 to load and prepare to fire.

8-137 **Phase 6.** (All rifles and all GPMGs firing until stopped). Describe the battle setting to the squad: You are a member of the point section advancing. When you reach your present position the enemy opens fire. Signal the demonstrator for Phase 6 to open fire – PAUSE – and explain: It is obvious that when several weapons are firing at the same time it is difficult to pick out the ‘crack’ and ‘thump’ of individual weapons. This can only be mastered after a great deal of practice. Each enemy position will now open fire in turn, try and locate which weapon is firing. Signal the demonstrators for Phase 7-11 to load and prepare to fire.

8-138 **Phases 7-11.** Described in the Demonstration Chart. Explain: After each weapon has fired I will pause so you can deliberate. I will then get the enemy soldier to stand up and wave a red flag, and I will then tell you what weapon they were firing and from what range. If I think you have not got the answer I will order the enemy soldiers to fire again. Are you ready? “Watch and listen”. Signal the demonstrators in turn to carry out Phases 7-11. Whilst you carry out the above procedure, be prepared to repeat if necessary.

- a. Signal Phase 7, rifle, 300 metres, fires three rounds. Shot – Pause – Shot – Pause – Shot – Pause. Signal enemy to stand up wave red flag. Then give the weapon and the range.
- b. Signal Phase 8, GPMG, 500 metres, fires three bursts. Then give the weapon and the range.
- c. Explain: Listen very carefully to the next shot.
- d. Signal Phase 9, rifle, 140 metres, fires one round. Then give the weapon and the range. Note: Phase 9 is nearly always required to be repeated.
- e. Signal Phase 10, GPMG, 600 metres, fires three single rounds, one after the other. Then give the weapon and the range.
- f. Signal Phase 11, rifle, 200 metres, fires three rounds. Then give the range and the weapon.

8-139 **Phase 12.** All rifles and GPMGs firing until stopped. Signal the demonstrators for Phase 12 to get back into position, load and prepare to fire and explain: Having now had the practice in locating these enemy positions individually, let us again remind ourselves what it is like to have all the weapons firing. Try finally to detect each weapon. Signal the demonstrators for Phase 12 to open fire – PAUSE – signal the demonstrators to stop firing, unload, check weapons and return to the spectators stand and summarise: That is the end of this demonstration, and it must be clear to you now, that much practice is needed before you become proficient at locating the enemy by their fire.

Conclusion

8-140 **End of Lesson Drills for Demonstrators.**

- a. *Dispersal instructions for the spectators.*
- b. *For the demonstrators.*
 - (1) *Normal safety precautions.*
 - (2) *Pack kit.*
 - (3) *Summary. To include any good or bad points from the demonstration.*

8-141 - 8-149 Reserved.

DEMONSTRATION CHART

Serial	Phase	Weapon	Fire	Position	To Demonstrate	Signal	Action	Remarks
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	One	Rifle (a)	3 rds	300 m in open	The 'crack'	BLUE flag – 1 wave	Load, prepare to fire	
2		"	"	"	"	BLUE flag – 2 waves	Fire, 3 deliberate shots	Unload
3	Two	Rifle (a)	3 rds	300 m in open	The 'thump'	BLUE flag – 3 waves	Load, prepare to fire	
4		"	"	"	"	BLUE flag – 4 waves	Fire 3 deliberate shots	Unload
5	Three	GPMG (a)	3 rds (single)	600 m in open	The difference in 'crack' and 'thump' at 600 m	GREEN flag – 1 wave	Load, prepare to fire	
6		"	"	"	"	GREEN flag – 2 waves	Fire 3 single shots	Unload
7	Four	Rifle (a) GPMG (a)	3 rds 3 rds (single)	300 m 600 m	The difference in delay between the 'crack' and 'thump' at 300 m and 600 m	BLUE flag – 1 wave followed by GREEN flag – 1 wave	Load, prepare to fire	
8		"	"	"	"	BLUE flag – 2 waves followed by GREEN flag – 2 waves	Fire alternate shots starting with the rifle	Allow time between each shot for commentators remarks i.e., '300 half a second etc. Unload
9	Five	GPMG (a)	3 bursts	600 m	The 'crack and 'thump' with an automatic weapon	GREEN flag – 3 waves	Load, prepare to fire	
10		"	"	"	"	GREEN flag – 4 waves	Fire 3 bursts	Unload

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
11	—	—	—	—	—	WASHOUT WITH WHITE FLAG	Move to NEW POSITIONS: Rifle (a) moves to Rifle (b) position	Spectators will have turned about
12	Six	Rifle (b) (c) (d) GPMG (a) (b)	3 rds 3 bursts	300, 200, 140 m 600, 500 m	Opening fire on advance to contact	WHITE flag – circle once	Load, prepare to fire	
13	“	“	“	“	“	WHITE flag – circle twice	Open fire	Cease firing once rounds and bursts completed. Reload for Phase 7-11
14	Seven	Rifle (b)	3 rds	300 m	To work out which weapon is firing	BLUE flag – 1 wave	Fire	1 & 3 waves could come in that order. Unload before standing up
15						BLUE flag – 2 waves	Stand up wave RED flag, get down	
16						BLUE flag – 3 waves	Repeat	
17	Eight	GPMG (b)	3 bursts	500 m	“	GREEN flag – 1 wave	Fire	See Serial 14
18						GREEN flag – 2 waves	Stand up wave RED flag, get down	
19						GREEN flag – 3 waves	Repeat	
20	Nine	Rifle (d)	1 rd	140 m	“	YELLOW flag – 1 wave	Fire	See Serial 14
21						YELLOW flag – 2 waves	Stand up wave RED flag, get down	
22						YELLOW flag – 3 waves	Repeat	

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
23	Ten	GPMG (a)	3 rds (single)	600 m	To work out which weapon is firing	GREEN flag – 2 waves	Fire	See Serial 14
24						GREEN flag – 3 waves	Stand up, wave RED flag, get down	
25						GREEN flag – 4 waves	Repeat	
26	Eleven	Rifle (c)	3 rds	200 m	"	BLACK flag – 1 wave	Fire	See Serial 14
27						BLACK flag – 2 waves	Stand up, wave RED flag, get down	
28						BLACK flag – 3 waves	Repeat	
29	Twelve	Rifle (b) (c)	3 rds	300, 200, 140 m	Detection of each weapon	WHITE flag – circle twice	Load, prepare to fire	
30		(d) GPMG (a) (b)	3 bursts	500, 600 m	"	"		
31					"	WHITE flag – circle 3 times	Fire	
					"	WASHOUT WITH BLUE FLAG	STOP FIRING: Unload, stand up raise RED flag. SNCOs at GPMG (a) (b). Check weapons on each firing point. Return with kit to spectators stand	

Notes:

1. Each demonstrator must have a copy of this chart.
2. It must be followed in conjunction with:
 - a. The script.
 - b. The demonstration diagram (Fig. XX).
3. The signals can be done by radio if required.
4. The NCO in charge of the signalling must be in a prominent position, next to the commentator.

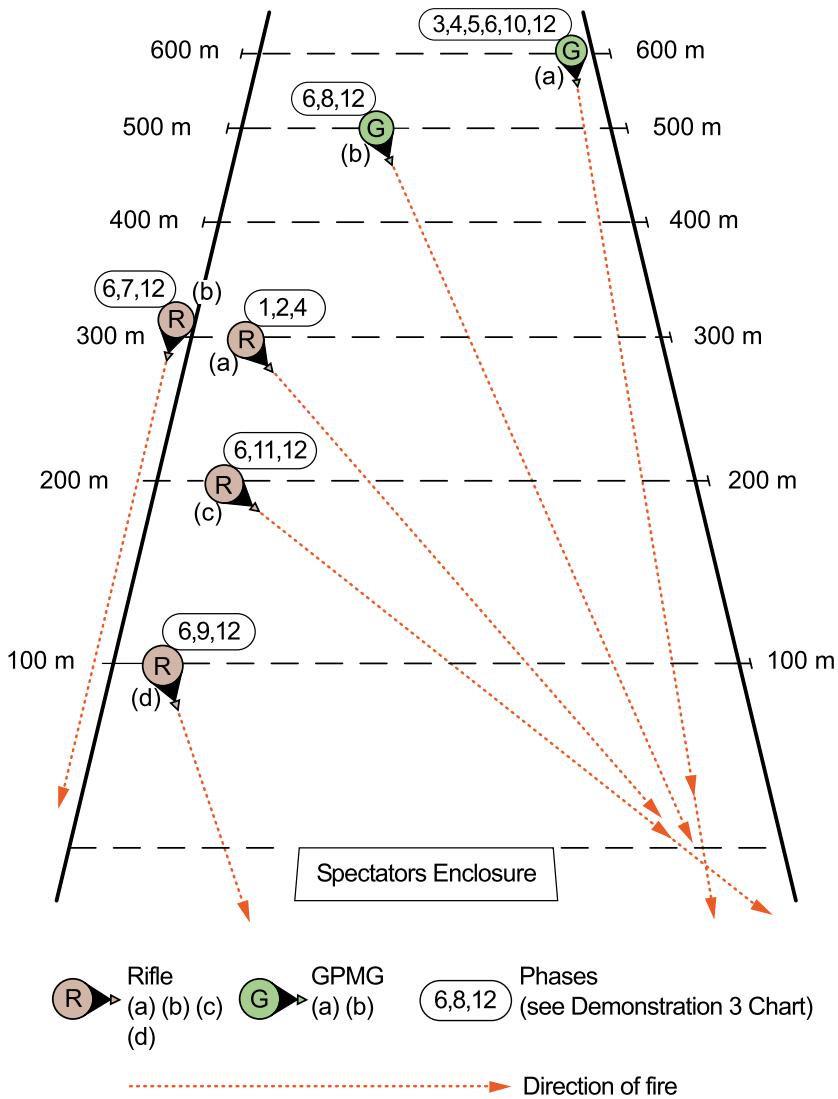


Fig 8-5. Suggested Layout for Demonstration No. 5
(Locating the Enemy by Fire – DAY)

Demonstration 6. Locating The Enemy By Fire – Night (Live Firing)

8-150 **Aim.** The aim of the demonstration is to show how the enemy can be located by fire at night. It will show how difficult this skill is and how much more confusing a contact can be at night. It is another valuable lesson for trainee soldiers.

8-151 **Timings.** One 40 minute period.

8-152 **Method.**

- a. A live firing demonstration conducted at night on a Live Fire Tactical Training (LFTT) Area.
- b. It should be a central demonstration, taken by an officer using NCOs as demonstrators.

8-153 **Stores.**

GPMGs (SF) complete to CES	4 (Armourer's certificates)
Signal Kit Pyrotechnic 16 mm (miniflare)	1
<i>Dress:</i>	
<i>All personnel are to be dressed in accordance with the requirements of Reference A for LFTT.</i>	
HMINVS	1 per spectator
<i>Ammunition:</i>	
a. 7.62 mm Ball	250 186) Sufficient
b. 7.62 mm Tracer	20 2) including
c. 7.62 mm Belted Ball	300 170) a full
d. 7.62 mm Belted Tracer	400 240) rehearsal
e. 16 mm miniflare cartridges	3 (red)
<i>Red lamps</i>	
<i>Sufficient quantity to mark limit of spectators enclosure</i>	
Torches with red filter	5
Torches less red filter	2
Radio PRR	5
Demonstration chart	8 copies
Demonstration layout (Fig 8-6)	8 copies
Medical cover (ambulance)	As required
Metal pickets and white mine tape for spectators enclosure	As required
Loud hailer or PA system	1
Cable D10	1 drum
Shovels	4
Sandbags (filled)	24 (six per gun)

8-154 Personnel.

- a. *Conducting officer/commentator.*
- b. *Four instructors to fire the weapons.*
- c. *Four soldiers to assist in laying out the equipment.*
- d. *Two signallers (with safety link).*
- e. *One medical orderly with ambulance.*

8-155 Preparation.

- a. *Recce the field firing area and decide on the locations for weapons and the spectators enclosure (see Fig 8-6).*
- b. *All weapons must be sited and lines of fire and elevations must be checked by the conducting officer in daylight. Once checked, no alterations are allowed and no weapon is to be left unattended.*
- c. *Conducting officers must ensure they read and comply fully with the safety rules set out in the relevant section of Reference A.*
- d. *At least one 40 minute period is necessary for a rehearsal by day.*
- e. *Communications must be tested during the rehearsal. Each demonstrator should have a copy of the demonstration chart, (which can be found at the end of this lesson) and the demonstration layout (see Fig 8-6).*
- f. *Ensure that all demonstrators fully understand the safety regulations for flanking fire, the safety rules and signal to cease firing in the event of an accident.*
- g. *GPMGs and tripods are to be inspected and gauged by an armourer in accordance with current EMERs and a certificate rendered to this effect. (See the relevant section of Reference A.*

8-156 Miscellaneous.

- a. *Incidents may be modified to suit availability of ammunition.*
- b. *Single shots are achieved with the GPMG by loading with one round of 7.62 mm ball in a link. Care must be exercised to ensure that each round is placed on the feed tray fully up against the cartridge stop and remains there as the top cover is closed.*
- c. *Rifles, LMGs/GPMGs on bipods, or any other weapons which cannot be clamped securely on a pre-determined line are NOT to be fired on any night firing demonstration.*

Preliminaries

8-157 **Safety Precautions. Normal.**

8-158 **Revision.** If time permits question the spectators on the method of locating the enemy by fire by day.

8-159 **Arrival.** Ensure:

- a. That the spectators know that they must not move out of the 'marked' enclosure.
- b. That the safety rules in the event of an accident are known.
- c. That after each incident/phase the spectators will be given an explanation.

Narrative and Phases of the Demonstration

8-160 **Introduction.** Once the preliminaries have been completed explain: In addition to using the 'crack' and 'thump' technique, it is sometimes possible to see the flash of a weapon firing at night. If tracer is fired, this can be used to assist in locating the weapon. However, over-reliance on tracer as a means of location is to be avoided.

8-161 **Phase 1.** All guns to fire 20 rounds in three to five round bursts (belted ball) at the rapid rate. Give the spectators the battle picture of a section advancing at night and that they are met by enemy fire. Signal by radio for Phase 1 to begin. All guns to fire 20 rounds in three to five round burst at the rapid rate using belted ball. Pause and explain: Locating the enemy by their fire at night calls for the use of similar skills to those required when trying to locate him by day. In a moment the weapons will fire individually. When they fire, use the 'crack' and 'thump' technique, look for the muzzle flash and try to determine in each case where it is and the range to it.

8-162 **Phase 2. (Using Ball Ammunition)** Tell the spectators to watch their front. Give the signal to start Phase 2. At the end of the three incidents tell the spectators where it is and the range, then allow them to observe the location with HMNVS:

- a. Gun at 600 metres fired three single rounds.
- b. Gun at 300 metres fired three single rounds.
- c. Guns at 600 metres and 300 metres fired alternate single rounds. Each gun fires three rounds, the one at 600 metres first).

8-163 **Phase 3. (Using Belted Ball)** Inform the spectators that Phase 2 is now complete and go on to explain: Remember that when trying to locate a weapon firing bursts that the last 'crack' and the last 'thump' must be picked out to help determine range. In a moment the same guns will fire so that you can practice this technique. Tell the spectators to watch their front and give the signal to start Phase 3.

- a. Gun at 600 metres fires three 5 round bursts.

- b. Gun at 300 metres fires three 5 round bursts.
- c. Guns at 600 metres and 300 metres fire alternate 5 round bursts. Each gun fires three bursts, 600 metres first).

8-164 At the completion of Phase 3 explain: I think you will agree the technique of picking out the last 'crack' and 'thump' of a burst is extremely difficult. In the next phase the weapon will again fire individually, but this time some will fire single shots, some will fire bursts, and some will use tracer. Try to distinguish the differences and at the end of the phase I will give you the correct answers. Tell the spectators to watch their front and give the signal to start Phase 4. Some guns will fire tracer.

8-165 **Phase 4.** At the end of the seven incidents of Phase 4 explain each incident:

- a. Gun at 600 metres fired a single round using tracer.
- b. Gun at 400 metres fired a single round using ball.
- c. Gun at 300 metres fired a 5 round burst using belted tracer.
- d. Gun at 500 metres fired a 5 round burst using belted ball.
- e. Gun at 400 metres fired a 5 round burst using belted tracer.
- f. Guns at 400 metres and 500 metres fired alternate 5 round bursts, using belted tracer. Each gun fired three bursts starting with the gun at 400 metres.
- g. All the guns fired a 5 round burst using belted ball, in turn starting with the gun at 600 metres.

8-166 *Explain:* Having now practiced locating the weapons when firing individually, all guns will again fire together. How many can be detected this time? Tell the spectators to watch their front and give the signal to start Phase 5.

8-167 **Phase 5.** All guns fire 20 rounds in 3 to 5 round bursts at the rapid rate using belted tracer. Explain: That concludes this demonstration of locating the enemy by their fire at night. In 40 minutes you cannot become experts. It takes time and practice, but this demonstration will have reminded you of the techniques required to locate the enemy at night, and the value of using 'flash' at night and not relying on the enemy using tracer.

Conclusion

8-168 End of Lesson Drill for Demonstrators.

- a. *Dispersal Instructions for the spectators which are not to move until all weapons have been cleared.*
- b. *For the demonstrators.*
 - (1) *Normal safety precautions as applicable to night training.*
 - (2) *Pack kit.*
 - (3) *Summary. To include any good or bad points from the demonstration.*

Phase	Weapon Location (metres)	Action	Ammunition
(a)	(b)	(c)	(d)
1	All	20 rounds in 3 to 5 round bursts at the rapid rate.	Belted Ball
2	a. b. c.	600 300 600 and 300	3 single rounds. 3 single rounds. Alternate single rounds. 3 rounds each. 600 first.
3	a. b. c.	600 300 600 and 300	3 x 5 round bursts. 3 x 5 round bursts. Alternate 5 round bursts. 3 bursts each. 600 first.
4	a. b. c. d. e. f. g.	600 400 300 500 400 400 and 500 All	1 round. 1 round. 5 round burst. 5 round burst. 5 round burst. Alternate 5 round bursts. 3 bursts each. 400 first. 1 x 5 round burst from each gun. 600 first.
5		20 rounds in 3 to 5 round bursts at the rapid rate	Belted Tracer

Notes:

1. Each demonstrator must have a copy of this chart.
2. It must be followed in conjunction with:
 - a. The script.
 - b. The demonstration.
3. Radio is to be used to signal the start of each phase with a telephone back up.
4. The importance of a PAUSE between each incident within the phase.

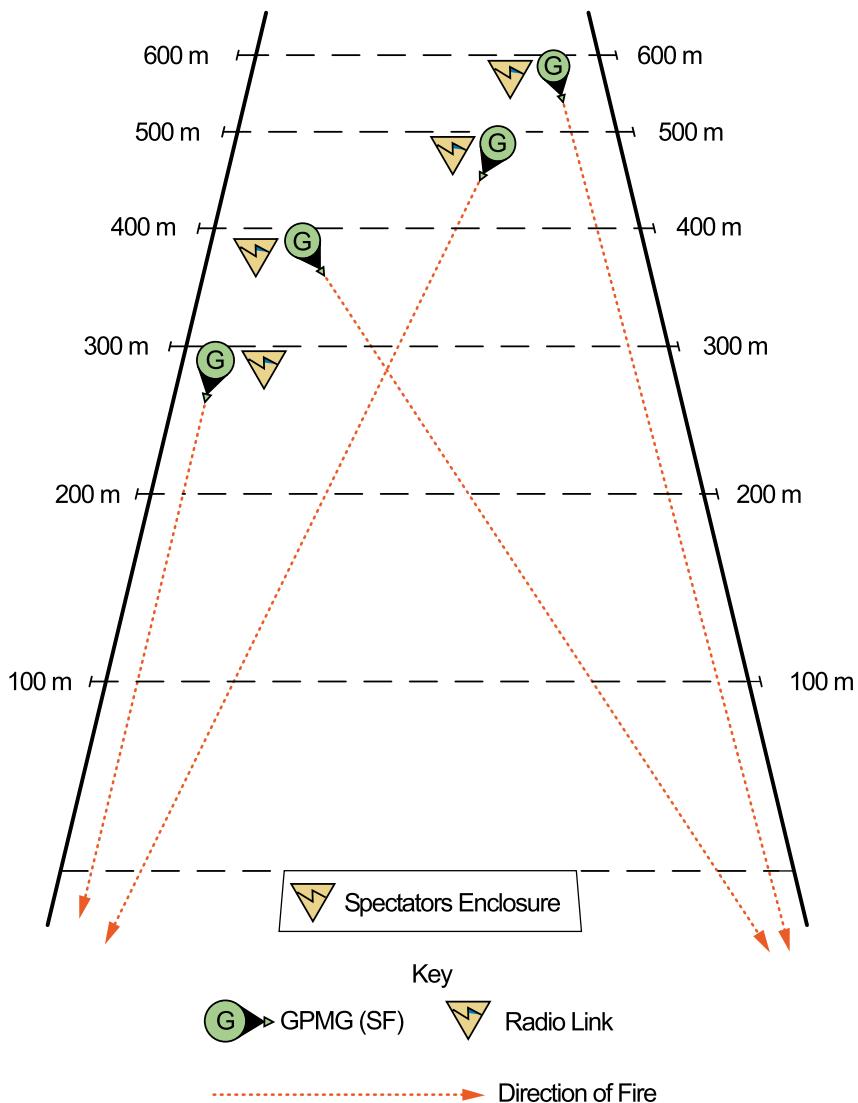


Fig 8-6. Suggested Layout for Demonstration No. 6
(Locating the Enemy by their Fire – NIGHT)

Chapter 9

Theory Of Small Arms Fire

Section 1. Definitions Of Commonly Used Terms

9-01 **Introduction.** A number of terms are in common use in the teaching of the theory of SA fire and must be understood by all (see Figs 9-1 to 9-4).

9-02 **The Axis of the Barrel.** This is an imaginary line down the centre of the bore from breech to muzzle.

9-03 **The Line of Departure.** This is a straight line representing the forward direction of the bullet at the moment of leaving the muzzle.

9-04 **The Trajectory.** This is the curved path taken by the bullet in its flight from rifle to target or to the point of its first graze.

9-05 **The Line of Sight.** This is an imaginary straight line from the firer's eye through the sights, to the POA.

9-06 **The Culminating Point.** This is the greatest height above the line of sight to which the bullet rises in its flight. This point occurs a little beyond half the distance which the bullet travels.

9-07 **Jump.** This is the vertical angle between the axis of the barrel before firing and the line of departure of the bullet.

9-08 **The Angle of Elevation.** This is the angle between the line of sight and the axis of the barrel.

9-09 **Ricochets.** Bullets which are deflected after striking the ground or any other obstacle, and continue in flight, are said to ricochet. Ricochets may occur from any surface but are less likely from soft ground than from hard surfaces. Bullets ricochet freely from water, and from any surface may rise abruptly or deviate considerably to right or left from their original course.

9-10 **The First Catch.** This is the point in the trajectory when the bullet would strike the top of the target.

9-11 **The First Graze.** This is the point in the trajectory when the bullet first strikes the ground.

9-12 **The Dangerous Space.** For any particular range, the dangerous space is the area between the first catch and the first graze (see Fig 9-2). The dangerous space decreases as the range increases, owing to the steeper angle of descent of a bullet at the longer ranges (see Fig 9-3a). It increases the nearer the trajectory is to the ground (see Fig 9-3b) and the nearer the slope of the ground is similar to the angle of slope of the bullet (see Fig 9-3b). The extent of the dangerous space depends on:

- a. The range (see Fig 9-3a).
- b. The height of the weapon above the target area (see Fig 9-3b).
- c. The height of the target engaged (see Fig 9-3c).
- d. The flatness of the trajectory (see Fig 9-4a).
- e. The shape of the ground (see Fig 9-5b).

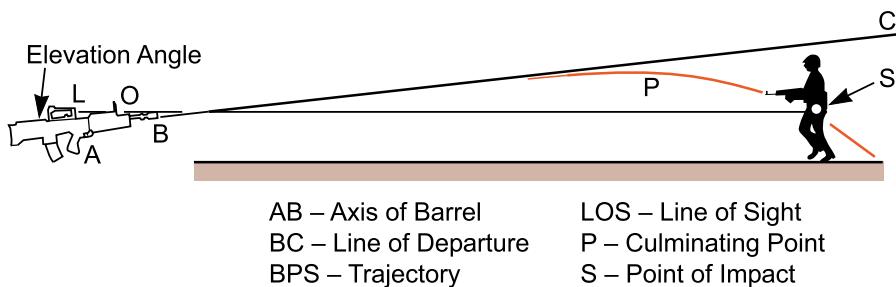


Fig 9-1. Definitions of Commonly Used Terms (1)

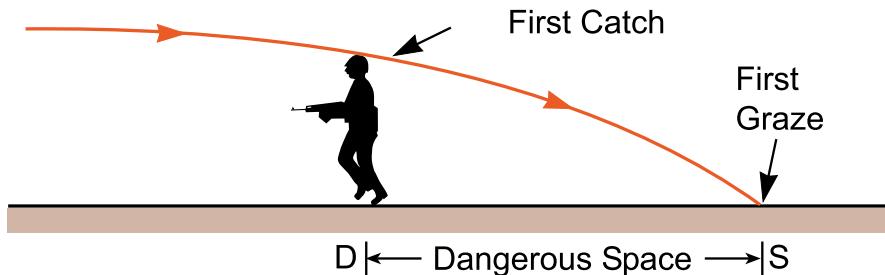
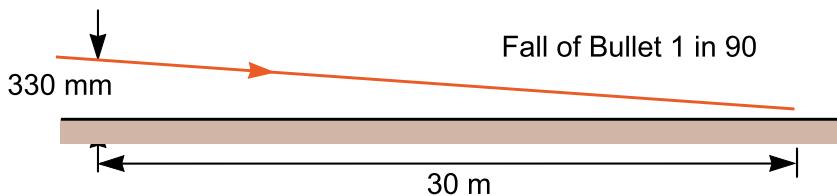
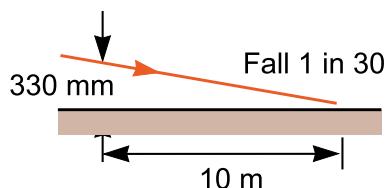


Fig 9-2. Definitions of Commonly Used Terms (2)

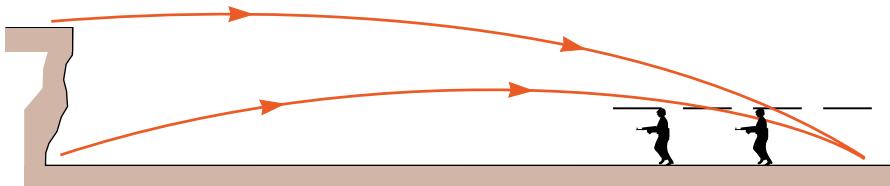


From 600 metres the dangerous space for a prone man (330 mm high) is approximately 30 metres

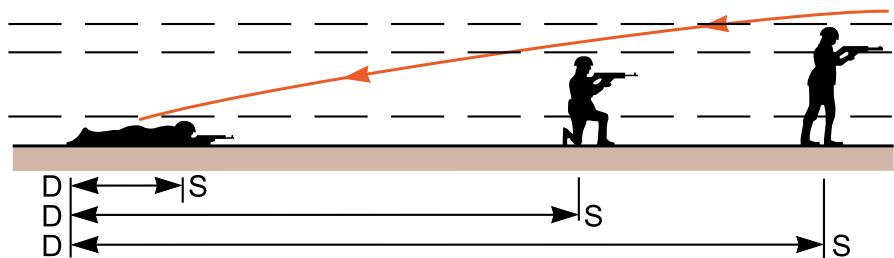


From 1000 metres the dangerous space is approximately 10 metres

a. The Range

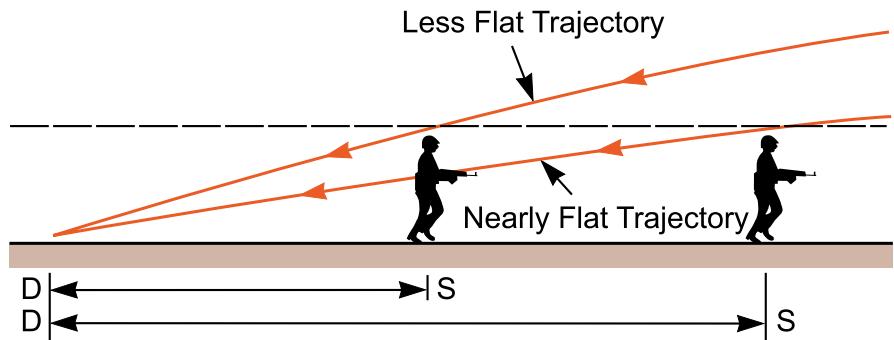


b. The Height of the Weapon above the Target Area

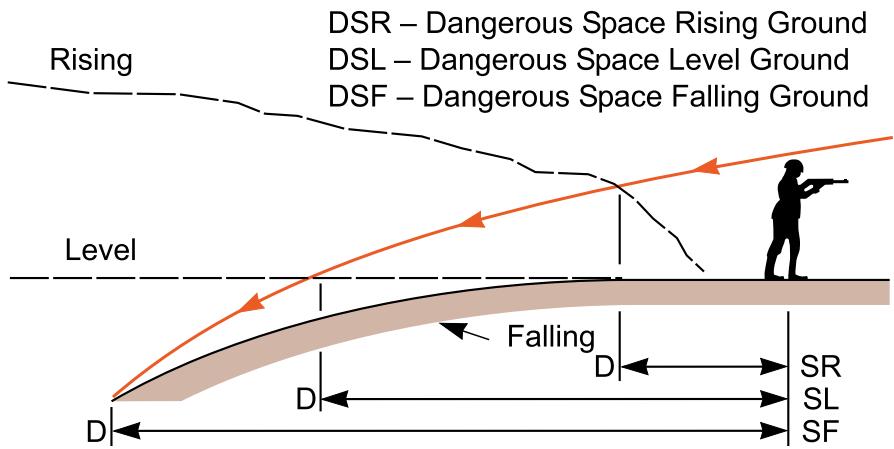


c. The Height of the Target Enclosed

Fig 9-3. The Dangerous Space (1)



a. The Flatness of the Trajectory



b. The Shape of the Ground

Fig 9-4. The Dangerous Space (2)

Section 2. Factors Affecting Sighting

9-13 **Elevation.** (See Fig 9-5). The force of gravity pulls the bullet downwards whilst the effect of air resistance rapidly reduces its velocity. These two factors combine to cause a bullet to travel downwards on a curved path. To counteract this drop, the bullet is projected to an angle of elevation which is always greater than the angle of sight, in order that the line of departure is directed at a point which is the same distance above the target as the bullet would strike below the target, if the angles of sight and elevation were equal.

9-14 **Target.** Because the target must be kept in view, a weapon is provided with sights, which enables the firer to adjust the elevation required without losing sight of the POA.

9-15 **Sighting of SA Weapons.** Each weapon is carefully tested at short ranges before issue and is sighted to hit within certain close limits of the point aimed at. There are, however, in each weapon small manufacturing variations which cannot be avoided in large scale production. Further variations are produced by the wear of parts and by the slackening or tightening of screws. These inequalities produce an individuality in each weapon, which shows itself in a slight variation of the sighting elevation requirement.

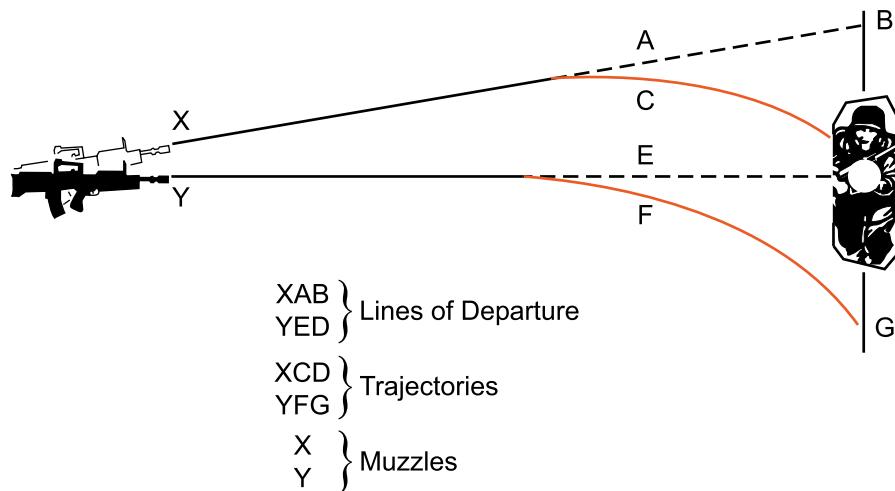


Fig 9-5. Factors Affecting Sighting – Elevation

9-16 **Wind.** The effect of a side wind on the path of a bullet increases with the range, and is considerable at all ranges except the very shortest. Head and rear winds also have an effect on the bullet at longer ranges.

9-17 **Atmospheric Conditions.** The effect of atmospheric conditions other than wind need not, normally, be considered. It is sufficient if it is realized that in fighting at high altitudes less elevation may be necessary. Alterations of temperature need not be taken into consideration, except that when cartridges have become heated in the sun rifles are liable to shoot high.

9-18 **Wet Ammunition.** This tends to make bullets go high. This is due to the fact that when the chamber or bullet is wet, the cartridge is unable to expand fully on firing, resulting in an increased pressure in the chamber. This will increase the velocity of the bullet and cause it to strike the target higher than normal. The same will also happen if the chamber or bullet is oily.

Section 3. Elementary Theory For The 5.56 mm Rifle L85

9-19 **Description of 5.56 mm Ball Ammunition.** The 5.56 mm ball round weighs approximately 12 grammes and comprises a bullet, case, cap and propellant (see Fig 9-6).

- a. **The Bullet.** It consists of a gilded metal envelope enclosing a steel/lead core. It normally weights 4 grammes and is cannelured near the base for the attachment of the case.
- b. **The Case.** The case, made of cartridge brass, is necked and of rimless design. The base is formed with a cap shell and an integral anvil with a single fire hole leading to the interior of the case. The contractor's initials or recognized trade mark is stamped on the base.
- c. **The Cap.** The cap is filled with 0.025 grammes of VH2 composition, is ringed in the cap chamber and the annulus is lacquered dark purple.
- d. **The Propellant.** The filling consists of approximately 1.52 grammes of NNN type propellant.

9-20 **Rifling.** A barrel is said to be rifled when it has spiral grooves cut in the interior surface of the barrel from a little forward of the chamber to the muzzle (see Fig 9-7).

9-21 **Firing.** When a weapon is fired, certain factors influence the flight of the bullet. They make a bullet travel on a curved path; the fall of the bullet becomes steeper as the range increases. These factors are:

- a. Before the bullet leaves the barrel:
 - (1) **The force of the explosion.** When a round of ammunition is fired, the gases formed by the burning of the charge push the bullet forward through the bore of the muzzle and out into the air. With 5.56 mm ammunition the velocity with which a bullet leaves the muzzle is 944 metres per second.
 - (2) **Rifling.** When a round is fired, the bullet is forced into the grooves along the barrel. Consequently, when leaving the muzzle it has acquired a spinning motion. This spin tends to keep the nose foremost, to ensure steadiness in flight with resultant accuracy.
 - (3) **Movement due to recoil.** The gases generated by the detonation of the propellant charge exert a force equally in all directions, moving the bullet along the bore and exerting an equal force rearwards against the empty cartridge case and locked breech, causing the weapon to move rearwards or recoil.

- (4) **Oily barrels.** If shots are fired with an oily barrel, abnormal vibration, and consequently erratic shooting, will occur until the oil is burnt up.
- (5) **Effect of firing with attachments fixed.** The fitting of a bayonet or any other attachment will affect jump and therefore the accuracy of the rifle. Every soldier must determine the effect which any attachments will have on the sighting of their rifle.
- (6) **Resting the rifle.** The barrel should never be rested on cover when it is fired, as this will disturb the pattern of the shock waves which are transmitted along the barrel following the detonation of the round. This disturbance will affect the jump of the rifle and cause the bullet to be displaced.
- b. After the bullet leaves the barrel:
- (1) **Resistance of the air.** This causes the velocity of the bullet to decrease rapidly. It travels about 600 metres in the first second, 400 metres in the second and 300 metres in the third.
- (2) **Gravity.** This tends to draw the bullet downwards with increasing effect throughout its flight.

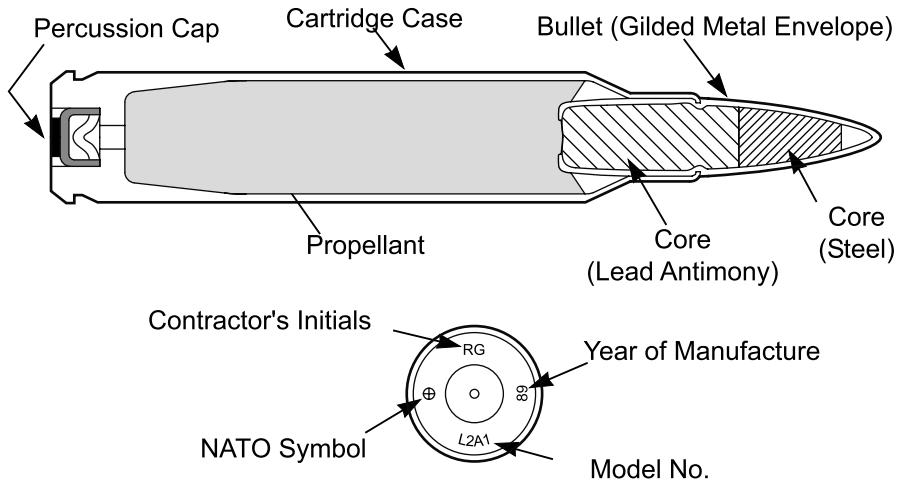


Fig 9-6. 5.56mm Ball Ammunition

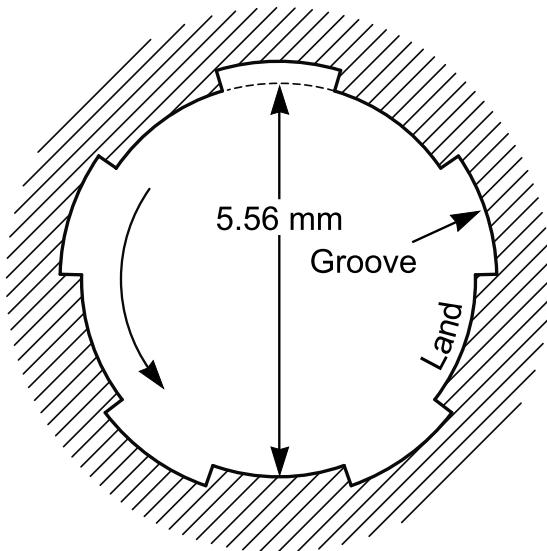


Fig 9-7. The Inside of the Barrel – Rifling

Section 4. Elementary Theory For The 5.56 mm LSW L86

9-22 The firing of a single shot from a LSW is exactly the same as for the rifle. However as the barrel is slightly longer, the muzzle velocity increases to 966 metres per second.

9-23 The LSW has design features to assist the firer to control a two or three rounds burst.

9-24 A characteristic of the 5.56 mm ball round is that the first shot of a burst will hit the point at which it is aimed, but due to the torque (twisting action) set off by the first round as it travels through the barrel, the remaining rounds of the burst may form a separate group. After a series of bursts are fired at the same aiming mark two distinct groups may be seen to be forming.

9-25 Detailed studies have shown that the maximum burst length that can be controlled, so as to produce effective fire, is two to three rounds. As the length of burst is increased, the pattern of shots becomes more scattered and the percentage of shots in the effective area decreases. Although this is a severe disadvantage when firing at the small section battle trench, it is an advantage when engaging a wide target.

Section 5. Elementary Theory For Automatic Fire

9-26 **Cone of Fire.** When a burst is fired from an automatic weapon each shot is projected on a slightly different line of departure. As the burst strikes a vertical target the shots will form a pattern, oval in shape, with the density of shot decreasing towards the edges. This pattern is known as a cone of fire (see Fig 9-8).

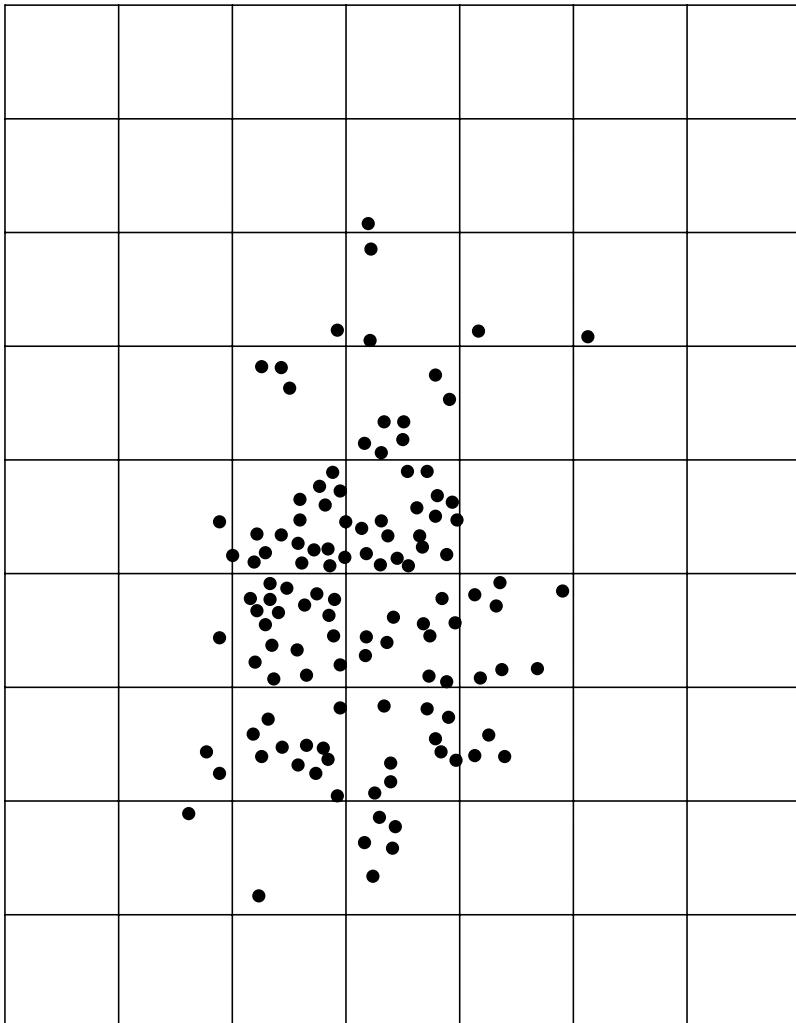


Fig 9-8. A Cone of Fire (GPMG Mounted Tripod)

9-27 **Beaten Zone.** At long ranges and less distinct targets, fire is applied to the ground in the area of the target. The bullets of the cone of fire strike the ground to form a beaten zone (BZ). The shape of the BZ is long and narrow, the lower shots of the cone striking the ground at a shorter distance from the weapon than the higher ones and with the pattern of the bullets being more dense in the middle of the BZ. The size of the BZ will vary with the range and the shape of the ground. As the range increases its length decreases and its width increases (see Fig 9-9).

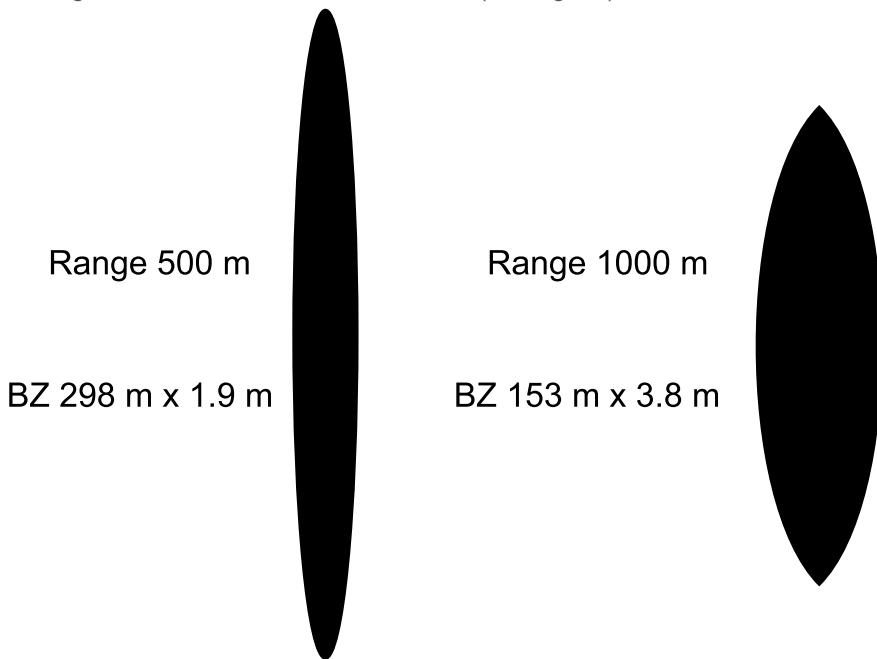


Fig 9-9. GPMG Beaten Zones at 500 and 1000 metres

9-28 **Dangerous Zone.** The most effective form of machine gun fire is achieved when the lower shots of the cone produce the maximum dangerous space to combine with the BZ. This area, formed by the beaten zone PLUS the dangerous space, is known as the dangerous zone. In the case of a machine gun, firing at a range of 600 metres over flat ground, the dangerous zone will extend from the muzzle to the limit of the beaten zone(see Fig 9-10).

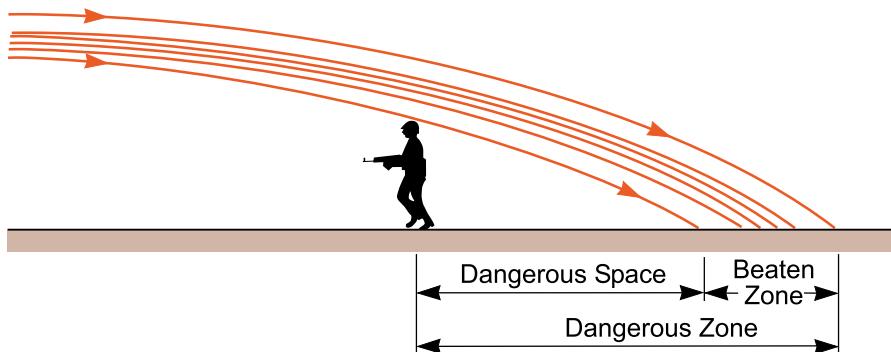


Fig 9-10. Permissible Error

Section 6. Observation Of Fire

9-29 **Ranging.** This is the process of determining the direction and elevation required to hit a given target by observation of fire.

9-30 **Observation of Fire.** This is the most accurate method of obtaining correct elevation and wind allowance, any errors will be seen by relating the strike to the target area.

9-31 **Permissible Error.** This is the term, in ranging, applied to the error which can be made in estimating range, while still keeping the target within the BZ. The permissible error is equal to half the length of the BZ for any particular range (see Fig 9-11). For example assuming the target to be 500 metres distant, the BZ of the GPMG at that range is approximately 298 metres in length. If the estimated range is accurate, half the BZ will be in front and the other half beyond the target. If an error of over 149 metres is made, i.e., half the depth of the BZ at this range, the whole of it will miss the target.

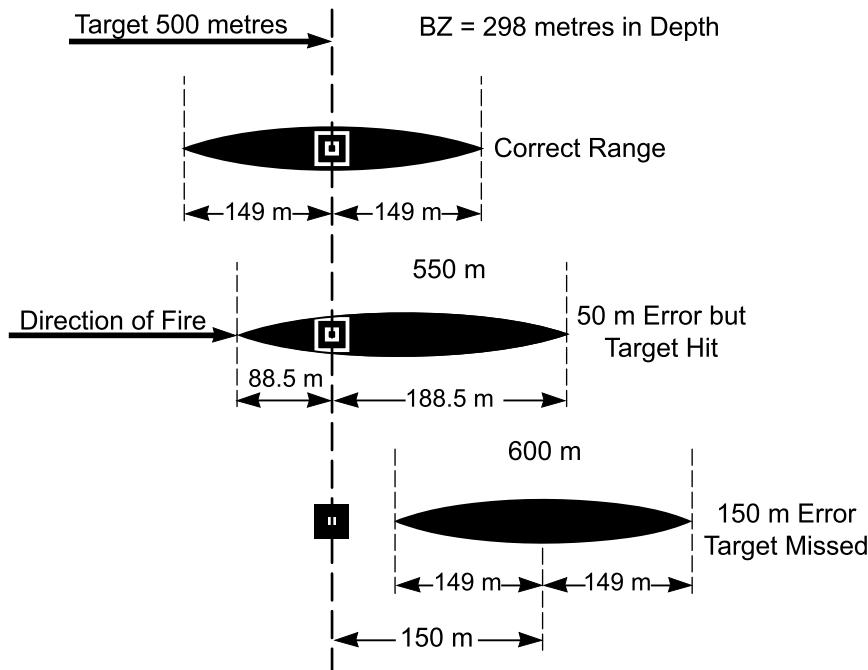


Fig 9-11. GPMG Beaten Zones at 500 and 1000 metres

Section 7. The Effect Of Ground On The Beaten Zone (BZ)

9-32 **Introduction.** Ground has an important bearing on fire effect. A study of the shape of the ground at the target, is therefore, essential to obtain accurate results. The following examples show that it is more difficult to obtain a fire effect against rising ground than against ground which is flat or falling away.

9-33 **Steep Hillside.** A cone of fire striking a steep hillside will cover a very small area of ground, and therefore, produce a small BZ AB (see Fig 9-12).

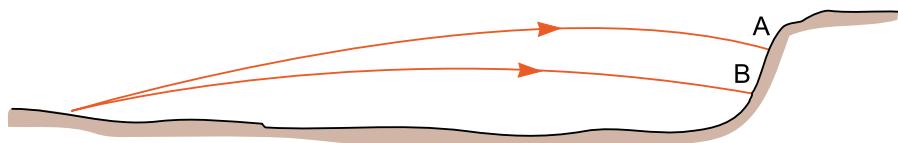


Fig 9-12. Cone of Fire Striking a Deep Hillside

9-34 **Gentle Slope.** The same cone of fire striking a more gentle slope will cover a slightly larger area of ground CD (see Fig 9-13).

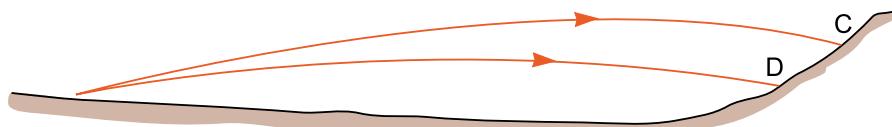


Fig 9-13. Cone of Fire Striking a Gentle Slope

9-35 **Level Ground.** The cone of fire on level ground will cover an even greater area EF (see Fig 9-14).

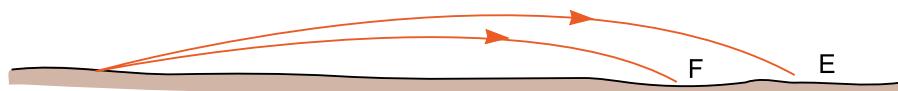


Fig 9-14. Cone of Fire on Level Ground

9-36 **Reverse Slope.** The largest area swept by bullets will be where the fall of the ground conforms to the trajectory of the bullet. For example on a reverse slope (see Fig 9-15) the whole area AB is a dangerous zone, of which AC is the BZ. Troops, even though under cover from view D, would be in danger from fire from X.

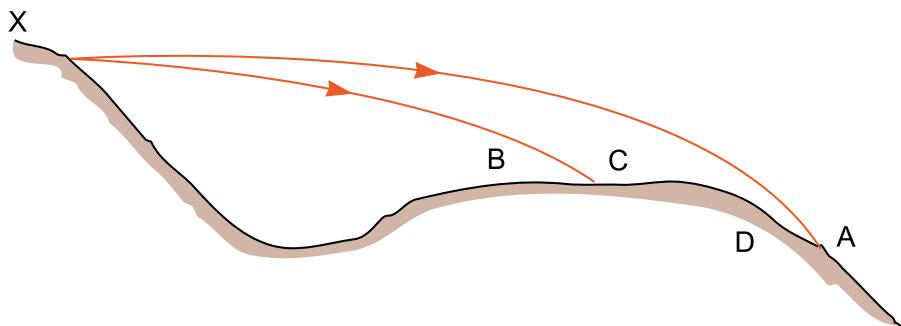


Fig 9-15. Cone of Fire on a Reverse Slope

9-37 **Defiladed Zone.** A defiladed zone is the area of ground which would be included in the BZ, but for the fact that a proportion of the bullets of the cone have met an obstruction, usually a piece of higher ground (see Fig 9-16).

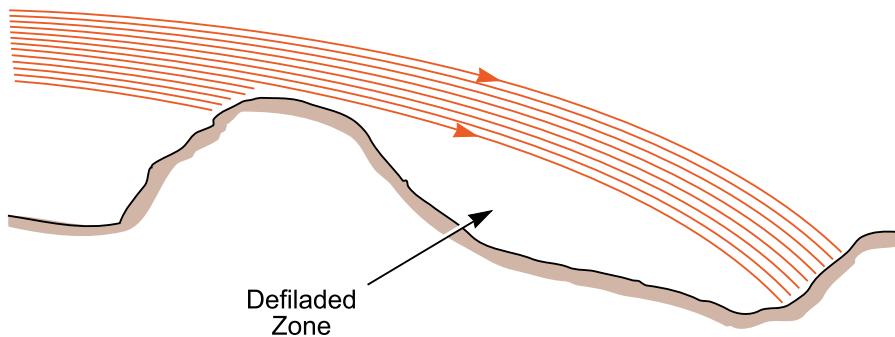


Fig 9-16. A Defiladed Zone

Chapter 10

Battle Lessons and Battle Exercises

Section 1. Introduction

Aim

10-01 *The aim of this chapter is to give guidance on the planning, preparation and conduct of Battle Lessons and Battle Exercises.*

Definitions

10-02 **The Battle Lesson.** A Battle Lesson is a lesson which combines previously taught individual skills of fieldcraft, weapon handling and minor tactics. It may be given using demonstration troops followed by practice or as a tutorial, but always stopping at various stages to emphasize weaknesses in a particular aspect by individuals or the squad as a whole. It should always be progressive. Battle Lessons will invariably be conducted 'dry' or with the use of blank and/or pyrotechnics.

10-03 **The Battle Exercise.** A Battle Exercise is a test to confirm that a Battle Lesson has achieved its aim. It may be run in the form of a competition, but should be allowed to run its course before debriefing individuals or the squad as a whole. Where it is determined that live ammunition is needed in order to bring out the training objectives it would be normal practice to progress to live via the use of blank; this would depend on the state of training of the individuals/squad to be exercised.

Scope

10-04 This chapter gives guidance to company level officers, WOs and NCOs and those in the training organisation, who have responsibility for individual, section and platoon level training where Battle Lessons and Exercises will be needed to achieve particular training objectives in the following areas:

- a. The handling of personal or section or platoon weapons in various tactical situations.
- b. Basic individual skills and drills, e.g. judging distance and first aid.
- c. Minor tactics.

10-05 This chapter seeks to bridge the gap between the information and skills contained in Chapters 1 to 3 and the individual weapon training and tactical doctrine pamphlets. It explains how the tactical skills/drills should be taught initially as a Battle Lesson and gives some examples; and later how these Battle Lessons can be practised and soldiers tested in a Battle Exercise to confirm previous lessons and assess performance standards. Examples of Battle Exercises are also given. The examples are illustrative and do not attempt to cover all the subjects that need to be taught and tested.

10-06 The information in this chapter is to be used as a guide to planning and conducting a BL / BE. Detailed information is found in Chapter 3 to Reference C, which must be read and fully understood.

10-07 **Night Training.** Night training forms a very important stage in the training of all soldiers. Although no particular Battle Lesson or Exercise is designed specifically for night training, selected lessons or exercises may be used. As this form of training carries more constraints than training in daylight Planning and Conducting Officers must be familiar with all the safety aspects applicable to it and especially where live firing is involved.

Section 2. Planning for a Battle Lesson or Battle Exercise

10-08 The scope and success of each lesson or exercise will depend on the imagination, ingenuity and initiative of the Planning and Conducting Officers. For a lesson/exercise to be successful it must be realistic, interesting, progressive and demanding, both physically and mentally. The essentials are:

- a. **A Clear Aim.** The aim of each lesson/exercise should be kept simple and its purpose borne in mind throughout the planning, preparation and conduct.
- b. **Precise Training Objectives.** (A clear appreciation of the lessons to be learnt.) In order for the aim to be achieved, various aspects of a soldier's performance must be exercised. The lesson/exercise should be constructed or geared so that these aspects are emphasized. Due consideration must be given as to whether it is better to use blank ammunition rather than live. For example, the training objectives concerned with minor tactics are more likely to be achieved on a two sided Battle Exercise using blank ammunition rather than having the constraints of live firing safety imposed.
- c. **Thorough Preparation.** There are no short cuts when preparing a lesson/exercise. Its value will usually be in direct proportion to the amount of planning and preparation put into it. The tactical and administrative preparations are equally important. If administration is not sound the lesson/exercise will not flow properly and valuable lessons and time will be lost.
- d. **Simplicity.** A complicated lesson/exercise is difficult to organize and conduct and only serves to confuse those being taught or exercised.
- e. **Realism and Interest.** The lesson/exercise should be made as realistic as is possible but always within the regulations imposed by Pamphlet No 21 (Reference C) and the AOSP pamphlets. Correct use of camouflaged targets, effects guns, pyrotechnics or live enemy is of major importance. Annex A gives some suggestions about the use of targetry and how fire can be simulated.
- f. **Supervision.** The enemy and supervisory staff need to be fully briefed on all aspects of the lesson/exercise and must know what to do in any situation. Soldiers will learn by their mistakes if they are properly supervised and are not allowed to get away with faults in such fundamental drills as weapon handling, use of cover and movement. Supervisors need to comply with the dress of the exercising soldiers if they are to play an active part in the exercise scenario.

g. **Qualifications and Standards.** Planning and/or Conducting Officers must hold the qualifications they need in order to plan and conduct any lessons/exercises involving blank, pyrotechnics or live ammunition. They must also be aware of the qualifications required for all safety supervisory staff; the regulations are to be found in Pamphlet No 21 (Reference C). Also, planning must take account of the standard of training of those to be exercised as this may prohibit their participation in certain exercises involving live firing; in all cases reference C is to be read and the rules contained complied with.

h. *The Written Instruction.* The production of a written instruction is mandatory and detailed guidance can be found in Reference C. Further information is found in Section 3 para 1009 sub para d.

Section 3. Preparation of a Battle Lesson and a Battle Exercise

10-09 Preparation should be considered in the following sequence:

- a. **The Aim.** This should have been established at the planning stage and may well have been stated by the company commander/Exercise Director. If a broad aim has been given to cover a training session where several Battle Lessons/Exercises are to take place the person responsible for the planning and preparation must ensure that each Battle Lesson/Exercise is given its own clear and simple aim.
- b. **Considerations.** Think how you will achieve the aim or aims and consider the following factors:
 - (1) An area suitable for the lesson/exercise. Then, in sequence, a briefing/administrative area, a battle preparation area and a re-exercise area.
 - (2) The training objectives that need to be covered to achieve the aim. Consider how certain situations may be incorporated in the lesson/exercise to bring out these points.
 - (3) The standard and number of soldiers to be exercised.
 - (4) Where applicable, the availability and qualifications needed for any range safety staff.
 - (5) Time available.
 - (6) Dress, weapons, ammunition, pyrotechnics, equipment and other stores that may be required.
 - (7) Enemy; live or targetry of various natures.
 - (8) What part you are to play; i.e. to act as the patrol/section commander, act a part in the battle picture or remain as an exercise supervisor and instructor.
- c. **Reconnaissance.** The following guidelines are given and should be given due consideration where applicable:
 - (1) The area should be:
 - (a) Realistic and suitable for the lesson/exercise.
 - (b) Away from distractions.

- (2) Arrange your area or route so that you retain as much flexibility as is possible. For example, try to select a different return route so that, provided it does not detract from realism or impinge on safety, the next run of the lesson/exercise can start immediately the previous one has finished.
- (3) Ensure that:
- (a) None of the background areas affect the lesson/exercise by sight or sound.
 - (b) You are able see faults front to rear without detracting from realism or constraining those being exercised.
- (4) Select sites for:
- (a) An administrative/briefing area.
 - (b) A battle preparation area.
 - (c) An ammunition point (if applicable).
 - (d) A concurrent activities area.
- (5) Assign instructor/supervisory/administrative staff as necessary.
- (6) Work out a system of work for the various stands; i.e. how the rotation of those being exercised will be organized.
- (7) Walk the route/s and have a dry run of the lesson/exercise. If live firing is involved then a live firing rehearsal should be conducted whenever possible. From the information you have collected jot down sufficient notes so that you can subsequently write a brief to cover the practical phase/s of the lessons/ exercises.
- d. **Briefing/Written Instructions.** To ensure that all personnel involved are fully conversant with their responsibilities a written instruction should be produced and/or a verbal briefing given. Where the use of blank, pyrotechnics or live ammunition is being used or in any other setting where a risk assessment is involved (e.g., any planned water obstacle crossing) an EASP/RASP is mandatory (see reference C for detailed guidance and examples). An EASP is also mandatory if BATSIMs are being employed or the ECO is using a written instruction produced by another person. The amount of detail to be included in an EASP/RASP will depend on the training and administrative complexity of the Battle Lesson or Exercise concerned. It should contain sufficient detail to allow another officer or NCO to take over and run the exercise/lesson at short notice. Where safety is concerned it must, as a minimum include a comprehensive set of safety orders. For a

very simple 'dry' lesson/exercise where only a verbal briefing is considered necessary an EAM may be produced and should contain as a minimum, the aim and lessons to be learnt and the method in which it is to be conducted.

e. **Post Lesson/Exercise Considerations.** After the lesson/exercise is over, and in order to ensure that training is progressive, the instructor should consider:

- (1) To what extent the aim/training objectives have been achieved.
- (2) If not, what further lessons/exercises are necessary to achieve them and what aspects must be covered in greater detail.
- (3) Could the lesson/exercise have been organized better, or the subject matter have been better presented to make the learning process easier.

Section 4. The Battle Lesson

General

10-10 The definition of the Battle Lesson is given in the Introduction to this Chapter, which together with Sections 1 and 2 should be read before studying this Section.

Examples

10-11 Examples of three Battle Lessons are given at the end of this Section. These are for illustrative purposes only. It is the responsibility of the instructor to ensure that the drills and/or tactical doctrine are updated where necessary.

Conduct

10-12 The length of each lesson/demonstration will vary with the subject being taught and the time available. The teaching phase can be conducted using normal lesson/lecture techniques or by a demonstration. On some occasions a combination of both may be applicable. It is often best to teach a stage of the subject then confirm by practice before moving onto another stage. Phase 2, the final practice, should be run once all the stages of instruction have been completed. The importance of the final practice must be emphasized. It serves as a confirmation of the subject taught and ensures that the soldiers or sub-unit's skills are sufficient to tackle a Battle Exercise in the same subject. The sequence listed below should be followed.

Sequence

10-13 The sequence of a Battle Lesson should be, where applicable, as follows:

a. **Preliminaries.**

- (1) On arrival of demonstration troops:
 - (a) Layout stores and ammunition.
 - (b) Carry out normal safety precautions — demonstration troops and enemy; a thorough physical check of all weapons, magazines, ammunition pouches, pockets, helmet linings and other personal clothing and equipment is to be conducted.
 - (c) A declaration is to be taken from all troops that they have no live ammunition in their possession.
 - (d) Remind all troops they are responsible for ensuring that every round they fill into a magazine, ammunition stowage bin, clip or belt, is blank.
 - (e) The ECO and Exercise Assistants are to ensure that BFAs and associated equipment are correctly fitted.
 - (f) Brief and rehearse demonstration troops and enemy.

- (2) On arrival of troops:
- (a) Carry out normal safety precautions.
 - (b) A declaration is to be taken from all troops that they have no live ammunition in their possession.
 - (c) Remind all troops they are responsible for ensuring that every round they fill into a magazine, ammunition stowage bin, clip or belt, is blank.
 - (d) The ECO and Exercise Assistants are to ensure that BFAs and associated equipment are correctly fitted.
 - (e) The ECO is to sign the AFB 159B
 - (f) Check all weapons, blank magazines and blank firing attachments. A thorough physical check of all weapons, magazines, ammunition pouches, pockets, helmet linings and other personal clothing and equipment is to be conducted.
 - (g) Issue safety brief applicable to the lesson.
 - (h) Give out the squad organization and detail command appointments.
 - (i) Number off, if it is a team lesson.
 - (j) Describe how the instruction will progress, how it will be covered in stages and, if applicable, how a scoring system will work.
 - (k) Distribute stores and ammunition (if required at this stage).
 - (l) Carry out initial battle preparation if required.
- b. **Revision.** Revise only those skills or knowledge that have a direct bearing on this lesson.
- c. **Introduction.** This must include:
- (1) The aim — the subject matter to be taught.
 - (2) The 'reason why' — which should be related to the battle purpose.
 - (3) An incentive — something that will affect the soldiers personally if possible.

d. **The Lesson.**

(1) **Phase 1 — The Teaching Phase.** Teach each stage of the lesson in the following sequence:

- (a) Explain and/or demonstrate the new knowledge or skills (the squad imitating).
- (b) Confirm by practice by means of a walkthrough/talkthrough and/or questions.
- (c) If necessary carry out a short quick-time practice to confirm and fault check.

(2) **Phase 2 — The Final Practice.** This is confirmation of all stages of the lesson as an exercise. The following considerations apply:

- (a) Re-issue stores; and ammunition if required.
- (b) Confirm squad organization and brief on the conduct of the final practice.
- (c) **Initial Battle Picture.** To introduce realism into the exercise. This should give a brief background to the forthcoming operation and give the following details to assist in battle preparation:
 - i. Place. Where battle preparation is to take place.
 - ii. Time. How long they have to complete it.
 - iii. Threat. The direction of the enemy.
- (d) **Final Battle Preparation.** Carried out in the preparation areas. This allows refurbishment of camouflage and preparation of the group, their weapons and equipment issued specifically for the final practice.
- (e) **Final Battle Picture.** This should be given as a tactical brief. Give the student(s) the task they are to carry out. It should be given from a concealed position overlooking the exercise area.
- (f) **(Exercise.** This confirms your lesson. Consider:
 - i. Control. Enough to ensure that the exercise runs smoothly.
 - ii. Fault checking. Only when repeated faults are made.
 - iii. Interference. Never, unless safety is involved.

- (g) **Debrief.** At the end of exercise stage soldiers should:
- i. Clear weapons (where applicable) by being given the following order: "Stop", "Unload".
 - ii. Be reminded of the aim.
 - iii. Have their faults discussed from the critique sheet. Prior to the debrief the enemy should be asked for points on the performance of the troops.
 - iv. Be given encouragement and praise where due.
- (h) **Re-Exercise.** It is unlikely that there will be time to carry out a re-exercise phase. If there is, it should be carried out on a new area with a new Battle Picture. Feedback should again be given comparing both exercises, noting good and bad points.

Conclusion

10-14 End of Lesson Drill.

- a. Questions from and to the squad.
- b. Unload, clear weapons, empty magazines and centralize ammunition (where applicable).
- c. Carry out normal safety precautions to include a thorough physical check of all weapons, magazines, ammunition pouches, pockets, helmet linings and other personal clothing and equipment.
- d. Pack up all stores.
- e. Declaration. (Where applicable but only if not done as a central declaration — see paragraph below.)
- f. Sign AFB 159A.
- g. Summary and look forward.

10-15 Concurrent Lessons.

When lessons are running concurrently the following drills are to be carried out at the end of the training period in addition to the individual lesson sequence:

- a. Normal safety precautions and declaration (where applicable).
- b. Sign AFB 159A (where applicable)
- c. Pack up all stores.
- d. Summary by OIC on lessons as a whole.
- e. Look forward to Battle Exercises on the subject.

Section 5. The Battle Exercise

General

10-16 The Battle Exercise is the logical follow-on from the Battle Lesson. It gives individual soldiers, the team, or group, opportunities to show their ability and use their initiative in realistic situations covering all phases of war.

10-17 The key to success when planning the Battle Exercise is realism. Realism depends upon the imagination, involvement and planning of the officer or NCO concerned.

10-18 The definition, detailed planning considerations and preparation of a Battle Exercise is explained in the Introduction to this chapter and at Sections 2 and 3. These should be read before studying this Section.

Examples

10-19 Examples of Battle Exercises are given at the end of this Section. It is stressed that these are for illustrative purposes and it is the responsibility of the Planning and/or Conducting Officer to ensure that the detail is both current and safe.

Conduct

10-20 The Battle Exercise may be conducted at two different levels:

a. **The Practice Exercise.** This is designed to improve the soldier's performance in a particular skill or tactic. The following aspects are to be noted:

- (1) Concurrent activity may be related to the exercise.
- (2) The 'remind' phase is to be included in the initial brief, indicating to the soldier what is expected of him during the exercise.
- (3) The exercise should be run on a competitive basis and the soldier's progress assessed.

b. **The Test Exercise.** This is designed to assess the soldier's performance in an aspect of training which, if satisfactory, will enable him to progress onto the next stage. A soldier may be tested in this manner at any stage of their service. The following aspects are to be noted:

- (1) Concurrent activity must be planned so that it does not affect the fair assessment of all troops.
- (2) There is no 'remind' phase.
- (3) The soldier must be made aware that the exercise is a test of skills and that they will be assessed throughout.

Sequence

10-21 The sequence of the Battle Exercise is as follows:

a. **Preliminaries.**

- (1) On arrival of demonstration troops/safety supervisors:
 - (a) Carry out normal safety precautions and checks.
 - (b) Layout stores and ammunition.
 - (c) Brief and rehearse demonstration troops/enemy/safety supervisors.
- (2) On arrival of troops to be exercised:
 - (a) Carry out normal safety precautions to include a thorough physical check of all weapons, magazines, ammunition pouches, pockets, helmet linings and other personal clothing and equipment.
 - (b) A declaration is to be taken from all troops that they have no live ammunition in their possession.
 - (c) Remind all troops they are responsible for ensuring that every round they fill into a magazine, ammunition stowage bin, clip or belt, is blank.
 - (d) The ECO and Exercise Assistants are to ensure that BFAs and associated equipment are correctly fitted."s.
 - (e) Sign AFB 159B.
- (3) Issue a safety brief.
- (4) Give out squad organization, command appointments and number off if it is a team exercise.
- (5) *Explain (where applicable):*
 - (a) The Layout of the Exercise, Ammunition Point, Battle Preparation Area, Line of Departure, Administrative Area, Concurrent Activity Area.
 - (b) **The System of Work.** Who will be exercised first, who will start concurrent activity first and how the changeover will work.
 - (c) **The Competition.** Outline the subjects to be exercised and tested and the scores to be attained.
- (6) Distribute stores.
- (7) Carry out initial battle preparation.

- b. **Revision.** Remind and revise points applicable to the particular exercise. This does not apply if the exercise is being conducted as a test.
- c. **Introduction.**
 - (1) Approach.
 - (a) The 'reason why' which should be related to the battle purpose.
 - (b) Incentive. Plan something that will affect the soldier personally if possible.
 - (2) Aim. The aim of the exercise.
- d. **Battle Picture.** Include orders/brief.
- e. **Final Battle Preparation.**
- f. **Conduct Exercise or Test.** Include individual debrief.
- g. **End of Exercise Drills.** As per The Battle Lesson — see Section 4.
- h. **Re-Exercise.** Only if necessary and preferably on a new area.

Battle Preparation and the Battle Picture

10-22 Battle preparation and the battle picture stages help to introduce realism into the exercise which must be maintained throughout. As a general rule remember that the battle picture is often the method used for explaining the situation to the soldiers. The following factors should be considered when carrying out these stages:

- a. **Battle Preparation.** A separate area should be designated for battle preparation. When briefing soldiers for the battle preparation phase include the following:
 - (1) Indicate the area where the preparation is to be carried out.
 - (2) Say how long is available.
 - (3) Point out the direction of the enemy.
 - (4) State the time and place for orders/brief.
- b. **Assessment.** If a soldier's or sub-unit's battle preparation is to be marked as part of the overall performance competition, it is recommended that the marks allocated for this subject be divided in half. Half should be awarded prior to the exercise and the remainder at the end. This allows the soldier's preparation to be tested under exercise conditions and will reveal weaknesses such as the attachment of camouflage and serviceability of weapons and equipment.

c. **Battle Picture.** In all situations especially for sub-unit exercises the battle picture should be given from a concealed position overlooking the exercise area so that it can be related to the ground.

Duties of the Instructor and Safety Supervisor — Live Firing

10-23 The duties and role of the Instructor will vary with the type of exercise being run. Where the exercise is conducted as a 'dry' run practice, they will be primarily concerned with giving encouragement and advice to the soldier. However, advice should only be given when strictly necessary as soldiers should be allowed the maximum scope for making their own decisions and mistakes. For all exercises involving live firing the regulations contained in Pamphlet No. 21 (Reference C) are to be followed. During such firing the instructor acts as a Safety Supervisor where his primary concern is that of safety. The Conducting Officer must decide if a Safety Supervisor is to be detached from the exercise setting and purely act in a safety supervisory role or whether they are also to play a part within the battle picture.

10-24 In all cases the Instructor's role can be summarized as follows:

a. **Briefing of Firers.**

- (1) Check or mark preparation for battle.
- (2) Instil a sense of urgency.
- (3) Repeat the vital safety points.
- (4) Remind soldiers of the battle picture and indicate the route.
- (5) Supervise the loading and 'making ready' of the soldiers' weapons.

b. **Accompany the Firers.**

- (1) Ensure the safety of the exercise.
- (2) Channel the soldiers along the correct route.
- (3) Check faults. This may be done verbally during a practice battle exercise but it should be kept to a minimum. During a test exercise the points should only be noted for the debrief.
- (4) Encourage and advise but only in the case of the instructional exercise.
- (5) Order "Unload" and clear all weapons before moving to the debrief area.

c. **Debrief Firers.**

- (1) Remind them of the aim.
- (2) Discuss faults and award scores as necessary.

- (3) Encourage and praise where due.
- (4) Summarise.

Competition

10-25 Whenever possible all exercises should be made competitive by awarding or deducting marks in accordance with the Instructor's or Safety Supervisor's assessment of the performance achieved. For the majority of exercises a selection of the following headings may be used:

- a. Battle Preparation.
- b. Weapon Handling.
- c. Fieldcraft.
- d. Observation.
- e. Tactics.
- f. Use of Cover.
- g. Reaction.
- h. Fire Positions.
- i. Fire Effect.
- j. Control. Use of hand signals and communication.

10-26 Instructors (or Safety Supervisors) should allocate points for the soldiers' performance under several selected headings. A suggested balance for marking is given below:

Headings	Points
a. Battle Preparation	15
b. Weapon/Equipment Handling	15
c. Fire Position and Movement	15
d. Skills/Technique or Fire Effect to be Achieved/Tested	50
e. Instructor's Discretion, e.g., Bonus points for achieving HPS in sub-paragraph d. above	HPS 100

10-27 **Standards**

- a. Pass Standards for Recruits or young soldiers. 50%
- b. Pass Standards for Trained Soldiers. 70%
- c. Soldiers are to achieve pass standards under each heading/stage in order to pass the whole test/exercise.

Destruction Drills

1. If on active service it is necessary to destroy weapons to prevent them being used by the enemy the following actions will prove effective:
 - a. Plug the barrel near the chamber or bury the muzzle in the ground; load and fire the weapon, by using string tied to the trigger, from behind cover.
 - b. Strip the weapon as far as possible; bury parts or scatter over as wide an area as possible.
 - c. Retain essential parts of the mechanism, such as usable firing pins, etc.
 - d. All spare parts should be disposed of.
2. Should the foregoing destruction drills not be possible, other methods must be devised, e.g, destroying by explosive charges or by fire; running over by vehicles; scattering components in rivers and undergrowth.
3. Unfired ammunition can be destroyed by explosives using improvised demolition charges made with grenades, bombs, etc.

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