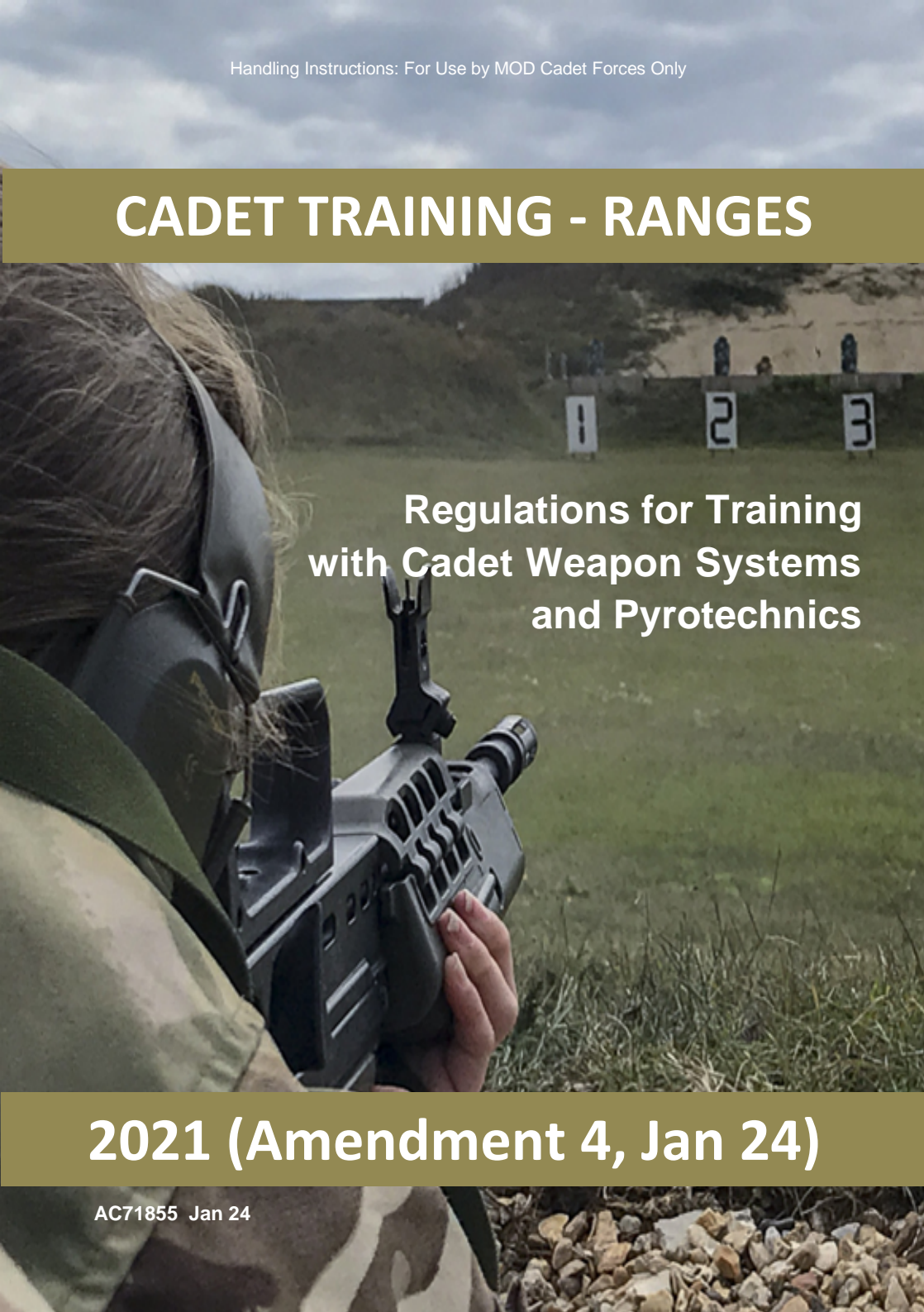


# CADET TRAINING - RANGES



Regulations for Training  
with Cadet Weapon Systems  
and Pyrotechnics

## 2021 (Amendment 4, Jan 24)

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This publication has been produced under the direction and authority of the Chief of the General Staff by DLW. It is the individual's responsibility to ensure they are using the latest version of this publication, if in doubt the individual should contact the Army Reserve Training Advisory Team (ARTAT) details below. The contents constitute mandatory regulations or a MOD Approved Code of Practice (ACOP) and provide clear military information concerning the most up to date experience and best practice available for commanders, CFAV and Cadets to use in training. To avoid criminal liability and prosecution for a

breach of health and safety law, you must follow the relevant provisions of the ACOP. Breaches or omissions could result in disciplinary action under the provisions of the Armed Forces Act.

<b>Amendments</b>					
Amdt No	Date	Amdt No	Date	Amdt No	Date
<b>1</b>	<b>Sep 22</b>	<b>3</b>	<b>May 23</b>		
<b>2</b>	<b>Dec 22</b>	<b>4</b>	<b>Jan 24</b>		

## Distribution

This publication is only made available in electronic format on the Army Cadet Resource Centre (ACRC), BADER Shooting Portal or SCC Resource Centre, to order hard (uncontrolled) copies contact your appropriate Cadet Force 1\* HQ stating the reasons why.

## Amendments

Suggestions for change are welcomed and should be sent to OC ARTAT using the Cadet Publications Amendment Form, which can be found in the ACRC, BADER Shooting Portal or SCC Resource Centre. Such proposals will be given due consideration and, if considered necessary, appropriate amendments will be prepared for publication. Any queries should be sent to the OC ARTAT using the following e-mail:

- [ArmyCap-GM-Cbt-SASC-ARTAT-OC@mod.gov.uk](mailto:ArmyCap-GM-Cbt-SASC-ARTAT-OC@mod.gov.uk).

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**Any person wishing to propose amendments to this pamphlet is invited to by filling in the Cadet Publications Amendments Form. Such proposals will be given due consideration at the Pamphlet Working Group and, if considered necessary appropriate amendments will be prepared and published.**

## SUPPORTING DOCUMENTATION

1. The following documents can be found in the Respective Cadet Organisation Resource Centre to support the planning and conduct of training for Conducting Officers<sup>1</sup>:

- a. Weapon Noise HP Insert v6.
- b. Cadet Publications Amendment Form.
- c. Written Instructions (Templates):
  - (1) Range Safety Document (RSD).
  - (2) Range Action Safety Plan (RASP).
  - (3) Exercise Safety Document (ESD).
  - (4) Exercise Action Safety Plan (EASP).
- d. AFB189 Firing Point Butt Register.
- e. MOD Form 1664 - Unintended Discharge Monthly Report.
- f. MOD Form 1668 - Initial Munitions Incident Report.
- g. MOD Form 1670 - WOME and Laser Incident Report.
- h. MOD Form 1930 - Safety Activity Assurance Form (SAAF).
- i. MOD Form 2257 - Item Certified Free From Explosives.
- j. Learning Account Template.
- k. Example WHT Result Sheets.

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<sup>1</sup> It is the Conducting Officers responsibility to ensure that the information in the provided templates of the RSD/RASP/ESD/EASP are up to date.

## **Cadet Training Ranges - Regulations for Cadets Training with Cadet Weapon Systems (Cadet WS) and Pyrotechnics**

### **Introduction**

1. This pamphlet is for use by personnel who, in accordance with Chapter 1 of this pamphlet, are qualified to plan, conduct, and supervise training for Cadet Forces with Cadet WS and Pyrotechnics. It is not approved for use by any other personnel.

### **Regulations**

2. This pamphlet covers the planning, conduct and supervision of training with Cadet WS and pyrotechnics. The application of the regulations is mandatory; they are approved best practice, enabling interesting, demanding, and realistic training whilst ensuring that risks are reduced to As Low As Reasonably Practicable (**ALARP**).

### **Associated Publication**

3. Pamphlet users are to be familiar with the rules contained in other publications, in particular; the respective Single-Service Shooting Syllabus, Defence Safety Authority Ordnance Munitions and Explosives (DSA OME) Part 3, Handbook of the Defence Ranges Safety, the appropriate General Service Publications (GSP) and Range Orders.

### **Layout of the Pamphlet**

4. The pamphlet is structured to follow the progression of training associated with Cadet WS. The chapters are as follows:

a. **Chapter 1 Safe System of Training and Qualifications.** Explains the Safe System Training and lists the courses and rules for awarding qualifications to plan, conduct and supervise all live firing and training with Cadet WS and pyrotechnics.

b. **Chapter 2 Planning.** Provides the regulations that are relevant to all training with Cadet WS and pyrotechnics. It explains the responsibilities of key personnel and the criteria by which personnel can undertake training with Cadet WS and pyrotechnics. It should be studied before using other specific chapters.

c. **Chapter 3 Training Simulation.** Details the rules to regulate the use of blank ammunition, pyrotechnics, and the Dismounted Close Combat Trainer (DCCT) and Cadet Paintballing.

- d. **Chapter 4 Cadet LFMT.** Details the rules that regulate Cadet LFMT practices fired on Purpose Built Ranges.

## Range Orders and Range Byelaws

5. The regulations in this pamphlet are to be applied in conjunction with local Range Standing Orders and Range Byelaws. If any of these orders contradict this pamphlet, then the local orders take precedence. However, local orders may not be less stringent than those in this pamphlet. In cases of concern seek advice from OC SASC ARTAT or in the OC's absence SO2 Trg Safety HQ SASC.

## Cadet Organisation Appointments

6. Throughout this publication, reference is made to the County Commandant (or equivalent), the appointment of County Commandant is for the ACF.

7. The Training Safety Advisor (TSA) for the Sea Cadet Corps (SCC), Royal Air Force Air Cadets (RAFAC), the Army Cadet Force (ACF) and the Combined Cadet Force (CCF) will normally be a Full Time Reserve Service (FTRS) or Regular appointments. Their role will be defined in Single Service Cadet Force Policy.

8. Cadet Training Teams (CTTs) (Army) and Small Arms Training Teams (SATTs) (RAFAC) are regional training teams and among their responsibilities is the organisation and assistance to the Small Arms School Corps (SASC) Army Reserve Training Advisory Team (ARTAT) in the conduct of Cadet RMQ, DCCT Operator and SAA Instructor (SAAI) Courses.

## In Service Cadet WS and Air Rifles

9. The following are currently in-service Cadet WS and Air Rifles:

Ser	Weapon Type	Calibre	Remarks
1.	L81A2 Cadet Target Rifle	7.62mm	Only in service issued ball ammunition.
2.	L98A2 Cadet GP Rifle	5.56mm	Only in service ball/blank ammunition.
3.	L144A1 Cadet Small Bore Target Rifle	.22 inch	Only in service ball ammunition.
4.	Air Rifles	.177 inch	Only Air Rifles with a pressure of 12-foot pounds or less are to be used for Cadet Training.

# Chapter 1

## The Safe System of Training and Cadet Qualifications

### Purpose

1-01 This chapter explains the Safe System of Training and the qualification process for all forms of live and blank firing training with Cadet WS.

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### Referencing

1-02 Section one in this chapter is relevant to all forms of cadet live and blank firing training covered by this pamphlet. It is essential that those planning, conducting, or supervising training are familiar with these sections before referencing the chapter dealing with the training or specific range to be used. Each course is supported by a Course Folder (CF) which includes an Assessment Specification (ASpec). Personnel who require details of course content, standards or testing should refer to the CF.



## Section 1. The Safe System of Training

1-03 The Health and Safety at Work Act 1974 (HSW Act) and the Corporate Manslaughter Act places a duty of care on the MOD to conduct training in such a way as to ensure, as far as reasonably practicable, all persons are not exposed to risks to their health or safety.

1-04 Training with Cadet WS and Pyrotechnics is regulated by a formally recognised and endorsed Safe System. When this system is in place it allows cadets and CFAV to train with Cadet WS, whilst reducing any associated risks to As Low As Reasonably Practicable (ALARP) which is entirely in line with the HSW Act. The component parts of the Safe System of Training (SST) are:

### 1-05 Safe Persons.

a. All Cadet Range Qualifications are awarded on behalf of Director Land Warfare (DLW) in his role as the Army Competent Advisor & Inspectorate (ACA&I).

b. Cadet WS Range Qualifications are awarded by officers of the Small Arms School Corps (SASC). The SASC, as recognised subject matter experts for training with Cadet WS and pyrotechnics, are to be present for all qualifying courses. They are responsible for ensuring best practice and maintaining the necessary standards of instruction, evaluation and testing on courses awarding Range Qualifications.

c. The CFAVs, officers, warrant officers and NCOs who plan, conduct, and supervise training with Cadet WS, and pyrotechnics are to be properly qualified and are competent to discharge their duties. Formally trained and tested Civilian Instructors (CI) from the Royal Air Force Air Cadets are CFAV's, and can plan, conduct, and supervise training in the Cadet Organisation.

d. All exercising cadets and CFAV are to have the competency to handle, operate and fire the weapons, ammunition, and pyrotechnics that they will use during the exercise or practice. CFAVs are to have the competency to handle pyrotechnics that they will use during an exercise or practice, and the experience needed for the demands of the training.

e. With the exception of Senior Cadets (see Chapter 3) who have passed the appropriate training test, **it is strictly forbidden to issue cadets, or for cadets to handle or use any form of pyrotechnic.** Cadets and CFAVs require the necessary experience needed for the demands of the training.

f. **Cadets and CFAV's with Additional Needs.** It is the duty of the Exercise Director to determine whether cadets and or CFAV's with additional needs are permitted to take part in training involving Cadet WS. A full risk assessment in accordance with the relevant cadet Single Service policy is to take place to determine the outcome. Further guidance can also be found in Single Service policy.

#### 1-06 **Safe Equipment.**

a. All equipment is subject to regulations, of which the Delivery Team (DT) assesses and manages compliance. Where compliant evidence is available, the DT will progress second party assurance (2PA) and provide Safe and Suitable for Service (S3) certification. Where the DT is unable to progress with 2PA and S3, evidence of an Acceptable Alternative Means of Compliance (AAMC) will be required (e.g., Mil Std) to determine the safety of the equipment. In these circumstances the DT will ensure the following:

(1) The equipment is supported by an approved Safety & Environmental Case Report (SECR).

(2) Where any risk(s) cannot be fully managed by the DT's delegated responsibility or there is a requirement for any risk(s) to be accepted by Duty Holders, the risk(s) shall be formally communicated.

(3) The DT will develop and provide a Demonstrably Safety Statement (DSS) signed by the Senior Safety Responsible (SSR).

(4) For Weapons, Ordnance, Munitions and Explosives (WOME), where non-compliances to Defence Ordnance, Munitions and Explosives Safety Regulator (DOSR) Regulations have been identified, the DT will apply for a temporary regulatory waiver from the DOSR.

b. When a new Cadet WS is procured, the Design Authority will deliver training to an SASC SME, who can then produce a pamphlet. The training can then be cascaded by a trained SASC Instructor to Cadet Force SAA Instructors, who can then train other Cadet Force SAA instructors.

#### 1-07 **Safe Place.**

a. Ranges, Live Firing Tactical Training Areas (LFTTA) and Training Areas are properly prescribed, clearly marked, and conform to the design and safety criteria given in DSA 03 OME Pt3, including a regulated inspection programme which are conducted by the Range

Administration Unit (RAU), Land Training Area and Ranges (LTAR) and the Range Safety Inspectorate Team (RSIT).

b. Range orders are provided to ensure:

- (1) All necessary controls, identified by the Range Administering Units (RAU) risk assessment are in place to prevent accidents to the range users, range staff or the public.
- (2) The necessary medical cover and equipment and the emergency procedures are understood and implemented.
- (3) The correct implementation of any bylaws and where these exist that the public are put on notice that the range area is a dangerous place.
- (4) Maximum use is made of the range space available, and guidance is given to users unfamiliar with the facilities.
- (5) If the range or training area orders contradict this pamphlet, then the local orders take precedence. However, such local orders are not to be less safe than the procedures detailed in this pamphlet.

c. Having taken over the range, LFTTA or training area the Conducting Officer is responsible for maintaining the safe place in accordance with DSA 03 OME Pt 3, this pamphlet and Range Orders, until it is handed back.

d. Check the Defence Intranet for Defence Ranges Safety Committee (DRSC) Advice and Safety Notices. The DRSC acts as the MOD focus for the safety of ranges, gives direction on the management and maintenance of the safety of ranges and monitors annual and independent range inspections.

e. The DRSC sponsors and oversees the production of DSA 03 OME Pt 3 Handbook of the Defence Ranges Safety and associated forms and other documents. These provide the necessary instructions and guidance for all concerned with the safety of MOD ranges and of other ranges at home and abroad used by MOD personnel.

## **1-08 Safe Practice.**

a. CTR prescribes the rules and regulations for the planning, conduct and supervision of firing and training with Cadet WS and pyrotechnics to achieve procedural safety. To ensure access and compliance, Conducting Officers are to have the necessary current CTR reference

material in their possession as part of the planning process for their practice or exercise.

b. This pamphlet and relevant Cadet WS GSP stipulate the mandatory standards and qualifying periods that must be met in order to show that cadets and CFAVs are competent to undertake training at the appropriate level with Cadet WS or Pyrotechnics. The criteria that must be met before cadets and CFAVs can be permitted to fire with Cadet WS and use pyrotechnics is:

(1) **Formally Trained.** Trained by a qualified and competent SAAI iaw with the appropriate GSP to handle and fire any Cadet WS and ammunition that the individual cadet or CFAVs may be required to handle and fire during an exercise or practice. For CFAVs '**only**,' the same process applies for the use of pyrotechnics.

(2) **Formally Tested.** Passed the appropriate Weapon Handling Test (WHT) within the six-month qualifying period, conducted by a SAAI who is current with the weapon system, within the qualifying period. All results are to be recorded in accordance with Single Service Cadet Regulations.

(3) **Training Progression.** Having followed the progression of training in accordance with the Single Service Cadet Training Syllabus and respective Single Service Shooting Syllabus.

(4) **Practical Understanding.** Having been suitably briefed on the requirements and constraints of the exercise or range practice.

c. Only endorsed Cadet LFMT practices within Cadet Single Service Shooting Syllabus, manuals, shooting competition rules, practices used during Cadet Range Management Qualification (RMQ) Courses and those authorised by the OC ARTAT or the SO2 Trg Safety HQ SASC may be fired. The Planning Officer may design a shoot using endorsed Cadet practices. Whilst it is permissible to adjust types of targets, number of rounds or exposure timings; the rates of fire specified in the publication must be adhered to.

d. **Under no circumstances are Cadets or CFAV to conduct or participate in any form of night live firing.**

e. Any training which does not comply with this SST requires a dispensation. This is written authorisation from an appropriate Service Level Duty Holder<sup>1</sup> in accordance with single service policy to permit a person, equipment, place, or practice that does not meet the criteria of this Safe System of Training. The following dispensation rules apply.

(1) It should be granted by the commander directing that the training is to take place.

(2) It should never be for administrative convenience.

(3) If it seeks to change how the equipment is intended to be used, then the dispensation must only be signed off by the commander once they received appropriate advice. This must include advice from the Capability Sponsor who, prior to offering this advice must have engaged with the DE&S Delivery Team who provide the in-Service support for the equipment.

(4) Completion of MoD Form 5010 (AF 5010 or single service substitute) - Military Training for Land Systems with the guidance provided by JSP 375, Part 2, Vol 1, Ch 8&40, will determine whether a dispensation is required. Further guidance should be sought from the oversight 1\* HQ. Early engagement with HQ SASC is recommended to prevent unjustified dispensations being sought.

**1-09** For further guidance on the SST Exercise Directors and Conducting Officers are to engage with their TSA and or their Single Service 1\* HQ, further information can also be found in JSP 375 Chapter 8 & 40.

## **Risk Assessments**

**1-10** The start point for all Cadet training, is the production of a Risk Assessment (RA) relevant to your service.

a. The individual appointed to produce the Risk Assessment (normally the Planning Officer (PO)) will be a competent person who has been appointed by the Chain of Command and has been formally trained in the production of a Risk Assessment. The appointed competent person will be qualified, current, experienced, and mature in the activity that they have been appointed to assess.

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<sup>1</sup> Refer to single Service Command Standing Orders for details (Army: ACSO 1200, RAF: AP 8000 RAF SEMS, RN: BRd 10 NC SEMS).

- b. The RA authorising officer (normally the SPO) must have completed the Army Safety Centre (ASCeN) Risk Assessment training package which is valid for 5 years or the Single Service or Cadet Forces equivalent training package.
- c. If all elements of the SST are in place the consequent hazards and controls should be recorded on the Risk Assessment and included in the RSD/RASP/ESD/EASP coordinating instructions.
- d. The TSA's or the SASC ARTAT can give advice and training on the production of Risk Assessments.

## Section 2. Qualification Rules

### Definitions

1-11 The following definitions should be understood before reading this chapter:

a. **Plan (Planning).**

This is the detailed organisation of a live or blank firing exercise or range practice.

b. **Conduct (Conducting).** This is the management of a live or blank firing exercise or practice within the approved plan.

c. **Supervise (Supervising).** This is the task given to an officer, warrant officer, NCO (Regular/Reserve service helpers) or CFAV responsible for the safe conduct of a specific group or individual, within the overall plan of an exercise or range practice.

d. **Competent.** To be deemed competent, an individual must be qualified, experienced and current and have the correct attitude to participate as exercise/range staff or as exercising cadets/CFAVs.

(1) **Qualified.** A qualified individual must have attended and passed one of the qualifying courses laid down in this Chapter and remained current.

(2) **Experienced.** To be deemed experienced, an individual must possess the knowledge and skill acquired through participation in or exposure to the same or similar training in that appointment on a qualifying/authorising course or over a period of time.

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(3) **Current.** Regardless of rank and appointment, it is the individual's responsibility to remain current in all aspects of the role which they are employed. Where any doubt arises, the CoC is to contact the OC ARTAT for advice and appropriate refresher training undertaken i.e., revision on the duties of an RCO and the completion of Range Documentation. Planning Officers, Range Conducting Officers, Exercise Conducting Officers, Firers, Safety Supervisors and Exercise Assistants must have passed the appropriate WHT, within six months and have been trained following the approved progression of training within the appropriate Cadet policy and GSP's before participating in the activity.

## Qualifications

**1-12 Awarding Qualifications.** DLW as the ACA&I is responsible for the awarding of all Cadet WS range qualifications:

- a. To be qualified, an officer, warrant officer, NCO (Regular/Reserve service helpers) or CFAV must successfully complete a qualifying course listed in the sections of this chapter.
- b. The awarding of Cadet WS qualifications has been delegated to the officers of the SASC ARTAT. All Cadet courses must be regulated by an SASC ARTAT officer, who will be assisted by instructors from the appropriate Cadet Organisation, CTT, SATT or SCC equivalent in the delivery of the instruction.
- c. The range qualification categories are to be shown on individual course reports, in addition to any specialist qualification awarded. Where critical Training Objectives (TOs) have not been achieved or covered during a course, this is to be clearly stated on the course report.
- d. Any form of Cadet LFMT conducted during a qualifying course is planned solely for the purpose of exercising and testing students in their practical range responsibilities. This activity does not form part of an individual's Cadet LFMT training progression and is not to be recorded on WESTMINSTER/BADER.

**1-13 Training Limitations.** Time and resource limitations may prevent the course instruction on every Cadet WS or on every type of range that may be encountered. The instruction given on a course, combined with the integrity and responsibility associated with that rank should be sufficient for students to be able to refer to relevant pamphlets in order to plan, conduct or supervise live or blank firing of all Cadet WS or ranges covered by that qualification.



**1-14 Minimum Rank Requirement.** Regardless of rank whilst attending a course, course qualified personnel are not empowered to use the qualification until they have the minimum rank stated in the following sections, this is to ensure they also have the appropriate level of experience and authority.

**1-15 Qualification Review.** The County Commandant or Service equivalent is to **annually review** the competence of all range qualified personnel under their command. The review should establish the currency of the individual's qualifications. The County Commandant or Service equivalent is empowered to cancel any qualification if they consider that an individual is no longer competent to perform the role. This review is to be formally recorded by the CoC so it can be verified by external assurance.

**1-16 Refresher Training.** Regardless of rank and appointment, it is the individual's responsibility to remain current in all aspects of the role in which they are to be employed in. Where doubt arises with the CoC on the individual's competency, the qualification is not to be used until refresher training has been conducted by the CTT, SATTs or the SCC equivalent. The CoC are to contact the OC ARTAT for advice on the appropriate refresher training to be undertaken i.e., revision on the duties of an RCO and the completion of Range Documentation. Regardless of how recently a qualification has been used the following **mandatory** training is to be conducted:

- a. An individual may only be appointed as a Senior Planning Officer (SPO) if the mandatory Defence Learning Environment (DLE) CFAV DLE SPO refresher training has been completed within the past **12 months**.
- b. Exercise Directors are encouraged to complete the CFAV DLE SPO refresher training as required.
- c. For all planning and conducting qualifications the mandatory use of reference material to source the most up to date information and procedures will ensure currency.
- d. Safety Supervisors are to receive refresher training of their role and duties prior to the Range Practice, supervised by the Conducting Officer. If in doubt seek SASC ARTAT advice on the content.

e. The Exercise Conducting Officer is to ensure that the Exercise Assistants are fully briefed on their duties prior to the conduct of any training with or without OME and if required they are to be refreshed on their role and responsibilities. If in doubt seek SASC ARTAT advice on the content.

**1-17 Qualifications on Re-enlistment.** It is the responsibility of the County Commandant or Service equivalent to assess the suitability of an individual to retain a range or SAA qualification and to ensure they have completed refresher training where required. CFAV range qualified personnel who are re-enlisting or Regular and Reserve range qualified personnel who are joining the Cadet Forces within **3 years** of termination may retain their qualifications, providing a record of, or a course report showing, that qualification can be produced. On re-enlistment the CFAV's CoC must seek advice from the OC ARTAT regarding suitable refresher training that should be undertaken by the individual, prior to the County Commandant or Service equivalent reinstating their qualifications. The minimum rank requirement to hold a range qualification will still apply. **Over 3 years they are required to attend a qualifying course.** The SAAI qualification is not time barred, however, it is the responsibility of the Chain of Command and the instructor to ensure currency prior to delivering instruction on any Cadet WS. For any further advice and guidance contact the OC ARTAT.

**1-18 Termination of Service.** On leaving the Regular, Reserve or Cadet Forces all Infantry and Cadet WS Range and SAAI Qualifications are cancelled. Military Support Function (MSF) Civil Servants who are appointed as Range Safety Officers or equivalent, may utilise aspects of previously gained Cadet WS Range Qualifications in support of their employment responsibilities and duties within an assurance role, however, they are not qualified.

**1-19 Cancellation of Qualifications.** Any cancellation of a Range or SAAI qualification is to be the subject of a County Part 2 Order action or Service equivalent on behalf of the County Commandant or Service equivalent and the unit record office informed. Individuals cannot re-gain their qualification until they have successfully re-qualified on the relevant course listed in this Chapter. Any cancellation of qualifications must be updated on the CFAV's WESTMINSTER/BADER and unit records.

## Conversion of Qualifications.

1-20 On joining the Cadet Organisation as a CFAV, Ex Regular or Reserve qualified personnel that have been awarded the Range Qualifications in the below, will, at the discretion of the County Commandant or Service equivalent have the qualification converted, also refer to para 1-17. However, they must prove themselves to be current and competent. This must then be entered onto WESTMINSTER/BADER and unit records as follows:

Ser	Previous Qualification	Regular/Reserve to Cadet Qualifications	Remarks
(a)	(b)	(c)	(d)
1.	SA (A) (90)/(18)	SA (SR) (07) Cadet SA (LR) (23) Cadet SA (K) (17) Cadet SA (M) (07) Cadet	Includes CFAVs who are no longer serving in the Reserve or Regular Forces.
2.	SA (B) (90)/(18)	SA (SR) (07) Cadet SA (K) (17) Cadet SA (LR) (23) Cadet	Includes CFAVs from the RAF (VR) (T) who have previously attended RMQ Courses where the SA (B) (90)/(18) Qual was awarded.
3.	SA (M) (07)/(18)	SA (M) (07) Cadet	See Ser 1.
4.	SA (K) (90)/(18)	SA (K) (17) Cadet	For Reserve Forces K Qual, only applicable from 01 April 2010.
5.	SAAI	SAAI Cadet	The SAAI has been formally trained and tested on the L98A2.
6.	DCCT Basic Operator	DCCT Basic Operator Cadet	

**Note:** Serving Regular/Reserve personnel with the current range qualifications listed in column (b) are permitted to plan, conduct, and supervise appropriate training for cadets and CFAVs, however, **Cadet Training Ranges is to be used**. If conducting Cadet LFMT on a LFTTA Static Firing Line, refer to para 4-60.

**1-21 CFAVs are not permitted to plan, conduct, or supervise any Ranges for Regular or Reserve Forces.**

**1-22 Re-enlistment.** For CFAVs who re-enlist, whose previous course qualification does not appear in this publication, the past courses rule will apply. For all personnel, the unit must update individual records to reflect this situation also refer to para 1-32 and 1-33.

## Cadet Force Range Qualification

1-23 DLW is the awarding body for all Cadet Range Qualifications. On behalf of DLW, the SASC are the qualifying authority. The qualifying courses and categories are listed in Section 3.

## University Officer Training Corps (UOTC)

1-24 UOTC Under Officers are **not permitted** to attend Cadet RMQ courses, hold range qualifications, or supervise any form of live firing.

## Use of Senior Cadets or Non-Qualified CFAVs as SAA Instructors

1-25 Only a qualified SAAI can formally train and then conduct WHT's for cadets and CFAV's. Notwithstanding this, CFAV's and Senior Cadets who have attended and passed the Senior Cadet Instructors Cadre (SCIC) for the ACF, or Leadership and Methods of Instruction (MOI) Cadre for the CCF, or the equivalent in the RAFAC, may conduct a SAA practice/revision period **ONLY**. They may do this provided that:

- a. They are current on the Cadet WS, passed the WHT and **supervised one to one by a qualified, current, and competent CFAV SAAI**.
- b. The practice period is prepared under the supervision of the qualified SAAI who is to be present throughout the practice period.
- c. The cadets being practiced have been formally trained and tested with that Cadet WS by a SAAI.
- d. Neither non-qualified CFAVs or Senior Cadets or other Cadet Organisation equivalent are permitted to conduct WHTs under any circumstances.
- e. The County Commandant or Service equivalent allows it.

## Section 3. Qualification Courses and Categories for CFAVs

### Introduction

1-26 The tables in this section show the range qualification categories that can be obtained on current qualifying courses.

Contents	
<b>Introduction</b>	<b>1-14</b>
<b>Qualifying Authority</b>	<b>1-14</b>
<b>Qualification Categories</b>	<b>1-14</b>

### Qualifying Authority

1-27 The qualifying authority for the current courses set out in this chapter are the SASC ARTAT, HQ SASC, Warminster. All courses are to be supported and authorised by an SASC officer SME, from the SASC ARTAT, who will be the qualifying authority on behalf of DLW and must sign all course reports/certificates.

### Qualification Categories

1-28 Any CFAV who successfully completes a Cadet Range Qualification course will be awarded the range qualification categories appropriate to that course.

1-29 A member of the Regular/Reserve Forces can only attend a Cadet RMQ/SAAI Course and be awarded a Cadet Range/SAAI qualification in exceptional circumstances, they are to attend the appropriate Regular/Reserve course in order to gain a qualification. If they do attend a Cadet Force Range or SAAI Qualification Course the following rules apply:

- a. They are to hold the minimum acting rank required in accordance with Pam 21, Chapter 1, Section 2.
- b. The qualification is **ONLY** valid whilst they are serving with or supporting a Cadet Organisation and can only be used to plan, conduct, or supervise cadet activities using live ammunition, blank or pyrotechnics.
- c. Cadet RMQ/SAAI Qualifications cannot be used to plan, conduct, or supervise Ranges or SAA training for members of the Regular or Reserve Forces.

**1-30** All Range Qualifications categories are suffixed with 'Cadet' e.g., **SA (SR) (07) Cadet**.

**1-31** The current cadet qualification categories are as follows:

a. **SA (SR) (07) Cadet**. Plan and conduct all cadet live firing with Cadet WS on NDA, 25m LDA Ranges as follows:

- (1) Air Rifle Range.
- (2) Indoor Range.
- (3) Tube Range.
- (4) 25m Barrack Range.
- (5) Barrack Range.
- (6) The DCCT Range.
- (7) Supervise Cadet live firing with Cadet WS on Full Danger Area (FDA), Limited Danger Area (LDA), No Danger Area (NDA) purpose-built ranges and on an LFTTA during **LFMT practices ONLY (less IBSR)**.

b. **SA (LR) (23) Cadet**. Plan, conduct and supervise all cadet live firing with Cadet WS on NDA, LDA and FDA purpose-built ranges and non-standard purpose-built ranges, in addition to those listed at sub para-a (1) to (7), as follows:

- (1) Gallery Range (GR), Converted Gallery Range (CGR), including Butts/Console and Gallery Zeroing Ranges.
- (2) Electric Target Range (ETR), including Console.
- (3) **This qualification excludes the Mechanised Moving Target Training Range (MMTTR) and Individual Battle Shooting Range (IBSR).**

c. **SA (AR) (12) Cadet**. Plan, conduct and supervise Cadet Air Rifle firing on purpose built, temporary or permanent air rifle ranges. **CFAV with this qualification cannot plan, conduct, or supervise on any other type of range.**

d. **SA (K) (17) Cadet**. Control the Butts on a GR and CGR for Cadet LFMT, supervise the console on a CGR and ETR for Cadet LFMT and act as a Firing Point Safety Supervisor during Cadet LFMT on NDA, LDA,

FDA Ranges and on an LFTTA during **LFMT practices ONLY (less IBSR)**.

- e. **SA (M) (07) Cadet.** Plan, conduct and supervise cadet training with Cadet WS using blank ammunition and pyrotechnics.
- f. **Dismounted Close Combat Trainer (DCCT) Operator.** Operate the DCCT for Cadet LFMT, this qualification does not allow the planning, conduct or supervision of firing in the DCCT.
- g. **Cadet Force Skill at Arms Instructor (SAAI Cadet):**
  - (1) Teach weapon handling and conduct weapon handling tests.
  - (2) WHT using Cadet WS for cadets and CFAVs.
  - (3) Conduct training tests on pyrotechnics for cadets and CFAVs.
  - (4) Supervise competent Senior Cadets or other Cadet Organisation equivalent conducting SAA practice periods.

**Note.** To conduct any form of WHTs or training tests the SAAI must have passed a SAAI Course and be current and competent on the Cadet WS or pyrotechnic being used.

## Past Courses Course Reports/Certificates

**1-32** Course reports or certificates issued by the qualifying authority take precedence over this section as the authoritative document for an individual's range qualification. Any limitations imposed by past courses should be stated on the individual's course report or certificate. For clarification of past course qualifications contact the OC SASC ARTAT.

**1-33** Any limitations imposed by past courses should be stated on the individual's course report or certificate. For clarification of past course qualifications contact the OC SASC ARTAT. Senior Planning Officers are to ensure that any CFAV planning and conducting training using "**past course qualifications**" are qualified to do so and are current and competent.

**1-34** Neither the 1 day WHT Assessors Course or 1 day Weapon Instructors Course comply with SST. Therefore, are not classified as '**past courses**,' CFAV who have attended these courses are not permitted to conduct SAA Trg/WHTs.

## Civilian Range Qualifications

1-35 When MOD personnel shoot as a member of a civilian club they are not “**On Duty**.” They cannot use MOD Range Qualifications to plan, conduct or supervise live firing in a civilian club, likewise they are not permitted to use civilian range qualifications to plan, conduct or supervise cadet MOD live firing activities.

1-36 Current qualifying courses for Army Cadet Force, Combined Cadet Force, Sea Cadet Corps and Air Training Corps are:

Ser	Qualification Course	Rank	Qualification Awarded	Remarks
1.	Cadet Short Range RMQ Course	CFAV	SA (SR) (07) Cadet	
2.	Cadet Long Range RMQ Course	CFAV	SA (LR) (23) Cadet <sup>2</sup>	Pre-requisites: SA (SR) (07) and SA (K) (17) or past courses.
3.	Cadet Air Rifle RCO RMQ Course	CFAV	SA (AR) (12) Cadet	
4.	SA (K) (17) Cadet Qualification Course	CFAV	SA (K) (17) Cadet	
5.	SA (M) (07) Cadet Qualification Course	CFAV	SA (M) (07) Cadet	
6.	Cadet DCCT Basic Operators Course	CFAV	DCCT Basic Op Cadet	
7.	SAAI Cadet Course	CFAV	SAAI Cadet	

1-37 Past courses for the Army Cadet Force, Combined Cadet Force, Sea Cadet Corps and Air Training Corps are:

Ser	Qualification Course	Rank	Qualification Awarded	Remarks
1.	Cadet Range Conduct Qualification Smallbore	CFAV	CRCQ-SB	Plan, conduct and supervise cadet LFMT with cadet smallbore weapons and Air Rifles on 25m NDA purpose built ranges.
2.	Cadet Range Conduct Qualification Full Bore	CFAV	CRCQ-FB	Plan, conduct and supervise cadet LFMT with cadet full bore weapons on NDA, LDA, and FDA purpose built ranges, less MMTTR.
3.	Range Management Qualification Short Ranges	CFAV	RMQ (SR)	Plan, conduct and supervise cadet LFMT with cadet small bore and full-bore weapons on NDA purpose built ranges.

<sup>2</sup> SA (LR) (23) awarded WEF Jun 23 on introduction of the Cadet 200mil Rule.



4.	Range Management Qualification Long Ranges	CFAV	RMQ (LR)	Plan, conduct and supervise cadet LFMT with cadet full bore weapons on LDA, and FDA purpose build ranges. This qualification will include (G) gallery, Gallery and ETR.
5.	KGVI Exercise Conducting Officer (ECO).	CFAV	KGVI (ECO)	Plan, conduct and supervise training with blank ammunition and pyrotechnics.
6.	Weapon Instructor (Air Cadet Organisation).	CFAV		Plan and conduct weapon training periods and conduct WHTs.
7.	Ancillary Range Duties	CFAV	ARD	Control butts, supervise console and act as a Safety Supervisor.
8.	Cadet Force Skill at Arms Instructor	CFAV	CF SAAI	Teach Skill at Arms and conduct Weapon Handling Tests.
9.	DCCT Basic Operator.	CFAV	DCCT Basic Op	Use the DCCT facilities.
10.	KGVI Course SA (M) (07) Cadet (ACF & CCF)	CFAV	SA (M) (07) Cadet	Plan, conduct and act as an Exercise Assistant for blank firing with Infantry and cadet weapon systems and pyrotechnics.
11.	SA (M) (07), Cadet (SCC, RMR & ATC)	CFAV	SA (M) (07) Cadet	Plan, conduct and act as an Exercise Assistant for blank firing with Infantry and cadet weapon systems and pyrotechnics.
12.	Cadet Long Range RMQ Course	CFAV	SA (LR) (07) Cadet	Pre-requisites: SA (SR) (07) and SA (K) (17) or past courses.

## Chapter 2. Planning

### Purpose

2-01 This chapter prescribes the responsibilities of key personnel in the SST and explains the planning process that is relevant to all forms of training with Cadet WS and Pyrotechnics.

Contents	
<b>Section 1. Responsibilities</b>	<b>2-2</b>
<b>Section 2. Planning Considerations all Firing</b>	<b>2-9</b>
<b>Section 3. Accident Procedures</b>	<b>2-24</b>
<b>Section 4. Training with Foreign Cadet Forces</b>	<b>2-34</b>

### Referencing

2-02 The sections in this chapter are relevant to all forms of training covered by this pamphlet. It is essential that those planning, conducting, or supervising training are current with these sections before referencing other specific chapters.

## Section 1 – Responsibilities

### Exercise Director

2-03 It is the responsibility of the Exercise Director, normally the County Commandant or Service equivalent for the RAFAC and SCC, to formally appoint a Senior Planning Officer (SPO) in writing and to ensure that they have the following:

- a. The necessary Cadet qualification(s) relevant to the activity to be undertaken e.g., SA (SR) (07) Cadet for Short Range live firing, SA (LR) (23) Cadet for Long Range live firing and SA (M) (07) Cadet, for exercises involving blank or pyrotechnics.
- b. In the case of Cadet LFMT and Training Simulation, the minimum rank of Lt OF1, SMI or WO applies to CFAVs. For Regular or Reserve personnel, minimum rank of Sgt (OR 6).
- c. Sufficient experience for the training to be conducted. The Exercise Director is to use WESTMINSTER/BADER for confirming the SPO experience levels.
- d. The mandatory Defence Learning Environment (DLE) CFAV DLE SPO refresher training has been completed within the **past 12 months**.
- e. Completed the mandatory Safety Risk Management Trg directed by their Single Service, and they are competent in the risk assessment process.

2-04 The Exercise Director cannot appoint themselves as the SPO or any other appointment. Exercise Directors are encouraged to complete the CFAV DLE SPO refresher training as required.

### Senior Planning Officer

2-05 The SPO is to be formally appointed as per para 2-03. It is the responsibility of the SPO to appoint a Planning Officer and a Range or Exercise Conducting Officer and to ensure that they are:

- a. Competent, qualified and of sufficient experience for the training. Exercise Directors and SPO's can also check WESTMINSTER /BADER for confirming experience levels.
- b. Given supervision and guidance.
- c. Given refresher training if required.
- d. Given sufficient time, resources, personnel, and medical cover.

2-06 The SPO is an integral part of the planning and audit process and cannot appoint themselves to be, or otherwise act as, the Planning Officer, Conducting Officer, or any other range team appointment for that activity. They have a duty to ensure the following:

- a. They have followed the planning process correctly, using the SPO's check list.
- b. The plan meets the aim and objectives of the training, the RSD, RASP, ESD or EASP is countersigned by the SPO.
- c. There are sufficient competent Safety/Exercise Staff.
- d. The exercising cadets/CFAV's are competent and have completed the necessary progression of training.
- e. If the SPO considers there are insufficient resources or manpower concerns, in particular qualified safety/exercise staff or competent exercising cadets/CFAV's, the SPO is to refer the matter back to the Exercise Director for a decision.
- f. The SPO should engage with the Training Safety Advisor (TSA) throughout the planning process who can provide assistance if required.

### **Planning Officer**

2-07 The PO is responsible for the design of the training. The PO is to be competent, qualified and will normally also be the Range/Exercise Conducting Officer. They have a duty to ensure the following:

- a. A detailed plan is produced that meets the requirements of the aim of the training and has considered and included the following:
  - (1) The requirements of the SST in particular, the pre-requisite for training with Cadet WS and Pyrotechnics.
  - (2) The rules and regulations contained in the relevant chapters of this pamphlet and other relevant publications.
- b. If as a result of this detailed planning the PO considers there are insufficient resources or personnel available, they are to refer the matter back to the SPO for a decision.
- c. For live firing practices the planning officer and RCO will always be the same person, see para 2-36 for exceptional circumstances.

## The Range Conducting Officer

2-08 The RCO is responsible for the safe conduct of the firing in accordance with the plan. The RCO is to be qualified and competent with the Cadet WS being used and will normally also be the PO. RCO's are to have their signed RSD/RASP and latest GSP relevant to the conduct of that range in their possession whilst implementing their plan:

- a. They will be assisted by a number of Safety Supervisors as appropriate and is to conduct refresher training as required.
- b. Except for the occasions stated in Chapter 4, the RCO cannot act as a dedicated Safety Supervisor, however, they could intervene in the role of the Safety Supervisor if required. **The RCO cannot be appointed as the Medic.**

## Safety Supervisor

2-09 The ratio/level of supervision required for a particular range practice is to be determined by the PO in consultation with the SPO and appointed by the SPO. Guidance to the minimum required is given in the relevant chapters of this publication. The ratio is to be included in the RSD/RASP.

2-10 Safety Supervisors are to be competent, qualified and are responsible for the supervision of firing as directed by the RCO, they are to be stipulated in the RSD/RASP. They are to be qualified and competent on the Cadet WS they will be supervising.

## Senior Exercise Conducting Officer

2-11 A Senior Exercise Conducting Officer (SECO) who is competent and qualified will be appointed by the Senior Planning Officer for:

- a. Large scale exercises (e.g., an exercise above platoon level).
- b. Exercises that involve subordinate ECOs who are responsible for elements of an exercise under the overall control of the SECO.

## Exercise Conducting Officer

2-12 The Exercise Conducting Officer (ECO) is responsible for the safe conduct of the exercise, in accordance with the plan. The ECO is to be qualified, competent with the Cadet WS and pyrotechnics being used and have the experience to match the complexity of the exercise. The ECO may also be the Planning Officer and may be assisted by a number of Exercise Assistants and are to ensure:

- a. Compliance with the regulations for the use of blank ammunition and pyrotechnics.
- b. If pyrotechnics are required to be destroyed in situ, it is to be carried out by an ATO. The ECO is to be fully aware of the correct procedures for contacting the ATO. **CFAVs are not permitted to destroy blinds. However, SBS L35A1 blinds can be dealt with iaw para 3-28 f (1) to (5).**
- c. ECOs are to have their signed ESD/EASP and latest GSP publications relevant to the conduct of that exercise in their possession whilst implementing their plan. **The ECO cannot be appointed as the Medic.**

### Exercise Assistant

2-13 The ratio/level of Exercise Assistants (EA) The ratio/level of Exercise Assistants acting as supervisors is to be determined by the PO in consultation with the SPO and appointed by the SPO (the ratio is to be included in the EASP or ESD). The EAs are responsible for the safe conduct of those aspects of an exercise involving blank ammunition or pyrotechnics that are allotted to them. There is no qualification, however, the EA is to be competent with the Cadet WS and pyrotechnics they are supervising (passed WHT), been fully briefed by the ECO and hold the minimum rank of CFAV (or LCpl (OR3) if a Reg/Res Service Helper). **UOTC are NOT to be employed as EAs.** The ratio/level of Exercise Assistants acting as supervisors is to be determined by the PO in consultation with the SPO and appointed by the SPO.

### Exercising Cadets/CFAV

2-14 All exercising cadets and CFAV must have been formally trained, formally tested (Passed the WHT) within the qualifying period (6 months) and completed the progression of training relevant for that Cadet WS and been briefed to ensure they have a practical understanding of the requirements and constraints of the exercise or range practice and their role within it.

### Training Safety Advisor (TSA)

2-15 This pamphlet mandates the minimum requirement of personnel and their responsibilities during the planning, conduct and supervision of training using live or blank ammunition for Cadet WS and pyrotechnics. TSAs provide advice, guidance, and assurance to CFAV's on the planning and delivery of LFMT and Trg with OME, in accordance with the respective Cadet Force Safety Management System but will be in addition to the responsibilities and processes already stated in the publication.

## Cadet Forces – Appointments

2-16 The appointments of Exercise Director and SPO within certain Cadet Organisations i.e., CCF, may vary. Where units are unable to provide an Exercise Director or suitably qualified SPO, they are to seek assistance/guidance from either their local CTT, SATT or SCC equivalent, Regional Command, or equivalent 1\* HQ (Service Level Duty Holder).

## Safety Critical Duties

2-17 Regular/Reserve Service Personnel involved in the conduct of any Cadet activity that requires the operation/supervision of firearms/ammunition or explosives is considered to be performing a Safety Critical Duty (SCD) in accordance with The Armed Forces (Alcohol Limits for Prescribed Safety Critical Duties) Regulations 2013 and therefore must comply with the policy laid down in JSP 835 Part 1 (it is to be noted that range conduct is subject to the lower alcohol level). Personnel subject to the lower prescribed safety-critical alcohol limits may well provide a positive reading many hours after consuming even small amounts of alcohol.

2-18 CFAV are to comply with their respective Single Service Alcohol policy/regulations when involved in the conduct of any Cadet activity that requires the operation/supervision of firearms/ammunition or pyrotechnics is considered to be performing a Safety Critical Duty.

2-19 Any Regular/Reserve Service Personnel, Service Helper or CFAV who reports for a cadet training activity unfit owing to the effects of excessive alcohol will be removed from the planned activity and reported to their respective single service CoC for further action.

## Senior Planning Officers' Checklist

1. **Introduction.** To ensure compliance with the SST, the SPO is to supervise and give guidance for the planning and conduct of activities. The qualified SPO is to refer to the chapters in this pamphlet and use the following as a check list:

2. **Safe Person.**

Appointment	Qualified & Competent?	Suitable Experience?	Supervision/Guidance Given:
Planning Officer	Qualified and competent to plan the live firing or exercise?  <b>Yes / No</b>	If not appoint experienced Planning Officer Mentor.  <b>Yes / No</b>	Must consider: <ul style="list-style-type: none"> <li>• Planning time</li> <li>• Activity objectives</li> <li>• Resources - Personnel</li> <li>• Supervisor/firer ratio</li> <li>• Approval of plan on RSD/RASP/ESD/EASP</li> </ul>

RCO/ECO	Qualified and competent to conduct the live firing or exercise? <b>Yes / No</b>	If not appoint experienced Conducting Officer Mentor. <b>Yes / No</b>	Must consider: • Recce • SAAF • Exercise walkthrough
<b>Note: The SPO must be satisfied whether the RCO/ECO is suitably experienced in order to assess if mentoring is required and at what level. This can be achieved through observation by the SPO or others.</b>			
Safety Supervisors	Qualified/competent on weapons to be used? <b>Yes / No</b>	Completed requisite pre-training?	If not complete WHT and practical refresher training. Confirm a suitable ratio is being used.
Exercise Assistants	Qualified/competent on weapons and pyrotechnics being used? <b>Yes / No</b>	Completed requisite training?	If not complete WHT and practical refresher training. Confirm a suitable ratio is being used.
Exercising Cadets/CFAVs/Firers	Qualified/competent on weapons being used? <b>Yes / No</b> Competent for planned activity? <b>Yes / No</b>	Completed requisite training progression in accordance with the respective Cadet Training Syllabus and respective Single-Service Shooting Syllabus.	

### 3. Safe Equipment.

Appointment	The SPO is to ensure the following:	Delete as appropriate. If NO take remedial action
Planning Officer/ RCO/ECO	<ul style="list-style-type: none"> <li>• Does the MOD Form 905 allow all weapons/ammo to be used.</li> <li>• Is equipment being used as per pamphlet/manual?</li> <li>• CLPW being used? Has training/testing been done?</li> <li>• CLPW being used? Has the letter of dispensation been sent to the RAU?</li> <li>• CLPW being used? Has RAU authority been granted on MOD Form 905?</li> </ul>	<b>Yes/No (RAU advice)</b>  <b>Yes/No</b> <b>Yes/No</b>  <b>Yes/No (RAU advice)</b>  <b>Yes/No (RAU advice)</b>

### 4. Safe Practice.

Appointment	The SPO is to ensure the following:	Delete as appropriate. If NO take remedial action
Planning Officer/ RCO/ECO	<ul style="list-style-type: none"> <li>• Are TOs relevant and as directed?</li> <li>• Has correct progression of training been completed?</li> <li>• Is the practice formally endorsed in accordance with this pamphlet (i.e., CSM or Shooting Syllabus)?</li> <li>• Have any letters of waiver been provided to the planning officer to annex the written instruction (if required)?</li> </ul>	<b>Yes/No</b> <b>Yes/No</b>  <b>Yes/No</b>  <b>Yes/No (RAU advice)</b>



<b>Appointment</b>	<b>The SPO is to ensure the following:</b>	<b>Delete as appropriate. If NO take remedial action</b>
Planning Officer/ RCO/ECO	<ul style="list-style-type: none"> <li>• Range Standing Orders (RSO) read?</li> <li>• Range recce completed including SAAF?</li> <li>• Contact the Range Warden?</li> <li>• MOD Form 905 checked?</li> <li>• Emergency plan and medical cover are suitable?</li> <li>• If overseas, has DSA 03 OME Pt 3 been consulted?</li> </ul>	Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No
Separate Planning Officer and RCO/ECO	<ul style="list-style-type: none"> <li>• Has the RCO been part of the planning process/recce?</li> <li>• Received the necessary detailed briefing?</li> <li>• Countersigned the RSD/RASP/ESD/EASP?</li> </ul>	Yes/No Yes/No Yes/No
RASP/EASP Checklist	<ul style="list-style-type: none"> <li>• Title, location, and date, correct?</li> <li>• Appointments are listed with correct qualifications.</li> <li>• Specific and detailed Staff responsibilities?</li> <li>• Medical plan is sufficiently clear and detailed?</li> <li>• Plan matches/exceeds the minimum requirements?</li> <li>• Procedures/contact details for accident agencies?</li> <li>• The instruction states that the SST is in place?</li> <li>• Rehearsal/Walkthrough is sufficiently detailed?</li> <li>• Staff safety brief sufficient and clear?</li> <li>• Exercising/Firing cadets/CFAVs safety brief has sufficient detail?</li> <li>• A realistic battle picture and achievable TOs?</li> <li>• Logical sequence of events?</li> <li>• End of range/exercise procedures including ammo accountability?</li> <li>• Is all information relevant and specific to the activity?</li> <li>• Signatures (SPO, Planning Officer, RCO etc.)?</li> <li>• All References correct and in date?</li> <li>• Annexes are attached?</li> <li>• Detailed sketch map for ESD/EASP?</li> </ul>	Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No  Yes/No Yes/No Yes/No  Yes/No  Yes/No Yes/No Yes/No Yes/No

1. The Exercise Director must be made aware of any planning, manning or resource concerns.
2. If the SST cannot be achieved, then a Dispensation may be required, in accordance with Single-Service policy (seek SASC advice via 1\* HQ).
3. Upon completion of training, the SPO is responsible for ensuring that the PO archives the RSD/RASP/ESD/EASP, in accordance with the Single Service Cadet Organisation policy.
4. The SPO is to countersign the RSD/RASP/ESD/EASP, confirming that they have utilised the SPO Checklist in Chapter 2 of Cadet Training Ranges and is content the correct planning process has been followed.

## Section 2. Planning Considerations all Firing

### Introduction

2-20 Range and training area space and time is valuable, and planning must ensure that firing starts at the beginning of the allotted period and administration does not delay firing.

2-21 A generic planning process (see Fig 2-1) is explained during this section. This must be fully understood before referring to the additional planning considerations in other chapters.

### Initial Planning

2-22 **Training is Directed.** Before planning can start, the Exercise Director must determine the Training Objectives to be achieved and the number of cadets to be exercised.

2-23 **Allocate Appointments.** The responsibilities of the Exercise Director and the SPO in making appointments are at Section 1 to this chapter.

2-24 **Confirm Resources and Facilities.** It is the SPOs responsibility to ensure that the necessary resources are available. The PO is responsible for confirming the facilities allocated, long term planning is essential.

### 2-25 Communications.

Communications are to be established between Range Control and the RCO. It is to be maintained throughout the duration of the LF activity. Mobile phones are not to be used as the primary means of communications.

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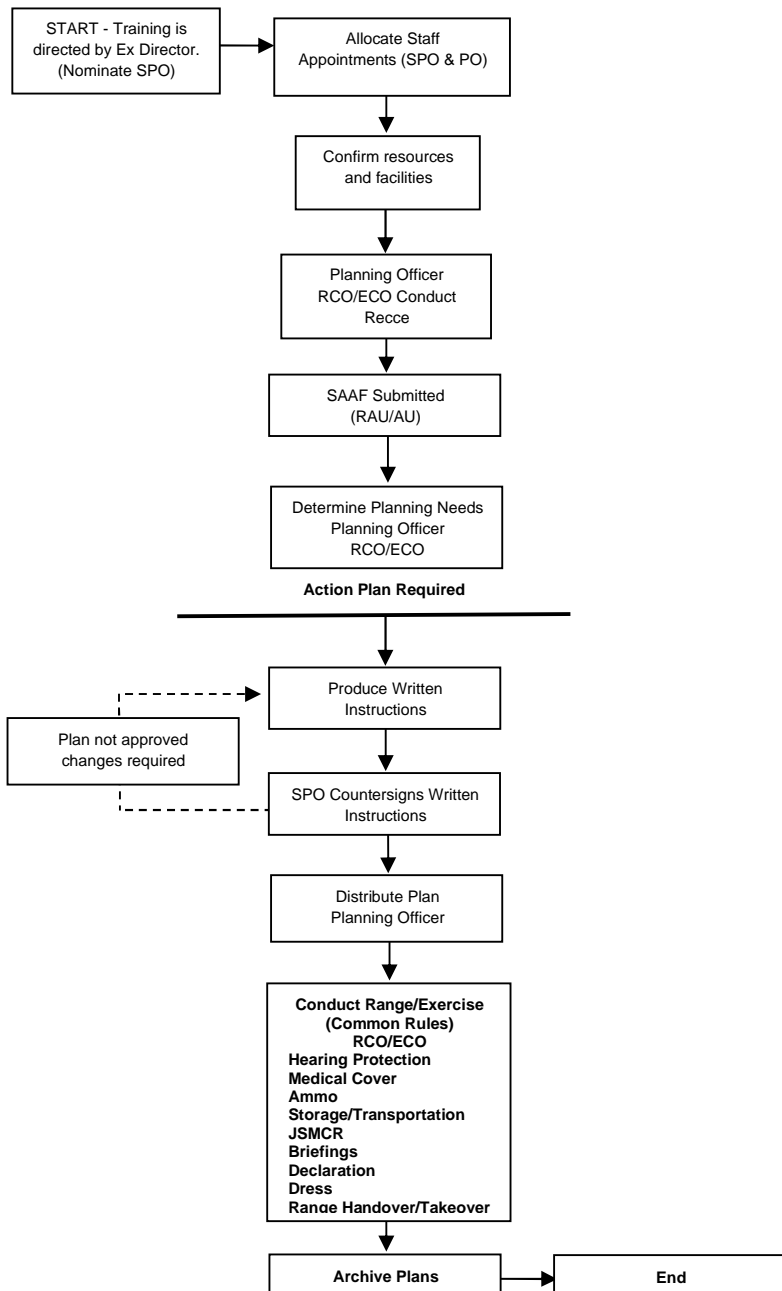


Fig 2-1. - The Planning Process

(The SPO is to use SPO Check List in conjunction with this flow chart)

## Conduct Range Recce

2-26 It is essential that all concerned with planning and conducting training read the relevant orders and publications **BEFORE** planning starts. This applies equally to all ranges and training areas. The following orders/documents are to be read:

- a. **Range Standing Orders.** These cover the general conduct for a large range complex or training area.
- b. **Range Orders.** These are specific to a particular range within the complex or orders for an isolated range location.
- c. **MOD Form 905. MOD Range Licence.** This certifies that the range is safe and suitable for use and states the weapons, munitions and explosive stores which can be used on the range.
- d. **Unit Standing Orders.** As applicable.

2-27 The relevant section(s) of this pamphlet are to be read with the local Range Standing Orders. If the local orders contradict this pamphlet, then the local orders take precedence. However, local orders cannot be less safe than the procedures in this pamphlet. In cases of concern seek advice from the SASC ARTAT.

## Determine Planning Needs

2-28 Dependent upon the type of training to be conducted, it will subsequently determine the type of range documentation to be produced (RSD/RASP/ESD/EASP). They should not be used as administrative instructions and for complex or larger activities they should be included as an Annex to a Coordinating instruction.

## Risk Assessment

2-29 The start point for all Cadet training, is the production of a Risk Assessment (RA) relevant to your service.

- a. The individual appointed to produce the Risk Assessment (normally the Planning Officer (PO) will be a competent person who has been appointed by the Chain of Command and has been formally trained in the production of a Risk Assessment. The appointed competent person will be qualified, current, experienced, and mature in the activity that they have been appointed to assess.
- b. The RA authorising officer (normally the SPO) must have completed the Army Safety Centre (ASCeN) Risk Assessment training package which is valid for 5 years or the single service or Cadet Forces equivalent training package.
- c. If all elements of the SST are in place the consequent hazards and controls should be recorded on the Risk Assessment and included in the RSD/RASP/ESD/EASP coordinating instructions.
- d. The TSA's and SASC ARTAT can give advice and training on the production of Risk Assessments.

## Produce a Written Instruction

2-30 The Planning Officer is to produce written instructions which; prove they have followed, an acknowledged planning process, covered all aspects of safety and necessary briefings to all staff and participants. The following are likely subjects for inclusion:

- a. The Conducting Officers (RCO/ECO) responsibilities before, during and after firing.
- b. The responsibilities of Safety Supervisors/Exercise Assistants specific to each weapon/pyrotechnic employed on the range/exercise.
- c. The responsibilities of all other range/exercise staff.
- d. Describe the rehearsal/walkthrough procedures
- e. Safety briefings for all range/exercise staff and participating CFAV/cadets.
- f. Provide Sketch Maps for ESD/EASPs.

2-31 Qualifying courses teach a standard format for each of the different types of written instructions that are required. These are:

a. **Range Safety Document (RSD).** The production of an RSD, specific to each range is the minimum requirement for all Cadet LFMT including Cadet Shooting Competitions, fired on the purpose-built ranges listed in Chapter 4. The RSD must follow acknowledged planning process, cover all aspects of safety, and provide the detail required to verbally brief all range staff and participating CFAV/cadets. It is to be countersigned by the SPO.

b. **Range Action Safety Plan (RASP).** The RASP is to be produced for all Cadet LFMT activities that the RSD does not cover (i.e., Civilians, untrained CFAV/cadets using service weapons, NSPLW or whenever operating under a waiver. A RASP is required by Cadet Shooting Teams conducting practice matches, belonging to other nations, prior to departing overseas (also refer to para 4-35). The production of a RASP will be a mandatory requirement if either the RAU or the appropriate Cadet 1\* HQ policy dictates their use. It is to be countersigned by the SPO.

c. **Exercise Safety Document (ESD).** The production of an ESD is mandatory when using OME in support of lessons or exercises delivered from coded publications that have published lesson/exercise objectives. If a published lesson/exercise objectives are changed or where the objectives are not published (i.e., given from the Ex Director/designed by the Planning Officer) then a EASP must be used. It is to be countersigned by the SPO.

d. **Exercise Action and Safety Plan (EASP).** It is mandatory to produce an EASP for any non-live firing activity which involves the use of OME not covered by an ESD. It is to be countersigned by the SPO.

e. **Cadet Action Safety Plan (CASP).** The production of a CASP or RAFAC and SCC equivalent is required by DIO to support any activity that does not involve the use of OME. The CASP or RAFAC and SCC equivalent is to be sent to RAU in accordance with the DIO Direction 002 Safe Place to Live, Work and Train as a written instruction.

## **Changes/Amendments to a written instruction**

2-32 **Minor Changes.** A minor change is considered a change of personnel (except the planning officer), date, or time and can be made to the written instruction prior to the activity being conducted.

2-33 **Major changes.** A major change is considered a change of planning officer, activity or location and can only be made if there is sufficient time for the full planning process to be conducted.

2-34 **SPO Approval.** If any changes are made after the SPO has countersigned the written instruction the Planning Officer must inform the SPO and either approve the changes by resigning the written instruction or by verbal/written approval which must be recorded and auditable. If any changes are made after the written instruction has been submitted to Range Control, they must be informed prior to the activity being conducted.

2-35 Range and Exercise appointments may only be replaced if there are suitably qualified personnel present to act as replacements; the RCO/ECO must ensure that they are qualified/competent. The replacement range or exercise staff must also receive a full range/exercise staff brief and take part in any rehearsals. The RCO/ECO is to make a signed amendment to the written instructions, which must be saved for audit purposes at the end of the activity.

2-36 **Exceptional Circumstances.** If, in exceptional circumstances (for example medical or compassionate) RCO/ECOs are using written instructions produced by another qualified individual, they must be checked thoroughly and countersigned before use. The responsibility for any deficiency of the written instruction passes to the RCO/ECO once the written instruction is signed.

### **Produce Sketch Maps**

2-37 The production of an exercise sketch map is required for blank firing exercises. It must include:

- a. Target positions.
- b. Enemy Locations.
- c. Initial contact points.
- d. Prominent points on the ground.
- e. Routes.
- f. Scale/North Pointer.

## Countersigning a Written Instruction

2-38 It is mandatory that all written instructions are checked and countersigned by the SPO. This provides assurance that the Senior Planning Officer has fulfilled their responsibilities of supporting and supervising the PO. Digital signatures are the preferred method as this verifies the identity of the SPO, when the SPO does not have IT access wet signatures are acceptable. The SPO should engage with the TSA throughout the planning process who can provide assistance as required.

2-39 In addition to any verbal briefings given all range/exercise staff must be issued with the information that they require for their role, e.g., time charts for the IC Console or Butts.

## Administration Unit Gross Error Check

2-40 Once a recce has been completed confirming what the activity is and where the activity is taking place an MOD Form 1930 - Safe Activity Assurance Form (SAAF) is to be submitted to the Range Administering Unit (RAU)/ Administering Unit (AU) at least **15 working days** prior to any activity taking place. A sketch map is to accompany all Fieldcraft Training Area (FTA) activity bookings. Providing Key appointments are known, early submission of the SAAF may be advantageous to the activity owner so use of the facility can be authorised by the RAU/AU.

2-41 Once the SAAF has been received by the RAU/AU they will ensure the activity fits the license/constraints of the Range/FTA before the facility is allocated.

## CFAV on Qualification Courses delivered by CTT, SATTs and CTC Frimley

2-42 Courses which award qualifications where students produce written instructions which are assessed by their instructors. These student instructions are not to be submitted to the RAU/AU but instead instructors submit overarching written instructions. Due to the nature of the courses only the Exercise Director, SPO and PO/RCO/ECO will routinely be listed in the appointments table. Appointments which course students fulfill are rotated throughout the activity therefore the phrase '**Student Under Instruction**' is permitted in the appointments table.

## Conduct Plans – Common Rules and Procedures

2-43 The following regulations are common to the conduct of training with Cadet WS, blank and pyrotechnics and should be fully understood before referring to the rules and procedures in specific chapters.



## Medical Cover

2-44 Strict compliance with all aspects of the SST provides the best preventative measure and will reduce accidents. The primary aim, following an accident involving injuries, is to provide lifesaving first aid, followed by rapid evacuation to an appropriate trauma facility.

2-45 The level of medical personnel cover required for all types of cadet training with ammunition and pyrotechnics is mandated by JSP 814 Policy and Regulations for MOD sponsored Cadet Forces and is defined as those who hold the following current first aid certificates (First Aid certificates must meet accepted national standards) or Individual Training Requirements (ITR's):

a. First Aid at Work certificates (including the First Aid at Work HSE certificates of the voluntary aid societies) that state they meet the requirements of First Aid Regulations 1981 or the NI HSE First Aid Regulations 1982. **This does not include the shorter Emergency First Aid at Work Qualifications (EFAW).**

b. If a CFAV has a current First Aid certificate other than a FAW, or where an alternative qualification is identified in place of FAW, which meets the conditions of para 2-45a, these may be considered for acceptance. Acceptance is subject to appropriate due diligence being undertaken by the Single Service MOD Sponsored Cadet Forces nominated representative to ensure the standard of training received, and the competence of the organisation which delivered this training, meet the necessary criteria.

c. CFAVs who are:

(1) Doctors registered and licensed with the General Medical Council.

(2) Nurses registered with the Nursing and Midwifery Council.

(3) Paramedics registered with the Health and Care Professions Council.

d. Those individuals listed at para 2-45c, are exempt from holding a FAW or equivalent qualification in First Aid, and are qualified to administer First Aid, provided they can demonstrate to the Single Service MOD-sponsored Cadet Force(s) nominated representative that they have current knowledge and skills in First Aid.

e. Battle Casualty Drills (BCD). BCD trained Regular or Reserve Forces personnel attached to/or working with cadet organisations. Individual Training Requirement (ITR) BCD is the Army HQ mandated minimum level of medical cover for simple low risk activities (RAF & RN are to use their Single Service equivalent). **Nominated ITR BCD personnel are not to be employed in any other role that might result in them becoming a casualty or prevent them reacting to accidents.**

2-46 When training with live, blank ammunition or pyrotechnics it is mandatory to have medical cover. A CFAV with a current and recognised First Aid certificate and in possession of an authorised First Aid kit is to be present throughout the training. The person responsible must also take into account the current qualification held by the available instructors for the activity being conducted, so all the necessary limitations during the conduct of the training are taken, to ensure the safety of the Cadets/CFAV taking part. The following First Aid kits are authorised to support training:

- a. EFAW FA Kit. **Air Rifle Ranges only.**
- b. Med Mod 069 First Aid Kit 10 Persons. For all other Live Firing and Blank Training activities.

2-47 Range/Training area orders will state the level of medical cover required and the procedures to be adopted. For remote range and training area locations advice should be sought from a Medical Officer as this may exceed the minimum requirement. The medical cover and procedure are to be reflected in the RSD/RASP/ESD/EASP. The minimum basic level of cover required is:

- a. Suitably qualified CFAV, nominated on the RSD/RASP/ESD/EASP.
- b. First Aid Kit in accordance with para 2-46 a. and b.
- c. Stretcher (to move casualty to ambulance RV on direction from Emergency Services).
- d. A suitable vehicle is to be made available to enable minor casualties to be transported to the local Medical Centre or Hospital for treatment. Large Range complexes and Training Areas may often be covered by a nominated ambulance RV with medical staff in attendance. This can be confirmed during the recce phase of the planning process.
- e. Communications to emergency services (may be through Range Control).

2-48 The RCO must be aware of the procedure for contacting the emergency services, which can be found in Range or Training Area Orders. This procedure must be clarified during the recce or by contacting the Range Control.

2-49 Medical personnel or nominated first aiders for a training activity are **NOT** to be employed in any other role that might result in them becoming a casualty or prevent them from reacting immediately to accidents. **The RCO/ECO are not to be the nominated medic.**

**2-50 A Cadet cannot be the nominated first aider for a training activity.**

### **Cadets and CFAV with Additional Needs**

2-51 It is the responsibility of the Exercise Director to give approval for any cadet or CFAV with additional needs to participate on ranges or exercises using live or blank ammunition. The PO in conjunction with the SPO is to conduct a risk assessment to ensure that the cadet or CFAV are able to pass the WHTs, fire the WS and are able to participate in the activity safely. Further guidance can also be found in Single Service policy

### **Hearing Protection**

2-52 The term 'issued, serviceable hearing protection' is used to describe the minimum acceptable level of hearing protection that is required to be worn for all cadet live firing and blank firing activities. All personnel are to be aware that the wearing of all types of hearing protection may reduce situational awareness (SA).

- a. **Tactical Hearing Protection System Basic User (THPS BU).** THPS BU does not offer better hearing protection than the GS Earplug, but it does offer enhanced Situational Awareness (SA) when used in the Open Mode. There are three variants of THPS BU; the HP Enclosure details which variants are suitable for use with different WS. It is the RCO's responsibility to confirm that firers and Safety Supervisors are equipped appropriately.
- b. **THPS Dismounted Close Combat User (DCCU).** THPS DCCU is issued to personnel employed in the DCC role and offers enhanced SA through the use of an active electronic system.
- c. **THPS Specialist User (SU).** THPS SU will be issued to personnel requiring dual HP. A list of WS that require dual hearing protection can be found in the HP Enclosure.

- d. **GS Earmuffs (Peltor).** These will continue to be available and provide hearing protection for the list of WS in the HP Enclosure, but SA is reduced. Over ear hearing protection rely on an effective seal to afford the correct levels of noise attenuation. **The RCO/ECO/Safety Staff are to check that any individuals wearing such hearing protection are to ensure that items such as berets/bush hats/spectacles are not preventing an effective seal.**
- e. **GS Earplugs (Yellow Foam).** As a result of a visual inspection foam ear plugs are seen to be clean and supple, retaining the properties to expand and provide effective protection for the list of WS in the HP Enclosure. These can be worn only once and are to be discarded at the end of each activity. The RCO/ECO is to inspect them at the beginning of the activity prior to any firing, to ensure they have not been used previously. If so, new ones are to be issued. **The RCO/ECO/Safety Staff are to ensure that Yellow Foam ear plugs are fitted correctly.**
- f. **Dual Hearing Protection.** Where there is a requirement for dual hearing protection this is achieved by wearing both forms of hearing protection simultaneously.

## **Storage and Transportation of Ammunition and Explosives**

2-53 The rules governing the storage and movement of ammunition and explosives are stated in either DSA 03 OME Pt 3 and JSP 800 - Defence Movements and Transport Regulations - Vol 4b Dangerous Goods by Road, Rail and Sea.

## **Joint Service Munitions Control Register (JSMCR)**

2-54 JSMCR contains all Munition Bans, Constraints, Life item Register (LIR) and LUMATs. LUMATs is being subsumed into other documents. Consult the relevant pamphlet or JSMCR constraints if there is doubt regarding limitations.

## **Personal Electronic Devices**

2-55 Many Ordnance Munitions Explosive (OME) natures contain circuitry and Electro-Explosive Devices (EED) which utilises an electrical current to initiate them. The circuitry involved in such munitions is Hazards of Electronic Radiation to Ordnance (HERO) tested to ensure it has a level of resistance to unintentional initiation from RF frequencies, but there still remains a hazard from those electronic devices which radiate RF signals. This includes such items as mobile phones, tablets, and other Personal Electronic Devices (PEDs) which have the capability to connect to the mobile data network, Wi-Fi networks, or communicate via Bluetooth. In order to remove this hazard, mobile phones, tablets, PEDs and all electronic devices that rely on the mobile data network for connectivity, are not to be taken into the vicinity of electrically initiated OME natures.

## **Briefings**

2-56 Comprehensive briefings will reduce the possibility of accidents and assist with gaining the full benefit from any training activity. The detail to be covered can be found in this chapter as well as the specific sections of this pamphlet.

## **Range Documentation**

2-57 In accordance with the planning process, PO, RCO and ECOs must ensure that they have read and understood the appropriate sections/chapters of the CTR and RSO's relevant to the LF/Ex being conducted. This information is to be reflected in the RSD/RASP/ESD/EASP. They must have their copy of the RSD/RASP/ESD/EASP present when conducting the training. Unless stated in RSO's and providing that appropriate reference material has been extracted, it is not mandatory to have a hard copy of this pamphlet or any other publication, present during the LFMT or Exercise.

## **Declaration**

2-58 The RCO/ECO has a responsibility to the CoC to ensure that individuals taking part in any activity involving OME do not leave the range or training area with OME items in their possession; this includes all Range Staff. They are also responsible for taking a declaration from all exercising cadets and range staff at the end of the range, or exercise prior to their departure. The requirement to give a declaration on the range does not apply to those responsible for the return of unused ammunition to ammunition storage facilities such as unit G4 staff. Such personnel must give a declaration to the RCO/ECO once the ammunition is returned to the correct storage facility.

2-59 It is important that individuals understand the gravity of the declaration and the reasons for making it. Those planning and conducting training are to make every effort to ensure that individuals are given the opportunity to check their individual person and their equipment prior to leaving the range or training area and before giving a declaration. Despite best efforts, it is acknowledged that sometimes individuals may inadvertently leave the range or training area with OME items. Individuals need to be made aware of the options open to them should they inadvertently leave the range or training area with such items and are to be briefed accordingly.

2-60 **The RCO/ECO is to read out the following warning:**

***“Queens and Cadet regulations state that it is an offence to leave this range\* or exercise\*<sup>1</sup> area with ammunition<sup>2</sup> in your possession i.e., live\* or blank\* rounds, empty cases\*, pyrotechnics\* or component parts\*. It is your responsibility to ensure that other range participants conform to this regulation and that breaches are reported to the chain of command immediately. It is illegal to discard ammunition and pyrotechnics outside of the recognised logistical disposal methods, and that disciplinary action can be taken against individuals found to be doing so”.***

***“Check now, you have no natures of ammunition\* in your possession either on your person, or in the equipment you have used during the activity”.***

2-61 Individuals should now be given the opportunity to check their person and their equipment used during the activity. Time should be allocated for this to take place and the checks should not be rushed. On conclusion of the checks the following is to be briefed to all individuals:

***“You have now all had the opportunity to check about your person and equipment for OME natures. As no one has come forward with said items, I now require you to make the following declaration to me”.***

***“Sir/Ma’am, I have no ammunition\* in my possession and I will report anyone else who has”.***

2-62 The RCO/ECO is then to take the declaration from all present less those responsible for the return of unused ammunition, who will give their declaration to the RCO/ECO once the ammunition is returned to the correct storage facility. Individuals are then to be briefed on the following.

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<sup>1</sup> \* Delete if not applicable to Range or Exercise being conducted.

<sup>2</sup> \* On AR Ranges delete ammunition and insert pellet.

2-63 Individuals are then to be briefed on the following:

***“When you return to camp, you may find items of OME which you missed during the checks we have just conducted. If this is the case, then you are to immediately hand them into a CFAV/NCO/Service Helper who will then dispose of them through the correct ammunition\* logistical chain”.***

***“If you are unable to do this, then you are to place the items in the unit amnesty box at the earliest opportunity. Amnesty boxes can be found in all units and are normally located near to the QM Dept, accommodation blocks and guard rooms”.***

2-64 On completion of every training activity the RCO/ECO is to ask if any person has damage to their hearing or has any injuries. On identifying anything, the individual is to be referred to a Medical Officer, or if that's not possible, advised to see a doctor at the earliest opportunity. An accident Report Form must be completed by the RCO/ECO. Anyone who is detailed to return ammunition to store must be inspected after its return. A declaration is to be made on the conclusion of each activity during which live or blank ammunition and/or pyrotechnics have been issued. The AFB 159A is to be signed on completion of the above Declaration process.

## **Dress**

2-65 The dress for cadet training with Cadet WS, ammunition or pyrotechnics is stated in the appropriate Cadet Manuals, respective Single-Service Shooting Syllabus and detailed in the various Chapters of the CTR.

## **Corrective Lenses**

2-66 The wearing of corrective/contact lenses is a mandatory requirement for all forms of Live Firing when required to positively identify the target. If the individual requires corrective/contact lenses and does not have them for the activity that **person is not to take part**. The RCO is to check for corrective/contact lenses during the NSP's phase of the activity.

2-67 Members of the Cadet Forces are not to carry weapons on exercise whilst dressed in civilian clothing. Role playing enemy are to wear issued uniform or outdated uniform/coveralls. This is to rule out panicking other users or members of the public and unnecessary engagement with the police.

## **Handover/Takeover**

2-68 The RCO is to complete the MOD Form 906/906A - Land Range Log. Instructions on how to complete the Land Range Log are contained on the inside cover. Each entry logs: the user, the number of rounds fired and gives details of all incidents/ accidents. It also records routine inspections and maintenance work.

2-69 The RCO certifies by signature, that they hold the correct qualification and that Range Orders have been read, understood, and will be complied with.

2-70 If the RCO has to leave the range during firing they are to sign off in the MOD Form 906/906A and the replacement RCO is to sign on prior to the continuation of firing. If there is no replacement RCO, then firing must cease, and the end of range procedures are to be conducted.

## **Service Instructors/Helpers**

2-71 Regular or Reserve Personnel as a Service Instructor/helper may only take part in the following activities that have been planned and conducted by suitably qualified CFAVs:

- a. Preparation for or attending Cadet Range Qualifying courses (as an exemption).
- b. Attending CPD or consolidation training as part of the Specialist Training Team.

## **Use of Regular or Reserve Personnel**

2-72 Where there is a shortage of CFAVs, regular or reserve personnel can assist CFAV RCOs and ECOs by being part of the range team. They must be named on the RSD/RASP/ESD/EASP and must be qualified current and competent for the task. Under no circumstances are CFAVs to plan, conduct or supervise training where the exercising troops or firers are regular or reserve forces personnel (they may fire blank as role players but must be a fully briefed member of the exercise staff).

## **Archive Plans**

2-73 It is the POs responsibility to archive written instructions in accordance with cadet Single Service Rules, SPOs are to ensure that this practice takes place. This information provides useful reference material and evidence of currency.



## Section 3 – Accident Procedures

### Introduction

2-74 Valuable evidence of the efficiency of weapons and ammunition can be found in their performance during training. The reasons for reporting all ammunition accidents, incidents and defects are:

- a. To prevent a recurrence.
- b. To comply with the statutory requirements of the Health and Safety at Work etc. Act 1974.
- c. To rectify or eliminate defective weapons or ammunition throughout the Services.
- d. To improve design and provide better safety and performance.
- e. To change the drill where necessary.
- f. To detect a pattern of degradation in performance, which might otherwise go unnoticed.
- g. To comply with NATO Standardisation Agreement (STANAG) 2940 Reporting of Major Ammunition Malfunctions.

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### Definitions

2-75 The following definitions should be understood before reading this section:

- a. **Accident.** An event that results in injury, ill health, or death to person (s).
- b. **Incident.** An event which causes loss or damage to property, plant or equipment, or harm to the environment.

- c. **Near Miss.** An event that had the potential to cause injury, ill health, or death to a person (s) or damage to property plant or equipment, or harm to the environment, but no actual harm occurred.
- d. **Defects.** Any fault in the make-up, marking or any deterioration in, or damage to, the physical state of weapons, equipment, ammunition, ammunition containers or Unit Load Specification (ULS).
- e. **Blind.** The term used when an item of ammunition is initiated (fired or thrown) but fails to function correctly at the target.
- f. **Breech Explosion.** An uncontrolled initiation of a round in the breech of a weapon when fired. The round may have been partially or not chambered.
- g. **Cook-off.** An uncontrolled ammunition function caused by excessive heat.
- h. **Error in Drill.** When the endorsed drill is incorrect and requires attention.
- i. **Error of Drill.** When the ammunition or weapon has not been operated in accordance with the user pamphlet.
- j. **Hangfire.** When the primer, igniter or propelling charge fails to function on initiation but subsequently functions during a waiting period.
- k. **Misfire.** When ammunition is initiated but fails to fire or launch.
- l. **Unintended Discharge (UD).** A weapon or pyrotechnic discharge, considered by the Conducting Officer or CoC, to contravene the approved drills or procedures and contrary to the provisions in Queen's or Cadets Regulations.
- m. **Premature.** A premature is a performance failure where the ammunition functioned before the designed time.
- n. **Performance Failures.** This is the failure of ammunition or of any of its constituent parts to function as intended, when fired, or tested. Examples are bore, muzzle, and flight, premature, excessive deviations in range or line.

## **Investigation of Accidents/Incidents/Near Miss**

2-76 Prompt and detailed investigations of accident/incidents/Near Miss are essential, and it is the duty of everyone involved to cooperate fully with the investigation team. This helps establish the cause of an accident/incident and may prevent a recurrence.

2-77 Chief Ammunition Technical Officer (Army) (CATO Army) is responsible for ensuring that all LAND ammunition accidents/incidents and near misses are promptly reported and properly investigated. CATO has empowered Ammunition Technical Officers (ATOs) and Ammunition Technicians (ATs) to conduct ammunition accident/incident investigations. An ATO/AT will attend all ammunition accidents/incidents.

2-78 DLW has mandated that SASC personnel, as directed by HQ SASC are to assist in all accidents/incidents and near misses involving Cadet WS and pyrotechnics that result in the need for a Unit Learning Account (ULA) to be conducted.

2-79 The SASC advisor is to provide guidance on the ULA content and SME input regarding the SST relating to the accident/incident or near miss. They are not to conduct the ULA but are to be employed as an impartial SME advisor.

2-80 DAIB's role is to conduct independent and impartial no-blame safety investigations into all accidents serious incidents and near misses to prevent reoccurrence and enhance safety. Should you be made aware of or be involved in an accident serious incident or near miss then you are required to report this as soon as possible.

2-81 The DAIB Land Eng conducts investigations into accidents that involve a serious equipment failure.

2-82 An investigation by the civil police or the SIB will be likely for accidents involving death or serious injury.

## **Accident/Incident Reporting Agencies**

2-83 All users, ACF, CCF, Air Cadets, SCC/RM, VCC and visiting Foreign Cadet Forces are to follow the accident procedures which must include reporting to DIAB, compliance with completion of the MOD Form 510, ACSO 1200, Chapter 8 (or single service equivalent). All ammunition Accidents, Incidents, near misses must be reported using MoD Form 1670 and emailed direct to the MID Cell [DESWpnsEng-MIDMailbox@mod.gov.uk](mailto:DESWpnsEng-MIDMailbox@mod.gov.uk).

2-84 For the Army the accident/incident must be reported on the Defence Unified Reporting and Lessons System (DURALS) or in accordance with Cadet Single Service policy.

2-85 The Incident Reporting Flow Diagram in Fig 2.2 assists in determining what type of incident has occurred. The following agencies, as appropriate, must be informed.

Location	Agencies	Contact Numbers
UK	Defence Accident Investigation Branch Duty Coordinator	Civil: <b>01980 348622</b>
Ammunition Technical Officer (ATO) Support	Joint Service EOD Operations Centre (JSEODOC)	Mil: 94234/Civ: 01235 51 with extensions 3360, 3361, 3362 24hr emergency phone number Civil: <b>01235 514300</b>
Rest of the World	Local ATO or via JSEODOC	Conducting Officers are to confirm numbers prior to firing
<b>Note:</b> 1. In locations without an ATO, consultation prior to departure is mandatory. 2. When SASC personnel are providing support to an activity, they are to be informed immediately. 3. Refer press and media enquiries to the Public Information staff.		

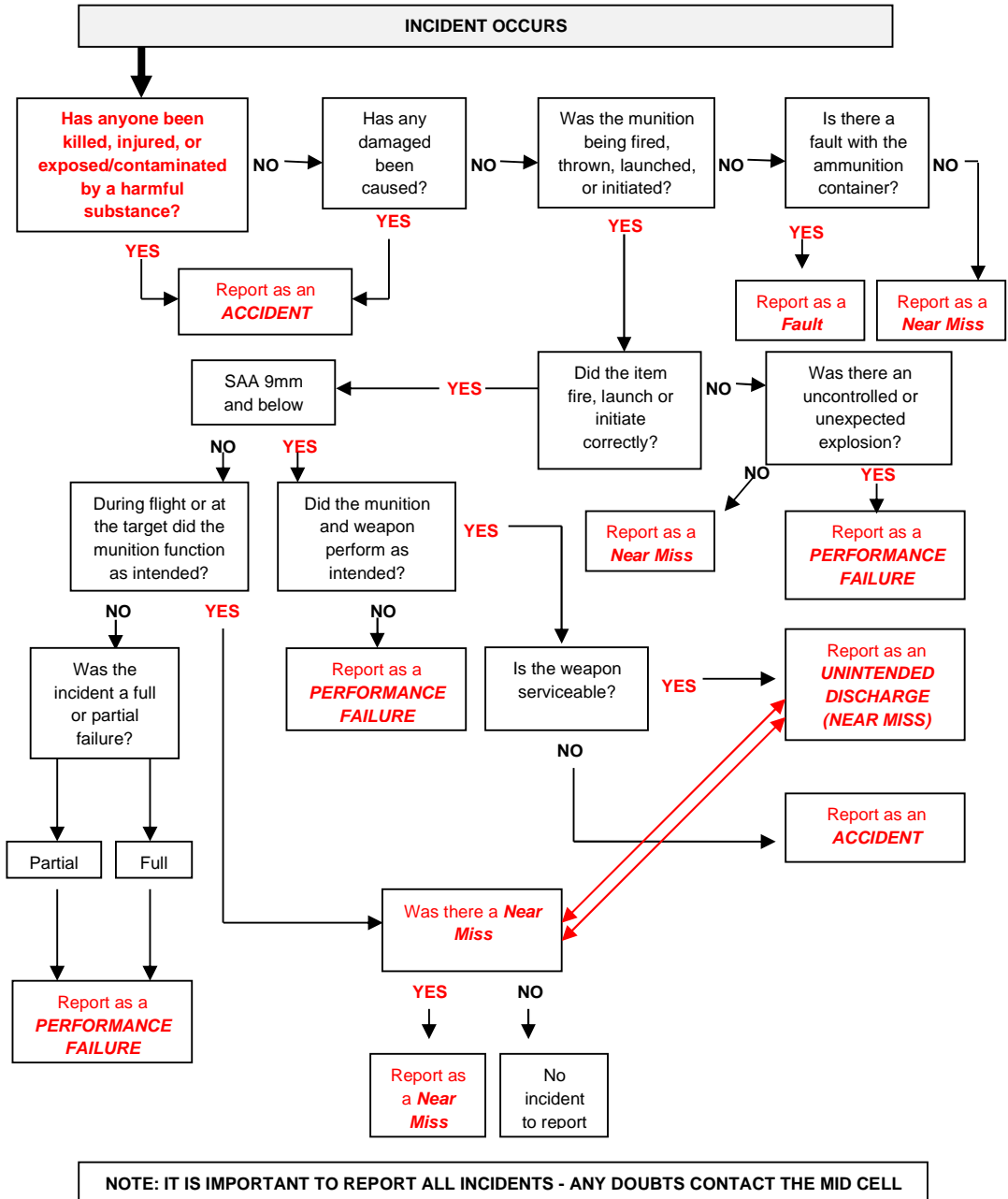


Fig 2-2 - Generic Incident Reporting Flow Diagrams

## Accident/Incident Immediate Action

2-86 The Conducting Officer is to treat the event as an accident until it can be confirmed otherwise. The RCO/ECO is to carry the immediate Action (IA) Action Aide Memoire below and is to ensure the IA is implemented. A log is to be maintained of when these actions have taken place along with other key events.

1	<p><b>ON THE COMMAND “STOP, STOP, STOP”</b></p> <p>Stop all fire and movement apply safety catches and await instructions from the Safety Staff.</p>
2	<p><b>GIVE FIRST AID AND GET MEDICAL HELP</b> (If required)</p> <p>Implement the medical emergency plan.</p>
3	<p><b>ENSURE WEAPON SAFETY AND PRESERVE EVIDENCE</b></p> <p>Do not attempt to unload, make safe, strip, or clean any weapon involved, <i>(unless not doing it would increase the risk to personnel)</i> or alter bearing, range, or elevation setting. (If necessary, move personnel to safety)</p>
4	<p><b>INFORM AND SEEK ADVICE</b></p> <p>(This is a Unit responsibility. Using the detail recorded in Mod Form 1670 will assist)</p> <p><b>RANGE CONTROL OR THE RAU</b> – Who will advise on contacting others.</p> <p><b>EXERCISE DIRECTOR AND SENIOR PLANNING OFFICER</b></p> <p><b>ATO and DAIB Duty Coordinator</b> is always to be informed and <b>SIB RMP</b> (On DAIB Land advice).</p> <p><b>DURALS</b> – Complete DURALS Defence Alert initial report or iaw with Cadet Single Service policy.</p>
5	<p><b>CORDON THE AREA AND GATHER EVIDENCE</b></p> <ul style="list-style-type: none"> <li>• <b>Protect evidence.</b> Everything is to remain in situ until seen by investigators. Personnel are to mark their position with a cadet helmet/beret/bush hat or PLCE.</li> <li>• <b>Record weapon details.</b> Damaged weapons, lodged bullets, empty cases are to be left where they fell. (If necessary, seek Armourer assistance).</li> <li>• <b>Identify witnesses.</b> To prevent influencing, stop discussion and separate witnesses. Witnesses are to produce a brief written account of the events.</li> <li>• <b>Make a sketch map for the investigators.</b> Record the position of all fragments and personnel (injured and witnesses), stating the direction they were facing, their stance, weapon state and the direction of their weapon.</li> </ul>
6	<p><b>CONTROL AMMUNITION AND EVIDENCE</b></p> <ul style="list-style-type: none"> <li>• Record the ADAC, designation and BKL of the ammunition, it is to be segregated and not used again unless approved by ATO.</li> <li>• Misfires/Blinds are to be destroyed in accordance with this pamphlet and ATO instructions.</li> <li>• Only after all investigating agencies have been consulted should the ATO authorise clearance of the scene.</li> </ul>
7	<p><b>SUSPENSION OF RANGE STAFF</b></p> <p>All Staff directly involved are temporarily suspended, pending investigation.</p>
8	<p><b>RECORD THE ACCIDENT/INCIDENT IN THE LAND RANGE LOG</b></p> <p>This is the Conducting Officers responsibility</p>
9	<p><b>MOD Form 1670</b> – Within 24hrs submit an initial report to the MID Cell</p>
10	<p><b>DURALS</b> – Complete the DURALS Defence Alert Full report as soon as practical.</p>
11	<p><b>MOD Form 1670</b> – Within 28 days submit a full report to the MID Cell</p>

## Recommencing Firing

2-87 Firing may continue if:

- a. It is a blind or misfire which has now been destroyed.
- b. The same type of failure recurring would not put personnel at risk.
- c. The scene and any evidence remain undisturbed for the investigators.
- d. The incident will not affect the training being carried out.
- e. A different batch of ammunition is used.

2-88 If any doubt exists do not recommence firing until advised to do so by DAIB investigator, ATO and the SASC.

## Temporary Suspension of Safety Staff

2-89 The temporary suspension of range qualifications is to remain in place until after the following actions have been completed:

- a. The Exercise Director appoints a suitably qualified officer, (not involved in that particular activity) to conduct a preliminary investigation.
- b. Based upon the findings of the investigation the Exercise Director decides upon the appropriate course of action:

(1) If satisfied that the safety staff did not contribute to the Accident, they should be reinstated and allowed to continue in their appointments.

(2) If there is any doubt the temporary suspension is to remain in place until an investigation by DAIB has established if the suspension is still appropriate.

(3) For accidents resulting in fatalities, qualifications will remain suspended pending the results of a DIAB preliminary investigation. Once this preliminary investigation is complete either of the following may occur:

(a) DAIB will issue immediate safety advice which will provide the details of any qualified person that should remain suspended pending the completion of a full investigation.

(b) No immediate safety advice is needed and therefore all qualified personnel can be reinstated.

2-90 If the suspension remains in place and it is apparent that retraining is required, the following action is to be taken:

a. **Cadet WS.** It is a unit responsibility to conduct retraining and testing.

b. **Range Qualifications:**

(1) A programme of instruction is to be prepared and delivered by an SASC Officer; this is to be arranged with the OC SASC ARTAT.

(2) Once the instruction is complete, the SASC officer is to recommend to the Exercise Director, County Commandant or Service equivalent if the suspension should be lifted.

### **Ammunition/Weapon Defect Reporting**

2-91 These defect procedures apply only to the following circumstances:

a. **Ammunition.** Prior to it being fired or thrown or projected. This will normally occur whilst unpacking ammunition immediately prior to use.

b. **Weapons.** Where no accident has occurred.

### **Actions on an Ammunition Defect**

2-92 The Conducting Officer is to ensure that the following actions are taken immediately:

a. ATO is informed.

b. The ADAC, designation and BKL of the ammunition are recorded. The ammunition is segregated and not used again unless authorised by ATO.

c. The container and all packing fitments are retained for ATO inspection, and all seals and labels are also retained.

### **Actions on a Weapon Defect**

2-93 The Conducting Officer is to ensure that the following actions are taken immediately:

a. After any stoppage drills and if possible, the cause ascertained, remove the weapon from use after safety precautions.

b. If training can continue with other weapons segregate the weapon. If not, the Armourer must be contacted to arrange repair.



- c. On return to camp the defect is to be reported using AFG 8267A Equipment Failure Report (EFR).

### **Actions on a Near Miss**

2-94 The conducting Officer is to ensure that the following actions are taken immediately.

- a. The details of the near miss and those involved are to be recorded and the near miss is to be reported in accordance with para 2-85. **The RCO must inform the Exercise Director.**
- b. The Exercise Director must decide if training can continue, remedial training is required or if disciplinary action should be taken. If any doubt exists seek advice from OC SASC ARTAT or in his absence HQ SASC.
- c. **ONLY** the Exercise Director after advice from the TSA can inform the RAU that they are content for the RCO to continue firing.
- d. **ONLY** in exceptional circumstances the SPO after advice from the TSA can inform the RAU that they are content for the RCO to continue firing (example Exercise Director on leave/holiday), not being unable to get hold of the Exercise Director when they are not on leave/holiday is not an exceptional circumstance.

### **Actions on an Unintended Discharge (UD)**

2-95 If a UD results in injury or damage, the accident procedure is to be used. The Conducting Officer is to ensure the following UD procedure is taken with Cadet WS:

- a. Order the firer to apply the safety catch and lay the weapon down and get a member of the Safety Staff to take control of the weapon.
- b. Unload and inspect it and ensure that it is clear (**No attempt is to be made to strip or clean the weapon or magazine**).
- c. Record the weapon serial number, details of orders given, and the actions taken by the firer.
- d. Have the weapon and magazine inspected by an Armourer. **They may not be used until they have been certified as serviceable.**
- e. It is Mandatory that a ULA is conducted for all UD's by suitably qualified and experienced person, in order to provide qualified and objective assessment of causes and recommendations and thus support the development of a Just Culture.

f. When a UD occurs, units are to report the incident to their local ATO, this can either be when the UD occurs (the preferred method of reporting) or on a monthly basis on MoD Form 1664 SAA unintended discharge. A copy of the AFC 351A - Weapon Inspection Report, is to be forwarded along with the report. In all cases a copy of the MOD Form 1664 is to be sent to the MID Cell.

g. UDs in the RN environment should be completed in accordance with BRd 8988 but also copied on each occasion to the MID cell.

2-96 **Remedial Training and WHT.** Action taken will be in accordance with Single Service Cadet policy.

2-97 Any firer who unintentionally discharges a weapon is to receive remedial weapon handling training at the earliest opportunity. A UD will render any previous Weapon Handling Test (WHT) result as void.

2-98 The firer may not be issued live or blank ammunition again until they have been successfully retested by a qualified SAA Instructor. The retest result is to be recorded.

## Section 4 – Training with Foreign Cadet Forces

2-99 This Section provides guidance on the regulations for training with Foreign Cadet Forces and for Foreign Cadets to use UK In-Service weapons and ammunition. The key elements of the SST are to be applied, that is to ensure that the training risk is ALARP.

### Safe Person

2-100 **Qualification and Competency.** It is the responsibility of the Exercise Director to ensure that the levels of qualification and competency are met prior to any activity being conducted by UK Cadets.

2-101 **‘Read Across’ Training Standards.** When operating abroad (i.e., Cadet Overseas Visits, Cadet Shooting Teams, and Cadet Engagement), it may be possible to ‘read across’ the training standards and range qualifications to ensure that this is as safe as, or safer than that of the UK, further advice on foreign range qualifications or training standards can be sought from the OC ARTAT or SO2 HQ SASC in his absence.

### Safe Equipment

2-102 **Firing of Foreign Cadet Weapon Systems.** Foreign Cadet WS may not have had the same rigorous testing as UK in-service weapons and the maintenance regime will be unknown. Cadet Units planning to fire Foreign Cadet Weapon Systems are to request a Dispensation via their respective 1\* HQ (Service Level Duty Holder), in accordance with Single Service policy if they are planning on firing foreign Cadet WS live or blank. This request is also to be included in the Application to Train Abroad (Cadet) (ATT-V2-2018).

2-103 **Visiting Foreign Cadet Units.** If there is a requirement for visiting Foreign Cadets to use UK Cadet WS and In-Service ammunition. Cadet visit sponsors are to engage with their respective 1\* HQ (Service Level Duty Holder) for further advice and guidance on the planning and conduct of any activities which will include visiting Foreign Cadets using Cadet WS to ensure all planned activities meet the SST.

2-104 **PPE.** Issued UK PPE is to be used for all activities unless the wearing of Foreign Cadet Forces PPE has been approved by the Service Level Duty Holder’ in accordance with Single Service policy.

2-105 **Other Nations’ Pyrotechnics are not to be used by UK Cadets/CFAV.**

## Safe Place

2-106 DSA 03 OME Pt 3 gives clear direction on the requirements for the use of ranges and training areas overseas further advice can be sought from the OC ARTAT or the SO2 HQ SASC in his absence.

## Safe Practice

2-107 The following rules ensure safe practice for UK Cadets/CFAVs and Foreign Cadets:

- a. All LFMT is to be conducted in accordance with the respective Single-Service Shooting Syllabus.
- b. If amendments to LFMT practices are needed to accommodate Foreign Cadet WS on UK Ranges, the changes must be confirmed with the RAU and agreed by the SO2 HQ SASC and be shown in the written instructions and Risk Assessment.

2-108 **Shooting Competitions.** UK Range staff involved in Cadet Shooting Competitions which include participation of foreign teams are to be able to identify the various weapon states of readiness (loaded, ready and un-loaded) and identify the position of safety catch (safe/fire). This will allow them to intervene in the event of a breach of safety.

## Chapter 3 - Training Simulation

### Purpose

3-01 This chapter contains the regulations for training using various

forms of training simulation with Cadet WS.

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### Referencing

3-02 Chapters 1 and 2 of this pamphlet are to be read and understood before referencing this chapter. Further details for the use of blank ammunition, pyrotechnics, DCCT and paintballing for Cadets are contained in the relevant GSP and DSA 03 OME Pt 3 and the respective Cadet 1\* HQ Cadet Paintballing Policy for paintballing activities<sup>1</sup>. Prior to their use local orders must also be consulted.

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<sup>1</sup> For Cadet Paintballing policy, contact your respective Cadet 1\* HQ for further advice and guidance.

## Section 1 – Blank and Pyrotechnics Planning Considerations

### Planning

3-03 The generic planning process in Chapter 2 should be used. This section provides additional planning considerations, specific to blank ammunition and pyrotechnics.

### Safe System of Training

3-04 All training must be compliant with the SST in Chapter 1.

### Qualifications

3-05 The planning and conducting of exercises with blank ammunition and pyrotechnics may only be by qualified personnel (see Chapter 1).

### Exercise Assistants

3-06 There is no set ratio of Exercise Assistants (EA) to exercising cadets/CFAV's when using blank and pyrotechnics. The PO in consultation with the SPO is to decide on the ratio required to ensure safe training, based upon the standard of the exercising cadets/CFAV's and the type of training to be conducted, they are then appointed by the SPO. The ratio is to be included in the ESD/EASP.

3-07 The EAs are responsible for the safe conduct of those aspects of an exercise involving blank ammunition or pyrotechnics that are allotted. There is no qualification, however, the EA is to be competent with the Cadet WS and pyrotechnics they are supervising, been briefed by the ECO and hold the minimum rank of CFAV in accordance with single service training policy (or LCpl if a Regular or Reserve Service Helper). **UOTC are NOT to be employed as Exercise Assistants.**

### Exercise Cadets and CFAV

3-08 Prior to using blank ammunition or pyrotechnics Exercising Cadets/CFAV are to be formally trained and tested on the Cadet WS and pyrotechnics they will use.

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## Corrective Lenses

3-09 The wearing of corrective/contact lenses is a mandatory requirement for all forms of Blank Firing activity when required to positively identify the target. If the individual requires corrective/contact lenses and does not have them for the activity **that person is not to take part**. The ECO is to check for corrective/contact lenses during the NSP's phase of the activity.

## Exercise Written Instruction

3-10 It is mandatory to produce an ESD/EASP for any exercise that involves Ordnance, Munitions and Explosives (OME). An ESD/EASP is to be produced to support each exercise activity. It is to be countersigned by the SPO. ECOs are to have their signed ESD/EASP in their possession whilst implementing their plan. Refer to para 2-31, sub-para c and d for the use of the ESD/EASP.

## Medical Support

3-11 The PO/ECO is responsible for ensuring the correct medical cover, in accordance with the minimum requirements stated in Chapter 2 or Training Area Orders. They are to refer the matter to the SPO if this cover cannot be achieved.

## Hearing Protection

3-12 Wearing issued, serviceable hearing protection is mandatory when using blank ammunition or pyrotechnics. The ECO is responsible for checking everyone has the correct hearing protection. All personnel (cadet, military and civilian) are responsible for safeguarding their own hearing by wearing them. **ECOs and EAs are to ensure that where the beret/bush hat/spectacles or cadet helmet are being worn, it fits properly, and that the hearing protection is not compromised.**

## Fieldcraft Training Areas (FTA)

3-13 An FTA is an area where the user must be able to view the Danger Area (DA) of any Ordnance, Munitions and Explosives (OME) employed to achieve their training objectives. This precludes the use of high/low velocity projected munitions but permits the use of blank ammunition and pyrotechnics, as well as limited quantities of explosives when used for the destruction of blinds by qualified personnel. This can include Marker rounds, Public Order ammunition<sup>2</sup>, provided all associated safety regulations are adhered to.

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<sup>2</sup> Marker rounds and Public Order Ammunition are not authorised for use by Cadet Organisations.

3-14 Categories of FTA are as follows:

Ser	Category	Descriptor
(a)	(b)	(c)
1	<b>Category 1</b>	An FTA where: <ul style="list-style-type: none"> <li>• Blank ammunition/MRTS/pyrotechnics are used.</li> <li>• OME that will require disposal charge action should it fail to function.</li> </ul>
2	<b>Category 2</b>	An FTA where: <ul style="list-style-type: none"> <li>• Blank ammunition/MRTS/pyrotechnics are used.</li> <li>• OME that will <b>NOT</b> require disposal charge action should it fail to function.</li> </ul>
3	<b>Category 3</b>	A permanent FTA where no OME is used: <ul style="list-style-type: none"> <li>• Non-OME activities are conducted and listed within the schedule of MOD Form 1925.</li> </ul>

3-15 **The Regulations Regarding the use of FTA's.** The regulations regarding the use of FTAs is contained in DSA 03 OME Part 3 Ranges - Defence Code of Practice (DCOP) 313 series - Fieldcraft Training Area (FTA).

3-16 **Use of Pyrotechnics.** The ECO is responsible for ensuring that the pyrotechnics intended for use during the exercise are permitted on the training area allocated. If personnel, vehicles, or aircraft enter, or are about to enter the training area, training is to cease, and safety catches are to be applied. The ECO will then give appropriate orders for further action. The activity is not to resume until the ECO has ensured the incursion has cleared. Range Control is to be informed. All sentries must be briefed to inform the ECO immediately if an intrusion occurs or is about to occur. The ECO may also be the air sentry.

3-17 Due to the location of some training areas or when training on private land, there may be occasions when civilians mistake those participating in an exercise as criminals or terrorists and contact the Civilian Police. The PO must consider whether it would be appropriate to inform the Civilian Police of the activity in order to avoid Armed Response Units being deployed unnecessarily.

## Blinds and Misfires

3-18 Any blinds are to be located as they occur and dealt with in accordance with Range/Training Area Orders. Any safety distances around the blind must be observed. **CFAV are not permitted to destroy blinds** and must know how to contact the ATO if required. **For the actions on a blind for the L35A1 SBS see para 3-28 f (1) to (5).**



## Performance Failures

3-19 Blank ammunition or pyrotechnics that fail to perform as designed must be reported in accordance with the instructions in Chapter 2.

## Civilian Access to Exercises with Blank and Pyrotechnics

3-20 **Personnel Indirectly Involved.** The General Public are unprotected, unaware of the risks and the larger safety distances must be enforced to ensure that they are not exposed to the same hazards.

## Use and Initiation of Pyrotechnics

3-21 Pyrotechnics are only be set up, used, and initiated by qualified personnel, who have been formally trained, are current and have received a safety brief from the ECO.

3-22 Senior Cadets or other Cadet Organisation equivalent aged **16 or over** are permitted to throw smoke grenades during exercises providing the following rules and conditions are adhered to:

- a. **The Exercise Director and the appropriate 1\* HQ (Service Level Duty Holder) permit the use and the approval is included in the Risk Assessment.**
- b. They are formally trained and tested in accordance with the relevant GSP and have passed the necessary WHTs on smoke grenades within the last six months.
- c. To be included in the RA to support the training/exercise.
- d. The cadet is to attend the ECO's safety briefings.

3-23 Cadets may initiate trip flares in accordance with para 3-36.

3-24 With the exception of the OME described in para 3-22, Cadets are not permitted to throw, initiate, handle or be issued with pyrotechnics.

## Section 2 – Blank and Pyrotechnic Safety Rules

### Blank Ammunition

3-25 This section contains the safety rules for the use of blank ammunition and pyrotechnics which should be read in conjunction with the appropriate publication.

3-26 The use of a correctly fitted Safe Blank Firing System (SBFS) as detailed in the relevant GSP is **mandatory**. The blank ammunition safety precautions, prior to the and after use, in Chapter 3, must be strictly adhered to.

3-27 The following danger areas exist from the muzzle of the weapon.

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#### a. The L98A2 Cadet GP Rifle.

- (1) Cadets and CFAV **1m** forward and **1m** in the vertical and horizontal plane.
- (2) If the general public are present the distance is **30m**.

#### b. The following safety rules are to be adhered to.

- (1) There must be a distance of **2m** between firers to allow for the ejection of empty cases.
- (2) Care must be taken when in close vicinity of other cadets to ensure that safety distances are not infringed.
- (3) Cadets and CFAV are not to fire their weapons on the move.
- (4) Weapons may be loaded or made ready and fired from any of the recognised fire positions laid down in the appropriate GSP.
- (5) During movement the weapon can be made ready, however the **safety catch** must be applied, and the finger removed from the trigger.

## Simulator Battle Sound (SBS) L35A1

3-28 The SBS are provided to simulate the noise of mortar fire, shell fire or Claymores. They are powerful explosives and can cause injury to personnel and damage to equipment. The thrower must wear **issued and serviceable eye protection** whilst preparing, striking, and throwing the SBS.

a. It is forbidden to use the SBS in confined spaces, such as rooms or weapon pits as these dangerously increase the effects of the explosion.

b. The directions for use are printed on the simulator and are to be strictly obeyed, with the following additions:

(1) Simulators are to be thrown by hand, downwards, on to open ground free from loose stones or debris and are **NOT** to be projected by any other method.

(2) Whilst carrying the simulator, the removable top is to remain fitted until required for use.

(3) The construction of the simulator is not to be tampered with or modified.

(4) Simulators are **NOT** to be thrown from, into, or near vehicles, equipment, inflammable stores, barns, haystacks, or in any location where there is a fire risk.

(5) When throwing a series of simulators, the thrower is to count the explosions. All blinds are to be located and disposed of (see sub para f).

(6) Simulators are only to be prepared for use when required. They are **NOT** to be prepared in anticipation of use. Simulators once prepared must be thrown or disposed of.

c. When simulators are used in training or at tattoos, displays, demonstrations, etc. the following safety distances are to be observed from the point of burst:

(1) When the general public is present – **100m**. In cases where a distance of **100m** is not obtainable, the unit concerned is to apply to the local ATO for authority to use a shorter distance on that occasion.

(2) When the general public is not present – **10m**.

- d. Any simulator that has got wet but has not been prepared for use by breaking the seal **MUST** be dried before repackaging into the H83 container.
- e. When there is a genuine requirement to use the simulator as a training expedient in some manner not detailed above the PO is to seek advice from the SPO, after which they are to apply to the local ATO who will give guidance.
- f. Where the use of demolitions is prohibited, not available or the unit cannot use demolitions, the following procedures may be carried out by the ECO only, when disposing of blinds:
- (1) ECOs are to note the position of the blind and place a CFAV sentry in place to ensure that nobody enters the danger area.
  - (2) A period of **30mins** is to be observed before approaching the blind.
  - (3) Ensure that you have a container of water large enough for the SBS to be placed in horizontally.
  - (4) Using a gloved hand, without touching the fuze, pick up the SBS and place it in the water. (The explosive filling and safety fuze will soon absorb the water rendering it safe)
  - (5) The container with the water and blind(s) can be taken off the area and stored until collected by ATO.

### **The L111 Practice Grenade and L162 Practice Fuse**

3-29 Under no circumstances are the L111 Practice Grenade and L162 Practice Fuse to be used by Cadets or CFAVs.

### **The L107 Distraction Grenade and L108 Practice Distraction Grenade**

3-30 Under no circumstances are the L107 Distraction Grenade and L108 Practice Distraction Grenade to be used by Cadets or CFAVs.

## Smoke Grenades

3-31 **General.** Smoke producing grenades or generators are not to be used in confined spaces, buildings occupied by personnel or livestock or in barns, haystacks, or any location where there is a fire risk. Personnel are not to be exposed to high or persistent concentrations of the smoke. Smoke grenades must be thrown and never placed by hand. If smoke is likely to drift across roads, sentries are to be posted in advance to each side of the screen to warn traffic of the hazard ahead.

3-32 **Grenade Hand Smoke Screening Training.** These grenades are issued primed and cannot be un-primed. There is no phosphorous content but there is an emission of white smoke. They are to be used as a substitute for the L84 grenade during training. No special range or danger area is required. All blinds are to be destroyed by an ATO.

3-33 **Grenade Hand Signal Smoke.** These grenades are issued primed and cannot be un-primed. There is no phosphorous content but there is an emission of coloured smoke. No special range or danger area is required. All blinds are to be destroyed by an ATO.

## Trip Flares

3-34 When ignited, the trip flare will produce fierce magnesium heat which can cause severe burns. On areas to which the public cannot be denied access, once set up and armed, the trip flare is to be kept under surveillance at all times. Additional safety measures are to be put in place to ensure that civilians cannot approach to within **100m** of an armed trip flare. Where a warning is given but disregarded, the trip flare is to be disarmed.

3-35 The following safety rules are to be adhered to:

- a. Before setting up or dismantling the Flare Tripwire Kit L10A1 ensure that the safety pin is in position and that the pivot arm is not under tension.
- b. Due to the RF hazard, during set up the operator is only to wear the Personal Role Radio and **no other communications devices**.
- c. Flares with missing safety pins or loose and missing pivot screws are to be destroyed as a blind. **All blinds are to be destroyed by ATO.**
- d. The safety pin is not to be removed or replaced unless the trip wire is secured to the clamp. Personnel are to ensure that their head is kept below the level of the flare pot during all setting up and disarming drills.

- e. Tripflares are not to be initiated by use of **electric detonators or SHRIKE**.
- f. At the end of the exercise unused flares are to be disarmed and dismantled. The area is to be cleared of burnt-out flares, trip wire and pickets which, if left, pose a danger to the public, livestock, and wild animals.
- g. **Once initiated the flare must be allowed to cool before any subsequent handling and dismantling of the tripflare.**
- h. Both unused and burnt-out flares, tripwire and pickets are to be accounted for as a further check to ensure they have been recovered and do not pose any residual hazard.
- i. If the trip flare is to be used in close proximity to any range store or target mechanism, consideration must be made to the fire hazard that exists. A minimum of **3m** is to be applied.
- j. Once set up handheld or vehicle mounted radios should not be operated within **3m** of the flare.

3-36 Tripflares may be initiated (i.e., tripped) by a Cadet or CFAV, however, the person initiating the flare is to be at least **3m** away from the flare pot (the exercise, and in particular the use of the flare, is to be designed to avoid the flare being within **3m** of the initiating person. **If a Cadet is to initiate the flare, then prior to initiating, they are to be guided away from the flare pot by a fully briefed member of the exercising staff.**

3-37 *Reserved.*

### **1.5-inch Rocket Flares/Rockets Hand Fired**

3-38 1.5-inch Rocket Flares/Rockets Hand Fired are an illuminant. The following safety rules are to be adhered to:

- a. They are only to be fired on ranges, field firing or training areas where the range/ training area orders allow them.
- b. The ECO should brief the firer on:
  - (1) The position from which the flare is to be fired.
  - (2) The direction in which the flare is to be fired. **(The flare must be contained within the allocated training area)**

(3) The angle at which the flare is to be fired. (If fired vertically the flare is capable of reaching a height of 1,000 feet. This height could exceed the permitted Air Danger Height (ADH) for the range or training area. When using the rocket flare the published ADH for the range or training area must not be exceeded.

c. Flares are not to be fired:

(1) At people.

(2) In any direction which may result in the flare striking or falling on people.

(3) Under circumstances where a fire hazard exists.

(4) Where overhead obstruction would cause the flare to be deflected.

(5) **Over the heads of unprotected personnel.**

d. Once the flare is prepared for firing it is to be kept pointing in a safe direction with the base held away from the body.

e. If a rocket contains water, shows signs of water ingress, or is found to have a loose cap after exposure to water it must not be fired and segregated and safely disposed of.

f. If upon firing a rocket ignites and fails to launch/eject from the tube it must be immediately discarded in a safe direction by the user.

g. **Rocket Flare.** Once the pin is removed from the bottom plate the flare is to be fired or destroyed as a blind by an ATO.

h. **Rocket Hand Fired.** The flare can be reconstituted once pre-pared. However, this flare should always be used first if one is required.

i. The rocket is only to be fired wearing **serviceable issued gloves.** |

j. **All blinds/misfires are to be destroyed by ATO.**

## The Pistol Signal 16 mm Mini Flare

3-39 The mini flare is a straight tubular pistol incorporated in an 8-flare cartridge pack. The flare colour is marked on the cartridge with a night identification symbol on the outside of the pack.

3-40 The flare burns for approximately **5secs** at an approximate height of 90m. The following safety rules are to be adhered to:

- a. It is to be fired on ranges, field firing or training areas where the range or training area orders permit it.
- b. Flares are not to be fired at personnel or in a direction which may result in them falling on persons, vehicles, or equipment, or fired under circumstances in which a fire hazard exists.
- c. The pistol is not to be carried with a cartridge in position. Cartridges are not to be removed from the pack except by correct insertion of the pistol, an action that is to take place only immediately prior to firing.
- d. With a cartridge in position the pistol is to be pointed upwards, in a safe direction and kept away from the body.
- e. A cartridge which still fails to fire after the correct misfire drill has been carried out is to be removed from the pistol, placed to one side and returned to store to await disposal action by ATO.

*3-38 to 3-39 Reserved.*



## Section 3. Blank and Pyrotechnics Procedures

### Prior to Use

3-41 Regardless of whether live ammunition has been used previously or not, whenever blank ammunition is used there is always a danger that live ammunition could be introduced, to avoid this happening the ECO is to ensure that the following procedures are formally carried out in the sequence shown:

a. If ammunition is issued in any form other than in factory sealed containers the ECO is to ensure that a thorough physical check is carried out to ascertain that only blank ammunition is contained within. This includes:

(1) Ammunition issued in reconditioned, re-sealed containers. Confirmation that containers are factory sealed or reconditioned and re-sealed must be sought from issuing personnel.

(2) The condition of ammunition issued in unsealed containers must be regarded as unknown and the ECO is to ensure that it is thoroughly checked by the exercise staff before being issued.

b. As part of NSPs a thorough physical check of weapons chambers, ammunition, magazines, ammunition pouches, pockets, cadet helmets and other personal clothing and equipment is to be conducted. **This must include the Cadet Viper Vest.**

c. A declaration is taken from all exercising cadets and CFAV, stating that they do not have any live ammunition in their possession.

d. The mandatory requirement to wear corrective/contact lenses to positively identify the target. If an individual who requires corrective/contact lenses to positively identify the target does not have them for the activity **that person is not to take part.**

e. **A reminder is given to all cadets/CFAV that they are responsible for ensuring that every round they fill into a magazine is blank.**

f. The AFB 159B (at Fig 3-2) is to be signed by the ECO before any blank ammunition or pyrotechnics are issued.

g. CFAVs and cadets are to be reminded if any ammunition or pyrotechnics are found after they have given the declaration; they are to hand it in to a member of staff.

h. NSPs are mandatory whether pyrotechnics are being used in conjunction with blank ammunition or not.

- i. **NSP's. Personnel are NOT permitted to stand in front of weapons during safety precautions, regardless of where they are being conducted.**

3-42 The ECO and Exercise Assistants are to ensure that BFAs and associated equipment are correctly fitted prior to the start of training.

### **After Use**

3-43 If an exercise involves a number of activities, at the conclusion of each activity, during which blank ammunition or pyrotechnics have been issued, weapons and equipment are to be inspected and the ECO is to ensure that a declaration is taken.

3-44 After all firing has finished and before leaving the exercise area, the ECO is to ensure that:

- a. All empty and reconditioned ammunition containers and salvage are collected and all blank rounds, pyrotechnics, and any live rounds (found on the training area) and empty cases are segregated for return to store.

- b. The following are then inspected by the ECO (**or by nominated staff**) before the final declaration is taken:

- (1) All magazines and ammunition containers.

- (2) All weapons.

- (3) Cadets and CFAV personal equipment and clothing, this is also to include the **Cadet Viper Vest**.

- c. A Certificate Free From Explosives (FFE) signed by the ECO is to be placed in each empty ammunition container(s). If vehicles have been used to transport ammunition a thorough inspection is to take place.

- d. Anyone who is detailed to return ammunition must be inspected, and a declaration taken after its return.

- e. The AFB 159A (at Fig 3-1) must be signed by the ECO on completion of this procedure.

- f. Cadets and CFAV are to be told that if after giving the declaration they find any ammunition or pyrotechnics they are to hand them in to the ECO or a CFAV member of the exercising staff.

*3-45 to 3-50 Reserved.*

<b>CERTIFICATE to be rendered after any training for which LIVE/BLANK ammunition or pyrotechnic was issued</b> <small>(vide Queen's Regulations 1975 Paragraph 5155)</small>		<b>Army Form B 159A (Rev 02/15)</b>
<p>I CERTIFY that before dismissing the troops training under my command on the <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span></p> <p style="margin-left: 40px;">* for which LIVE/BLANK ammunition and/or pyrotechnic was issued, I personally ascertained that all unexpended natures and empty cases were collected or otherwise accounted for and that the empty cases collected were not contaminated with any LIVE/BLANK rounds.</p> <p style="margin-left: 40px;">* I inspected the vehicle and their crews and I personally ascertained that all unexpended natures and empty cases were collected or otherwise accounted for.</p> <p>I personally ensured that a thorough <b>physical</b> inspection of weapon chambers, magazines, ammunition pouches, pockets, helmet linings and other personal clothing and equipment was conducted on the soldiers on parade to ensure no ammunition remained and reminded them that it is a <b>Military Offence to discard ammunition and pyrotechnics outside of recognised logistical disposal methods and to have any LIVE/BLANK ammunition or pyrotechnics in their possession.</b></p> <p>I ordered each individual to declare verbally at the time of the inspection whether he/she has any ammunition or accountable components remaining in his/her possession.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 40%;"> <p><input type="checkbox"/> RCO    <input type="checkbox"/> ECO</p> <div style="border: 1px solid black; width: 100%; height: 1.2em; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 1.2em; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 1.2em;"></div> </div> <div style="width: 55%;"> <p>Print Name                      <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span>      Signature</p> <p>Unit                              <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span></p> <p>Exercise Location              <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span>      Date</p> </div> </div>		

Fig 3-1. - Army Form B159A

<b>CERTIFICATE to be rendered when BLANK/PYROTECHNIC and similar training ammunition is issued</b>		<b>Army Form B 159B (Rev 02/15)</b>
<p>I CERTIFY that I personally ensured that a thorough <b>physical</b> inspection of weapon chambers, magazines, ammunition pouches, pockets, helmet linings and other personal clothing and equipment was conducted on the soldiers on my parade on <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span> before BLANK ammunition was issued, and that no LIVE ammunition was found.</p> <p>I reminded the soldiers that it is a Military Offence to have any LIVE ammunition in their possession.</p> <p>I ordered each individual to declare verbally at the time of the inspection whether he/she has any ammunition in his/her possession before BLANK ammunition was issued.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 40%;"> <p><input type="checkbox"/> RCO    <input type="checkbox"/> ECO</p> <div style="border: 1px solid black; width: 100%; height: 1.2em; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 1.2em; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 1.2em;"></div> </div> <div style="width: 55%;"> <p>Print Name                      <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span>      Signature</p> <p>Unit                              <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span></p> <p>Exercise Location              <span style="border: 1px solid black; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span>      Date</p> </div> </div>		

Fig 3-2. - Army Form B159B

## Section 4. — Dismounted Close Combat Trainer (DCCT)

3-51 The DCCT is designed to provide an all-weather facility for day and night firing. Although each DCCT may have specific rules contained within the DCCT Orders, this section provides the Common DCCT planning considerations, safety rules and procedures.

Contents	
<b>Planning Considerations</b>	<b>3-15</b>
<b>Safety Rules</b>	<b>3-17</b>
<b>Procedures</b>	<b>3-19</b>

3-52 The aim of Cadet Live Firing Marksmanship Training (LFMT) on the DCCT is to promote interest in shooting and to practice marksmanship training to assist in achieving the levels of Cadet Marksmanship required in the appropriate Cadet Shooting syllabus for the L98A2 Cadet GP Rifle.

### Planning Considerations

3-53 **Dress.** The dress for LFMT is specified in the Respective Single-Service Shooting Syllabus and manuals and ensures that CFAV/cadets are able to meet the shooting standards wearing the appropriate dress and equipment.

3-54 **Hearing Protection.** Wearing issued, serviceable hearing protection is mandatory for firers and safety staff in the DCCT. The RCO is responsible for checking that everyone has the correct hearing protection, and it is fitted correctly. Hearing protection for personnel or spectators at a distance greater than **2m** is not mandatory.

3-55 **Medical Cover.** The PO/RCO is responsible for ensuring the correct medical cover, in accordance with the DCCT Orders.

3-56 **DCCT Orders.** DCCT Orders must be fully understood and applied, especially the rules applicable to its use by Cadets/CFAV. The RCO must not assume that DCCT Orders are generic, each are specific to a location. The DCCT Orders must be understood and applied:

- a. Which weapons are available.
- b. Firing times and any restrictions.
- c. Access to the DCCT and vehicle parking.
- d. Action in the event of an incident or accident.
- e. Medical requirements.

3-57 **Recce.** If the RCO or the DCCT System Operator are not familiar with the DCCT system that is intended to be used, a recce will be required.

3-58 **Written Instructions.** The production of an RSD, specific to each activity is the minimum requirement for any DCCT used with Inf WS. A RASP is to be produced for DCCT activities that cannot be covered by an RSD e.g., Use by Civilians in accordance with para 4-49.

3-59 **Qualifications.** The following table specifies the qualifications required for DCCT:

Ser	Appointment	Qualification	Remarks
1.	RCO	SA (SR) (07) or (LR) (23) Cadet.	<p>Passed WHTs on L98A2 Cadet GP Rifle within 6 months.</p> <p>Can also be the DCCT Operator providing they are suitably qualified.</p> <p>The RCO is <b>ONLY</b> to conduct LFMT practices in the DCCT in accordance with their SA (SR) (07) or SA (LR) (23) Range Qualification.</p>
2.	Safety Supervisor Coach	SA (SR), (LR) or (K) (17) Cadet.	Passed WHTs on L98A2 Cadet GP Rifle within 6 months.
3.	DCCT Operator	Basic Operator.	Can also be the RCO providing they are suitably qualified.
4.	Firers	Passed WHTs on L98A2 Cadet GP Rifle within 6 months.	

3-60 The PO/RCO is to ensure that all firers, safety supervisors and coaches have passed their WHTs on the L98A2 Cadet GP Rifle.

3-61 **Firer/Safety Staff Ratio.** The ratio of Safety Supervisors to firers is to be sufficient to ensure the safe conduct of the DCCT and recorded in the RSD/RASP.

3-62 **Briefings.** Comprehensive briefings will reduce accidents. The RCO is to hold a briefing for all staff prior to the activity. All staff must know the following:

- a. The Training Objective(s) of the activity.
- b. The general outline and sequence of events.
- c. The signal to stop firing and the action to be taken in an emergency, on the outbreak of fire and if observing a dangerous practice.
- d. Details of the practices to be fired and the way in which they are to be controlled.
- e. The actions on an incident or accident.

3-63 In addition to the above, all firers are to be briefed on the following:

- a. Safe handling applicable to the weapons in use, in particular the operation of the change lever on the L85A2/A3 IW. Cadets and CFAV are **ONLY** permitted to fire single shots with the L85A2/A3 IW.
- b. Limitations on movement.
- c. **The weapon is only to be fired from the right shoulder.**

## Safety Rules

3-64 All practices are to be conducted in accordance with normal range procedures for the live firing of Cadet WS. The RCO is only to conduct LFMT practices in the type of DCCT with which they are qualified, in accordance with their **SA (SR) (07) or (LR) (23)** Range qualification. All LFMT shoots in the DCCT are to be conducted as per the Respective Single-Service Shooting Syllabus and the Operational Shooting Policy.

3-65 Only qualified DCCT Staff may move forward of the firing point.

**3-66 Safety Supervisors are to ensure that the rifle is only fired from the RIGHT SHOULDER. Firers are to be briefed on the danger of using the rifle in the left shoulder.**

3-67 CFAV **cannot** plan, conduct, or supervise DCCT Ranges for Regular or Reserve Forces or for civilians. For open days, demonstrations, etc. the DCCT must be planned and conducted by either Regular or Reserve training team personnel in accordance with Pam No. 21, Chapter 3 Section 4.

3-68 Only weapons configured to operate in the DCCT are allowed to be on the range. Any Cadet WS that can fire live or blank ammunition, along with their magazines cannot be taken into the DCCT. Live or blank ammunition of any type is not permitted in the DCCT.

3-69 **Firing Positions.** Cadets/CFAV may adopt any of the standard firing positions in the DCCT i.e., Prone, Kneeling and Sitting positions, with the exception of the “**Standing Position**” for Staff Cadets/CFAV **ONLY** during LFMT, provided the following rules are adhered to:

- a. The appropriate Cadet Shooting Syllabus or the 1\* HQ (Service Level Duty Holder) allows it.
- b. The DCCT Range Orders do not state otherwise.
- c. Firers are permitted to use the range furniture, i.e., kneeling posts, to adopt the kneeling supported position, providing they have been shown how by the range staff.
- d. Staff Cadets/CFAV **ONLY** are permitted to use the range furniture, i.e., kneeling posts, to adopt the standing supported position, providing they have been shown how by the range staff.
- e. The RCO must make a general visual assessment of the firer's physical strength and ability, and if in their opinion the cadet/CFAV is not able to support the weapon safely they should not be permitted to fire from the intended position.
- f. They have received Rifle Lesson 8 – Firing from other positions and use of cover, from a qualified Skill at Arms Instructor.
- g. If a fire trench is available, they are able to use it provided that sub paras a-e above are adhered to.
- h. **The eye relief for the sight is correct prior to each cadet firing.**

3-70 Grouping, zeroing and application of fire practices from the OSP or authored practices from the cadet syllabus may be selected and fired. CFAVs are allowed to access Basic CGI training if their respective cadet organisation allows it. The RCO is to establish what practices are available during the Recce.

## Procedures

3-71 **Before Firing.** The RCO is to:

- a. Complete the MOD Form 906 - Land Range Log. The RCO certifies by signature, that they hold the correct qualification and that the DCCT Range Orders have been read and understood and that they will be complied with. If the RCO has to leave the DCCT during firing they are to sign off in the MOD Form 906 and the replacement RCO is to sign on prior to the continuation of firing.
- b. **Conduct Normal Safety Precautions assisted by the Safety Supervisors. Conduct a thorough physical check of all weapons, magazines, ammunition pouches, pockets, and other personal clothing and equipment to ensure that no ammunition is present. This is also to include the Cadet Viper Vest.**
- c. Safety Brief to be given.

3-72 **During Firing.** Details of weapon readiness states, firer positions and movement during practices, are given in the conditions of the Cadet LF lessons contained within the Respective Single-Service Shooting Syllabus and manuals. All Words of Command are to be identical to that of a live firing range. See Chapter 4.

3-73 If firers are required to leave the firing point, then weapons are to be unloaded and inspected **by the RCO or Safety Supervisors** before the order to leave the firing point is given by the RCO.

3-74 **After Firing.** Before leaving the DCCT, the RCO is to ensure that the following are inspected by the RCO or Safety Supervisors:

- a. All magazines.
- b. All weapons.
- c. The firers personal equipment and clothing (particular attention being paid to pockets, pouches). **This is also to include the Cadet Viper Vest.**

3-75 **Accident/Incidents.** In the event of an accident/incident, the procedure is to be in accordance with the DCCT Range Orders and the Accident Procedure Section in Chapter 2.



**3-76 UDs on the DCCT.** The exact cause of a UD in the DCCT cannot be determined because the weapons cannot be fully inspected. For this reason, no disciplinary action can be taken against the individual having the UD. However, remedial training and retesting should be conducted if the RCO believes that the firer is at fault.

**3-77 Other DCCT Weapons.** The procedures for Use of In Service (British) Small Arms Weapons (Non-Cadet WS) by Cadets/CFAV in Chapter 4 are to be followed.

**3-78 DCCT Minimum age for Cadets.** law JSP 814, the minimum age for cadets to conduct Cadet LFMT is 12 years of age and over.

## **Section 5. Cadet Paintballing**

*3-79 to 3-100 Reserved – For Cadet Paintballing policy, contact your respective Cadet 1\* HQ for further advice and guidance.*

## Chapter 4. Cadet Live Firing Marksmanship Training (LFMT)

### Purpose

4-01 This chapter contains the regulations for Cadet Live Firing Marksmanship Training (LFMT).

### Referencing

4-02 Chapters 1 and 2 of this pamphlet are to be read and understood before referencing this chapter.

4-03 Sections 1 to 4 of this chapter contain information that is relevant to all LFMT ranges. It is essential that range staff are familiar with these sections before referencing the section dealing with the specific range to be used.

### Structure and Layout

4-04 Each section deals with a specific range type and follows a common layout, Planning Considerations, Safety Rules, and Procedures.

4-05 to 4-10. Reserved.

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## Section 1 — Range Danger Areas For LFMT

4-11 Weapons are fired during Cadet LFMT in accordance with the Safe System of Training and on an approved purpose-built range issued with a MOD Form 905. RCOs must appreciate that the range design is based on the assumption that the correct range conduct and standards of discipline will be strictly adhered to. A detailed description of the ranges and the danger area is contained in DSA 03 OME Pt 3.

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### Definitions

4-12 **Range Danger Area.** The Range Danger Area (RDA) relevant to all ranges may be defined as follows:

*‘Those areas of land or water together with a specified volume of air above, within which danger to life, limb or property may be expected to occur, arising from the initiation of specified ammunition, explosive or ordnance natures’*

4-13 **Range Danger Area Template.** An RDA template for a purpose-built range, is a technical drawing which defines the boundary or prescribed risk from firing approved weapons on a specified Line of Fire (L of F) bearing on a range built to the requirements of DSA 03 OME Pt 3. The RDA template will only apply to a range built to the specifications laid down in the weapon/ammunition specific type drawing.

### Air Rifle Ranges

4-14 Details of the RDA for an outdoor air rifle range are contained at Fig 4-1 and in DSA 03 OME Pt 3 Chapter 22. Details of the RDA for any other type of Air Rifle Range are available from the Range Infrastructure Team DIO Warminster. The RCO is to ensure that the range is safe by adhering to the regulations contained in this section and Sections 1 to 4 of this Chapter.

## Purpose Built No Danger Area (NDA) Ranges

4-15 **Design.** The design of this type of range eliminates the need for a danger area beyond the range structure. The bullet catcher stop butt and retaining wall or walls are constructed to ensure all rounds are contained within the range construction. Any deterioration in maintenance may render the range unsafe.

4-16 The following are included in this group of ranges:

- a. Indoor Rimfire Ranges.
- b. Open Non-Standard with canopy, Barrack and 1908 Design 25m ranges.
- c. Mobile and Tube Range.

## Purpose Built Limited Danger Area (LDA) Ranges

4-17 **Design.** This type of range will incorporate features to limit the danger area by construction, or a combination of construction and angle of elevation. These features are intended to either capture the round or reduce the ricochet distance. They include:

- a. The stop butt composition and face profile (slope).
- b. The mantlet height and forward face profile (slope).
- c. Raised firing points and raised target line, creating a hollow ground effect to reduce the risk of ricochet.
- d. Soft cladding on hard surfaces.

4-18 **Quadrant Elevation (QE).** It is essential that the QE of the weapons, on the line of sight from the firing point to the target, does not exceed that allowed by the range design and stated in range orders. It is to be noted that in range design the maximum QE also includes an allowance for the Cone of Fire.

4-19 **Gallery Range (GR)/Converted Gallery Range (CGR).** A GR has an approved LDA because of the range design, construction and the maximum QE is restricted to 70mils. If fired at an angle of approximately 600mils a 7.62/5.56 mm round, could travel as far as 4000m. The length of the approved LDA is 1830m from the target line. Therefore, any deterioration in maintenance may render this range danger area inappropriate.

## Purpose Built Full Danger Area (FDA) Ranges

4-20 **Design.** The increase in size of the danger area, compared to that of the GR/CGR, is due to the following factors:

- a. There is no stop butt or mantlet to capture rounds in free flight.
- b. As targets are situated at or near ground level, a higher incident of long ranging ricochets can be expected up to 2900m.
- c. Because the QE on an Electric Target Range (ETR) is restricted to below 150mils the length of the RDA is reduced from 4000m to 2900m.

4-21 The Electronic Target Range (ETR) is a type of FDA Range.

## 200mil Rule Cadet Forces

4-22 When firing on either Gallery Ranges (GR) or Converted Gallery Ranges (CGR) Non-Military Organisations (NMO) and Cadet Forces<sup>1</sup> may not apply the 200 mils reduction safety angle when there is concurrent use of an adjacent range, except for Cadet Forces firing the **Target Rifle ONLY** in or Training for Competitions provided that the conditions stated in para 4-23 are met in full.

4-23 It can be applied by ranges used by Cadet Forces, with UK Regular and Reserve Forces firers. **Civilian firers are permitted to be in front but not behind any Cadet Forces on an adjacent range.**

- a. It applies only to Cadet Forces firing in competition/training practices using the **Target Rifle ONLY**.
- b. All firers have followed and recorded in accordance with Service Manuals the progression of Live Firing Marksmanship Training with the Target Rifle.
- c. Range SOs have been updated to reflect the revised rule.
- d. All RCOs/Template Controllers have received formal training from the SASC ARTAT, covering the application of the 200mil Rule and duties of a Template Controller.

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<sup>1</sup> This includes all Service and Private Cadet Forces.

4-24 It is important during the Recce stage that the Planning Officer/RCO ensures they are not affected in any way by safety interactions with other range users. Range Orders must be consulted to determine whether the 200mil rule can be applied and should detail which firing points it can be applied from and to.

### **Range Template Controller (RTC)**

4-25 When there is a safety interaction, between neighboring ranges that is not covered by the 200mil rule at para 4-22 and individuals can potentially encroach into each other's '**Danger Area**' an RTC is to be appointed.

4-26 The units involved are to agree an RTC prior to live firing; this should be annotated in the MOD 906/906A. If the range is being used by Regular or Reserve Forces and Cadets, the RCO from the Regular or Reserve Unit will always take the role of RTC. If the range is being used by Cadets and civilian personnel, the CFAV RCO will always take the role of the RTC. Where units fail to agree an RTC, the Senior Range Warden is to nominate one.

4-27 If an incident/accident occurs, it is the responsibility of the RCO of that unit to deal with it in accordance with the local Range Standing Orders. At the moment of an incident/accident occurring, the relevant RCO must inform the RTC in order for them to step in and control the movement of all users on the ranges.

4-28 The responsibilities of the RTC are summarised as follows:

- a. They are to identify themselves to all RCOs on the range complex.
- b. They are only responsible for controlling the movement of personnel on the range complex. The aim will only be to prevent individuals encroaching into another firer's danger area.
- c. If more than one unit is using a range, they are to control the movement of all personnel on the range, with the aim being to prevent individuals encroaching into another firer's danger area.
- d. They are not responsible for dealing with any incidents other than their own unit.

*4-29 to 4-30 Reserved*

## Section 2. — LFMT Planning Considerations

4-31 The generic planning process in Chapter 2 should be used. This section provides additional planning considerations specific to Cadet LFMT.

4-32 The planning of Cadet LFMT must ensure the activity is conducted safely and in accordance with rules contained in this pamphlet, the relevant service manuals, and Local Range Standing Orders.

### Approved Live Firing Practices

4-33 Only authorised LFMT practices that are contained within Cadet Single-Service Shooting Syllabus, manuals, shooting competition rules, practices used during Cadet RMQ Courses and those authorised by the OC ARTAT or the SO2 HQ SASC may be fired on these ranges. The Planning Officer may design a shoot by selecting practices within the above publication applying the following rules:

- a. It is permitted to adjust types of target, number of rounds fired and exposure timing.
- b. Where a genuine requirement exists, Cadet LFMT may be conducted on a LFTTA in accordance Chapter 4, Section 2, para 4-60.
- c. It is not permitted to take conditions of a practice designed to be fired from a particular position and range (e.g., 100m standing) and fire it from a longer range (e.g., 300m). This is likely to produce a Cone of Fire (C of F) greater than allowed for in the range design.

4-34 Any suggestions for amendment to the existing shoots are to be sent to either the ACFA Shooting Committee Secretary, or the equivalent for the RAFAC or the SCC and approved by the OC SASC ARTAT and HQ SASC before they are conducted this includes shoots taken from the OSP, Volume 1.

4-35 Cadet Force Shooting Teams who are required to practice matches, belonging to other nations, prior to departing overseas, are to gain authority to fire those matches on UK ranges from HQ SASC.

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4-36 Where cadet units intend to fire a non-standard practice (not included within OSP or Cadet Shooting Policy) or any practice which is outside the SST that is supported by a dispensation, the PO must engage with the RAU TSO during the recce phase to ensure that the range can safely accommodate the activity.

## Dress

4-37 Dress for Cadet LFMT is specified in the Respective Single-Service Shooting Syllabus/Policy or CCRS match conditions and ensures that personnel are able to meet the Marksmanship Standard wearing the appropriate dress and equipment. When firing the L98A2 GP Rifle, webbing/viper vests should be worn to enable firers to carry out the correct weapon handling drills. Magazines containing ammunition or loose ammunition are not to be placed in pockets or on the ground. The wearing of webbing and other similar equipment by safety supervisors and RCOs is not permitted as this may restrict them in carrying out their duties.

## Corrective Lenses

4-38 The wearing of corrective/contact lenses is a mandatory requirement for all individuals that require them to positively identify the target during LFMT. If the individual requires corrective/contact lenses and does not have them for the activity that **person is not to take part**. The RCO is to check for corrective/contact lenses during the NSP's phase of the activity.

## Medical Cover

4-39 The PO is responsible for ensuring the provision of adequate medical cover, in accordance with the minimum requirements stated in Chapter 2 and the Range Standing Orders. They are to refer the matter to the SPO and TSA or Service equivalent if the medical cover cannot be achieved.

## Range Recce

4-40 This is a vital part of the planning process, the Planning Officer/RCO are to visit the range and consult with Range Control, to obtain access and establish the facilities and targets that are available/required.

4-41 **The Range Orders.** The Range Orders must be read before planning LFMT and note taken of the following:

- a. The ammunition and weapons that may be used. (As detailed on the MOD Form 905 Range licence and copied in Range Orders.)
- b. Firing times and any restrictions, including the 200mils rule (also see para 4-22).

- c. Access to the range and vehicle parking.
- d. Flags and Sentry requirements (including possible need for air sentries when firing 7.62mm Ball). CFAV or cadets aged 18+ may be tasked to act as range sentries and are to be formally briefed on their orders and duties by the RCO, where there is a requirement to do so, in accordance with the relevant Cadet Force Regulations, Unit Standing Orders and Range Standing Orders.
- e. Communication requirements.
- f. Action in the event of an incident or accident.
- g. Medical requirements.
- h. The signal to stop firing.
- i. Availability and types of targets and who sets them up.
- j. Written instruction requirement, RSD/RASP, and timeframe for submission to Range Control.

## Safety Supervision

4-42 For all cadet live firing it is mandatory to have Safety Supervisors, of which the ratio to firers is to be sufficient to ensure the safe conduct of all practices. The only exception is the conduct of indoor ranges using .22 rimfire weapons, or air rifles, where it is acceptable for the RCO, where the safe conduct is not compromised, to act as a supervisor for a maximum of details of 2 firers or less. This applies for indoor ranges only and cannot be applied to any outdoor range, regardless of the weapon being used or detail size the ratio of Safety Supervisors to firers is to be recorded in the RSD/RASP. All Safety Supervisors must be current, competent and have passed the WHT with the weapon(s) to be supervised during the range activity. **UOTC are NOT to be employed as Safety Supervisors.**

## Written Instructions

4-43 The production of an RSD, specific to each range is the minimum requirement for any cadet LFMT fired on Air Rifle, NDA, LDA and FDA ranges. If the SPO deems the LFMT to be sufficiently complex (***Cadet Shooting Competitions are an example***), then a RASP should be produced to support the live firing activity. RCOs are to have their signed RSD/RASP in their possession whilst conducting their plan.

## Briefings

4-44 It is mandatory for the RCO to conduct a brief to all range staff involved in the activity, which is to be reflected in the RSD/RASP. All range staff involved are to attend and it is to include the following:

- a. The Training Objective(s) of the LFMT and general outline and sequence of events.
- b. The signal to stop firing and the action to be taken in an emergency.
- c. The actions on unplanned events (e.g., a firer being left behind during run downs) and if a dangerous practice is identified.
- d. Any safety rules peculiar to the range in use.
- e. The details of the practices and the way in which they are to be controlled.
- f. If persons, animals, vehicles, ships, or aircraft are seen to enter, or are about to enter the danger area, firing is to stop, safety catches are to be applied and the RCO informed at once. Any further action is to be controlled by the RCO.
- g. The actions on an incident or accident.

4-45 Safety Supervisors/Coaches must know the following:

- a. The safe handling and firing drills of the weapons being supervised. Safety Supervisors are to have passed WHTs within the last six months for those weapons they are responsible for.
- b. The weapon states of readiness on the firing point and during movement.
- c. They are to be in a position to observe and correct errors of weapon drills, including muzzle clearance, and be able to intervene swiftly if required. However, the position adopted must avoid being struck by an empty case.

4-46 Signaler/Phone Operators must know:

- a. Frequencies and alternatives, if appropriate.
- b. To inform the RCO and OIC Butts/Console at once if contact is lost.
- c. Communications in the event of an accident.

4-47 The OIC Butts/Console must know:

- a. The signals to raise and lower targets and the duration of exposures.
- b. Which firing point and lanes are to be used.
- c. The safety rules for entry and departure from the butts/console.

4-48 The RCO is to ensure that firers are given a Safety Brief to include:

- a. The signal to stop firing and actions on receiving the signal to stop firing.
- b. A warning to only fire at targets in lane (no cross-lane firing).
- c. The mandatory requirement to wear corrective/contact lenses to positively identify the target. If an individual who requires corrective/contact lenses to positively identify the target does not have them for the activity **that person is not to take part.**
- d. Safe handling rules applicable to the weapons used.
- e. Any limitations on movement.
- f. Dealing with stoppages and barrel obstruction.
- g. Actions on incursions into the danger area.
- h. Action on Casualties.
- i. Weapons are to be pointed horizontally at the bullet catcher during all weapon handling drills and when loaded or made ready.

### **Use of Cadet Weapon Systems by Civilians**

4-49 CFAVs are not permitted to plan or conduct live firing for civilians. In addition, CFAV are not to act as safety supervisors, nor participate in the butts or console duties in anyway on ranges conducted for or by civilians. If an activity is to be conducted, such as an open day, during which any form of live firing activity is planned, then the local CTT or suitably qualified Reserve or Regular force personnel, are to plan, conduct and supervise the range. The range is to be planned and conducted in accordance with Pam No. 21, Chapter 4, Section 2. Advice can be sourced from HQ SASC or OC ARTAT as required.

## **Use of Service (British) Small Arms Weapons (Non-Cadet WS) by Cadets/CFAV**

4-50 At all times personnel planning live firing for cadets/CFAV must endeavor to ensure that it is done using Cadet WS. However, there may be an occasion where the firing of other weapons is desirable. i.e., to promote interest, or during visits to UK or overseas establishments supported by British Units where Cadet WS are not available. Cadets and CFAVs may fire in service small arms British Inf WS only, but the following rules are to be adhered to:

- a. CFAV are not permitted to plan conduct or supervise such activities.
- b. They must be under the supervision of a member of the Regular or Reserve forces who is competent to provide such supervision.
- c. The activity for which the cadets/CFAV's have been given approval from their 1\* HQ (Service Level Duty Holder) and is formally endorsed activity to be supervised and conducted by the Regular or Reserve Unit and the appropriate cadet force policy permits it. The activity has been expressly approved in writing by the Activity Risk Owner of the Unit conducting the activity for the Cadets/CFAV's (OF4 Level). The authorisation must specify the following:
  - (1) The purpose of the activity.
  - (2) The resources required to conduct the activity.
  - (3) Personnel allocated to the activity and their specific responsibilities.
  - (4) The time and location of the activity.
  - (5) Reason why the Cadet/CFAV is required to fire a service weapon.
  - (6) The RCO and range staff are qualified, and the range is conducted in accordance with Pam 21.
  - (7) The ammunition must be in-service.
  - (8) The activity has formal endorsement from the appropriate cadet 1\* HQ (Service Level Duty Holder).

4-51 Commanders have a duty to ensure that those cadets/CFAV under their command, during such activities, are entirely clear for the need to rigorously enforce the prohibition of cadet access to Non-Cadet WS without express authority as outlined above.

4-52 The following rules and procedures are to be enforced by the RCO:

- a. The production of a RASP is mandatory.
- b. The ratio of qualified safety supervisors to firers is to be 1:1.
- c. Firing should not take place at a distance greater than **25m**. A formal justification to fire beyond **25m** up to a maximum of **100m** is to be submitted and approved by the Cadet 1\* HQ (Service Level Duty Holder) and the justification is to be included in the Risk Assessment for the activity.
- d. Firing is only permitted from recognised cadet firing positions within the constraints of the Respective Single-Service Shooting Syllabus and the rules contained in the CTR.
- e. When firing weapons with a Single Shot/Automatic capability, **only single shot is permitted**. They are to be briefed not to operate the change lever.
- f. The use of automatic weapons is prohibited by cadets who have not achieve 3\* Advanced Marksmanship and are also Staff Cadets.
- g. All handling drills, including any stoppage drills, are to be completed by the safety supervisor. The '**Ready**' weapon is to be handed to the firer, who is only to place the safety catch to '**Fire**' and operate the trigger.
- h. On completion of firing, the firer is to apply the safety catch to the 'Safe' position and the safety supervisor is to take control of the weapon.
- i. The safety supervisor is to ensure that, at all times, the weapon is pointing in a safe direction.
- j. **Cadets/CFAV are not permitted to fire Service weapons at night.**
- k. Ensure the safety supervisor briefs the firer how and where to aim the weapon.
- l. Ensure that the firer is strong enough to handle and fire the weapon.

### **Use of the L98A2 by Untrained CFAV/Cadets**

4-53 CFAV/Cadets may fire the L98A2 when they have not been formally trained to use if they comply with the same rules and procedures that allows the Use of Service (British) Small Arms Weapons (Non-Cadet WS) by Cadets/CFAV (See para 4-50). In particular, express written authority must be provided by the 1\* Headquarters and the following must be understood:

- a. The live firing of the L98A2 does not constitute formal training and the CFAV/Cadet will not be deemed competent on the weapon system.

### **Use of In Service (British) Small Arms Weapons (Non-Cadet WS) by Staff Cadets (18+)**

**4-54 ONLY Staff Cadets** can fire the following weapon systems in accordance with the Respective Single-Service Shooting policy and the rules laid out in para 4-49 of the CTR and Pamphlet No.21 for the Use of In Service (British) Small Arms Weapons:

- a. **Sharpshooter Rifle.**
- b. **GPMG Lt Role.**

**4-55 Moving Target Shoots. ONLY** Staff Cadets/CFAV's can conduct the Moving Target Instructional Shoot on the **DCCT ONLY**, the following additional rules are to be adhered to:

- a. The RCO is to hold the SA (B) (90/18) Range Qualification to plan and conduct this shoot and the shoot is planned in accordance with Pamphlet 21.
- b. The firers have received Rifle Lesson 8 - Firing from other Positions and use of cover, from a qualified Skill at Arms Instructor.
- c. **Standing Position. ONLY** Staff Cadets and CFAV can fire the L98A2 from the standing position in accordance with the progression of LF practices as laid down in the Respective Single-Service Shooting Syllabus and the rules in the CTR. This includes the Standing position during the conduct of the Moving Target Instructional Shoot on the **DCCT ONLY**.
- d. The RCO is to ensure that the CFAV/Staff Cadet is physically capable of holding and firing the L98A2 from the standing position and record the fact in the Risk Assessment before the Staff Cadet/CFAV can fire in the Standing position prior to the conduct of the Moving Target Instructional Shoot on the DCCT.

**4-56 Competition Shooting.** Before competing in any shooting competitions, the SPO must ensure that the Cadets/CFAVs selected to fire have completed the necessary progression of training. As a minimum they must have passed application of fire practices from the distances and fire positions they will be expected to fire from during the competition, the only exception being Target Rifle if 1 to 1 Coaching is in place.

**4-57 Non-Service Pattern Light Weapons (NSPLW). Cadets are not permitted to fire NSPLW.**

## Use of Cadet Locally Purchased Weapons (CLPW)

4-58 CLPW may be fired by cadets and CFAVs providing the following is in place:

- a. A Safety and Environmental Management Case has been produced and there is a current dispensation, authorised and signed by the Service Level Duty Holder, in accordance with Single Service policy.
- b. Only the weapon and ammunition types named in the SEMC are permitted to be used.
- c. The conditions of use, training, maintenance, and inspection regime in the SEMC is adhered to.

4-59 When planning cadet live firing using CLPW, the SPO is to ensure that the PO has liaised with the RAU and permission has been granted to fire the weapons on MOD Ranges. The weapon type and ammunition will need to be annotated onto the MOD 905. This may require liaison at Bde Level, so additional time should be allowed during the planning process. The RAU will require a copy of the Service Level Duty Holder Authorisation Certificate.

4-60 **Conduct of Cadet LFMT on a LFTTA Static Firing Line.** Where a genuine requirement exists, Cadet LFMT may be conducted on a LFTTA by Cadet Training Team personnel holding the **SA (B) qualification** under the following circumstances:

- a. The Firing Line is to be planned by an individual holding the **SA (A) qualification**. A RASP, RDA trace and associated documentation is to be produced to support the activity; likewise, all other LFTT associated processes must be applied before, during and after the activity.
- b. The SPO is to hold the SA (A) qualification.
- c. Only approved Cadet LFMT practices from the Respective Single-Service Shooting Syllabus may be conducted. The **SA (B) qualified** RCO may only conduct Cadet LFMT practices that he/she would ordinarily be qualified to conduct on Purpose Built Ranges.
- d. The PO is to brief the RCO and Safety Supervisor on the arcs, firing point/lane indicators and any additional constraints that may apply to the firing area.
- e. Safety Supervisors holding the SA (K), or SA (K) Cadet's qualification may be appointed providing that their role in no way exceeds the responsibilities incurred during the same LFMT practices when conducted on a Purpose Built Range.



### Section 3. — LFMT Common Safety Rules

4-61 The range danger areas and design of the range will largely dictate the safety rules and procedures. This section covers the safety rules and procedures that are common to all Cadet LFMT.

#### Weapons

4-62 During all weapon handling drills the muzzle is to be kept pointing at the target/stop butt, thereafter the firer is to adopt the nominated position.

4-63 All weapons are to be boresighted and zeroed.

4-64 **Cadets/CFAV are not permitted to fire air or service pistols.** Cadets and CFAV are permitted to fire the Pentathlon '*Laser Target Pistol*' in accordance with Single Service policy and in accordance with National Governing Body (Pentathlon GB) policy and guidelines.

4-65 The minimum spacing between firers with the Rifle Centerfire, single shot 1.8m and Rimfire 1.0m.

#### Coaching Position(s)

4-66 To avoid being struck by an empty case, when coaching the Cadet GP Rifle (L98A2) coaches are not to adopt the same position as the firer if within **2m**. When coaching the Cadet Target Rifle, Cadet Smallbore Target Rifle or Air Rifle the coach may adopt the same position as the firer.

#### Hearing Protection

4-67 Wearing issued, serviceable hearing protection is mandatory during LFMT. The RCO is responsible for checking everyone has the correct hearing protection. All personnel (military and civilian) are responsible for safeguarding their own hearing by wearing them.

Contents	
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Firing Positions	4-16
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## Use of Fire Trenches by Cadets/CFAV

4-68 Cadets/CFAV may use fire trenches on purpose-built ranges to fire LFMT practices in accordance with the appropriate syllabus or approved competition, however, to comply with the progression of training cycle they must first have fired similar practices from the prone position. When doing so the RCO is to apply the following procedure, which is to be closely supervised by the safety supervisors on the firing point:

- a. Safety catches are to be applied and the weapon is to be pointing down the range at all times. Weapons are to be unslung and placed on the ground to the right side of the fire trench.
- b. All firers are to climb into the fire trench and ensure that they are able to place both elbows onto the parapet comfortably. If necessary, a sandbag or ammunition container may be stood on to raise the height of the firer in the trench.
- c. The RCO is to order the firers to pick up and then sling their weapons, reminding them of the weapon state.
- d. Once the firers have taken control of their weapons the RCO is to ensure that they adopt a stable position in the top right hand side of the trench and that they build a stable position, resting the elbows on the parapet.
- e. The RCO is to order “**Test and Adjust**” as appropriate then the word of command to fire.
- f. At the end of the practice the RCO is to order “**Has anyone not finished**”. When climbing out of the fire trench, firers are to be reminded of the weapon state and that the safety catch is to be applied and order to unsling weapons and place them to the right side of the fire trench, then climb out.
- g. Once out they are to pick up their weapons ready for the next practice. Weapons are to be pointing down the range at the targets at all times.

## Firing Positions

4-69 Cadets/CFAV may adopt any of the standard firing position i.e., prone, kneeling and sitting positions, with the exception of the “**Standing**” (see sub paras h to i) for Staff Cadets/CFAV **ONLY** during LFMT provided the following rules are adhered to:

- a. It is an authorised live firing practice, and they must have done the progressive shoots in the prone position first.
- b. The firers received Rifle Lesson 8 – Firing from other Positions and use of cover, from a qualified Skill at Arms Instructor.

- c. Firers are permitted to use the range furniture to adopt the kneeling supported position, but prior to doing so must be shown how to do this on the range.
- d. Staff Cadets/CFAV **ONLY** are permitted to use the range furniture, i.e., kneeling posts, to adopt the standing supported position, providing they have been shown how by the range staff.
- e. The RCO is to make a general visual assessment the firers physical strength and ability and if in their opinion the cadet is not able to support the weapon safely, they must not be allowed to use the intended position.
- f. Range Orders permit it.
- g. When using the fire trench, the procedures in para 4-68 are adopted.
- h. The Cadet Target Rifle is only to be fired from the prone position.
- i. Firing from the standing position is permitted with the Cadet Air Rifle as follows:
  - (1) In accordance with the rules and procedures in Section 5 – Air Rifle Range.
  - (2) In accordance with DSA 03, OME Part 3, Volume 2, Chapter 22.
  - (3) The firers have received Air Rifle Lesson 5 – Firing from Other Positions, from a qualified Skill at Arms Instructor.
  - (4) The progression of Air Rifle LF practices as laid down in the Respective Single-Service Shooting Syllabus have been conducted.
  - (5) The RCO is to ensure that the Cadet is physically capable of firing the Air Rifle from the standing position and record the fact in the Risk Assessment before the cadet can fire in the Standing position.
- j. Firing from the standing position is permit with the L98A2 GP Rifle as follows:
  - (1) Staff Cadets/CFAV **ONLY** can fire the L98A2 from the standing position in accordance with the progression of LF practices as laid down in the Respective Single-Service Shooting Syllabus and the rules in the CTR. This includes the Standing position during the conduct of the Moving Target Instructional Shoot on the DCCT **ONLY** as per para 4-55.

- (2) In accordance with the rules and procedures in Section 6 to 11 of Chapter 4.
- (3) The firers received Rifle Lesson 8 – Firing from Other Positions and use of cover, from a qualified Skill at Arms Instructor.
- (4) The progression of LF practices for the L98A2 GP Rifle as laid down in the Respective Single-Service Shooting Syllabus have been conducted.
- (5) The RCO is to ensure that the Cadet is physically capable of firing the L98A2 from the standing position and record the fact in the Risk Assessment before the cadet can fire in the Standing position.

## **Ammunition**

4-70 An ammunition issue point is to be established and the following rules apply:

a. A CFAV/NCO must be appointed to be responsible for issuing and accounting for ammunition. The SPO and RCO are to ensure that the CFAV nominated is deemed competent to do this task. Potential Instructors and CFAVs undergoing their probationary period may also carry out these duties providing they are deemed competent by the RCO. They are to:

- (1) Ensure that ammunition is not left unattended.
- (2) Record the BKI for every container opened.
- (3) Only issue from one batch at a time. This will make segregation possible in the event of an incident/accident.
- (4) Only open containers immediately prior to issue. In the case of cardboard cartons and plastic bags, they are not to be opened in anticipation.
- (5) Only issue ammunition in the quantities directed by the RCO.
- (6) Attend the RCOs verbal range team briefing.

b. Ammunition is only to be issued to details about to fire. Once issued ammunition cadets must be supervised by a CFAV at all times. If in the unlikely event a firer needs leave the area of the firing point briefly before firing, their weapon and ammunition must remain under supervision of the CFAV.

c. **Firers engaged in concurrent activity are NOT to have any live ammunition in their possession.**

d. Ammunition is only to be used for its intended purpose and is not to be modified or tampered with in any way.

e. On completion of firing, all un-fired ammunition is to be returned to the ammunition point. Empty cases are to be returned to a separate salvage point.

4-71 **Mixed Live and Blank.** Normally only live ammunition will be taken onto a range. If it is necessary to take blank ammunition onto a range, the following points must be strictly adhered to:

a. **Live and blank ammunition are NEVER to be mixed.**

b. There must be separate issuing points for live and blank ammunition, at least 30m apart, each under control of a separate CFAV/NCO.

c. **Cadets/CFAVs will not be issued with blank ammunition if they have live ammunition in their possession, or vice versa.**

d. If a change in the type of ammunition is necessary, stop training, clear, and inspect weapons, withdraw all ammunition, check equipment, and take a declaration. The withdrawn ammunition must be immediately returned to its respective issuing point and all open ammunition boxes must be checked by the RCO to ensure that live and blank ammunition has not been mixed.

e. The procedures in Chapter 3 for Blank ammunition are to be adhered to.

4-72 **Drill Rounds.** Drill rounds are **NOT** to be taken onto the range except for use in stoppage practices or for coaching. Drill rounds are only to be taken to the range if approved by the RCO and their removal from the range must be carefully supervised.

4-73 **Damaged Rounds.** Whether damaged or not, any round involved in a stoppage is to be removed from use and no attempt is to be made to replace it in a magazine, or to fire it. Damaged/rejected rounds are to be collected and returned separately from other unfired ammunition.

4-74 **Records.** Immediately on return from the range the completed AFB 159A is to be handed in to the ammunition store. The AFG 8227 Unit Ammunition Issue Voucher is to be completed and handed in to the officer nominated in unit standing orders.

## Use of Flags

4-75 Red flags are used to indicate danger. The system is as follows:

a. **Range Boundary Flags.** As specified in Range Orders, flags are located around the range boundary to warn civilian and military personnel when the range danger area is in use. Signs, notices, sentries and manned or locked barriers may also be required at specified points.

b. **Range in Use Flags.** On each range in use, a red flag is to be raised on a specified high point, i.e., Gallery Range (GR) stop butt or 25m range wall. The flags remain raised and indicate to all, that those specific ranges are in use. They are lowered at the cessation of firing. In a range complex these are normally raised by the RAU, on 25m Ranges it is usually the task of the user unit (Clarification will be in RSOs).

c. **Butt Flag.** A red butt flag is displayed in the butts to indicate to the RCO and firing detail that it is unsafe to load or continue to fire. It is used as follows:

(1) The butt flag is to be displayed until all personnel, including range wardens, are under cover. The RCO is to ensure that the butt flag is lowered before weapons are loaded.

(2) No one is to leave the gallery until the RCO has confirmed that firing has stopped, and the weapons have been unloaded and cleared. The OIC Butts on the order of the RCO can then raise the butt flag. Only then is it safe to leave the gallery.

(3) Only in an emergency is the butt flag to be raised without permission from the RCO. The butt flag must only be raised from under cover. Even if the butt flag has been raised in an emergency, no one may leave the butts until contact with the RCO has been made.

(4) There may be occasions when it is impractical to have a butt party. If there is no butt party then there is no requirement for the butt flag to be used; however, when inspecting targets, the RCO must accompany personnel to and from the butts, to personally ensure that there is no one present in the butts before weapons are loaded and firing starts.

## Night Live Firing

4-76 Cadets or CFAVs are not permitted to conduct or take part in any form of Live Firing at night. This includes Firing at the Limit of Night Visibility (LNV), using illuminants and night sights. Cadets can fire at night indoors but **ONLY** where there is sufficient lighting to enable the use of daylight sights.

## Falling Plates

4-77 The 2 types of falling plate for use on LDA and FDA ranges are:

**a. Standard Falling Plate.** For use on approved ranges with an RDA that caters for the increased likelihood of ricochets. The following rules apply:

- (1) Falling plates may be positioned on the face of the stop butt of an LDA range in shooting-in boxes (see Fig 4-1).
- (2) If the distance from the plates on the face of the stop butt to the Marker's gallery is less than 50m, the markers must not remain in the open part of the gallery. Suitable shelter in the gallery can be used provided the door is closed and markers avoid windows facing the plates.
- (3) If there is no suitable shelter in the gallery, or there is no gallery, no one is to be forward of the firing point. Once weapons are loaded, and firers are completing the rundown everyone is to be behind the firing line or positioned behind properly constructed bulletproof cover.
- (4) Communication between the firing point and the marker's location is essential.

**b. Falling Plate Boxes.** Where Range Standing Orders do not allow for standard, unprotected falling plates to be used on GR/CGR or ETR an alternative, when firing 5.56mm ball ammunition, is to use a prescribed falling plate sleeve that completely encloses the falling plate and subsequently captures the rounds that strike the plate thus eliminating the ricochet hazard altogether. Provision of the sleeves and rules for target positioning is a RAU responsibility and will be stated in Range Standing Orders. The following rules apply:

- (1) **Positioning of Targets.** On Gallery/Converted Gallery Ranges the covered falling plate targets are to be located on top of the mantlet or on the face of the stop butt (see Figs 4-1 and 4-2). The location and method of positioning will be detailed in the Range Standing Orders.
- (2) **Markers' Gallery.** The Markers' Gallery can be manned; however, all personnel are to remain under cover of the gallery throughout firing. Movement from and to the gallery is to be strictly controlled by the OIC Butts.

(3) **Inspection.** OIC Butts is to personally inspect each falling plate sleeve when re-setting the falling plates for the next detail. Any reduction to the rigidity of the sleeve or exposure of the metal falling plate will render the cover unserviceable and need turning or replacing.

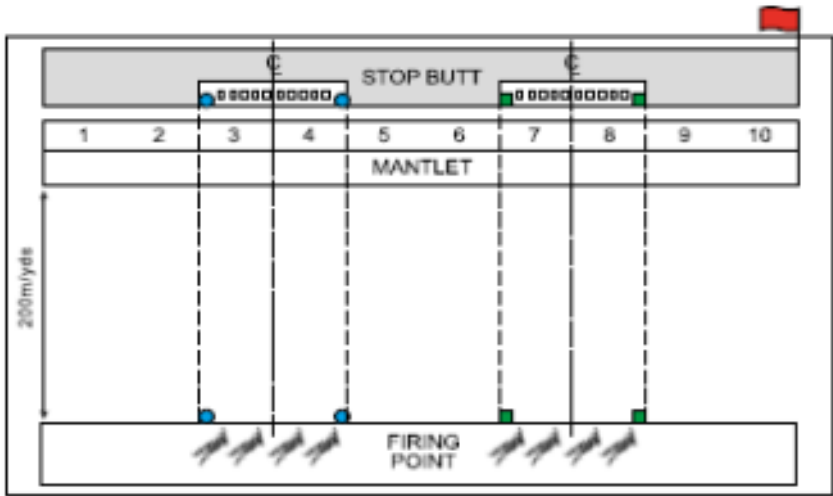
4-78 **Conduct.** Unless specific instructions are given by the Range Infrastructure Team DIO Warminster to the contrary, the layout for falling plate practices is to conform to the layout in Figs 4-4 and 4-5 irrespective of the type of target/plate being used the following rules apply to all falling plate shoots on GR/CGR and ETR:

- a. Only 5.56mm ball ammunition is to be fired.
- b. Minimum firing distance is not less than 200m/yds.
- c. Only falling plate practices in the Cadet Competition Shooting publication maybe fired. A summary of the rules:
  - (1) On 10 and 12 lane ranges only 2 teams are to fire simultaneously.
  - (2) On a 10-lane range only use lanes 3-4 and 7-8 (see Fig 4-1).
  - (3) On a 12-lane range only use lanes 4-5 and 8-9 (see Fig 4-2).
  - (4) The outside edge of each pair of lanes is to be clearly marked to form a firing line using coloured markers (see Figs 4-1 & 4-2).
  - (5) The outside edge of each row of plates is to be marked using coloured markers, the same as is on the firing point (see Figs 4-1 & 4-2).
  - (6) Each team must fire from their allotted firing line.
  - (7) Falling plates are to be positioned so that the fifth and sixth plate of each group of ten are positioned either side of a Centre Line (CL) between the pairs of lanes being used.
  - (8) Falling plates are to have a 300mm spacing between each plate.
  - (9) Teams are not permitted to engage plates outside their allocated lane, i.e., 4-5 or 8-9. To do so will result in cross lane firing.

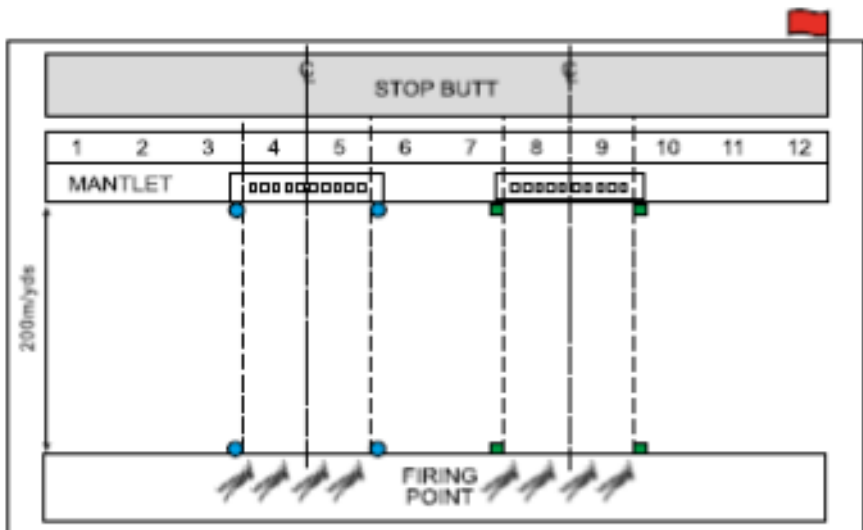


4-79 Prior to firing falling plates practices Cadets/ CFAVs must have completed the necessary progression of training and as a minimum they must have passed application of fire practices from the prone position up to 200m.

4-79 to 4-80 Reserved



**Fig 4-1. - Layout of a 10 Lane Range for Falling Plates Showing the Position for Unprotected Falling Plates on the Stop Butt**



**Fig 4-2. Layout of a 12 Lane Range for Falling Plates Showing the Position for Protected Falling Plates on the Mantlet**

## Section 4 – LFMT Procedures

### Introduction

4-81 This section covers the procedures that are common to all LFMT.

### Words of Command (WOC)

4-82 The RCO is to ensure that all firers can hear the WOC. Depending on the range, a loudhailer or Public Address (PA) system may be used. The practice conditions and the type of range dictate the orders given. When issuing WOCs on the firing point, they should be done so clearly, with pauses to allow all firers to complete an action before continuing. **Under no circumstances are orders to be hurried.** A guide to the sequence is as follows:

Contents	
<b>Introduction</b>	<b>4-24</b>
<b>Words of Command</b>	<b>4-24</b>
<b>Suspension of Firing</b>	<b>4-25</b>
<b>Inspections</b>	<b>4-25</b>

- a. ***“Next detail moves onto the firing point”***. Explain the practice details then, if applicable ***“Coaches brief your firers”***, when required ***“Coaches Finish Off”***.
  - b. ***“Load”*** then ***“Prone Position Down”*** or relevant position to be adopted for the practice.
  - c. ***“Ready”***, ***“Test and Adjust your Position”***.
  - d. ***“Under control of your coaches carry on”*** if this is not applicable, give the executive order to permit firing ***“5 rds Rapid Watch and Shoot”***, (One ring to the butts), or indicate to the console operator to expose the targets.
- 4-83 At the end of the practice, depending on the type of practice, order:
- a. If applicable, ***“Anyone not finished”*** (Two rings” to the butts in the case of a GR), if not applicable ***“Unload”***.
  - b. ***“Keeping your weapons pointing down the range, standup”***
  - c. ***“For inspection port arms”***, then, ***“Safety supervisors show clear”***. Once all supervisors have raised their hand to show clear ***“Clear ease springs”***.

d. Either **“Coaches sum up”**, **“listen in for your scores”** or if applicable order **“butt flag up”** and then go and check the targets, if required. Scores are received from the butts and are read out by the RCO. On a CGR/ETR scores are read out by the console operator. Scores should be read out on completion of each practice. On a CGR/ETR the order **“Cancel Scores”** is given after the scores have been recorded on the butt register. **“Details change”**, repeat the process for each detail.

4-84 When firing on a tube range, or an indoor range where the construction does not allow you to stand, all drills are done in the prone position. When using bolt action weapons, for simplicity of handling the load is ordered whilst the firer is in the prone position.

### Suspension of Firing

4-85 **Intrusion.** If persons, vehicles, aircraft, or shipping enter, or are about to enter, the danger area, firing is to cease, and safety catches are to be applied. The RCO will then give appropriate orders for further action. **Range Control is to be informed and will advise on further reporting.** All sentries must be briefed to inform the RCO immediately if an intrusion occurs or is about to occur. The RCO is to record all details in the MoD Form 906/906A. The RCO may also be the air sentry.

### Inspections

4-86 **Normal Safety Precautions.** Personnel are **NOT** permitted to stand in front of weapons during safety precautions, regardless of where they are being conducted.

4-87 **Before Firing.** All RCOs are to **personally** sign the MOD Form 906/906A on taking over the range. **They are also to personally gain clearance to fire from range control<sup>2</sup>. Firing is not to commence until both have been completed.** The RCO or Safety Supervisors are to conduct a thorough physical check of all ammunition, weapon chambers, magazines, ammunition pouches, pockets and other clothing and equipment. This is also to include the Cadet Viper Vest. To ensure that:

- a. Weapons are clear.
- b. No non-approved ammunition is present.
- c. Firers have issued, serviceable hearing protection.

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<sup>2</sup> Clearance to fire is to be obtained by the RCO after any forced stops by Range Control.

4-88 **During Firing.** Details of weapon readiness states or any movement during the practice are given when reading out the conditions of the practices. If, at the end of a practice, firers are to leave the firing point i.e., to move forward to examine targets or move back or forward to another firing point, then weapons are to be unloaded and inspected before the order to move is given by the RCO.

4-89 **After Firing.** Before leaving the range, the RCO is to ensure that all ammunition containers, empty cases, and salvage are collected, and live or blank rounds are segregated for return to the store. The following are then inspected by the RCO or Safety Supervisors:

- a. All magazines and weapons.
- b. The firers personal equipment and clothing, this is also to include the **Cadet Viper Vest**.
- c. All ammunition containers, a Certificate Free From Explosives (CFFE) signed by the RCO/Safety Supervisor is to be placed in each empty container.
- d. Anyone who is detailed to return ammunition to store must be inspected after its return.

4-90 **Declaration.** The RCO is responsible for ensuring that a declaration is taken at the end of the range or exercise activity and that the AFB 159A has been signed.

4-91 **Shooting Results.** The RCO is to ensure that the results, recorded on the AFB 189 Firing Point/Butt Register or print out, are also recorded on the cadets' shooting records. A blank AFB 189 can be found in the Cadet Resource Library.

*4-92 to 4-100 Reserved*

## Section 5 – Air Rifle Ranges

4-101 This section details the planning considerations, safety rules and procedures for live firing on an Air Rifle Range.

4-102 Air rifles are defined as rifles which fire a lead pellet by the release of a spring driven piston inside a sealed air chamber.

4-103 Advice on cost and type of air rifles is available from the NSRA, Lord Roberts House, Bisley Camp, Brookwood, Woking, Surrey, GU24 0NP.

### Qualifications

4-104 The following table specifies the minimum rank and qualification required by personnel to conduct and participate in live firing training on Air Rifle Ranges:

Ser	Appointment	Cadet Range Qualification	Remarks
1.	Planning Offr/RCO	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (AR) (12) Cadet	Note 1 Note 2
2.	Safety Supervisor	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (AR) (12) Cadet SA (K) (17) Cadet	Note 1 Note 2
3.	Ammo Orderly	None	CFAV or NCO
4.	Firer	None	Note 2

### Notes:

- (1) Past courses rule applies.
- (2) Must have passed the Air Rifle WHTs within the previous 6 months.

### Range Danger Areas

4-105 **Indoor Ranges.** The principal danger from air rifles is pellets bouncing back from striking a hard or backsplash inducing surface, such as the rubber anti-splash curtain of a rimfire range. Additional information on the design and construction of indoor air rifle ranges can be found in DSA 03 OME Pt 3 Chapter 22.

4-106 **Outdoor Air Rifle Range Layout and Danger Area.** The typical layout and RDA for a 6-lane outdoor Air Rifle Range established on a grassed area is shown at Fig 4-3.

Contents	
<b>Qualifications</b>	<b>4-27</b>
<b>Planning Considerations</b>	<b>4-28</b>
<b>Safety Rules</b>	<b>4-30</b>
<b>Procedures</b>	<b>4-31</b>

## Planning Considerations

**4-107 Temporary Air Rifle Ranges.** A Temporary Air Rifle Range (TARR) is a temporary range taken into use for a limited period for training purposes. A TARR is normally set up on MOD Land, including indoor buildings, Indoor Ranges, and training on private land (TOPL). The use of a TARR requires a site and practice specific risk assessment to ensure all elements of the SST are in place. If used more than three times in a one year or once a year for more than three years, the TARR should be formally taken into service by the RAU and classed a Permanent Air Rifle Range. There is no requirement for Temporary Air Rifle Ranges (TARR) to be formally certified or inspected. The RCO is to ensure that the range is safe by adhering to the regulations contained in this section and Sections 1 to 4 of this chapter and DSA 03 OME Pt 3 Chapter 22 Air Rifle Ranges.

**4-108 Permanent Air Rifle Range.** A Permanent Air Rifle Range (PARR) is a range taken into use for training purpose, that fall out of scope of a TARR. A PARR is normally set up on MOD Land, including indoor buildings, Indoor Ranges and in rare cases training on private land (TOPL). The use of a PARR requires a site risk assessment, range orders, a MOD Form 906 log. Warning Signs and lights specified within DSA 03.OME Part 3 Volume 2 Chapter 2 are also required. A PARR does not require to be licenced.

**4-109** For ease of construction, precut ropes to the exact lengths required can be used to mark the Perimeter boundaries of the Range Danger Area (RDA).

**4-110** The extent of the firing point is to be determined by the need to maintain a minimum distance of one metre between firers.

**4-111** Representative targets are to be constructed by the user. A witness screen should be provided behind the targets as an aid to rectifying shooting faults. The materials to be used for target construction can be found in DSA 03 OME Pt 3 Chapter 22.

**4-112** The target apparatus must be set up and tested for correct functioning and all weapons are to be tested for serviceability.

**4-113 Target Screen and Pellet Catcher.** The Air Arms TS25 Target Screen and Pellet Catcher (hereafter referred to as the pellet screen), has been procured and issued to Cadet Forces to assist in facilitating low level marksmanship training at Detachment level. The pellet screen is not a classed as an NDA range. However, it has been classified as Safe and Suitable for Service by TAS. These ranges are to be conducted in accordance with the rules contained in this Section and DSA 03 OME Pt 3 Chapter 22. In addition, the following rules are to be enforced:

- a. The screen may be set up either indoors with the firing point being a distance of 5.5m from muzzle to target, or outdoors 5.5m or 10m from muzzle to target.
- b. If erected inside, the room needs to be long enough to allow a firer to adopt the prone position, so will need to be at least 7.5m or more.
- c. The screen is 2.5m wide. When erecting the screen, care is required to ensure that there are no obstructions, such as columns, partitions, or fixtures near the Line of Sight (LoS) that may form a ricochet hazard i.e., a radiator, metal locker or light switches. A clear height of at least 600mm above the LoS at the firing point and 250mm above the LoS at the Target is essential. Sides must provide a minimum of 500mm clearance from each flank LoS. The room will need to be at least 3.5m wide.
- d. All doors and windows of the room are to be secured and the RCO is to control the access into and out of the room at all times.
- e. If erected outside the same firing distances apply. However, consideration must be made to prevent a person from entering into the AR RDA. Therefore, the Danger Area should be marked out the same way as taught for a temp outdoor range.
- f. All Air Rifles are to be kept well pressurised in accordance with the Air Rifle publication to prevent pellet backslash however the maximum pressure is never to be exceeded. Weapons are to be repressurised after every 50 pellets. Maximum muzzle energy is not to exceed 8.8 Joules (6.4ft lbs).
- g. Only the Air Weapons procured through the Cadets (BSA Scorpion, Air Arms CZ200 and Gamo) may be used with the screens and only pellets that have been procured through the Cadets.

4-114 **Medical Risk Assessment.** When firing takes place on a temporary outdoor or indoor Air Rifle Range or where there are no Range Standing Orders or Unit Standing Orders to cater for the activity, the RCO is to complete an Activity Risk Assessment 5010 to ensure all elements of the SST are in place. The results of the assessment are to be recorded in the RSD/RASP.

4-115 **Safety Supervision.** When firing air rifles indoors or on an Indoor Range, owing to the controlled environment, if necessary, the RCO may also act as a safety supervisor, however, they are to ensure:

- a. There are no more than 2 firers.
- b. There is either a CFAV, responsible adult, Senior Cadet, or other Cadet Organisation equivalent supervising waiting details.
- c. There are no safety supervisors available.
- d. There is sufficient medical cover on site.
- e. It doesn't compromise the safety of the practice.
- f. It doesn't compromise Range Orders.

## Safety Rules

4-116 Air Rifles permitted for use on Air Rifle ranges are those that, due to the pressures developed, do not require a Firearms Certificate.

4-117 High powered air rifles (0.177 and 0.22 inch) which produce a pressure greater than 12 ft/lbs require a Firearms Certificate before purchase and are not catered for by the danger area or baffling and are therefore **NOT** to be used on Air Rifle Ranges for cadet training. **The firing of Air Pistols is not permitted.**

4-118 There must always be sufficient light available to allow the Air Rifle sights to be used as intended.

4-119 Indoor ranges used for air rifle shooting essential modification which will ensure that the anti-splash curtain or the bullet catcher does not cause the pellet to bounce back. The anti-splash curtain must be removed, or a separate pellet stop set up in front of the anti-splash curtain. Details of pellet stop materials are contained in DSA 03 OME Pt 3, Chapter 22. Air rifles are not to be fired against Linatex curtains.

4-120 **Safety glasses manufactured to EN 166:2001 that are in serviceable condition are to be worn at all times during all Air Rifle LFMT.**



## Procedures

4-121 There is to be no lowering of the standard of range discipline and safety when planning and conducting Air Rifle Ranges.

4-122 The conduct of practices and WOC are to be the same as those used for LFMT practices. When firing on an indoor range where range orders permit it, or when firing outdoors the standing position can be adopted, also see para 4-69 sub para i (1) to (5).

4-123 To ensure that the barrel is not obstructed in any way, in accordance with the appropriate weapon handling pamphlet, a cleaning rod is to be inserted into the barrel of the rifle. This procedure is to be carried out by a current and competent CFAV, when drawing the weapon from the Armoury, before live firing and on completion of any live firing prior to removing the weapon from the firing point and again as part of NSPs at the end of the range day. Obstructed barrels are to be dealt with as per the drills stated in the weapon handling pamphlet. If targets are to be inspected (including 'wind-in' type), rifles are to be unloaded, inspected using the above procedures and placed down. The breech is to be open.

4-124 On outdoor ranges, particular care must be taken to ensure that no one is about to enter the RDA (see Fig 4-3).

### International Shooting Sport Federation (ISSF) Competition Training.

4-125 Cadets Training for ISSF competitions are required to use ISSF Safety Lines (ISSF Rule 6.2.2.2). Safety Lines are used to demonstrate that air rifles are unloaded, safety lines must be long enough to extend through the full length of the barrel and must be visible at both ends of the Air Rifle (This plastic line will not harm the barrel and can be purchased in different lengths). Further advice on the use of the Safety Line can be sought from the Cadet Council Rifle Shooting (CCRS).

### The National Smallbore Rifle Association (NSRA) Youth Proficiency Scheme (YPS) Tutor (Air Rifle)<sup>3</sup>

4-126 CFAV's who hold the YPS Tutor qualification are to follow the direction and guidance on the delivery and use of the NSRA YPS Tutor scheme within the Army Cadets which can be found in the Cadet Force Instruction (CFI), CFI-21\_04\_304\_009-NSRA\_YPS\_Policy, owned by HQRC, SO1 Training (Cadets).

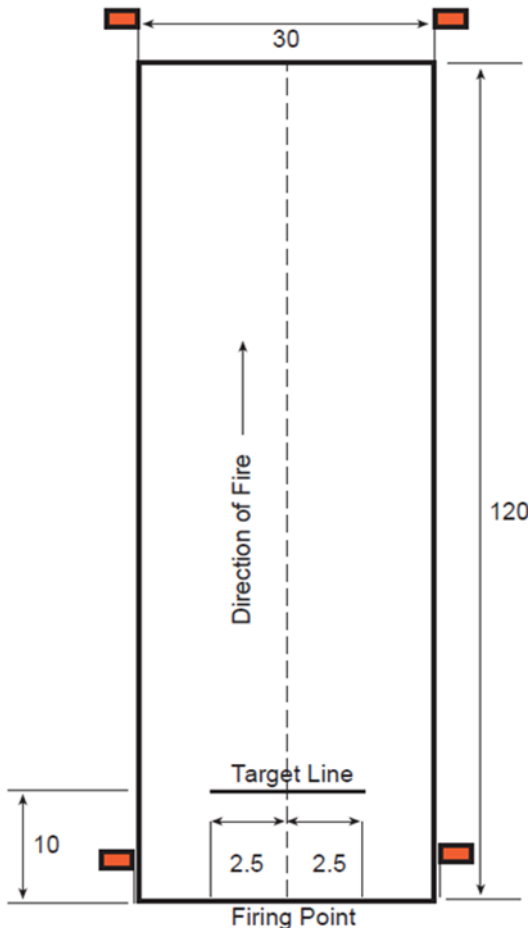
4-126 to 4-130. *Reserved.*

<sup>3</sup> The NSRA YPS Tutor scheme is not a MOD Small Arms (SA) course. However, it is a nationally recognised NGB qualification and is authorised for use in the Army Cadets **ONLY, under direction and guidance as issued by HQ Regional Command, Cadets Branch.**

## RDA FOR PORTABLE AIR RIFLE RANGES

The diagram shown here represents a 6-lane Air Rifle Range allowing **1m** between firers. This distance is the minimum acceptable but can be increased. The dimensions in this diagram are only applicable to ranges established on a grassed area.

All dimensions in metres unless otherwise stated (Not to Scale)



1. Only for use with **.177"** Air Rifles with a pressure of no greater than **12ft/lbs.**
2. Firing is only permitted from the established firing point.
3. **No fire and movement.**
4. The target line is to be established 10m forward of the firing point.
5. Minimum distance between firers is **1m.**
6. Target heights should reflect the firing positions used, thereby ensuring the weapons remain approximately parallel to the ground.

**Fig 4-3. - RDA for Portable Air Rifle Range**

**Note:** It is the responsibility of the RCO to ensure that the perimeter of the RDA is marked with sufficient clarity to ensure that it can be seen by anyone approaching and enabling the extent of the RDA to be readily identified by the RCO. If the distances are paced out rather than measured, then a 20% margin of error must be added.

## Section 6 – The Indoor Rimfire Range

4-131 This section details the planning considerations, safety rules and procedures for the conduct of live firing in the Indoor Rimfire Range. It must be read and used with the information in Sections 1 to 4 of this chapter.

Contents	
<b>Qualifications</b>	<b>4-33</b>
<b>Planning Considerations</b>	<b>4-33</b>
<b>Safety Rules</b>	<b>4-34</b>

4-132 Designed to provide all weather facilities for a 24hr period. The design ensures complete confinement of all fired rounds within the range, coupled with the elimination of '**back splash**' and ricochet hazards to persons within the range. Use of an indoor range during hours of darkness with the correct lighting to allow the normal daylight weapon sight to be used, is not classed as "**night firing**", enabling cadets to participate.

### Qualifications

4-133 The following table specifies the minimum rank and qualification required by personnel to conduct and participate in live firing training on Indoor Rimfire Ranges:

Ser	Appointment	Cadet Range Qualification	Remarks
1.	Planning Offr/RCO	SA (LR) (23) Cadet SA (SR) (07) Cadet	Note 1 Note 2
2.	Safety Supervisor	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (K) (17) Cadet	Note 1 Note 2
3.	Ammo Orderly	None	CFAV or NCO
4.	Firer	None	Note 2

#### Notes:

- (1) Past courses rule applies.
- (2) Must have passed WHTs within the previous 6 months

### Planning Considerations

4-134 The RCO must:

- a. **Personally, sign the MOD Form 906/906A on taking over the range.**
- b. Ensure they adhere to all the rules and guidelines in Range Standing Orders.
- c. Check the condition of the bullet catcher and/or anti-splash curtain. The metal plate must not be exposed.

- d. Check target availability and the method of setting up.
- e. Check for the security of ammunition and weapons.
- f. Check for correct functioning of the lighting, heating, and ventilation systems. All systems must operate in accordance with range orders.
- g. Check all security features, including the red 'range in use' flag, red warning lights, external warning signs at range access doors and the internal method of securing all doors.
- h. Check for security of waiting details areas/rooms.

4-135 The testing of apparatus within the range will be dependent on the facilities. A final check, in addition to preparation checks, may be required at this stage. In addition, allow time for sights to be boresighted or zeroed.

4-136 **Safety Supervision.** When firing on Indoor Ranges, owing to the controlled environment, if necessary, the RCO may also act as a safety supervisor, however, they are to ensure:

- a. There are no more than 2 firers.
- b. There is either a CFAV, responsible adult, Senior Cadet, or other Cadet Organisation equivalent supervising waiting details.
- c. There are no safety supervisors available.
- d. There is sufficient medical cover on site.
- e. It doesn't compromise the safety of the practice.
- f. It doesn't compromise Range Orders.

## Safety Rules

4-137 5.56mm centrefire rounds are **NOT** to be fired in indoor ranges, unless the range has been specifically designed for it.

4-138 Ammunition is only to be issued to details waiting to fire. Firers engaged in concurrent activity are **NOT** to have any live ammunition in their possession. **0.22-inch tracer ammunition is NOT to be fired in indoor ranges.**

4-139 Air rifles are not to be fired against Linatex curtains.

4-140 Minimum spacing of targets from centre to centre is to be twice the width of the largest target to be used.

4-141 The following weapons are permitted for use on the range by cadets:

- a. Bolt Action Rifle 0.22-inch Calibre.
- b. Air Rifle (0.177 or 0.22 inch). May only be used if the anti-splash curtain is removed or a separate pellet stop is set up in front of the anti-splash curtain. Details of pellet stop materials are in DSA 03 OME Pt3.

**4-142 Cadets/CFAV are not permitted to fire air or service pistols.**

4-143 **Bolt Action Weapons Handling.** Whenever weapons are not in use the bolt must be open. Before attempting to close the bolt of the Bolt Action Weapon each round must be hand fed into the chamber until resistance is felt.

4-144 **Misfires.** Misfired or unfired .22-inch rimfire cartridges which prove difficult to extract must not be reloaded but are to be set aside and reported.

4-145 **Bulged Barrels.** To minimize the risk of bulge barrels occurring:

- a. The bores of the rifle are to be inspected on the following occasions.
  - (1) Before and on the conclusion of firing.
  - (2) Whenever the noise made by the discharge of the weapon firing is noticeably different.
  - (3) Whenever the bullet does not have appeared to reach the target or bullet catcher.
- b. In the event of excessive fouling that cannot be removed through normal cleaning, the weapon is to be given to an Armourer further for cleaning
- c. In the event of a bullet becoming lodged in the bore, the rest of the batch of ammunition are to be withdrawn until inspection by an ATO. The weapon is to be withdrawn and inspected by an Armourer. The incident is to be reported in accordance with Section 3 of this pamphlet.

4-146 The minimum spacing between firers is **1m**.

4-147 Only the RCO, safety supervisors, coaches and firers are permitted to be on the firing point whilst firing is taking place waiting details must be in the waiting area provided.

4-148 No one is to leave the firing point or go forward to the targets until all weapons have been unloaded and inspected and permission to go forward has been given by the RCO.

*4-149 to 4-150 Reserved*

## Section 7 – Tube Ranges

4-151 This section details the planning considerations, safety rules and procedures for the conduct of live firing on Tube Ranges. It must be read and used with the information in Sections 1 to 4 of this chapter.

Contents	
<b>Qualifications</b>	<b>4-37</b>
<b>Planning Considerations</b>	<b>4-37</b>
<b>Safety Rules</b>	<b>4-38</b>

4-152 This range is designed to provide all weather facilities. The design ensures complete confinement of all fired rounds within the range, coupled with the elimination of 'back splash' and ricochet hazards to persons within the range. A typical example of the types of range is described and illustrated in DSA 03 OME Pt 3.

### Qualifications

4-153 The following table specifies the minimum rank and qualification required by personnel to conduct and participate in live firing training on Tube Ranges:

Ser	Appointment	Cadet Range Qualification	Remarks
1.	Planning Offr/RCO	SA (LR) (23) Cadet SA (SR) (07) Cadet	Note 1 Note 2
2.	Safety Supervisor	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (K) (17) Cadet	Note 1 Note 2
3.	Ammo Orderly	None	CFAV or NCO
4.	Firer	None	Note 2

### Notes:

- (1) Past courses rule applies.
- (2) Must have passed WHTs within the previous 6 months

### Planning Considerations

4-154 The RCO must:

- a. **Personally, sign the MOD Form 906/906A on taking over the range.**
- b. Ensure they adhere to all the rules and guidelines in Range Standing Orders.
- c. Check the condition of the bullet catcher, particularly the profile of sand if in use as a stop butt. The metal plate must not be exposed.
- d. Check the possible need for a sentry, particularly above the ground, at the entrance to an enclosed range.

- e. Check for correct functioning of the lighting, and ventilation systems. All systems must operate in accordance with range orders.
- f. Check all security features, including the red warning lights and the bullet catcher access doors are working correctly.
- g. Check the target apparatus, particularly methods of mounting and operating swivel or snap targets.

4-155 **Safety Supervision.** When firing on Tube Ranges, owing to the controlled environment, if necessary, the RCO may also act as a safety supervisor. Only the RCO, Safety Supervisors/coaches and firers are allowed on the firing point. Waiting details must be in the waiting area provided. However, they are to ensure:

- a. There are no more than 2 firers (1 x firer per tube).
- b. There is a CFAV supervising waiting details.
- c. This is only for 0.22 Rimfire Firing only.
- d. There is sufficient medical cover on site.
- e. It doesn't compromise the safety of the practice.
- f. It doesn't compromise Range Orders.

### **Safety Rules for Tube Ranges**

4-156 When firing .22 Inch bolt action weapons, the rules for misfires and bulge barrels in section 6 are to be adhered to.

4-157 Firing by sense of direction is forbidden.

4-158 Ammunition is only to be issued to details waiting to fire. Firers engaged in concurrent activity are **NOT** to have any live ammunition in their possession.

**Tracer ammunition is not to be used.**

4-159 Automatic fire is not permitted.

4-160 The only firing position to be used is prone.

4-161 The lighting, whether artificial or daylight, must be sufficient to allow the normal daytime sighting system on the weapon to be used.

4-162 The design features of the range allow for one firer per tube. Only those firers, RCO and Safety Supervisors/coaches are allowed to be on the firing point.



4-163 The RCO must be able to control access to the bullet catcher. Weapons must be unloaded and inspected before the order to examine or change targets is given.

4-164 Weapons must be boresighted or collimated before firing on the range.

4-165 The weapon muzzle is to be kept inside the tube at all times during all weapon handling drills and whenever made ready. A white band is painted 150mm inside the tube to assist range staff in enforcing this rule.

4-166 **Targets.** Standard issue targets for use on the 25m or indoor range may be used, together with any suitable zeroing target. A snap, swivel or wind-in feature may be incorporated. The following points are to be noted:

- a. No form of metal target is to be used.
- b. Target centres are to be adjusted so that they coincide with the centre of the tube.
- c. No form of moving target is permitted.
- d. Any metal part of the target apparatus exposed to direct fire is to be protected by adequate baffles.

*4-167 to 4-170 Reserved*

## Section 8 – The 1908 Design Barrack Range

4-171 This section details the planning considerations, safety rules and procedures for the conduct of live firing on the 1908 Design Barrack Range. It must be read and used with the information in Sections 1 to 4 of this chapter.

Contents	
<b>Qualifications</b>	<b>4-40</b>
<b>Planning Considerations</b>	<b>4-40</b>
<b>Safety Rules</b>	<b>4-41</b>

4-172 This is an NDA range, if provided with a canopy over the sand bullet catcher. Without the canopy fitted it is an LDA range with a 100m radius danger area imposed from each flank target, around the rear of the stop butt wall, which must be clear of all personnel. Any buildings within the LDA must also be cleared of personnel when the range is in use.

### Qualifications

4-173 The following table specifies the minimum rank and qualification required by personnel to conduct and participate in live firing training on the 1908 Design Barrack Range:

Ser	Appointment	Cadet Range Qualification	Remarks
.	Planning Offr/RCO	SA (LR) (23) Cadet SA (SR) (07) Cadet	Note 1 Note 2
2.	Safety Supervisor	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (K) (17) Cadet	Note 1 Note 2
3.	Ammo Orderly	None	CFAV or NCO
4.	Firer	None	Note 2

### Notes:

- (1) Past courses rule applies.
- (2) Must have passed WHTs within the previous 6 months

### Planning Considerations

4-174 The RCO must:

- a. **Personally, sign the MOD Form 906/906A on taking over the range. They are also to personally gain clearance to fire from range control. Firing is not to commence until both have been completed.**
- b. They adhere to all the rules and guidelines in Range Standing Orders.

- c. Check the condition of the bullet catcher and/or anti-splash curtain. The metal plate must not be exposed or check that the bullet catcher sand is stacked to the approved profile as indicated by the white lines painted on the flanking walls of the bullet catcher and is free of ricochet inducing material.
- d. Check target availability and that the target slots, target trenches, swivel targets or other target mechanisms are working.
- e. Check that the firing points and trenches are in good repair.
- f. Check that the area between the firing points and the stop butt wall within firing lanes is clear of ricochet inducing material.
- g. Ensure that the range in use flag is displayed in accordance with Range Orders.

4-175 The testing of apparatus within the range will be dependent on the facilities. Allow time for the following:

- a. Testing swivel target mechanisms.
- b. Sights are to be boresighted if not previously zeroed.

4-176 Unless otherwise stated in Range Orders, for Cadet LFMT, the maximum number of weapons allowed at each distance are:

Ser	Weapon	Distance	Bursts	Remarks
		25m		
1	Rifles	4	NA	Single Shot Only
2	Rifle .22	4	NA	Rimfire Ammunition

### The 1908 Design Barrack Range Safety Rules

4-177 **Minimum Range.** The minimum range for Cadets/CFAVs firing on this range is 25m. The table above indicates the number of firers permitted. Firing is from the 30yd firing point is not permitted.

4-178 **Sense of Direction.** The firing of any weapon by sense of direction is forbidden as is the firing of the rifle from the hip or waist.

4-179 **Burst Fire.** Burst fire is only permitted when using a bipod and under the rules in Pam No.21.

4-180 **Air Rifles.** Air rifles are not to be used on 25m ranges.

4-181 **Ammunition.** The type of ammunition to be fired on the range will be stated on the MOD Form 905. **Tracer ammunition is not to be fired.**

4-182 Only firers, Safety Supervisors/coaches, the RCO and assistants are allowed on the firing point. Waiting details must be at least 3m from the firing point or in the shelters provided. During the firing of rifle practices, the RCO may make special arrangements to call up those waiting to fire, to a position from which they can hear the instruction and advice, but they **must** be clear of the firing point.

4-183 No one is to go forward to the targets until all weapons have been unloaded and inspected **by the RCO or Safety Supervisors/coaches**, and permission has been given by the RCO. All personnel are to move to the targets along the flank paths or use the steps out of the ricochet pit.

4-184 Firing is **NOT** permitted from the old 30yd firing point (if still in existence).

4-185 **Weapon Drills.** During all weapon handling drills and whenever made ready, weapons are to be held parallel to the ground, pointing in the direction of the bullet catcher.

4-186 **Ammunition.** The ammunition is to be issued by the ammunition CFAV who is tasked to supervise and account for it. Firers are to fill their own magazines on the firing point. Ammunition is only to be issued to details waiting to fire. Firers engaged in concurrent activity are **NOT** to have any live ammunition in their possession.

4-187 **Targets.** The following rules are to be applied:

- a. Targets are to be positioned in the target trench or the slot provided.
- b. Metal plates or other hard objects are not to be used as targets.
- c. The aiming marks for flank targets and target screens must be at least 1.65m from either end of the bullet catcher.

*4-188 to 4-190 Reserved*

## Section 9 – The 25 Metre Barrack Range

4-191 This section details the planning considerations, safety rules and procedures for the conduct of live firing on the 25 Metre Barrack Range. It must be read and used with the information in Sections 1 to 4 of this chapter.

Contents	
<b>Qualifications</b>	<b>4-43</b>
<b>Planning Considerations</b>	<b>4-43</b>
<b>Safety Rules</b>	<b>4-44</b>

4-192 This is an NDA range, and the stop butt wall and flank walls provide the limit of the range danger area.

### Qualifications

4-193 The following table specifies the minimum rank and qualification required by personnel to conduct and participate in live firing training on the 25 Metre Barrack Range:

Ser	Appointment	Cadet Range Qualification	Remarks
1.	Planning Offr/RCO	SA (LR) (23) Cadet SA (SR) (07) Cadet	Note 1 Note 2
2.	Safety Supervisor	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (K) (17) Cadet	Note 1 Note 2
3.	Ammo Orderly	None	CFAV or NCO
4.	Firer	None	Note 2

### Notes:

- (1) Past courses rule applies.
- (2) Must have passed WHTs within the previous 6 months

### Planning Considerations

4-194 The RCO must:

- a. **Personally, sign the MOD Form 906/906A on taking over the range. They are also to personally gain clearance to fire from range control. Firing is not to commence until both have been completed.**
- b. Ensure they adhere to all the rules and guidelines in Range Standing Orders.
- c. **Bullet Catcher.** The face profile of the sand bullet catcher must be maintained at all times. If the sand becomes displaced during firing, especially at the MPI, the practice must be stopped, and the sand bullet catcher raked to the correct profile before firing continues.

- d. Check target availability and that the target slots, target trenches, swivel targets or other target mechanisms are working.
- e. Check that the firing points are in good repair.
- f. Check that the area between the firing points and the stop butt wall within firing lanes is clear of ricochet inducing material.
- g. Ensure that the range in use flag is displayed in accordance with Range Orders.

4-195 The testing of apparatus within the range will be dependent on the facilities. Allow time for the following:

- a. Testing swivel target mechanisms.
- b. Sights are to be boresighted if not previously zeroed.

4-196 Unless otherwise stated in Range Orders, for Cadet LFMT, the maximum number of weapons allowed at each distance are:

Ser	Weapon	Distance 25m	Bursts	Remarks
1.	Rifle	6	NA	Single Shot Only
2,	.22 Rifle	6	NA	Rimfire Ammunition

### The 25 Metre Barrack Range Safety Rules

4-197 **Minimum Range.** The minimum range for Cadets firing on this range is 25m. The table above indicates the number of firers permitted.

4-198 **Sense of Direction.** The firing of any weapon by sense of direction is forbidden as is the firing of the rifle from the hip or waist.

4-199 **Burst Fire.** Burst fire is only permitted when the bipod is used and under the rules in Pam No.21.

4-200 **Air Rifles.** Air rifles are not to be used on 25m ranges.

4-201 **Ammunition.** The type of Ammunition to be fired on the range will be stated on the MOD Form 905. **Tracer ammunition is not to be fired.**

4-202 **Waiting Details.** Only firers, Safety Supervisors/coaches, the RCO and assistants are allowed on the firing point. Waiting details must be at least 3m from the firing point or in the shelters provided. During the firing of rifle practices, the RCO may make special arrangements to call up those waiting to fire, to a position from which they can hear the instruction and advice, but they **must** be clear of the firing point.

4-203 **Moving Forward.** No one is to go forward to the targets until all weapons have been unloaded and inspected **by the RCO or Safety Supervisors/coaches**, and permission has been given by the RCO.

4-204 **Weapon Drills.** During all weapon handling drills and whenever made ready, weapons are to be held parallel to the ground, pointing in the direction of the bullet catcher.

4-205 **Ammunition.** The ammunition is to be issued by the ammunition CFAV who is tasked to supervise and account for it. Firers are to fill their own magazines on the firing point. Ammunition is only to be issued to details waiting to fire. Firers engaged in concurrent activity are **NOT** to have any live ammunition in their possession.

4-206 **Targets.** The targets are to be positioned in the target apparatus provided. Metal plates or other hard objects are not to be use. All personnel are to move to the targets along the flank path.

*4-207 to 4-210 Reserved*

## Section 10 – The Gallery Range (GR) and Converted Gallery Range (CGR)

4-211 This section details the planning considerations, safety rules and procedures for the conduct of live firing on a GR or CGR, which is a Limited Danger Area (LDA) Range. It must be read and used with the information in Sections 1 to 4 of this chapter.

Contents	
<b>Qualifications</b>	<b>4-46</b>
<b>Planning Considerations</b>	<b>4-46</b>
<b>Safety Rules</b>	<b>4-47</b>
<b>Procedures</b>	<b>4-48</b>

### Qualifications

4-212 The following table specifies the minimum rank and qualification required by personnel to conduct and participate in live firing training on The GR and CGR:

Ser	Appointment	Cadet Range Qualification	Remarks
1.	Planning Offr/RCO	SA (LR) (23) Cadet	Note 1 Note 2
2.	Safety Supervisor	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (K) (17) Cadet	Note 1 Note 2
3.	IC Butts or Console	SA (LR) (23) Cadet SA (K) (17) Cadet	Note 1 Note 3 (Console)
4.	Target Operator	None	Note 3 CFAV or NCO
5.	Ammo Orderly	None	CFAV or NCO
6.	Firer	None	Note 2

### Notes:

- (1) Past courses rule applies.
- (2) Must have passed WHTs within the previous 6 months
- (3) Must be proficient in operating Small Arms Target Range System (SARTS).

### Planning Considerations

4-213 The RCO must:

- a. **Personally, sign the MOD Form 906/906A on taking over the range. They are also to personally gain clearance to fire from range control. Firing is not to commence until both have been completed.**
- b. Ensure they adhere to all the rules and guidelines in Range Standing Orders.



- c. Check the condition of the stop butt and the mantlet, especially the profile boards.
- d. Check the availability of trenches and firing posts.
- e. Check for access by vehicle to the marker's gallery and access from the target store to the gallery.
- f. Check the serviceability of target mechanisms/frames.
- g. Establish responsibility for and location of all range boundary flags, sentries, and barriers. Air sentries may be required if firing 7.62mm ammunition.
- h. Confirm firing hours.
- i. If installed, check the SARTS equipment.
- j. The range must not be used if there is any exposed ricochet inducing surface between the firing points to be used and the stop butt.

## Safety Rules

4-214 The following rules for the use of the GR/CGR apply:

- a. The maximum permitted QE is 70mils; therefore, firing must only take place on the recognised firing points, at targets that are correctly positioned.
- b. The Markers' Gallery is **NOT** to be manned when 7.62mm tracer is fired.
- c. The Markers' Gallery is to be clear of all personnel when SARTS is being used. The rules for split use of a range are covered in Range Orders.
- d. If the target store or workshop is situated in the GR/CGR RDA and is occupied, the RCO must ensure all personnel are inside with doors and windows closed before firers are loaded. They must remain in cover until weapons are unloaded and cleared.

e. The ammunition is to be issued by the ammunition CFAV who is tasked to supervise and account for it. Firers are to fill their own magazines on the firing point. Ammunition is only to be issued to details waiting to fire. Firers engaged in concurrent activity are **NOT** to have any live ammunition in their possession, **Tracer ammunition is not to be fired.**

4-215 **Automatic Firing.** Automatic fire using a bipod/tripod supported weapon is only permitted from the prone or fire trench position and under rules in Pam No.21.

4-216 **Cross Lane Firing.** It is a condition of the shape of the GR/CGR danger area that firers are confined to target lanes and that all firing takes place parallel to the range axis. Therefore, cross lane firing is prohibited except during falling plate practices.

4-217 **Moving Targets.** Firing at moving targets on a GR/CGR by Cadets/CFAV is prohibited.

4-218 **Movement.** During movement between positions and where the shoot allows, the safety catch is to be applied.

## Procedures

4-219 **Gallery Range.** Good range organisation is important. On a GR efficient procedure in the butts can add considerably to the success of the range. The butt party should arrive in sufficient time to be briefed and rehearsed, in addition:

- a. Read out relevant safety rules to the markers.
- b. Test the target frames, check targets for correct marking of scoring areas and patch out any shot holes.
- c. Test communications, including any alternative systems. This may be telephones or radios provided by the RAU or the user units own communications, however they must ensure that communication systems being used comply with Range Orders. If in doubt check with the RAU during the Recce
- d. Prepare and issue targets and butt stores to each lane in use. **Two** markers are to carry the 1.220m or 1.830m targets.
- e. Rehearse the markers in their duties for each practice.
- f. Ideally there should be 2 markers per frame, to enable the tasks of identifying the splash from each shot and marking the target.

4-220 **Converted Gallery Range.** The console operators should arrive early to test communications, the mechanisms and rehearse target exposures for each practice. The console will have SARTS fitted. The operator and OIC Console must be familiar with their operation. Clearance from the range warden is required before target testing is carried out.

4-221 **Boundary Flags and Sentries.** The personnel required for these tasks (if applicable) are to be formally briefed on their orders and duties by the RCO. Refer to para 4-41 d if using CFAV and Cadets 18+ as Sentries.

4-222 **Before Firing.** The following points are to be covered:

- a. **Firers Brief.** It is essential that all firers receive a range brief in accordance with the RSD/RASP.
- b. **Firing Point Brief.** Prior to starting the practice firers are to be briefed on:
  - (1) Lane/target number
  - (2) Details of the practice including number of rounds to be fired.
- c. **Words of Command.** The RCO is to ensure that all firers can hear the words of command. The conditions of the practice are read from the RCOs conducting notes. A loudhailer or PA system may be used.
- d. **Firing Point.** Only personnel authorised by the RCO are permitted to be on the firing point.
- e. **Telephone Communications.** The following system is suggested for use:
  - (1) **‘One short ring’** - Butts to firing point indicates ready. Firing point to butts indicates start exposure of targets.
  - (2) **‘Two short rings’** - Firing point to butts indicates check targets, take scores and/or change targets.
  - (3) **‘One long ring’** - Caller wishes to speak.

f. **Fire with Movement.** The RCO and Safety Supervisors are to move with the firers and control the rate of advance. Hand signals are to be given in ample time for the console to respond. At the end of the practice weapons are to be cleared before firers can move back to the start line **(Only permissible if the appropriate cadet shooting syllabus or competition conditions allow it).**

### **Gallery Range (Control of the Butts and Markers Gallery)**

4-223 **The RCO.** Only the RCO may order the IC butts to raise or lower the butt flag. Before ordering the butt flag to be lowered, the RCO must ensure that all personnel, including range wardens are under cover. They must wait until the butt flag has been lowered before giving the order to load. Before they order the butt flag to be raised, they are to ensure that all weapons are unloaded and cleared. If the red flag is raised in an emergency by the butts, they are to order “**Stop – Stop - Stop.**” When the nature of the emergency has been ascertained and it is safe to do so, they will order the unloading and inspection of weapons.

4-224 **Communications Failure.** Should communications to the butts fail, it is the duty of the RCO to make physical contact with the butts. During any period when communications fail, butt markers are to remain under cover, until communications are re-established. Under no circumstances, even in an emergency may anyone leave the cover of the butts until this contact has been made. Mobile phones are not to be used as the main method of communications.

4-225 **Butt Markers.** Safety and duties of the butt markers:

a. **Target Marking.** When using frame targets, whilst indicating shots or raising and lowering targets, markers may stand between the target frame and the cover of the markers gallery but must be facing the stop butt. When not required to indicate or operate the target, markers must remain under the cover of the gallery.

b. **Grouping Practices.** Where possible, one marker is to watch the stop butt for strike, the other is to record the order of arrival of shots

c. **Deliberate Practices.** One marker is to watch the stop butt for strike and to determine the direction of a miss. The other signals the value of a hit or the noted position of a miss.

d. **Timed Practices.** The length of exposure is controlled by the IC butts using a stopwatch. The targets must be exposed and still for the total length of the nominated time.

e. **Frame Targets.** At the end of an exposure the targets are to be brought to at least the half-mast position.

f. **Handheld Targets.** Handheld target procedures:

(1) It is likely that handheld targets will be issued premarked or fitted with a wooden block to indicate correct target height. If not the RCO is to ensure that prior to starting the practice, targets are raised to the correct height and marked.

(2) To expose a handheld, target the marker is to stand under cover aligned with the target frame and facing the stop butt. When raised the target is to be hoisted so that the wooden block or the mark is pushed up against or level with the ceiling of the gallery.

(3) During practices with handheld targets a hit will be noticed by the marker feeling the vibration in the target pole caused by the bullet hitting the target.

g. **Dress.** During automatic fire shoots it is mandatory for all personnel in the butts to wear serviceable issue eye protection. IC Butts is to ensure that during firing all markers are back against the rear wall of the gallery.

4-226 **Signaling.** Hits during practices with handheld targets are signaled at the end of the practice with the aid of spotting discs.

4-227 **Scoring.** The following procedure is to apply:

a. Targets will only be lowered on the command “**Check**” or “**Down**” or on a prearranged whistle signal. When targets have been lowered, the markers will, in all cases, stand back from their targets and will not touch them until the IC Butts has recorded the scores and given the order “**Patch Out**”. The value of all shots is to be recorded on the butt register.

b. After the order “**Patch Out**”, shot holes on the target will be marked off with a pencil and patched out. The pencil marking will prevent a shot being counted twice should a patch come off at any time.

c. If more hits are found on the target than should have been fired by one individual or team, the firing point will be informed.

4-228 **Targets.** The targets and accessories available on a GR/CGR are listed in DSA 03 OME Pt3 in addition:

- a. **Front or Back Targets.** One of these should be marked with a black cross in the top corner to indicate to the firing point which target is being engaged.
- b. **White Patches.** A patch 100mm vertical x 75mm should be pasted on the centre of the target for zeroing.

### **Converted Gallery Ranges (Control of the Console)**

4-229 **Console Personnel.** Rules for the console personnel are:

- a. During practices, only the IC console, operators and timekeepers are to be in the console building. **Ammunition is not to be in the building.**
- b. The signal to expose targets is given by the RCO on the firing point.
- c. All timed exposures are to be controlled by the use of SARTS preprogramed shoots or by timekeepers using a stopwatch and time chart when using the SARTS manual mode.
- d. Scores are to be recorded on the butt register as a total for each lane. They are then read out over the PA system to the firers as individual hits per range, and a total for the practice. Re-set buttons on the console are not to be operated until the order “**Cancel scores**” is given by the RCO.
- e. The IC console is to watch for any sign of malfunction of the target or console mechanisms. If this occurs the range warden is to be consulted and firing stopped whilst the repair is undertaken. If this is not possible the affected lane is to be taken out of use. Firing is not to recommence until the RCO has confirmed the range warden has returned to a safe area.
- f. The console building is to be handed back to the range warden on the completion of firing. They are responsible for closing down the range and noting any malfunctions reported by the RCO or OIC console, which is also noted in MOD Form 906/906A - Land Range Log.

4-230 **Control of Practices from 400 to 600m.** A 'range in use' red flag is normally hoisted on the pole provided above the console building. This flag is located furthest from the console door and is to remain hoisted whilst firing is in progress at any distance. When firing is to take place from the firing points behind the console building, a second flag is required to be used as the 'butt' flag. This flag is located just outside the console door and must be operated from cover. Procedure for use:

- a. On orders from the RCO the console party are to lower the console building butt flag and remain under cover.
- b. Except in an emergency the console building butt flag is only to be raised on orders from the RCO.
- c. Communication to the console building is by means of a telephone or radio. A telephone plug in point is normally located on each firing point.
- d. Any fire with movement practice is to be carefully controlled and supervised. Control of target exposures must be planned and rehearsed, allowing sufficient time for the relay and subsequent reaction to all signals.

4-231 **Targets.** The standard target layout on a CGR is 2 FETs per lane, one fitted with a Fig 11, and one fitted with a Fig 12.

*4-232 to 4-240 Reserved*

## Section 11 – The Electric Target Range (ETR)

4-241 This section details the planning considerations, safety rules and procedures for the conduct of live firing on an Electric Target Range, which is a Full Danger Area (FDA) Range. It must be read and used with the information in Sections 1 to 4 of this chapter.

Contents	
<b>Qualifications</b>	<b>4-54</b>
<b>Planning Considerations</b>	<b>4-54</b>
<b>Safety Rules</b>	<b>4-55</b>
<b>Procedures</b>	<b>4-55</b>

4-242 The grouping and zeroing range associated with the ETR is assumed to be an extension of the main range. The conduct and safety rules for its use are not dealt with specifically. RCO's are to refer to Ranger Standing Orders

### Qualifications

4-243 The following table specifies the minimum rank and qualification required by personnel to conduct and participate in live firing training on The GR and CGR:

Ser	Appointment	Cadet Range Qualification	Remarks
1.	Planning Offr/RCO	SA (LR) (23) Cadet	Note 1 Note 2
2.	Safety Supervisor	SA (LR) (23) Cadet SA (SR) (07) Cadet SA (K) (17) Cadet	Note 1 Note 2
3.	IC Console	SA (LR) (23) Cadet SA (K) (17) Cadet	Note 1 Note 3
4.	Target Operator	None	Note 3 CFAV or NCO
5.	Ammo Orderly	None	CFAV or NCO
6.	Firer	None	Note 2

### Notes:

- (1) Past courses rule applies.
- (2) Must have passed WHTs within the previous 6 months
- (3) Must be proficient in operating SARTS.

### Planning Considerations

4-244 The RCO must complete the following actions:

- a. **Personally, sign the MOD Form 906/906A on taking over the range.**  
They are also to personally gain clearance to fire from range control. Firing is not to commence until both have been completed.



- b. Ensure they adhere to all the rules and guidelines in Range Orders.
- c. On an ETR check target layout, any change will require time to set up.
- d. The RCO is to consult Range Orders for details of adjacent Range use.
- e. Ensure that 2 people carry and erect target screens.
- f. Check firing points for serviceability, including ETR trenches and firing posts.
- g. Check that targets are visible to all intended firing positions.
- h. Confirm firing hours, boundary flags, sentries, and barriers.

### **ETR Safety Rules**

4-245 The maximum permitted QE is 150mils; therefore, firing must only be from recognised firing points, at correctly positioned targets.

4-246 **Cross Lane Firing.** Cross lane firing is not permitted.

4-247 **Automatic Fire.** Automatic fire using a bipod/tripod supported weapon is only permitted from the prone or fire trench position and under rules in Pam No.21.

4-248 **Movement.** During movement between positions and where the shoot allows, during fire with movement practices with the rifle the safety catch is to be applied.

### **ETR Procedures**

4-249 The console party, sentries or staff putting out boundary flags, are to be briefed and rehearsed, as follows:

- a. Check with the range warden that all target mechanism boxes are open before any switches in the console building are operated.
- b. Check all lanes are functioning and that the target layout is as requested and carry out a rehearsal of target exposures and timings.
- c. Test the PA system and other communications.
- d. Test SARTS equipment.

4-250 **Boundary Flags and Sentries.** The personnel required for these tasks (if applicable) are to be formally briefed on their orders and duties by the RCO. Refer to para 4-40 d if using CFAV and Cadets 18+ as Sentries.

4-251 **Before Firing.** The following points are to be covered:

- a. **Firers Brief.** It is essential that all firers receive a range brief in accordance with the RSD/RASP.
- b. **Firing Point Brief.** Prior to starting the practice, firers are to be told their lane/target number and details of the practice including number of rounds to be fired.
- c. **Words of Command.** The RCO is to ensure that all firers can hear the words of command. The conditions of the practice are read from the RCOs conducting notes. A loudhailer or PA system may be used.
- d. **Firing Point.** Only personnel authorised by the RCO are permitted to be on the firing point.
- e. **Fire with Movement.** The RCO and Safety Supervisors are to move with the firers and control the rate of advance. Hand signals are to be given in ample time for the console to respond. At the end of the practice weapons are to be cleared before firers can move back to the start line (**Only permissible if the appropriate cadet shooting syllabus or competition conditions allow it**).
- f. **Console.** The RCO is **NOT** to conduct the practice from inside the console.
- g. **Limit of Advance.** The limit of advance permitted on the range is normally 125m forward of the main firing point, the RCO is to confirm the limit.
- h. **Ammunition.** The ammunition is to be issued by the ammunition CFAV who is tasked to supervise and account for it. Firers are to fill their own magazines on the firing point. Ammunition is only to be issued to details waiting to fire. Firers engaged in concurrent activity are **NOT** to have any live ammunition in their possession, **Tracer ammunition is not to be fired.**

4-252 **Console Personnel.** Rules for the console personnel are:

- a. During practices, only the IC console, operators and timekeepers are to be in the console building. Ammunition is not to be in the building.
- b. The signal to expose targets is given by the RCO on the firing point.
- c. All timed exposures are to be controlled by use of a SARTS preprogrammed shoot or when using the manual mode, by timekeepers using a stopwatch and time chart.
- d. Scores are to be recorded on the butt register as a total for each lane. They are then read out over the PA system to the firers as individual hits per range, and a total for the practice. Re-set buttons on the console are not to be operated until the order “**Cancel scores**” is given by the RCO.
- e. The IC console is to watch for any sign of malfunction of the target or console mechanisms. If this occurs the range warden is to be consulted and firing stopped whilst the repair is undertaken. If this is not possible the affected lane is to be taken out of use. Firing is not to recommence until the RCO has confirmed the range warden has returned to a safe area.
- f. The console building is to be handed back to the range warden on the completion of firing. They are responsible for closing down the range and noting any malfunctions reported by the RCO or OIC console, which is also noted in MOD Form 906 — Land Range Log.

4-253 **Control of Practices from 400 to 600m.** A ‘range in use’ red flag is normally hoisted on the pole provided above the console building. This flag is located furthest from the console door and is to remain hoisted whilst firing is in progress at any distance. When firing is to take place from the firing points behind the console building, a second flag is required to be used as the ‘butt’ flag. This flag is located just outside the console door and must be operated from cover. Procedure for use:

- a. On orders from the RCO the console party are to lower the console building butt flag and remain under cover.
- b. Except in an emergency the console building butt flag is only to be raised on orders from the RCO.

- c. Communications to the console building is by means of a telephone or radio. A telephone plug-in point is normally located on each firing point.
- d. Any fire with movement practice is to be carefully controlled and supervised. Control of target exposures must be planned and rehearsed, allowing sufficient time for the relay and subsequent reaction to all signals.

4-254 **Targets.** The targets and accessories available on an ETR are described in DSA 03 OME Pt 3.

4-255 **Zeroing.** Initial grouping and zeroing can be carried out using SARTS. Where this facility is not provided, zeroing can be conducted using screens on the adjacent Grouping and Zeroing Range or on the ETR.

*4-253 – 4-260 Reserved*