



CANADIAN CADET ORGANIZATIONS

AIR RIFLE MARKSMANSHIP INSTRUCTOR INSTRUCTIONAL GUIDES

(ENGLISH)

Cette publication est disponible en français sous le numéro A-CR-CCP-903/PF-002.

Issued on Authority of the Chief of the Defence Staff

Canada



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FOREWORD AND PREFACE

1. **Issuing Authority.** This Instructional Guide (IG) A-CR-CCP-903/PF-001 was developed under the authority of the Director Cadets and Junior Canadian Rangers, and issued on the authority of the Chief of Defence Staff.
2. **Development.** Development of this IG was in accordance with the performance oriented concept of training outlined in the Canadian Forces Individual Training and Education System A-P9-050 Series, *Manual of Individual Training and Education*, with modifications to meet the needs of the Canadian Cadet Organizations (CCO).
3. **Purpose of the IG.** The IG to be used by Cadet Summer Training Centres in conjunction with other resources to conduct the Air Rifle Marksmanship Instructor qualification course. The IG provides instructors with the base means from which to deliver training. Individual IGs are to be reviewed in conjunction with the Lesson Specifications (LSs) found in A-CR-CCP-903/PG-001, *Canadian Cadet Organizations Air Rifle Marksmanship Instructor Qualification Standard and Plan*, Chapter 4, before instructing, so that each instructor can adequately plan for and prepare each lesson. Instructors may be required to develop instructional materials to support training in addition to any that may be provided, eg, posters, videos, handouts, models, etc, supplemental to training control and support documents. Suggested instructional activities are included in most IGs to maximize learning and fun. Instructors are also encouraged to modify and/or enhance the activities, as long as they continue to contribute to enabling objectivity achievement.
4. **Use of the IG.** Throughout these instructional guides, a series of information boxes are used to highlight information; they include:



Note to the Instructor.



Key information to pass along to cadets.



Refer to the following CF regulations and policies.



Points of interest or special instructions the instructor should pass along to cadets.

5. **Suggested Changes.** Suggested changes to this document shall be forwarded through the normal chain of command to National Defence Headquarters (NDHQ) Attention: Staff Officer Army Cadet Program Development (D Cdts 3-2-5), or by e-mail to arm.dev@cadets.gc.ca. Suggested changes shall be in tabular format with three columns to capture; the page number, the paragraph/sub-paragraph number and suggested text amendment.

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CHAPTER 1

PO S340 – DESCRIBE THE DUTIES OF AN AIR RIFLE MARKSMANSHIP INSTRUCTOR



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 1

EO S340.01 – DESCRIBE THE AIR RIFLE MARKSMANSHIP INSTRUCTOR COURSE

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Air Rifle Marksmanship Instructor Summary and Time Allocation Table located at A-CR-CCP-903/PG-001, Chapter 2, Annex A for each cadet.

Photocopy the Air Rifle Marksmanship Instructor Assessment of Learning Plan located at A-CR-CCP-903/PG-001, Chapter 3, Annex B for each cadet.

Photocopy the Air Rifle Marksmanship Instructor Qualification Record located at A-CR-CCP-903/PG-001, Chapter 3, Annex C for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to the Air Rifle Marksmanship Instructor course and generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to describe the Air Rifle Marksmanship Instructor course.

IMPORTANCE

It is important for cadets to be able to describe the Air Rifle Marksmanship Instructor course as they will perform all of the duties of an Air Rifle Marksmanship Instructor during the course, at the corps/squadron, during regionally directed activities and/or as staff cadets at a CSTC.

Teaching Point 1

Describe the Duties of an Air Rifle Marksmanship Instructor

Time: 10 min

Method: Interactive Lecture

DUTIES OF AN AIR RIFLE MARKSMANSHIP INSTRUCTOR

The function of an Air Rifle Marksmanship Instructor is to instruct lessons and conduct activities as part of the corps/squadron mandatory and complementary air rifle marksmanship and complementary summer biathlon training, regionally directed activities and possibly as a staff cadet at a CSTC. The duties of an Air Rifle Marksmanship Instructor will be practiced through a number of practical opportunities during the course.

The main duties of an Air Rifle Marksmanship Instructor include:

- leading air rifle marksmanship activities;
- assisting the Range Safety Officer (RSO);
- coaching cadets during air rifle marksmanship and summer biathlon activities;
- assisting with summer biathlon activities; and
- instructing air rifle marksmanship lessons.

Leading Air Rifle Marksmanship Activities

When leading air rifle marksmanship activities, the responsibilities of the Air Rifle Marksmanship Instructor are to:

1. review the applicable activity instructions, to include:
 - a. enabling objectives,
 - b. lesson specifications,
 - c. instructional guides, and
 - d. assessment details;
2. organize participants into marksmanship relays, to include:
 - a. firers,
 - b. coaches, and
 - c. range assistants; and
3. develop a written plan for the assigned marksmanship activity.

Assisting the RSO

When assisting the RSO, the responsibilities of the Air Rifle Marksmanship Instructor are to:

1. set up and dismantle an air rifle range;

2. inspect air rifle marksmanship equipment;
3. maintain air rifle marksmanship equipment;
4. distribute air rifle marksmanship equipment;
5. enforce range safety; and
6. score targets.

Coaching Cadets During Air Rifle Marksmanship and Summer Biathlon Activities

When coaching cadets during air rifle marksmanship activities, the responsibilities of the Air Rifle Marksmanship Instructor are to:

1. employ the firing point sequence;
2. reinforce the principles of air rifle marksmanship;
3. analyze targets;
4. provide feedback to cadets;
5. provide assistance to cadets as required; and
6. seek assistance from the team leader and/or RSO as required.

Assisting With Summer Biathlon Activities

When assisting with summer biathlon activities, the responsibilities of the Air Rifle Marksmanship Instructor are to:

1. assume the position of one of the following summer biathlon officials:
 - a. range assistant,
 - b. lane scorekeeper,
 - c. runner,
 - d. course controller,
 - e. start/finish controller, and
 - f. competition secretary;
2. assist with setting up and dismantling the biathlon venue; and
3. lead warm-up and cool-down sessions.

Instructing Air Rifle Marksmanship Lessons

When instructing air rifle marksmanship lessons the responsibilities of the Air Rifle Marksmanship Instructor are to:

1. prepare to instruct air rifle marksmanship lessons; and
2. instruct air rifle marksmanship lessons as required.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. Where would an Air Rifle Marksmanship Instructor use their skills?
- Q2. What are the five main duties of an Air Rifle Marksmanship Instructor?
- Q3. What three groups must be organized into relays?

ANTICIPATED ANSWERS

- A1. By instructing lessons and conducting activities as part of the corps/squadron mandatory and complementary air rifle marksmanship training, regionally directed activities and possibly as a staff cadet at a CSTC.
- A2. The main duties of an Air Rifle Marksmanship Instructor include:
- leading air rifle marksmanship activities;
 - assisting the Range Safety Officer;
 - coaching cadets during air rifle marksmanship and summer biathlon activities;
 - assisting with summer biathlon activities; and
 - instructing air rifle marksmanship lessons.
- A3. The three groups to organize into relays are the firers, coaches and range assistants.

Teaching Point 2

Describe the Outline of Training for the Air Rifle Marksmanship Instructor Course

Time: 40 min

Method: Interactive Lecture

THE AIM OF THE AIR RIFLE MARKSMANSHIP INSTRUCTOR COURSE

The aim of the Air Rifle Marksmanship Instructor course is to:

- continue the development of personal air rifle marksmanship and summer biathlon skills;
- prepare cadets to assist with planning, organizing and conducting of air rifle marksmanship and summer biathlon training by reinforcing and advancing their leadership skills as applied to the air rifle marksmanship specialty; and
- prepare cadets to deliver instruction for air rifle marksmanship and summer biathlon training by reinforcing and advancing their instructional techniques skills as applied to the air rifle marksmanship speciality.

PERFORMANCE OBJECTIVES AND ENABLING OBJECTIVES

Performance Objectives (POs) are a description of the cadet's ability after training is complete. They include a description, in performance terms, of what the individual must do, the conditions under which the performance must be completed, and the standard to which the performance must conform.

Enabling Objectives (EOs) are a description of the cadet's ability after each unit of learning is complete and constitutes a major step towards achieving the PO.

PO S310 – Attain a Standard First Aid Qualification (A-CR-CCP-903/PG-001, Chapter 4, Section 2)

The training within this PO provides the knowledge and skills required to attain a standard first aid qualification.

PO S340 – Describe the Duties of an Air Rifle Marksmanship Instructor

The training within this PO provides the fundamental information required to perform the duties of an Air Rifle Marksmanship Instructor. This information will be helpful when required to fill the role of an Air Rifle Marksmanship Instructor at the corps/squadron, during regionally directed activities and/or as a staff cadet at a CSTC. EOs associated with this PO include:

- EO S340.01 (Describe the Air Rifle Marksmanship Instructor Course, [Section 1](#)),
- EO S340.02 (Identify Air Rifle Marksmanship Training and Competition Opportunities, [Section 2](#)), and
- EO S340.03 (Identify Biathlon Training and Competition Opportunities, [Section 3](#)).

PO S341 – Apply the Principles of Air Rifle Marksmanship (Chapter 2)

The training within this PO builds on the marksmanship training delivered at the corps/squadron. This is helpful as it increases marksmanship knowledge and skills and will provide the tools required to assist others when participating in air rifle marksmanship activities. EOs within this PO include:

- EO S341.01 (Apply Safety Precautions, Chapter 2, [Section 1](#)),
- EO S341.02 (Wear Air Rifle Marksmanship Equipment, Chapter 2, [Section 2](#)),
- EO S341.03 (Adopt the Prone Position, Chapter 2, [Section 3](#)),
- EO S341.04 (Apply Aiming and Breathing Techniques, Chapter 2, [Section 4](#)),
- EO S341.05 (Apply Natural Alignment, Chapter 2, [Section 5](#)),
- EO S341.06 (Apply Trigger-Control and Follow-Through, Chapter 2, [Section 6](#)), and
- EO S341.07 (Adopt the Standing Position, Chapter 2, [Section 7](#)).

PO S342 – Lead Air Rifle Marksmanship Activities (Chapter 3)

The training within this PO provides information required to lead air rifle marksmanship activities and provides a number of practical opportunities. This information and experience will be helpful when Air Rifle Marksmanship Instructors are assigned to lead air rifle marksmanship activities. EOs within this PO include:

- EO S342.01 (Prepare to Lead Air Rifle Marksmanship Activities, Chapter 3, [Section 1](#)),
- EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)),
- EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)),
- EO S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)),
- EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)), and
- EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

PO S343 – Assist the Range Safety Officer (RSO) (Chapter 4)

The training within this PO provides opportunities to assist the RSO with the overall conduct of air rifle marksmanship activities during this course. This will be helpful at the corps/squadron, when required to assist the RSO in conducting air rifle marksmanship activities. EOs within this PO include:

- EO S343.01 (Set Up and Dismantle an Air Rifle Range, Chapter 4, [Section 1](#)),
- EO S343.02 (Enforce Safety on an Air Rifle Range, Chapter 4, [Section 2](#)),
- EO S343.03 (Score Air Rifle Marksmanship Targets, Chapter 4, [Section 3](#)),
- EO S343.04 (Describe the Mechanical Operation of the Cadet Air Rifle, Chapter 4, [Section 4](#)), and
- EO S343.05 (Maintain the Cadet Air Rifle, Chapter 4, [Section 5](#)).

PO S344 – Coach Cadets During an Air Rifle Marksmanship and a Summer Biathlon Activity (Chapter 5)

The training within this PO provides an opportunity to identify the coaching role of an Air Rifle Marksmanship Instructor and to coach a peer during air rifle marksmanship and summer biathlon activities. This will be helpful when coaching cadets during air rifle marksmanship and summer biathlon activities. EOs within this PO include:

- EO S344.01 (Provide Feedback to Cadets, Chapter 5, [Section 1](#)),
- EO S344.02 (Apply Coaching Techniques During an Air Rifle Marksmanship Activity, Chapter 5, [Section 2](#)), and
- EO S344.03 (Apply Coaching Techniques During a Competitive Summer Biathlon Activity, Chapter 5, [Section 3](#)).

PO S345 – Assist With Summer Biathlon Activities (Chapter 6)

The training within this PO provides opportunities to assist with the overall conduct of summer biathlon activities. This will be helpful at the corps/squadron, when required to assist in conducting summer biathlon activities. EOs within this PO include:

- EO S345.01 (Prepare for a Summer Biathlon Activity, Chapter 6, [Section 1](#)),
- EO S345.02 (Lead a Warm-Up and Cool-Down Session, Chapter 6, [Section 2](#)),
- EO S345.03 (Apply the Principles of Air Rifle Marksmanship During a Summer Biathlon Activity, Chapter 6, [Section 3](#)),
- EO S345.04 (Perform the Role of a Summer Biathlon Official, Chapter 6, [Section 4](#)), and
- EO S345.05 (Participate in Summer Biathlon Activities, Chapter 6, [Section 5](#)).

PO S346 – Instruct a 20-Minute Air Rifle Marksmanship Lesson (Chapter 7)

The training within this PO provides information required to instruct 20-minute air rifle marksmanship lessons and provides a practical opportunity to apply this knowledge. Air Rifle Marksmanship Instructors may be required to instruct lessons and conduct air rifle marksmanship activities at the corps/squadron, CSTC and during regionally directed activities. EOs within this PO include:

- EO S346.01 (Plan a 20-Minute Air Rifle Marksmanship Lesson, Chapter 7, [Section 1](#)), and
- EO S346.02 (Instruct a 20-Minute Air Rifle Marksmanship Lesson, Chapter 7, [Section 2](#)).

Participate in On-the-Job Training (OJT)

This training provides an opportunity to apply leadership, instructional techniques and Air Rifle Marksmanship Instructor skills and knowledge in a practical setting. There are two components to this training:

- **OJT – Divisional Petty Officer/Platoon Warrant Officer/Flight Sergeant Duties.** Provides a practical experience that reinforces and builds on the knowledge and skills related to leadership and instructional techniques.
- **OJT – Specialty Duties.** Provides a practical leadership and instructional experience unique to the Air Rifle Marksmanship specialty.



Distribute the Air Rifle Marksmanship Instructor Summary and Time Allocation Table located at A-CR-CCP-903/PG-001, Chapter 2, Annex A to each cadet.

AIR RIFLE MARKSMANSHIP INSTRUCTOR COURSE ASSESSMENT OF LEARNING PLAN

This course contains a significant amount of practical assessment, which is defined in the assessment of learning plan that outlines the philosophy of assessment for the qualification. All expectations will be clearly explained and a copy of the assessment form will be distributed to the cadets prior to the conduct of the assessment.



Distribute the Air Rifle Marksmanship Instructor Assessment of Learning Plan located at A-CR-CCP-903/PG-001, Chapter 3, Annex B to each cadet.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What is the first aim of the Air Rifle Marksmanship Instructor course?
- Q2. What are POs a description of?
- Q3. What training opportunities are provided by OJT?

ANTICIPATED ANSWERS

- A1. The first aim of the Air Rifle Marksmanship Instructor course is to continue the development of personal air rifle marksmanship and summer biathlon skills.
- A2. POs are a description of the cadet's ability after training is complete.
- A3. Training opportunities provided by OJT are leadership, instructional techniques and Air Rifle Marksmanship Instructor skills and knowledge in a practical setting.

Teaching Point 3**Describe the Qualification Requirements for the Air Rifle Marksmanship Instructor Course**

Time: 20 min

Method: Interactive Lecture

QUALIFICATION REQUIREMENTS

Within the Cadet Program, success is measured in one of two ways: participation and proficiency assessment. The primary method of assessment for this course is performance assessment. Based on observation and judgment, the cadet is assessed on the quality of their performance or products. The qualification requirements for this course will assess success to include progress and achievement during selected POs. The results will be recorded on the Air Rifle Marksmanship Instructor Qualification Record. The POs that will be assessed include:

- S341 PC (Apply the Principles of Air Rifle Marksmanship, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1),
- S342 PC (Lead Air Rifle Marksmanship Activities, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2),
- S343 PC (Assist the Range Safety Officer (RSO), A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3),
- S344 PC (Coach Cadets During an Air Rifle Marksmanship and a Summer Biathlon Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 4),
- S345 PC (Assist With Summer Biathlon Activities, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5), and
- S346 PC (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6).



Distribute the Air Rifle Marksmanship Instructor Qualification Record located at A-CR-CCP-903/PG-001, Chapter 3, Annex C to each cadet.

CONFIRMATION OF TEACHING POINT 3**QUESTIONS**

- Q1. What are the two methods of assessment for this course?
- Q2. Which POs will be assessed during this course?

ANTICIPATED ANSWERS

- A1. The two methods of assessment for this course are participation and performance assessment.
- A2. The POs that will be assessed during this course include:
- S341 PC (Apply the Principles of Air Rifle Marksmanship, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1),
 - S342 PC (Lead Air Rifle Marksmanship Activities, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2),

- S343 PC (Assist the Range Safety Officer (RSO), A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3),
- S344 PC (Coach Cadets During an Air Rifle Marksmanship and a Summer Biathlon Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 4),
- S345 PC (Assist With Summer Biathlon Activities, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5), and
- S346 PC (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6).

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What are the two responsibilities of the Air Rifle Marksmanship Instructor when instructing an air rifle marksmanship lesson?
- Q2. Will expectations be explained and assessment forms be distributed?
- Q3. Where are the assessment results recorded?

ANTICIPATED ANSWERS

- A1. When instructing an air rifle marksmanship lesson, the two responsibilities of the Air Rifle Marksmanship Instructor are to:
1. prepare to instruct an air rifle marksmanship lesson; and
 2. instruct air rifle marksmanship lessons as required.
- A2. Yes, all expectations will be clearly explained and a copy of the assessment form will be distributed prior to the assessment being conducted.
- A3. The assessment results are recorded on the Air Rifle Marksmanship Instructor Qualification Record.

CONCLUSION

HOMEWORK/READING/PRACTICE

The cadets will practice performing the duties of an Air Rifle Marksmanship Instructor throughout the course.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Air Rifle Marksmanship Instructors must be aware of their duties and responsibilities to ensure that air rifle marksmanship training is being conducted safely.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 2

EO S340.02 – IDENTIFY AIR RIFLE MARKSMANSHIP TRAINING AND COMPETITION OPPORTUNITIES

Total Time: 40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to air rifle marksmanship training and competition opportunities and generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have identified air rifle marksmanship training and competition opportunities.

IMPORTANCE

It is important for cadets to discuss opportunities available to them after completing the Air Rifle Marksmanship Instructor course in order to identify how the course material will assist them at the corps/squadron level and to inform them of future training opportunities. Interest will be enhanced with an understanding of how this training can advance their marksmanship skills through practical application.

Teaching Point 1**Describe the Types of Air Rifle Marksmanship Activities**

Time: 10 min

Method: Interactive Lecture

TYPES OF AIR RIFLE MARKSMANSHIP ACTIVITIES

As taught in M306.01 (Participate in a Recreational Marksmanship Activity), there are four types of air rifle marksmanship activities that are conducted at the corps/squadron level, to include:

Classification. Classification marksmanship activities are part of the complementary training program at the corps/squadron level and may be carried out each year. In order to qualify for a specific category, a cadet shall meet the prescribed standard on two different targets within a year. Groupings do not have to be fired during the same relay. There are four categories within the classification program:

- **Marksman.** Each grouping must be within a circle of 3 cm in diameter.
- **First Class Marksman.** Each grouping must be within a circle of 2.5 cm in diameter.
- **Expert Marksman.** Each grouping must be within a circle of 2 cm in diameter.
- **Distinguished Marksman.** Each grouping must be within a circle of 1.5 cm in diameter.

Attainment of a standard will permit cadets to wear the appropriate proficiency badge on their uniforms.



Classification marksmanship is part of the complementary training program at the corps/squadron level and is described in CATO 14-43, *Marksmanship Program*, Annex A.

Competitive. Competitive marksmanship activities are part of the complementary training at the corps/squadron level. They can vary from a simple competition between levels, ranks or all members of a unit. They can also be used for unit team selection for participation in the Canadian Cadet Movement Marksmanship Championship Series (CCMMCS). The CCMMCS provides four stages of competition that allow cadets to participate in progressively challenging activities. Details on the CCMMCS can be found in CATO 14-43, *Marksmanship Program*, Annex B, and is fully described in A-CR-CCP-177/PT-001, *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*, Chapter 4.



The four stages of the CCMMCS are covered in TP 2.

Fun. Fun marksmanship is any activity that is conducted not for score or ranking, but is intended to give the cadet an opportunity to participate in an air rifle marksmanship activity (eg, a turkey shoot) for entertainment purposes.

Timed. Timed marksmanship is any activity that is conducted with the cadet going against the clock, not other participants. It is intended to give the cadet an opportunity to participate in an air rifle marksmanship activity to improve their personal air rifle marksmanship skill.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What are the four types of air rifle marksmanship activities?
- Q2. What are the four categories within the classification program?
- Q3. How many competitive stages are there in the CCMMCS?

ANTICIPATED ANSWERS

- A1. The four types of air rifle marksmanship activities are:
- classification,
 - competitive,
 - fun, and
 - timed.
- A2. The four categories within the classification program are:
- marksman,
 - first class marksman,
 - expert marksman, and
 - distinguished marksman.
- A3. There are four competitive stages in the CCMMCS.

Teaching Point 2

Explain the Four Stages of the CCM Marksmanship Championship Series

Time: 15 min

Method: Interactive Lecture

THE AIMS

The CCMMCS is a competition that is open to all three elements of cadets and is designed to ensure all cadet corps/squadrons have the opportunity to participate on an equal level. The CCMMCS has the following aims:

- to enhance the mandatory marksmanship training at the unit;
- to improve the cadet's marksmanship skills;
- to encourage participation in marksmanship; and
- to identify cadets for further marksmanship and coaching training.

THE FOUR STAGES

There are four stages to the CCMMCS.

Stage 1: Corps/Squadron Championship. Designed to conduct a unit level competition to select a team to compete in Stage 2. Any cadet in a unit may compete.



Unit teams must consist of five competitors, at least two of whom must be juniors (a cadet who has not reached their 15th birthday on or before 15 May of the competition year). Cadet corps/squadrons that cannot field a team may enter individual competitors (maximum of three per corps/squadron).

Stage 2: Zone Championship. Designed to conduct a competition for units in the same geographical area (zone). Those corps/squadrons that cannot participate in a Zone Championship (possibly due to their remote location), can conduct a Mail-In Competition. Selection for Stage 3 will be based on the highest scoring unit teams and highest scoring individuals (who will form a composite team).



Mail-In Competition. Targets fired by individual competitors or teams, duly signed and witnessed, that are then mailed to an assigned location where they are scored and the results are published.



Composite Team. A team made up of high scoring individuals from different units who are not on a winning unit team.

Stage 3: Provincial/Territorial Championship. Designed to conduct a competition for the highest scoring units and individuals from each Zone Championship. This competition is used to select the highest scoring unit teams and individuals (who will form a composite team) to advance to Stage 4.

Stage 4: National Championship. Designed to conduct a national competition for the highest scoring unit teams and individuals from each Provincial/Territorial Championship. At the National Championship, composite teams must consist of five competitors, at least two of whom must be juniors.



During this course, cadets shall participate in simulated Stage 1 and Stage 2 activities. They will be conducted during S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)).

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What are the aims of the CCMMCS?
- Q2. What are the four stages of the CCMMCS?
- Q3. What stage levels of competition will be simulated during this course?

ANTICIPATED ANSWERS

- A1. The aims of the CCMMCS are:
- to enhance the mandatory marksmanship training at the unit;
 - to improve the cadet's marksmanship skills;
 - to encourage participation in marksmanship; and
 - to identify cadets for further marksmanship and coaching training.

A2. The four stages of the CCMMS are:

1. Stage 1: Corps/Squadron Championship,
2. Stage 2: Zone Championship,
3. Stage 3: Provincial/Territorial Championship, and
4. Stage 4: National Championship.

A3. Stage 1 and Stage 2 competitions will be simulated during this course.

Teaching Point 3

Identify Civilian Marksmanship Organizations

Time: 10 min

Method: Interactive Lecture

Civilian marksmanship organizations or rifle associations are popular throughout the world and are found in most countries where marksmanship is a sport. Traditionally formed to augment the military, marksmanship organizations as governing bodies have become positive and significant contributors to civilian and military marksmanship and to the safe handling of firearms.

NATIONAL MARKSMANSHIP ASSOCIATIONS

The Dominion of Canada Rifle Association (DCRA)

The DCRA was founded in 1868 and was incorporated by Parliament in 1890 to encourage marksmanship training as a response to the Fenian Raids in 1866 and the departure of the British military in 1871. The DCRA, a not-for-profit organization, headquartered at Connaught Ranges, Ottawa, Ont., is Canada's national governing body for fullbore and smallbore target shooting. The DCRA continues to promote excellence in civilian and military marksmanship by providing:

- marksmanship training,
- shooting programs,
- coaching courses, and
- shooting competitions.

The DCRA works with the CCM by providing events and competitions including, a winter postal match held for cadet units across the country and the DCRA match held during the summer months for Canadian and British army cadets and the Royal Canadian Army Cadets National Rifle Team (NRT).

The Shooting Federation of Canada

The Shooting Federation of Canada (SFC), headquartered at Connaught Ranges, Ottawa, Ont., is the national sport governing body responsible for the promotion, development and governing of organized, recreational and competitive target shooting in and for Canada.

The SFC is a full service organization that works hard to provide its members with the support and encouragement needed to achieve their goals by conducting competitions, to include:

- National Smallbore Rifle Championships,
- National Trapshooting Championships,

- National Skeet Shooting Championships, and
- National Pistol Championships.

PROVINCIAL RIFLE ASSOCIATIONS

Provincial rifle associations are the provinces' governing bodies on fullbore and smallbore target shooting. These associations exist to promote marksmanship within the province by organizing events and competitions. Provincial rifle associations also provide competitions for cadet units within their respective provinces.

Provincial rifle associations include:

- Alberta Rifle Association,
- British Columbia Rifle Association,
- Manitoba Rifle Association,
- Newfoundland Rifle Association,
- Nova Scotia Rifle Association,
- Ontario Rifle Association,
- Prince Edward Island Rifle Association,
- Quebec Rifle Association,
- Royal New Brunswick Rifle Association, and
- Saskatchewan Rifle Association.



The Nova Scotia Rifle Association was formed in 1861 as a Colonial Rifle Association. It is the oldest rifle association in Canada and second oldest in the Commonwealth, second only to the National Rifle Association of the United Kingdom.

LOCAL RECREATIONAL MARKSMANSHIP ORGANIZATIONS

Local recreational marksmanship organizations exist in most major cities in Canada. These organizations can include the city or regional rifle associations or local rod and gun clubs. These organizations usually have a small calibre rifle range available for their members' use. To find recreational marksmanship organizations in a particular city, check the local listings.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What are the two main national civilian marksmanship organizations?
- Q2. How is the DCRA involved in cadet marksmanship training?
- Q3. How can a cadet find recreational marksmanship organizations in their area?

ANTICIPATED ANSWERS

- A1. The two main national civilian marksmanship organizations are the DCRA and the SFC.

- A2. The DCRA is involved in the CCM by providing events and competitions, including the DCRA match held during the summer months for the NRT and Canadian and British army cadets, and a winter postal match held for cadet units across the country.
- A3. To find recreational marksmanship organizations in their area, a cadet should check the local listings.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. At what level of the CCMMCS will local units compete against each other?
- Q2. How many competitors make up a unit team?
- Q3. What is the oldest rifle association in Canada?

ANTICIPATED ANSWERS

- A1. Local units compete against each other during Stage 2: Zone Championship of the CCMMCS.
- A2. Unit teams must consist of five competitors, at least two of whom must be juniors (a cadet who has not reached their 15th birthday on or before 15 May of the competition year).
- A3. The Nova Scotia Rifle Association was formed in 1861, making it the oldest rifle association in Canada.

CONCLUSION

HOMEWORK/READING/PRACTICE

Encourage the cadets to identify the national, provincial and local civilian marksmanship organizations applicable to where they live.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

You will gain interest in marksmanship activities when you can see practical applications for the training that you have received. Understanding the application of the training and where it can be used, will enhance other cadets' sense of accomplishment and allow them to choose opportunities which they would like to participate in, in the future.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-119 Shooting Federation of Canada. (2009). *Provincial Affiliates*. Retrieved March 17, 2009, from <http://www.sfc-ftc.ca/document.cfm?sectionID=39>.
- C2-086 Dominion of Canada Rifle Association. (2009). *Canadian and International Organizations*. Retrieved March 17, 2009, from <http://www.dkra.ca/welcome.htm>.



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SECTION 3

EO S340.03 – IDENTIFY BIATHLON TRAINING AND COMPETITION OPPORTUNITIES

Total Time:	40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to the biathlon training and competition opportunities and generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have identified biathlon training and competition opportunities that are available at the national, provincial and local level.

IMPORTANCE

It is important for cadets to discuss biathlon opportunities available to them after completing the Air Rifle Marksmanship Instructor course to identify how the course material will assist cadets at the corps/squadron and to inform them of future training opportunities. Interest will be enhanced with an understanding of how this training can advance their biathlon skills and when they can apply this material.

Teaching Point 1**Describe the Types of Summer Biathlon Activities**

Time: 5 min

Method: Interactive Lecture



The term “biathlon” originates with the Greek “bi” meaning “two” and “athlon” meaning “competition” or “contest”, thus, “biathlon” could be taken as the combination of any two competitions or sports. The term summer biathlon typically combines running and marksmanship.

TRADITIONAL BIATHLON

Traditional biathlon that combines skiing and marksmanship, has become an increasingly popular sport; it is also an excellent tool to help improve many skills used by cadets. Biathlon benefits cadets by improving their cardiovascular conditioning, marksmanship and leadership skills.

RECREATIONAL BIATHLON

Recreational summer biathlon has also become a popular sport for many cadet units and CSTCs. It has been adapted to combine a cardiovascular activity (eg, running, cycling, roller skiing) with air rifle marksmanship. Summer biathlon requires less equipment and does not need a distinct skiing trail; therefore, more units can participate, while providing similar benefits as traditional biathlon. Recreational summer biathlon focuses on having fun, while developing physical fitness, marksmanship and leadership skills (such as communication, cooperation and respect for others).

COMPETITIVE BIATHLON

Competitive biathlon is part of the optional/regionally directed activities/nationally directed activities. The CCM Biathlon Championship Series (CCMBCS) provides four stages of competition (corps/squadron, zone, provincial and national) which allow cadets to participate in progressively challenging activities.



Details on the CCMBCS can be found in CATO 14-42, *Biathlon Common Program*, Annex A.



Biathlon is a sport where cadets may fill the positions of officials. This allows additional leadership opportunities for senior cadets. This will be covered in greater detail in EO S345.04 (Perform the Role of a Summer Biathlon Official, Chapter 6, [Section 4](#)).

CONFIRMATION OF TEACHING POINT 1**QUESTIONS**

- Q1. What are three benefits to a cadet participating in biathlon activities?
- Q2. What two activities does traditional biathlon combine?
- Q3. What two activities does recreational summer biathlon combine?

ANTICIPATED ANSWERS

- A1. The benefits of participating in biathlon activities include improved:

- cardiovascular conditioning,
- marksmanship skills, and
- leadership.

A2. Traditional biathlon combines skiing and marksmanship.

A3. Recreational summer biathlon combines a cardiovascular activity (eg, running, cycling, roller skiing) with marksmanship.

Teaching Point 2

Explain the Four Stages of the CCM Biathlon Championship Series

Time: 15 min

Method: Interactive Lecture

The CCMBCS is a tri-service activity that is designed to ensure that all cadet corps/squadrons have the opportunity to compete on an equal level. It has the following aims:

- to allow cadets to participate in a progressive biathlon program;
- to promote physical fitness;
- to act as a catalyst for a cadet fitness/sports program;
- to promote the safe handling of rifles;
- to produce proficient coaches and officials; and
- to stimulate and maintain interest and act as a recruiting tool for the CCM.

THE FOUR STAGES

The CCM Biathlon Championship Series will be conducted annually in four stages:

Stage 1: Corps/Squadron Championship. Designed to conduct a unit level competition to select a team to compete in Stage 2. Any cadet in a unit may compete.



Unit and composite teams must consist of three competitors, including at least one junior (a cadet who has not reached their 15th birthday on or before 15 May of the competition year) and all team members must be of the same gender. Cadet corps/squadrons that cannot field a team may enter individual competitors.

Stage 2: Zone Championship. Designed to conduct a competition for units in the same geographical area (zone). Those corps/squadrons who cannot participate in a Zone Championship (possibly due to their remote location), can conduct a Mail-In Competition. Selection for Stage 3 will be based on the highest scoring unit teams and individuals.



Stages 1 and 2 may be conducted as summer (running) or winter (skiing) biathlon events using either the cadet air rifle or small bore rifle and will consist of one solo race each.

Stage 3: Provincial/Territorial Championship. Designed to conduct a competition for the highest scoring units and individuals from all Zone Championships. Stage 3 will consist of two races: one individual and one

team race. This competition will be used to select the highest scoring unit teams and individuals (who will form a composite team) to advance to Stage 4.

Stage 4: National Championship. Designed to conduct a national competition for the highest scoring unit teams and individuals from each Provincial/Territorial Championship. Stage 4 will consist of a minimum of three races: two individual and one team. At the National Championship, composite teams must consist of three competitors, one of whom must be a junior.



Stages 3 and 4 will be conducted as winter biathlon events with smallbore rifles.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What are the aims of the CCMBCS?
- Q2. What are the four stages of the CCMBCS?
- Q3. Which cadets may compete in Stage 1: Corps/Squadron Championship?

ANTICIPATED ANSWERS

- A1. The aims of the CCMBCS are:
- to allow cadets to participate in a progressive biathlon program;
 - to promote physical fitness;
 - to act as a catalyst for a cadet fitness/sports program;
 - to promote the safe handling of rifles;
 - to produce proficient coaches and officials; and
 - to stimulate and maintain interest and act as a recruiting tool for the CCM.
- A2. The four stages of the CCMBCS are:
- Stage 1: Local Unit Selection Championship,
 - Stage 2: Zone Championship,
 - Stage 3: Provincial/Territorial Championship, and
 - Stage 4: National Championship.
- A3. Any cadet within a corps/squadron may compete.

Teaching Point 3**Identify Civilian Biathlon Organizations**

Time: 15 min

Method: Interactive Lecture

NATIONAL BIATHLON ORGANIZATIONS

Biathlon Canada, which was incorporated in 1985 and is headquartered in Gloucester, Ont., is the national sport organization and governing body for biathlon in Canada. The association has jurisdiction over the Canadian Championships, Eastern and Western Canadian Championships, and Canada Cups. Each province and territory has a division of Biathlon Canada.

Biathlon Canada organizes many events, competitions and programs, to include:

- coaching development,
- officials development,
- national competition series,
- talent identification camps, and
- summer and air rifle biathlons.

Biathlon Canada works with the CCO by providing coaching and officials training to CIC officers.

Included in Biathlon Canada is the Biathlon Bears Program, which is a community recreational program, offered across Canada. The Biathlon Bears Program is open to novices and the training is tailored to the athlete's skill level. This program offers training to develop both skiing and marksmanship skills. As skills are learned and mastered, the biathlete progresses to the next Biathlon Bear level.

PROVINCIAL/TERRITORIAL BIATHLON ORGANIZATIONS

Divisions of Biathlon Canada are located within most of the Canadian provinces/territories. These division offices run training and offer support to the local resorts/clubs. These divisions include:

- Biathlon British Columbia,
- Biathlon Alberta,
- Biathlon Saskatchewan,
- Biathlon Manitoba,
- Biathlon Ontario,
- Biathlon Quebec,
- Biathlon New Brunswick,
- Biathlon Nova Scotia,
- Biathlon Prince Edward Island (PEI),
- Biathlon Newfoundland and Labrador,
- Biathlon Yukon, and
- Northwest Territories Biathlon (including Nunavut).



Contact Biathlon Canada for information on the individual provincial division that applies to the cadets' home province/territory.

LOCAL BIATHLON ORGANIZATIONS

Local recreational biathlon organizations exist in many areas across Canada. These organizations can include the municipal or regional biathlon associations or cross-country ski clubs. These organizations usually have a small calibre rifle range available for their members' use. To find local recreational biathlon organizations in a particular city, check the local listings or contact the provincial division of Biathlon Canada for information on the local organization(s).

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What is the governing body for biathlon in Canada?
- Q2. How does Biathlon Canada work with the CCO?
- Q3. What is the role of the provincial divisions?

ANTICIPATED ANSWERS

- A1. The governing body for biathlon in Canada is Biathlon Canada.
- A2. Biathlon Canada works with the CCO by providing coaching and officials training to CIC officers.
- A3. To run training and offer support to the local resorts/clubs.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What are some of the events, competitions and programs organized by Biathlon Canada?
- Q2. What is the name of the community program offered by Biathlon Canada?
- Q3. What type of training does Biathlon Bears offer?

ANTICIPATED ANSWERS

- A1. Events, competitions and programs organized by Biathlon Canada include:
 - coaching development,
 - officials development,
 - national competition series,
 - talent identification camps, and
 - summer and air rifle biathlons.

A2. Biathlon Bears.

A3. This program offers training to develop both skiing and marksmanship skills.

CONCLUSION

HOMEWORK/READING/PRACTICE

Encourage the cadets to identify the provincial and local civilian biathlon organizations applicable to where they live.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Understanding the application of biathlon training and where it can be used will allow you to choose biathlon opportunities to participate in, in the future.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-036 A-CR-CCP-178/PT-001 Director Cadets 3. (2009). *Canadian Cadet Movement: Cadet Biathlon Program Reference Manual*. Ottawa, ON: Department of National Defence.
- C0-149 Biathlon Canada, Coaching Association of Canada. (2007). *Biathlon Bears: Community Coaching* (Version 3.0) [Computer software]. Ottawa, ON: Biathlon Canada.
- C0-430 Biathlon Canada. (2009). *Biathlon: Combining Cross Country Skiing and Rifle Marksmanship*. Retrieved March 19, 2009, from <http://www.biathloncanada.ca/main.php>.

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CHAPTER 2

PO S341 – APPLY THE PRINCIPLES OF AIR RIFLE MARKSMANSHIP



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 1

EO S341.01 – APPLY SAFETY PRECAUTIONS

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Set up an air rifle range IAW A-CR-CCP-177/PT-001, *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*, Part 1, Section 8.

Ensure there is one cadet air rifle for every two cadets as learning aids.

Photocopy the Cadet Air Rifle Range Commands Aide-Memoire located at [Annex A](#) for each cadet.

Photocopy the Cadet Air Rifle Handling Test located in A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1, for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1–3 to give direction on determining safe rifle status, describing individual safety precautions and explaining safety regulations.

A demonstration and performance was chosen for TP 4 as it allows the instructor to explain and demonstrate following range commands while providing an opportunity for the cadets to practice the skill under supervision.

A practical activity was chosen for TP 5 as it is an interactive way to allow cadets to complete the Cadet Air Rifle Handling Test in a safe and controlled environment. This activity contributes to the development of safe rifle handling skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to apply safety precautions by ensuring safe rifle status, performing individual safety precautions, adhering to safety regulations, responding to range commands and completing the Cadet Air Rifle Handling Test.

IMPORTANCE

It is important for cadets to apply safety precautions at all times when handling the cadet air rifle whether it is on or off the air rifle range. There will be times when the cadet may be required to handle a cadet air rifle and the safe rifle status is not known. Having the knowledge and skill to check the safety status of a cadet air rifle is critical to the safety of all participants.

Teaching Point 1

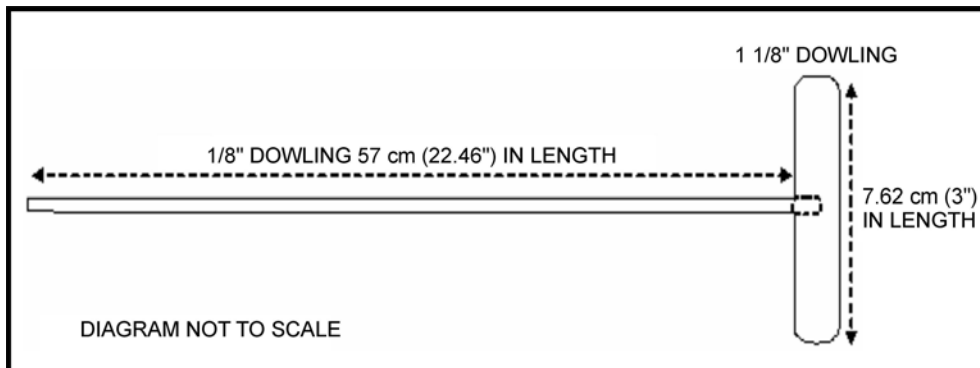
Describe the Criteria for Safe Rifle Status

Time: 10 min

Method: Interactive Lecture



Have a cadet air rifle and a safety rod inside a rifle case ready to use during this TP. Safety rods may be of the design or similar to the design as illustrated in [Figure 2-1-1](#).



Director Cadets 3, 2005, Ottawa, ON: Department of National Defence

Figure 2-1-1 Safety Rod



Safety rods may be made with wooden dowels or a plastic coated metal rod. The rod shall be inserted into the barrel with the tip of the safety rod showing in the breach.

CRITERIA FOR SAFE RIFLE STATUS

The cadet air rifle needs to be stored in a safe manner, such as in a cabinet, locked room or rifle case. Due to the fact that the breach of the cadet air rifle is small and the chamber is not visible, the safe rifle status cannot be determined until the person handling the cadet air rifle takes the necessary action. When not being handled on the range or in a training environment, the cadet air rifle must be in safe rifle status and store in its case. The following are criteria for safe rifle status:

When the cadet air rifle is in the case:

1. the safety catch is ON;
2. the bolt is forward;
3. the action is not cocked;
4. the cadet air rifle safety rod is in the case but not in the barrel; and
5. the pump lever is partially open (5–8 cm).

When the cadet air rifle is on the firing line:

1. the safety catch is ON;
2. the bolt is open; and
3. the pump lever is partially open (5–8 cm).

When the cadet air rifle is not on the firing line:

1. the safety catch is ON;
2. the bolt is open;
3. the cadet air rifle safety rod is in the barrel (visible in the feed track); and
4. the pump lever is partially open (5–8 cm).

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What are the criteria for safe rifle status when the cadet air rifle is in the case?
- Q2. What are the criteria for safe rifle status when the cadet air rifle is on the firing line?
- Q3. What are the criteria for safe rifle status when the cadet air rifle is not on the firing line?

ANTICIPATED ANSWERS

- A1. The criteria for safe rifle status when the cadet air rifle is in the case are:
1. the safety catch is ON;
 2. the bolt is forward;
 3. the action is not cocked;
 4. the cadet air rifle safety rod is in the case but not in the barrel; and
 5. the pump lever is partially open (5–8 cm).
- A2. The criteria for safe rifle status when the cadet air rifle is on the firing line are:
1. the safety catch is ON;
 2. the bolt is open; and
 3. the pump lever is partially open (5–8 cm).

A3. The criteria for safe rifle status when the cadet air rifle is not on the firing line by:

1. the safety catch is ON;
2. the bolt is open;
3. the cadet air rifle safety rod is in the barrel (visible in the feed track); and
4. the pump lever is partially open (5–8 cm).

Teaching Point 2

Describe Individual Safety Precautions to be Taken When Safe Rifle Status Is Uncertain

Time: 10 min

Method: Interactive Lecture

INDIVIDUAL SAFETY PRECAUTIONS

Safety is the number one priority on and off the range. The majority of incidents are caused by personnel not following operating procedures or by mishandling the cadet air rifle. To prevent these incidents, a cadet must perform individual safety precautions.

Perform individual safety precautions by:

1. ensuring the bolt is fully to the rear;
2. ensuring the safety catch is in the ON position;
3. ensuring the pump handle is partially open (5–8 cm); and
4. placing a cadet air rifle safety rod in the barrel, to indicate:
 - a. the cadet air rifle is not loaded, and
 - b. the cadet air rifle is safe.



The safety rod must be visible in the feed track of the cadet air rifle. The barrel weight on the front of the barrel may have to be adjusted in length in order for the end of the safety rod to be visible.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. Who is responsible for performing an individual safety precaution on the cadet air rifle?
- Q2. When performing an individual safety precaution, should the safety be in the OFF or ON position?
- Q3. What is inserted into the barrel of the cadet air rifle to indicate that it is not loaded?

ANTICIPATED ANSWERS

- A1. Every cadet is responsible for performing an individual safety check on their cadet air rifle.
- A2. The safety should be in the ON position when performing an individual safety precaution with the cadet air rifle.
- A3. A safety rod is inserted into the barrel of the cadet air rifle to indicate that it is not loaded.

Teaching Point 3**Explain Safety Regulations**

Time: 5 min

Method: Interactive Lecture

SAFETY REGULATIONS

Safety regulations are put in place to ensure the safety of all participants, instructors, spectators and range staff. Safety regulations must be implemented and followed whenever handling the cadet air rifle.

Safety regulations that each cadet shall follow include:

- treating the cadet air rifle as if it is loaded;
- never pointing the cadet air rifle at anyone;
- holding the cadet air rifle vertically when moving to and from the firing point;
- leaving fingers off the trigger until ready to fire;
- wearing safety glasses/goggles; and
- employing hygiene on the range by washing hands after every practice.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. When should the cadet air rifle be treated as if it were loaded?
- Q2. How should the cadet air rifle be carried when moving from the firing point?
- Q3. After every practice, what should be done to employ hygiene?

ANTICIPATED ANSWERS

- A1. Always treat the cadet air rifle as if it is loaded.
- A2. The cadet air rifle should be carried in a vertical position with the muzzle pointing upward.
- A3. Employ hygiene by washing your hands after every practice.

Teaching Point 4**Explain, Demonstrate and Have Cadets Respond to Range Commands**

Time: 20 min

Method: Demonstration and Performance

COMMANDS GIVEN ON AN AIR RIFLE RANGE

For this TP it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while the cadets observe.
2. Explain and demonstrate each step required to complete the skill.
3. Monitor cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.



Distribute the Cadet Air Rifle Range Commands Aide-Memoire located at [Annex A](#) to each cadet.



Divide the cadets into two relays. Ensure the firing point has the following equipment:

- cadet air rifle,
- safety glasses/goggles, and
- shooting mat.



The CCM Marksmanship Championship Series has a slightly different set of range commands, which are suited to competition firing. For these range commands refer to A-CR-CCP-177/PT-001, Part 4, Section 4, Rule 14.



The following commands will be used in all range activities that cadets will participate in during this course (except for the CCM Marksmanship and Summer Biathlon Championship Series). It is imperative that each cadet know how to react to each command in order to maintain safety and order.



“GRIT” is the acronym for:

1. group (relay),
2. range,
3. indication, and
4. type of fire.

Command	Action
Cover off your firing point.	Stand up, move behind the firing point and wait for further commands.
Place your equipment down and stand back.	Lay the equipment down on the mat and stand back when finished.
Adopt the prone position.	Adopt the prone position, pick up the cadet air rifle, ready the equipment and put on hearing (optional) and eye protection.
Type of firing – GRIT (eg, Relay No. ____, 10 m, five rounds, grouping, on your own time fire).	This command includes information about the range and type of firing.
Relay, load, commence firing.	1. Pick up and hold the cadet air rifle with the left hand. 2. Ensure the safety catch is ON. 3. Pump the cadet air rifle. 4. When the pump lever is fully extended, pause for about three seconds. 5. Load the pellet. 6. Close the bolt. 7. Place the safety catch in the OFF position; aim the cadet air rifle at the target. 8. Squeeze the trigger. 9. Open the bolt. 10. Repeat the sequence for each shot. 11. Place the safety catch in the ON position and partially open the pump lever immediately after firing the practice. 12. Lay down the cadet air rifle.
Relay, unload.	1. Pick up the cadet air rifle. 2. Remove the five pellet clip if used. 3. Open the bolt. 4. Pump the cadet air rifle. 5. Close the bolt. 6. Place the safety catch in the OFF position. 7. Aim the cadet air rifle at the target. 8. Pull the trigger. 9. Place the safety catch in the ON position.

Figure 2-1-2 (Sheet 1 of 2) Range Commands

A-CR-CCP-177/PT-001 (p. 1-5-3)

Command	Action
Relay, prepare for inspection.	1. Open the bolt. 2. Open the pump lever 5–8 cm. 3. Place the cadet air rifle against the shoulder, muzzle pointed down range. 4. Wait to be cleared by the RSO. 5. Lay the cadet air rifle down. 6. Remove hearing and eye protection.
Relay, stand up.	Stand and leave the equipment on the ground.
Commands That May be Given	Action
Relay, cease fire.	Stop firing immediately, put the safety catch in the ON position and lay the cadet air rifle down.
Relay, resume fire.	Put the safety catch in the OFF position and continue the practice.
Change targets.	Walk down the lane to remove old targets and replace them with new ones. Return to the firing point.
Change relays.	Cadets who have just fired pick up their personal equipment and move off the firing point. The new relay covers off behind the firing point.

Figure 2-1-2 (Sheet 2 of 2) Range Commands

A-CR-CCP-177/PT-001 (p. 1-5-3)

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

- Q1. What action will be taken when the command “Cover off your firing point” is given by the RSO?
- Q2. When the relay is given the command “Load, commence firing”, will the cadet insert the pellet first and then pump the cadet air rifle or pump the cadet air rifle first and then insert the pellet?
- Q3. When firing and the command “Cease fire” is given, what action shall the cadet take?

ANTICIPATED ANSWERS

- A1. Stand up, move behind the firing point and wait for further commands.
- A2. The cadet will pump the cadet air rifle first and then insert the pellet.
- A3. The cadet shall stop firing immediately, put the safety catch in the ON position and lay the cadet air rifle down.

Teaching Point 5**Have the Cadets Complete the Cadet Air Rifle Handling Test**

Time: 25 min

Method: Practical Activity



Follow the Cadet Air Rifle Handling Test as laid out in A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets complete the Cadet Air Rifle Handling Test.

RESOURCES

- Cadet air rifle,
- Cadet air rifle safety rod,
- Safety glasses/goggles,
- Shooting mat,
- Cadet Air Rifle Handling Test,
- Clipboard, and
- Pencil with eraser.

ACTIVITY LAYOUT

- Lay out a cadet air rifle for each firing lane on the range (with a cadet air rifle safety rod).
- Provide a clipboard and pencil for each firing lane.
- Provide a Cadet Air Rifle Handling Test for each cadet being assessed.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into pairs.
2. Have one cadet perform the Cadet Air Rifle Handling Test while the other cadet observes.
3. Have the cadets switch and conduct the Cadet Air Rifle Handling Test again.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' completion of the Cadet Air Rifle Handling Test will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

CLOSING STATEMENT

It is important to follow safety rules and regulations and conduct individual safety precautions whenever handling the cadet air rifle. Applying safe handling practices while using the cadet air rifle will help ensure safety for all those involved in marksmanship activities.

INSTRUCTOR NOTES/REMARKS

A range practice is when a cadet is participating in a marksmanship activity, to include:

- familiarization,
- classification,
- competition,
- fun,
- timed, and
- biathlon.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 2

EO S341.02 – WEAR AIR RIFLE MARKSMANSHIP EQUIPMENT

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Instructors shall prepare the marksmanship equipment prior to this lesson. The equipment is to be laid out in order of the TPs to simplify the issue of the equipment following the demonstration by the instructor.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

Cadets shall bring a sweater that they plan to wear under their jacket to ensure a proper fit when wearing the marksmanship jacket.

APPROACH

An interactive lecture was chosen for TP 1 to introduce marksmanship equipment to the cadet.

A demonstration and performance was chosen for TPs 2–5 as it allows the instructor to explain and demonstrate wearing, sizing and adjusting air rifle marksmanship equipment while providing an opportunity for the cadets to practice the skill under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to wear air rifle marksmanship equipment.

IMPORTANCE

It is important for the cadets to know how to correctly wear the various items of marksmanship equipment as it will enhance the cadet's marksmanship skills through added stability while in the firing position.

Teaching Point 1**Describe Air Rifle Marksmanship Equipment and Purpose**

Time: 15 min

Method: Interactive Lecture



Due to the many different makes, models and manufacturers of marksmanship equipment in use by the CCO, the following information is presented to provide general guidance and may have to be adapted based on the specific equipment used.



Arrange the cadets so they can see the items of marksmanship equipment as they are discussed.

An assistant instructor may be employed to hold up the items of marksmanship equipment to ensure all the cadets see the various features as discussed.

Note: The order information is presented and follows the typical order in which a marksman will put on their marksmanship equipment:

1. marksmanship jacket,
2. marksmanship hat,
3. marksmanship sling, and
4. marksmanship glove.

MARKSMANSHIP EQUIPMENT

Marksmanship performance can be improved with the use of specially designed clothing and equipment. It is possible to participate in air rifle marksmanship activities without the use of this equipment. However, the added stability and comfort marksmanship equipment provides will drastically increase marksmanship skills.

MARKSMANSHIP JACKET**Purpose of a Marksmanship Jacket**

The purpose of a marksmanship jacket is to help stabilize the body and add support/comfort to the firing position. This is achieved by restricting body movement and padding points of contact with the ground/other equipment. This adds cushioning to increase comfort and prevent slipping.



For the CCM Marksmanship Championship Series, the jacket must be made of single ply cotton twill and must remain flexible under normal conditions.

Parts of a Marksmanship Jacket

As illustrated in [Figure 2-2-1](#), a marksmanship jacket is made up of the following parts:

Shoulder Pad. Sewn to the jacket on either the right or left shoulder (depending on the dominant hand); the shoulder pad is designed to reduce the effects of recoil and to help prevent the butt from slipping from the shoulder while firing. Shoulder pads (like all pads on the jacket) are usually made out of a slip resistant

material such as rubber or leather (suede) and are often textured for additional friction. Older or less expensive marksmanship jackets may only have multiple layers of material to form the shoulder pad.

Sling Pad or Hook. Most modern marksmanship jackets have either a sling pad (also know as a pulse pad) or a sling hook. A sling pad is a slip resistant pad sewn to the jacket on the upper arm above the bicep. The sling pad is designed to prevent the sling from slipping and to cushion the sling from biting into the arm and helps to eliminate pulse transfer. A sling hook is either a solid hook or strap that is sewn or attached to the upper part of the jacket arm in which the sling is run through. This helps to hold the sling in place on the arm.

Body Pad. Sewn on to the jacket around the chest or belly; the body pad is made out of slip resistant material and designed to help prevent the marksman from sliding on the shooting mat or firing point. For the cadet firing in a standing position, this body pad may be used to stabilize the supporting arm holding the rifle.

Elbow Pads. Sewn on to the elbows of the jacket; the elbow pads are made out of slip resistant material to cushion the marksman's elbows and help prevent the elbows from sliding while firing.

Front Closures. Depending on make, model and manufacturer; the main types of front closures used include: nylon or metal buckles (either snap or threaded type), buttons, or zippers. For use in the CCM Marksmanship Championship Series, closures on the marksmanship jacket must be non-adjustable. If the front closures are equipped with straps or other adjustment methods, they must be taped in place after initial fitting.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-2-1 Marksmanship Jacket

MARKSMANSHIP HAT

Purpose of a Marksmanship Hat

The purpose of a marksmanship hat is to block out unwanted light and distractions allowing the marksman to concentrate on firing.

Parts of a Marksmanship Hat

As illustrated in [Figure 2-2-2](#), the marksmanship hat is made up of three main parts:

Cap. Comprising the main body of the marksmanship hat; the cap is either fitted or is adjustable like a baseball cap. Some caps have a mesh back or ventilation holes to allow for air flow.

Peak. Similar to a baseball cap but much longer; the peak blocks out unwanted light from above the marksman.

Side Flaps. Hanging from the peak; the side flaps are used to block out light and movement from the sides of the marksman decreasing distractions. The side flaps can be held out of the way by Velcro, magnets or snaps if not required by the marksman.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-2-2 Marksmanship Hat

CADET AIR RIFLE SLING

Purpose of the Cadet Air Rifle Sling

The purpose of the cadet air rifle sling is to provide maximum support for the cadet air rifle while minimizing the amount of physical effort from the marksman.

Parts of the Cadet Air Rifle Sling

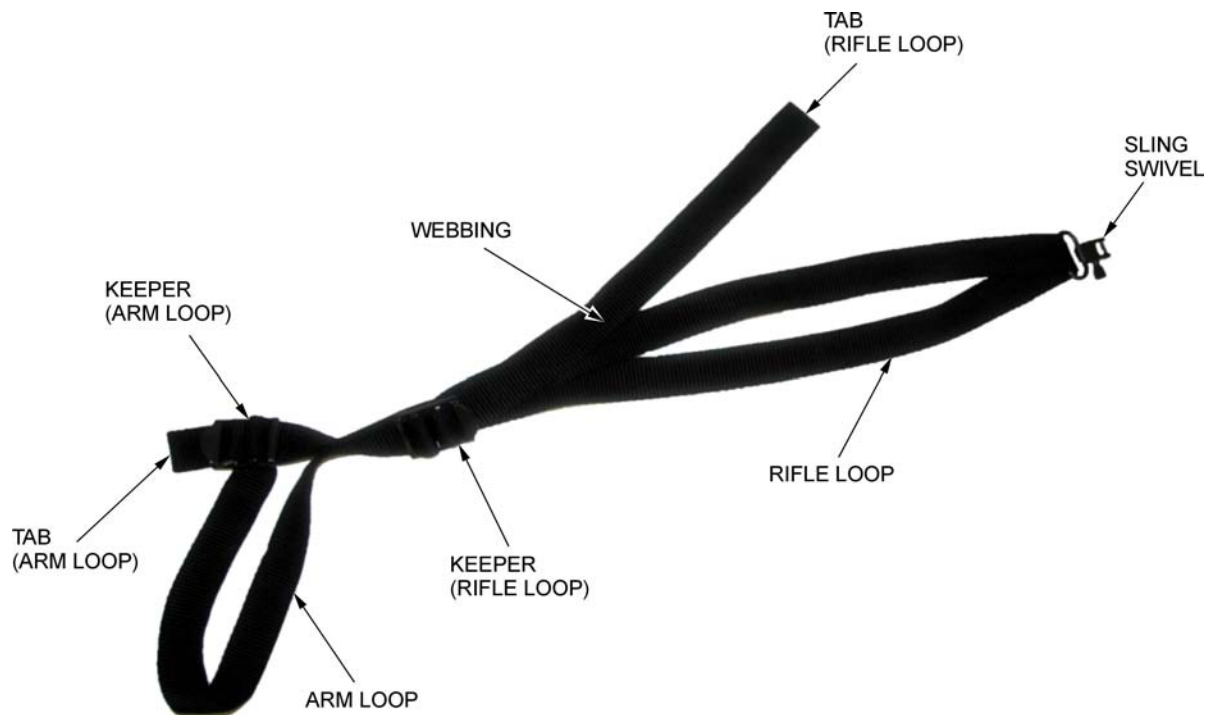
As illustrated in [Figure 2-2-3](#), the cadet air rifle sling is made up of the following parts:

Webbing. Constructed from nylon; the nylon webbing of the cadet air rifle sling is a strong, lightweight, synthetic material.

Arm Loop. The smaller of the two loops in the sling (opposite the rifle loop); the arm loop is worn around the marksman's upper arm above the bicep. The arm loop is formed by threading the tab through the keeper.

Rifle Loop. The larger of the two loops in the sling (opposite the arm loop); the rifle loop is used to connect the sling to the sling swivel and creates the tension the sling exerts on the rifle. The rifle loop is formed by threading the tab through the keeper.

Sling Swivel. Used to attach the sling to the cadet air rifle; the sling swivel rides on the rifle loop and clips onto the hand-stop of the cadet air rifle.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-2-3 Cadet Air Rifle Sling

MARKSMANSHIP GLOVE

Purpose of a Marksmanship Glove

The purpose of a marksmanship glove is to protect the marksman's hand from the pressure created by the sling, sling swivel and the hand-stop. The marksmanship glove also reduces the effects of pulse by cushioning the hand from the rifle. A marksmanship glove is worn on the hand of the support arm in the same manner as a normal glove. Large bracelet jewellery and wrist watches should be removed to allow the glove to fit properly and to avoid unnecessary pressure to the wrist. The cadet in [Figure 2-2-8](#) is shown with a properly fitted marksmanship glove.

Parts of a Marksmanship Glove

As illustrated in [Figure 2-2-4](#), a marksmanship glove is made up of the following parts:

Glove. Either full-fingered, half-fingered, a mitt or a combination; the glove can be made from leather, canvas or heavily padded wool, nylon or cotton.

Finger Pads, Palm Pad and Rear Pad. Made out of slip resistant materials and textured for added friction; the pads help cushion the hand against the pressure created by the rifle, sling, sling swivel and hand-stop. The pads also help prevent the hand from sliding out of place on the fore end of the cadet air rifle.

Ventilation Holes. Allow air to circulate within the glove to increase comfort.



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Figure 2-2-4 Marksmanship Glove

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What is the purpose of wearing a marksmanship jacket?
- Q2. Name three things that the sling pads help prevent when attached to a marksmanship jacket?
- Q3. Name the main types of front closures used on marksmanship jackets?

ANTICIPATED ANSWERS

- A1. The purpose of a marksmanship jacket is to help stabilize the body and add support/comfort to the firing position.
- A2. Three things that the sling pads prevent when attached to a marksmanship jacket, include:
- To prevent the sling from slipping on the sling pad.
 - To cushion the sling from biting into the arm muscle.
 - To eliminate pulse transfer through the sling to the rifle.
- A3. The types of front closures used on marksmanship jackets include:
- nylon or metal buckles (either snap or threaded type),

- buttons, or
- zippers.

Teaching Point 2

Explain, Demonstrate and Have Cadets Size, Wear and Adjust a Marksmanship Jacket

Time: 20 min

Method: Demonstration and Performance



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while the cadets observe.
2. Explain and demonstrate each step required to complete the skill.
3. Monitor cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.



For the purpose of competition firing, marksmanship equipment must meet certain specifications. Refer to A-CR-CCP-177/PT-001, Part 4, Section 4, Rule 6, for exact specifications.



Begin the demonstration with the assistant instructor wearing a mid to heavyweight sweater. As the explanation progresses have the assistant instructor follow along by:

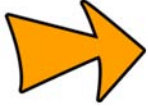
1. loosening the adjusting straps on the marksmanship jacket;
2. donning the marksmanship jacket;
3. fastening the front closures;
4. pulling on the front of the jacket to check for the fitting of the jacket; and
5. adjusting the straps on either the front closures or sides of a marksmanship jacket, to take up any slack around the chest and waist so the jacket fits snug to the body.

SIZING OF THE MARKSMANSHIP JACKET

There are two ways in which marksmanship jackets are sized:

- The most popular way for experienced marksmen is to have a marksmanship jacket tailor-made at either a tailor or from a manufacturer. Having a marksmanship jacket tailor-made ensures a glove-like fit for maximum support and comfort.
- The other way in which many marksmanship jackets are sized is selecting an "off-the-rack" design. These marksmanship jackets are made to standard sizes based on common chest/waist sizes. When sizing a marksmanship jacket it is primarily based on the marksman's chest size. However, it may be necessary for a marksmanship jacket to be a size larger than the marksman to comfortably accommodate the wearing of a sweater or multiple sweaters underneath the jacket.

Although the various pads and other features on most marksmanship jackets are large enough/placed well enough to accommodate different body types, once the garment is donned, it is important to verify the pads and features are in a suitable location for the individual marksman (eg, the sling/pulse pad covers the upper arm above the bicep).



It is common practice to leave the bottom fastener of the jacket unfastened to provide some comfort in the prone position.



Emphasize to the cadet that after the sizing of the jacket is complete, they should wear the same sweater every time they fire the cadet air rifle.

WEARING A MARKSMANSHIP JACKET

A marksmanship jacket is worn in the same way as a normal jacket except that it is important to wear at least one mid to heavyweight sweater under the jacket. The sweater(s) will provide additional cushioning to areas of pressure and help dampen the effects of pulse beat on the firing position. Whenever the marksmanship jacket is worn it should be done up as if ready to fire. This will help to ensure the jacket is comfortable and will get the cadet accustomed to wearing it. The cadet in [Figure 2-2-5](#) is wearing a marksmanship jacket with the adjusting straps in a fixed position.



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Figure 2-2-5 Wearing the Marksmanship Jacket

ADJUSTING A MARKSMANSHIP JACKET

Different marksmanship jackets have different types of adjustment methods. Most commonly, adjustments are made on the front closures by means of a threaded buckle. Some jackets may also have, either solely or in addition to the front closure adjustment, straps located on the side or back of the jacket for adjustment. When adjusting a marksmanship jacket, pull the tabs away from the keepers or buckles until the jacket is snug and the pressure is equal across the torso. The CCM Marksmanship Championship Series rules require all adjustment tabs to be taped (in order to prevent adjustment while competing), so it is important that the jacket be loose enough to be unfastened and refasten without adjustment. This also helps add consistency to the firing position by maintaining the fit of the jacket.

The jacket should not be so tight fitting that it is uncomfortable or restricts breathing.



The assistant instructor should keep the marksmanship jacket on for the next TP.

CONFIRMATION OF TEACHING POINT 2

The cadets sizing, wearing and adjusting a marksmanship jacket will serve as the confirmation of this TP.

Teaching Point 3

Explain, Demonstrate and Have Cadets Size, Wear and Adjust a Marksmanship Hat

Time: 5 min

Method: Demonstration and Performance



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while the cadets observe.
2. Explain and demonstrate each step required to complete the skill.
3. Monitor cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.

SIZING A MARKSMANSHIP HAT

Depending on the make, model and manufacturer, marksmanship hats can be sized in various ways. One-size-fits-all type marksmanship hats are common where the cap is a standard size and has a universal adjustment at the rear. Marksmanship hats also come in descriptive sizes (eg, small, medium, large, etc) and some higher end shooting hats can come in measured sizes. It is important that when selecting a marksmanship hat, it fits the head snugly while still being comfortable. If the hat is too tight, it may cause pressure on the head (possibly leading to headaches). If the hat is too loose, it may move on the head while firing, causing a distraction.

WEARING A MARKSMANSHIP HAT

A marksmanship hat is worn in the same manner as a baseball cap. The peak should be parallel to the ground and not obscure the sight picture while in the firing position. One or both of the side flaps may hang down depending on amount of ambient light and the preference of the marksman.

ADJUSTING A MARKSMANSHIP HAT

To adjust a marksmanship hat with an adjustable cap, hold the hat in place on the head and move the adjustment until the hat fits snug to the head. The cadet in [Figure 2-2-6](#) has fitted and adjusted the marksmanship hat to their comfort zone.



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Figure 2-2-6 Wearing a Marksmanship Hat



The assistant instructor should keep the marksmanship jacket and hat on for the next TP.

CONFIRMATION OF TEACHING POINT 3

The cadets sizing, wearing and adjusting a marksmanship hat will serve as the confirmation of this TP.

Teaching Point 4

Explain, Demonstrate and Have Cadets Wear the Cadet Air Rifle Sling

Time: 25 min

Method: Demonstration and Performance



For this skill lesson, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while the cadets observe.
2. Explain and demonstrate each step required to complete the skill.
3. Monitor cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.



Refer to the following CF regulations and policies regarding the use of the cadet air rifle sling: A-CR-CCP-177/PT-001, Part 4, Section 4, Rule 6.3, for exact specifications.

WEAR THE CADET AIR RIFLE SLING

The sling provided with the cadet air rifle is the only sling allowed to be used with the cadet air rifle.



Begin the demonstration with the assistant instructor already wearing a marksmanship jacket and a marksmanship hat. As the explanation progresses have the assistant instructor follow along by:

1. assembling the cadet air rifle sling;
2. positioning the cadet air rifle sling on the arm (on the sling/pulse pad); and
3. adjusting the arm loop until the sling fits snugly.

Assembling the Cadet Air Rifle Sling

The cadet air rifle sling is assembled in the following sequence:

1. Hold the sling parallel to the ground with the short section in the left hand, ensuring the rounded tip of the keeper is pointing to the left.
2. Take the tab of the short section, loop it through the middle slot of the keeper and then back down through the front slot nearest to the rounded tip. The short section will now form the arm loop.
3. Turn the sling over and slide the sling swivel onto the long section. Ensure the sling swivel hangs downwards, as it will later attach to the rifle.
4. Loop the tab of the long section up through the middle slot of the keeper and then back through the rear slot nearest to the rounded tip. The long section will now form the rifle loop.

Positioning the Cadet Air Rifle Sling on the Arm

The arm loop should be positioned on the upper part of the arm, above the bicep near the shoulder. The sling can be held in place by the sling pad or the sling hook on the marksmanship jacket. The cadet in [Figure 2-2-7](#) is wearing the cadet air rifle sling positioned on the supporting arm and around the arm pad.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-2-7 Positioning the Cadet Air Rifle Sling on the Arm

Adjusting the Arm Loop

To adjust the arm loop, pull the tab away from the keeper. If the sling is too loose, it will not fully support the cadet air rifle. If the sling is too tight, it will restrict the blood flow to the arm and can cause discomfort, numbness or a pronounced feeling of a pulse. Therefore, the arm loop must be tightened so it is comfortable without pinching the arm, while providing for maximum support of the cadet air rifle. The arm loop on the cadet air rifle sling should be adjusted while in the prone position.



The assistant instructor should keep the marksmanship jacket, hat and cadet air rifle sling on for the next TP.

CONFIRMATION OF TEACHING POINT 4

The cadet's assembling, positioning, wearing and adjusting the cadet air rifle sling will serve as the confirmation of this TP.

Teaching Point 5**Explain, Demonstrate and Have the Cadets Size and Wear a Marksmanship Glove**

Time: 5 min

Method: Demonstration and Performance



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while the cadets observe.
2. Explain and demonstrate each step required to complete the skill.
3. Monitor cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.



For the purpose of competition firing, marksmanship equipment must meet certain specifications. Refer to A-CR-CCP-177/PT-001, Part 4, Section 4, Rule 6, for exact specifications.

SIZING A MARKSMANSHIP GLOVE

Most marksmanship gloves are sized in descriptive sizes (eg, small, medium, large, etc) or glove industry sizes (eg, size 7, 8, 9, 10, etc). When sizing the glove should fit snugly to the hand, while still allowing for air to circulate.



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Figure 2-2-8 Wearing a Marksmanship Glove

WEAR A MARKSMANSHIP GLOVE

Ensure that when wearing the marksmanship glove that it fits comfortably without binding in the fingers and provides a cushion against the handstop of the cadet air rifle. The glove should have a non-slip surface on the palm and fingers to provide grip to the fore-end stock of the cadet air rifle.



Other items of marksmanship equipment such as spotting scopes, shooting mats and blinders are also commonly used in both competition and recreational shooting activities.

CONFIRMATION OF TEACHING POINT 5

The cadet's sizing and wearing a marksmanship glove will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' sizing, wearing and adjusting of marksmanship equipment will serve as the confirmation of this lesson.



With the completion of the previous TPs, cadets should now be properly fitted with a marksmanship jacket, marksmanship hat, marksmanship sling, and marksmanship glove. As the cadets begin to fire the cadet air rifle, there may be a need for fine adjustments or exchanges in equipment. The instructors should pay close attention to those cadets who may be experiencing difficulty in obtaining a comfortable position due to poor fitting marksmanship equipment.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

CLOSING STATEMENT

Marksmanship equipment is designed to assist the marksman in maintaining a steady firing position. When properly sized and worn this equipment will help to ensure an improved shot and a higher score.

INSTRUCTOR NOTES/REMARKS

If sizing is required prior to issuing the marksmanship equipment, the *Sizing and Measuring Guide for Marksmanship Equipment* located at [Annex B](#), may be used to determine approximate sizes.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.

- C0-085 Daisy Outdoor Products. (2006). *AVANTI Competition Pellet Rifle: Operation Manual: AVANTI Legend Model 853*. Rogers, AR: Daisy Outdoor Products.
- C2-099 (ISBN 0-9539091-0-7) Fordham, C. (2000). *Prone to Win the Art of Smallbore Target Shooting*. Pentworth, West Sussex: Brookwood Publishing Ltd.



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 3

EO S341.03 – ADOPT THE PRONE POSITION

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Prone Position Checklist located at A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1, for each cadet.

PRE-LESSON ASSIGNMENT

Have the cadets bring the sweater they wear under their marksmanship jacket to this lesson.

APPROACH

A demonstration and performance was chosen for TPs 1–3 as it allows the instructor to explain and demonstrate determining the master eye, determining a suitable butt length and adopting the prone position while providing an opportunity for the cadets to practice the skills under supervision.

An interactive lecture was chosen for TP 4 to present knowledge on the types of rifle rests that may be used to support the cadet air rifle.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to adopt the prone position.

IMPORTANCE

It is important for the cadets to know how to adopt a comfortable prone position in order to maintain stability of the rifle while firing. This will improve the accuracy of the shot, increasing the cadet's marksmanship score. The prone position is the most stable shooting position and the one most often used in cadet air rifle marksmanship and competition firing.

Teaching Point 1**Explain, Demonstrate and Have the Cadets Determine the Master Eye**

Time: 10 min

Method: Demonstration and Performance



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor the cadets' performance.

DETERMINING THE MASTER EYE

Everyone has a master eye. The master eye is the brain's main source for the visual image of what it sees. The non-master eye is used by the brain for depth perception and sense of direction. The master eye is the eye to be used when aiming.



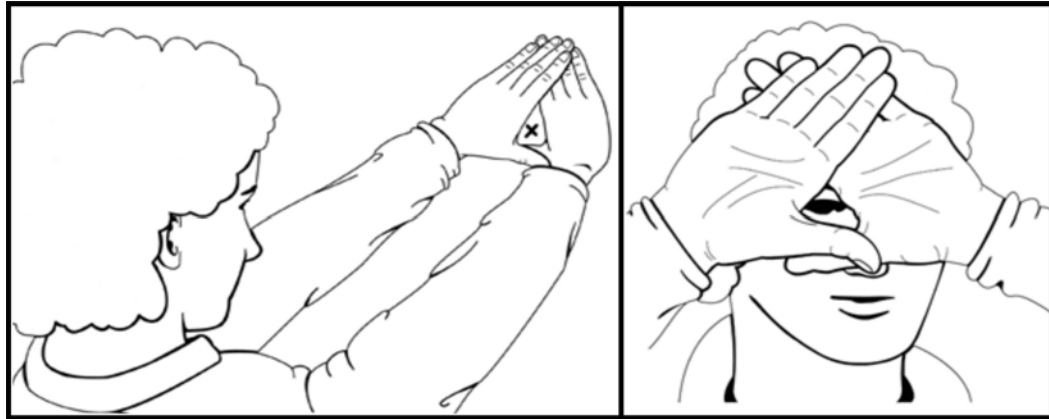
In some instances the master eye can be on the opposite side of the body to the dominate/ writing hand. If this is the case the cadet should be encouraged to fire from the side of the master eye.

To determine the master eye:

1. Select a small object at least 5 m away.
2. Face the object and extend both arms in front of your face.
3. Keeping both eyes open, form a small, tight opening around the object with the thumbs and index fingers.
4. Look at the object through the opening and draw the hands back towards the face ensuring the object remains centred through the opening of the hands (as illustrated in [Figure 2-3-1](#)).
5. Ensure that the object remains centred through the opening of the thumbs and index fingers.
6. Look through the opening at the object with both eyes.
7. Draw the arms closer to the eyes (the opening formed by the two hands will be drawn towards the master eye).
8. Look at the object with the master eye.



As illustrated in [Figure 2-3-1](#), the cadets should see the object through the opening with one eye; this is their master eye.



A-CR-CCP-177/PT-001 (p. 1-5-2)

Figure 2-3-1 Determining the Master Eye

CONFIRMATION OF TEACHING POINT 1

The cadets' determining their master eye will serve as the confirmation of this TP.

Teaching Point 2

Explain, Demonstrate and Have the Cadets Determine a Suitable Butt Length

Time: 25 min

Method: Demonstration and Performance



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.
3. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor the cadets' performance.

Most modern rifles have an adjustable butt length. In some higher end rifles, the butt plate is telescopic and moves in and out on a rail or piston. Setting a suitable butt length helps to ensure a comfortable position of the head on the cheek of the butt stock, maintains a desired eye relief, and ensures the trigger finger is correctly positioned.



"Model 853C Legend EX", Daisy Outdoor Products. Retrieved March 24, 2009, from <http://www.daisy.com/shopping/customer/product.php?productid=16205&cat=253&page=1>

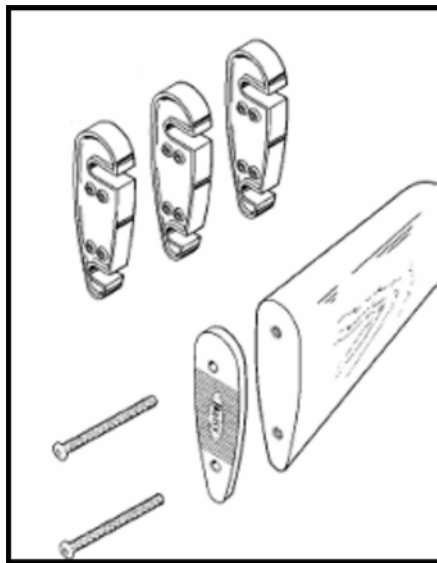
Figure 2-3-2 Cadet Air Rifle



Each cadet must establish a suitable butt length through positioning and firing the cadet air rifle. On the cadet air rifle the butt length is adjusted by adding or removing spacers between the butt and the butt plate as shown in [Figure 2-3-3](#). Ensure the cadets wear a sweater underneath the marksmanship jacket. Divide the group of cadets into pairs.

To adjust the butt length of the cadet air rifle:

1. Remove the screws holding the butt spacer.
2. Remove the butt spacer.
3. Adjust the butt length of the cadet air rifle by adding or removing the required number of spacers.
4. Replace the butt spacer and the screws.
5. Tighten the screws.



C-71-349-000/DM-001, Mechanical Diagram - Daisy 853C Air Rifle, .177 Calibre, Model 853C

Figure 2-3-3 Cadet Air Rifle Butt Spacers

CONFIRMATION OF TEACHING POINT 2

The cadets' determining a suitable butt length will serve as confirmation of this TP.

Teaching Point 3

Explain, Demonstrate and Have the Cadets Practice Adopting the Prone Position

Time: 30 min

Method: Demonstration and Performance

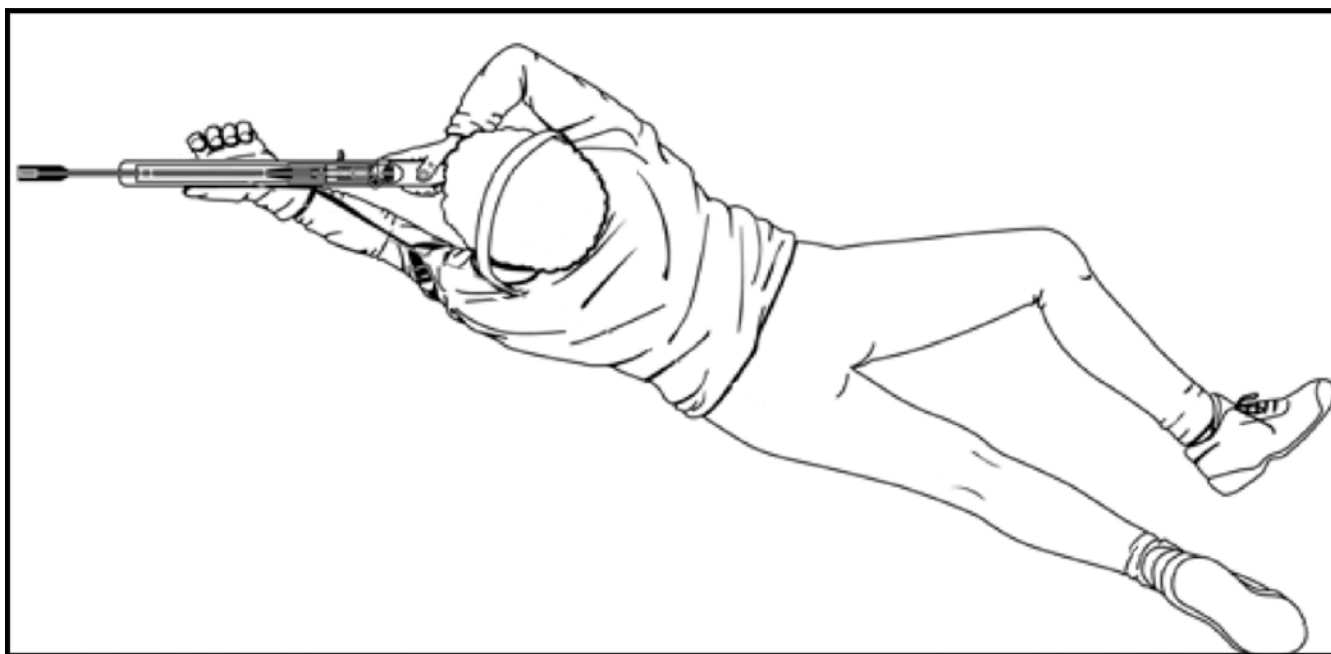


An assistant instructor may assist in the demonstration of adopting the prone position. The assistant instructor will demonstrate the actions as explained, ensuring the cadets are able to observe each action.

THE PRONE POSITION

The prone position is the most stable firing position. The objective of a good position is to obtain a stable, uniform platform with minimal movement and muscular tension. The position should be:

- natural,
- without strain,
- comfortable,
- stable,
- such that bodyweight is equally distributed, and
- consistent throughout the relay.



A-CR-CCP-177/PT-001 (p. 1-5-2)

Figure 2-3-4 The Prone Position

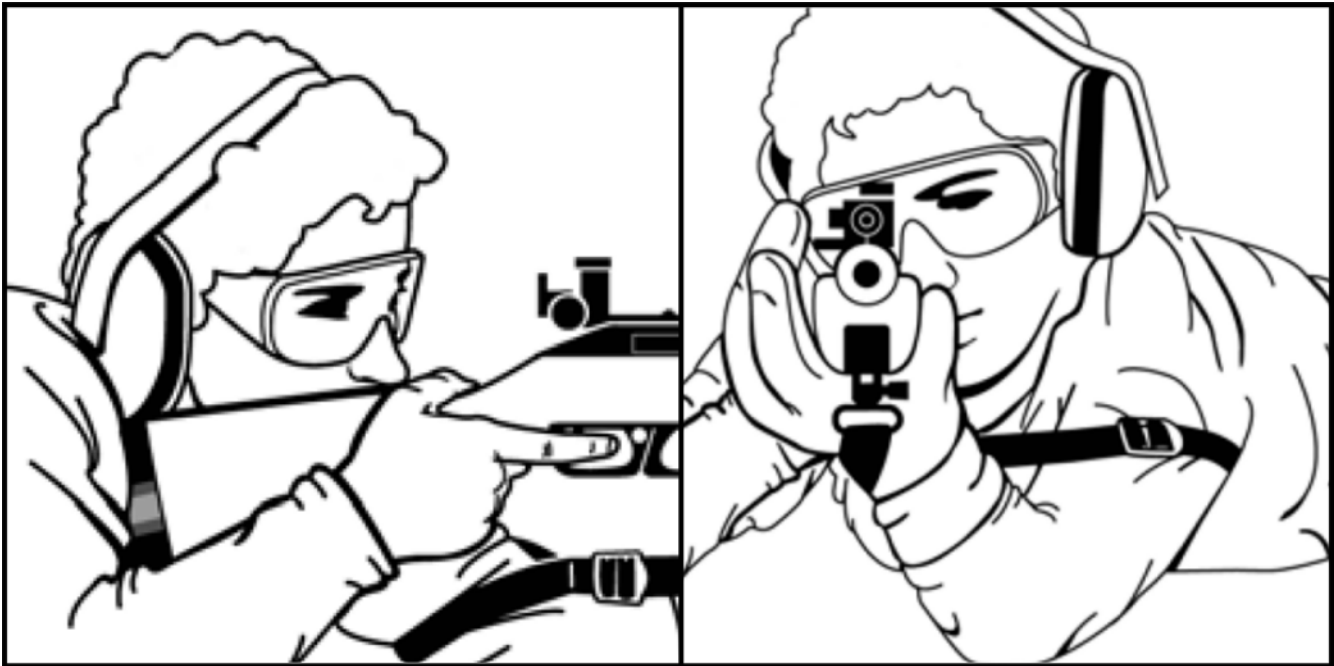


The instructions below are given based on a right-handed marksman. For a left-handed marksman, substitute the left for right and right for left throughout the points.

To ensure maximum comfort and stability when adopting the prone position, the cadet should consider aspects of body positioning, to include:

- Head:
 - The head should be straight (not cocked to one side).
 - The head position should be natural and allow the cadet to look directly through the rear aperture sight without any strain to the neck.

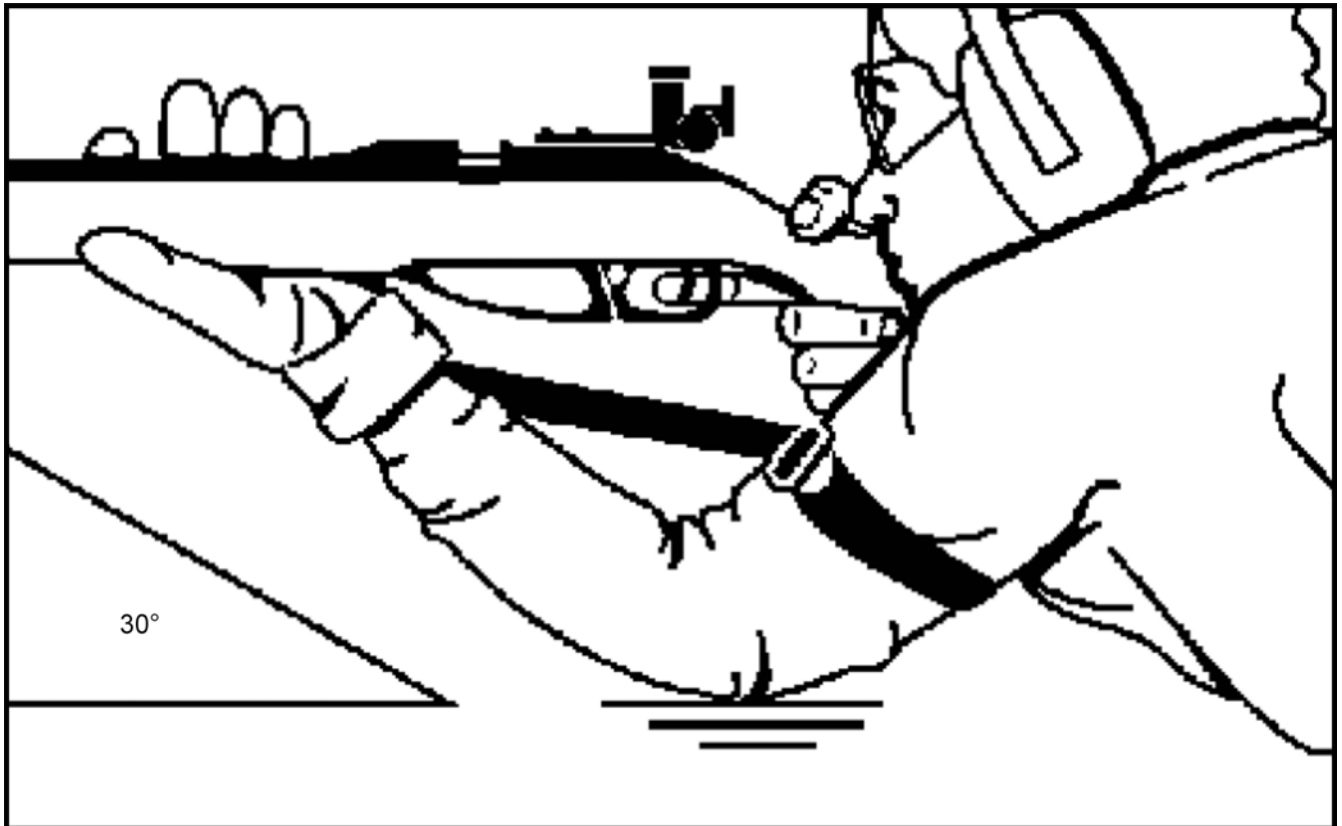
- The right cheek should rest comfortably with firm pressure on the butt.
- There should be 5–15 cm of eye relief.



A-CR-CCP-177/PT-001 (p. 1-5-2)

Figure 2-3-5 Head Position

- Shoulders:
 - The shoulders should be parallel to the ground.
 - The shoulders should form a right angle with the spine.
 - The shoulders should be relaxed and free of tension.
- Left arm (support arm):
 - The left elbow should be positioned slightly to the left of centre between the shoulders.
 - The left forearm must form an angle of at least 30 degrees with the ground.
 - The left hand should be fully pressed against the handstop.
 - The left hand should be relaxed.
 - The rifle should rest comfortably on the left palm and the fingers should not grip the fore end stock.



A-CR-CCP-177/PT-001 (p. 1-5-2)

Figure 2-3-6 Left Arm (Support Arm) Position

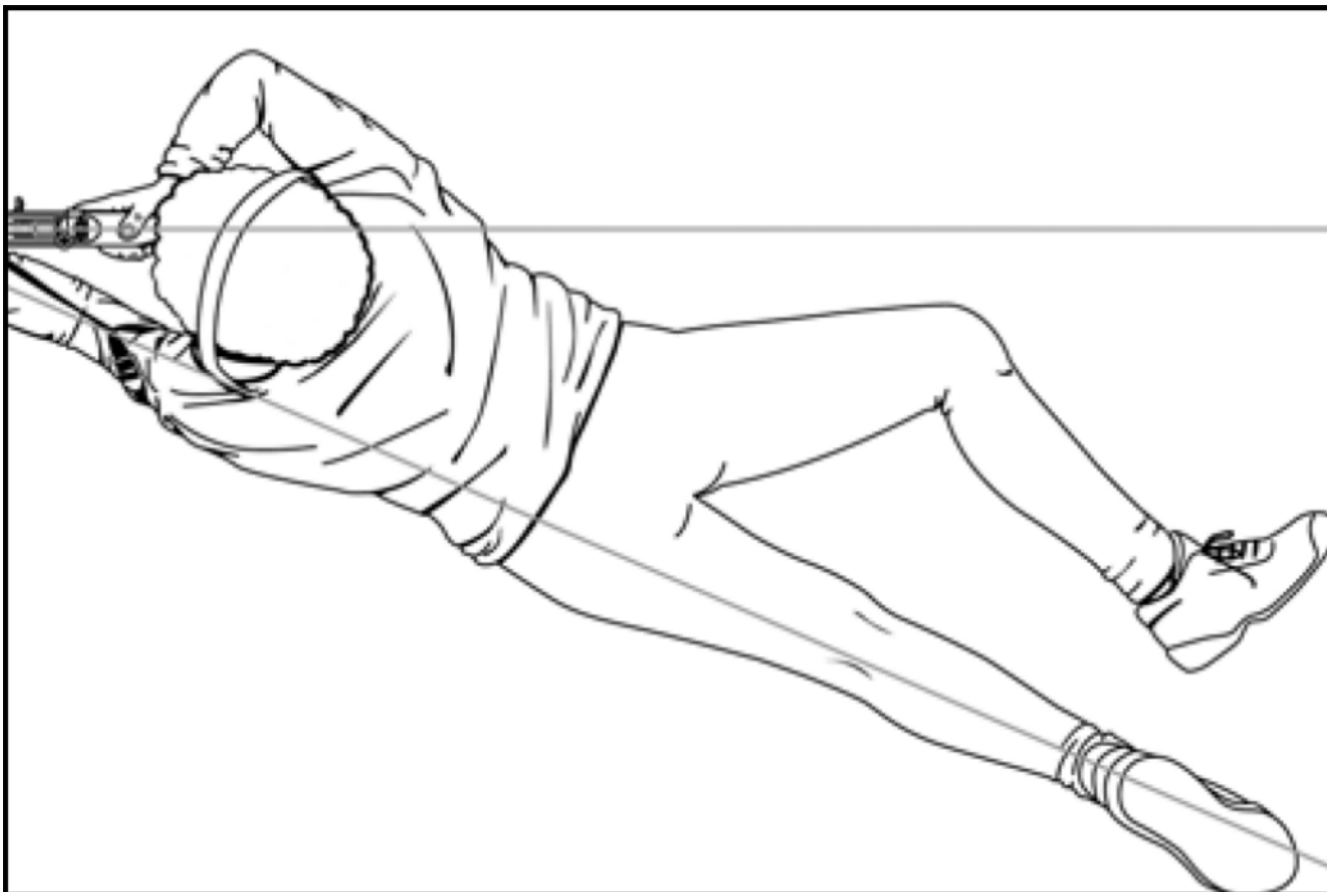
- Right arm:
 - The right arm should be placed so the shoulders are square.
 - The right hand should grip the small of the butt with light pressure (it should not be supporting the rifle).
 - The right thumb should maintain its position on the rifle.
 - The butt of the rifle should have consistent, solid contact with the right shoulder.
 - The right hand and thumb should be used to ensure the butt is placed consistently for every shot.



A-CR-CCP-177/PT-001 (p. 1-5-2)

Figure 2-3-7 Right Arm Position

- Torso/hips:
 - The torso should be straight and parallel to the left leg.
 - The hips should be straight and parallel to the shoulders.
- Left leg:
 - The left leg should be straight, parallel to the spine and in-line with the left forearm.
 - The left foot should either rest on the instep or be slightly turned inwards.
- Right leg:
 - The right leg should be raised towards the body at an angle between 30 and 45 degrees.
 - The right knee should be bent to allow the lower leg to be parallel with the left leg.
 - The right foot should be placed so that it rests in a natural position.



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Figure 2-3-8 Lower Body Position



It is important to note that as many marksmen gain experience, they adjust aspects of the prone position to suit personal preference and comfort.

ACTIVITY

Time: 20 min

OBJECTIVE

The objective of this activity is to have the cadets practice adopting the prone position.

RESOURCES

- One cadet air rifle per two cadets, and
- Prone position checklist.

ACTIVITY LAYOUT

An air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8. If a range is not available, set up the training area to have a defined mock firing point.

ACTIVITY INSTRUCTIONS



An assistant instructor may assist in the supervision and critiquing of the cadets while they practice adopting the prone position.

1. Divide the cadets into two relays.
2. Have the first relay wear their marksmanship equipment.
3. Have the first relay adopt the prone position with the cadet air rifle, while the second relay observes.
4. Critique the first relay by completing the Prone Position Checklist to ensure:
 - a. the body is angled 5–20 degrees to the left of the line of fire;
 - b. the left leg is straight with the left foot either straight or turned inward;
 - c. the spine and left leg are parallel;
 - d. the right leg is bent and knee is raised forward, with the foot turned outward;
 - e. the right hand firmly grips the pistol grip;
 - f. the left hand is against the hand stop (sling swivel) and the rifle sits just over the wrist;
 - g. the fingers of the left hand are relaxed;
 - h. the left forearm must form an angle of at least 30 degrees with the ground;
 - i. the rifle sling supporting the rifle without use of muscles in the left arm and the use of the rifle rest as required;
 - j. the rifle sling does not make contact with the rifle;
 - k. the full weight of the head is supported by the cheek of the butt stock;
 - l. the right elbow does not slip on the shooting mat;
 - m. the left elbow is underneath the sling when viewed from above;
 - n. the rifle is supported without cant; and
 - o. the butt plate does not move when pressure is applied from above.
5. Have the first relay stand clear of the firing point.
6. Have the second relay wear the marksmanship equipment.
7. Have the second relay adopt the prone position with the cadet air rifle, while the first relay observes.
8. Critique the second relay by completing the Prone Position Checklist.
9. Debrief the cadets on their performance of adopting the prone position.

SAFETY

Ensure the following:

- cadet air rifles are safe by performing individual safety precautions IAW A-CR-CCP-177/PT-001;
- all cadet air rifles are pointed in a safe direction throughout the lesson;
- no pellets or cleaning pellets are present in the training area; and
- all other applicable safety regulations are followed IAW local range standing orders.

CONFIRMATION OF TEACHING POINT 3

The cadets' practicing adopting the prone position will serve as the confirmation for this TP.

Teaching Point 4

Describe the Types of Rifle Rests

Time: 5 min

Method: Interactive Lecture

TYPES OF RIFLE RESTS

Single Point

Single point rifle rests can take many forms and are the most commonly used type of rifle rest. Single point rifle rests can be either professionally made or improvised from basic materials. Sophisticated single point rifle rests can include a substantial base with multiple adjustments for height, angle and pitch.

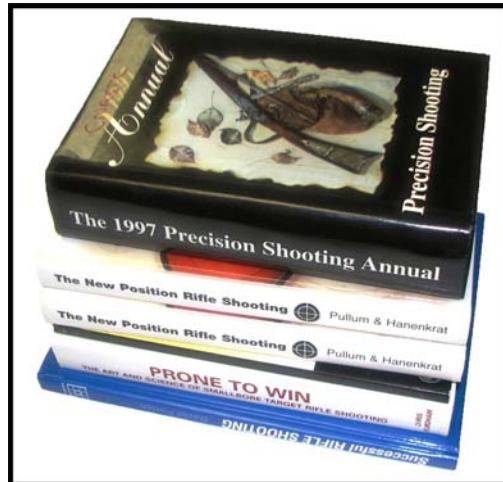


"Rifle Rests", Explorer Products, Copyright 2002 by Explore Products Inc. Retrieved November 1, 2007, from <http://www.exploreproducts.com/media/Caldwell-rock-jr-rifle-shooting-rest-lg.jpg>

Figure 2-3-9 Single Point Rifle Rest

Improvised

Improvised rifle rests can be made from items such as sandbags, books or wood. Improvised rifle rests are used in this course as they allow the cadet to develop the principles of marksmanship while providing additional support for the cadet air rifle.



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Figure 2-3-10 Improvised Rifle Rest

USE OF RIFLE RESTS



An assistant instructor may assist in the demonstration of using a single point rifle rest. The assistant instructor will demonstrate the actions as explained, ensuring the cadets are able to observe each action.

Rifle rests are commonly used during marksmanship training as they add stability to the rifle. This allows the rifle to be held in place for long periods of time without causing stress on the marksman. Without having to focus on supporting the rifle the marksman can concentrate on learning/improving other marksmanship skills.

Using a Single Point or Improvised Rifle Rest

1. Adopt the prone position.
2. Place the left elbow on the ground.
3. Pick up the rifle.
4. Lay the fore end stock of the rifle on the rifle rest.
5. Adopt a comfortable position while keeping the fore end stock on the rifle rest.
6. Place the butt plate into the right shoulder.
7. Rest your cheek on the butt.
8. Place the right elbow on the ground.
9. Adjust the height of the rifle rest as required.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

- Q1. What are two types of rifle rests?
- Q2. Why do marksmen use rifle rests?
- Q3. What can you use as an improvised rifle rest?

ANTICIPATED ANSWERS

- A1. Single point and improvised rifle rests.
- A2. Rifle rests add stability to the rifle allowing it to be held in position for long periods of time without causing stress on the marksman.
- A3. An improvised rifle rest can be made from such items as sandbags, books or wood.

END OF LESSON CONFIRMATION

The cadets' adopting the prone position will serve as confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

CLOSING STATEMENT

In order to maintain stability while firing it is important that the marksman be in a comfortable position. The prone position is the most stable shooting position and is the one most commonly used in cadet marksmanship. Adopting the prone position is one of the first principles of marksmanship learned by a new marksman. A good position is essential for maintaining a stable sight picture and will aid in achieving a higher marksmanship score.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lessons related to EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)), EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A2-048 B-GL-382-001/FP-001 Director of Army Training 3-6 (Infantry). (2003). *Shoot to Live*. Ottawa, ON: Department of National Defence.

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COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 4

EO S341.04 – APPLY AIMING AND BREATHING TECHNIQUES

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1–3 to present basic knowledge on air rifle marksmanship aiming and breathing techniques.

A demonstration and performance was chosen for TP 4 as it allows the instructor to explain and demonstrate the aiming and breathing technique while providing an opportunity for the cadets to practice the skills.

A practical activity was chosen for TP 5 as it is an interactive way to allow cadets to experience applying aiming and breathing techniques. This activity contributes to the development of aiming and breathing techniques knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to apply aiming and breathing techniques.

IMPORTANCE

It is important for cadets to learn how to aim the cadet air rifle by applying aiming and breathing techniques as it is a fundamental principle of air rifle marksmanship. Individual marksmanship proficiency should improve by applying aiming and breathing techniques.

Teaching Point 1**Describe the Purpose of Using a Blinder, Firing With Both Eyes Open Using a Blinder and Avoiding Fixed Vision**

Time: 10 min

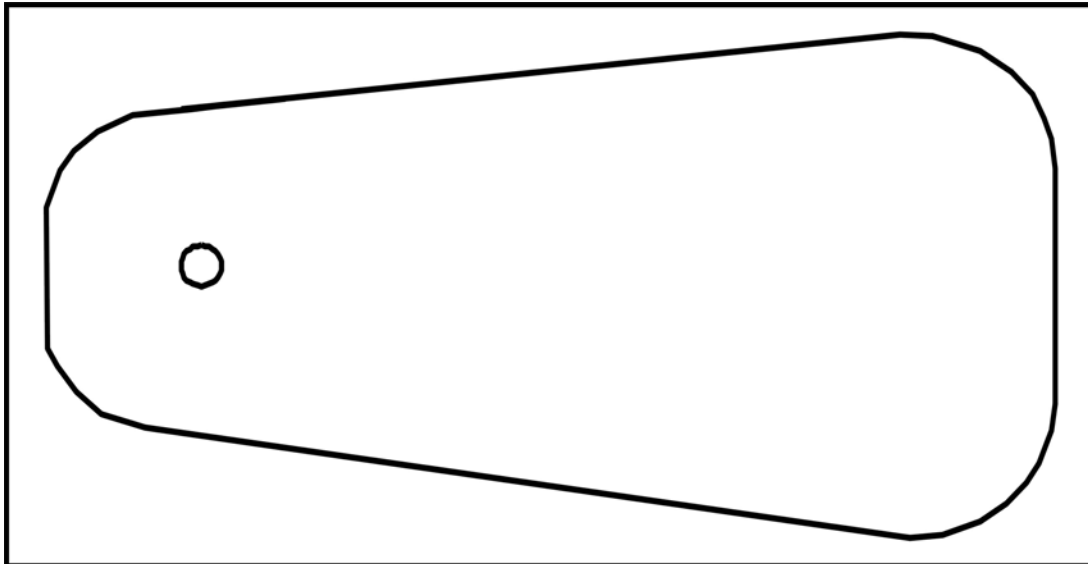
Method: Interactive Lecture

THE PURPOSE OF USING A BLINDER

The use of a blinder on the rear sight of the cadet air rifle helps reduce eye fatigue and strain on the master eye. Both eyes work together when aiming so the use of a blinder should enhance the sight picture.



Provide a blinder for each cadet. The blinder should be translucent (plastic or paper) so that images are blocked, light is still able to penetrate it, and easily attachable to the rear sight. The blinder should resemble the same size as illustrated in [Figure 2-4-1](#).



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Figure 2-4-1 Blinder Template

FIRING WITH BOTH EYES OPEN USING A BLINDER

The use of a blinder will help the cadet keep both eyes open. By keeping both eyes open, the work and strain on the eyes is shared between both eyes.

AVOIDING FIXED VISION

When vision is fixed on an object for more than a few seconds, such as a target bull's eye, the image can be burned in their mind and a ghost image can be seen when glancing to the side. It is important for the cadets to avoid this fixed vision during marksmanship training, as it may result in a loss of visual perception and can greatly hinder performance. To avoid fixed vision, blink or slightly shift the vision every 4–5 seconds.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What are two qualities of a good blinder?
- Q2. Why is it important to fire with both eyes open?
- Q3. Is the blinder attached to the rear sight or the front sight of the cadet air rifle?

ANTICIPATED ANSWERS

- A1. It should be translucent and easy to attach to the rear sight.
- A2. If one eye is closed, the opposite eye will strain and affect focusing of the open eye.
- A3. The blinder is attached to the rear sight.

Teaching Point 2

Describe Sight Alignment

Time: 15 min

Method: Interactive Lecture

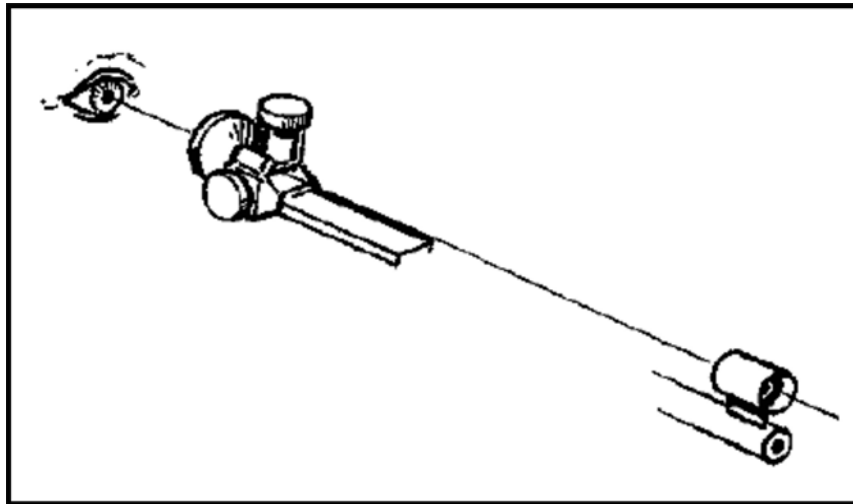
SIGHT ALIGNMENT

Sight alignment is the alignment of the eye, the rear aperture sight, and the front sight. When the eye is 5–15 cm from the peep sight, the aperture in the peep sight is large enough to look through and see all of the front sight. Correct sight alignment consists of centring the front sight hood in the rear aperture (as illustrated in [Figure 2-4-2](#)).

Before the cadet air rifle can be aimed with accuracy, aspects of aiming must first be identified. To do this, the cadets must understand that the sight system of the cadet air rifle, natural head position, and eye relief all work together.



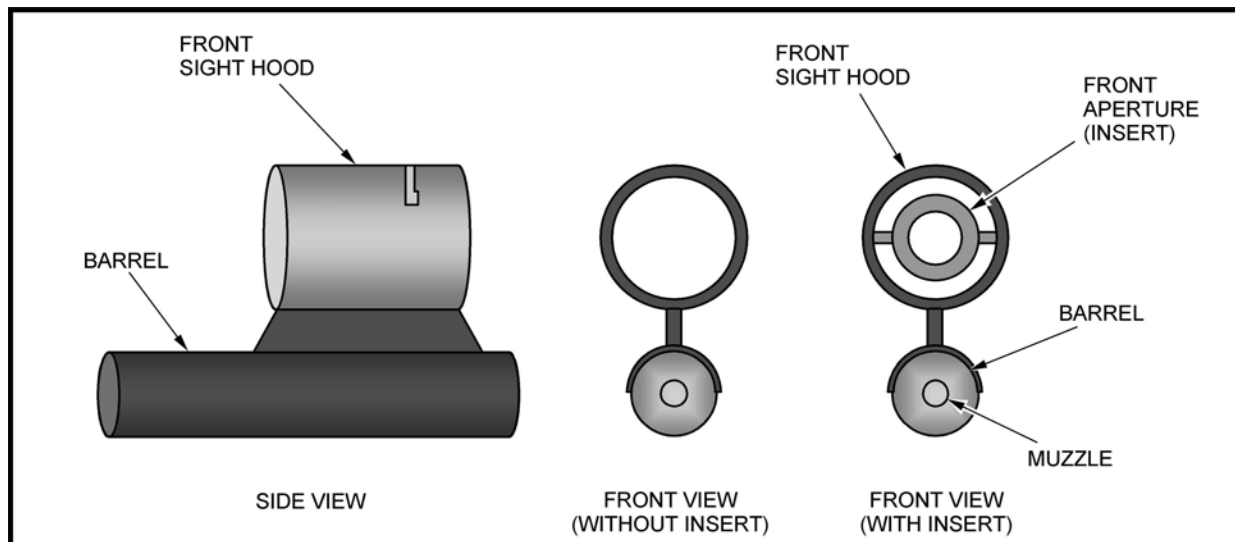
The front sight and rear aperture sight of the cadet air rifle must be used together for correct sight alignment.



A-CR-CCP-177/PT-001 (p. 1-5-6)

Figure 2-4-2 Sight Alignment

Front Sight of the Cadet Air Rifle. The global front sight of the cadet air rifle is made of a short tube, which is called the hood. The hood houses the front aperture (insert) and also shields the aperture from overhead and side light. The aperture is inserted through a slit on the top of the hood.



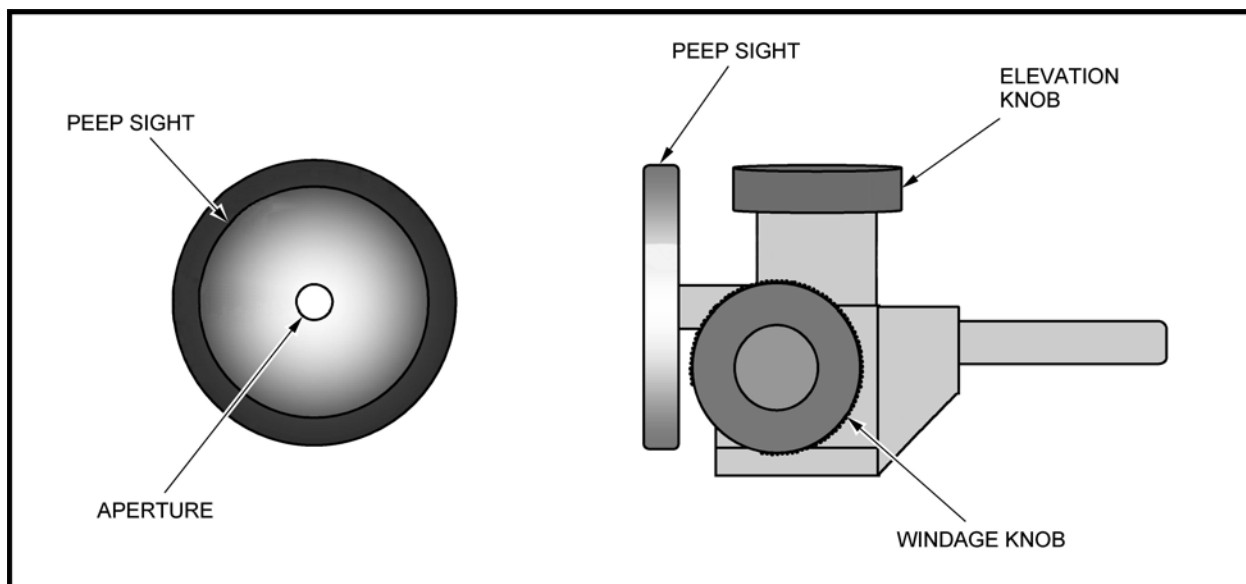
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Figure 2-4-3 Front Sight

Rear Aperture Sight of the Cadet Air Rifle. The rear aperture sight of the cadet air rifle is adjustable and has three main parts: peep sight, elevation knob, and windage knob.

- **Peep Sight.** The peep sight is the penny-sized, dish-shaped part at the rear of the sight. It has a small hole in the centre (the aperture) to look through.
- **Micrometre Elevation Knob.** The elevation knob is on the top of the sight and moves the point of impact on the target up or down.

- **Micrometre Windage Knob.** The windage knob is on the side of the sight and moves the point of impact on the target left or right.



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Figure 2-4-4 Rear Aperture Sight

Natural Head Position. The head should be kept as close as possible to a natural position, allowing the eyes to look straight ahead. It is normal to tilt the head forward slightly, but the cadets must resist allowing it to tilt to the left or right as this may affect their sense of balance. [Figure 2-4-5](#) illustrates the position of the head on the butt stock.



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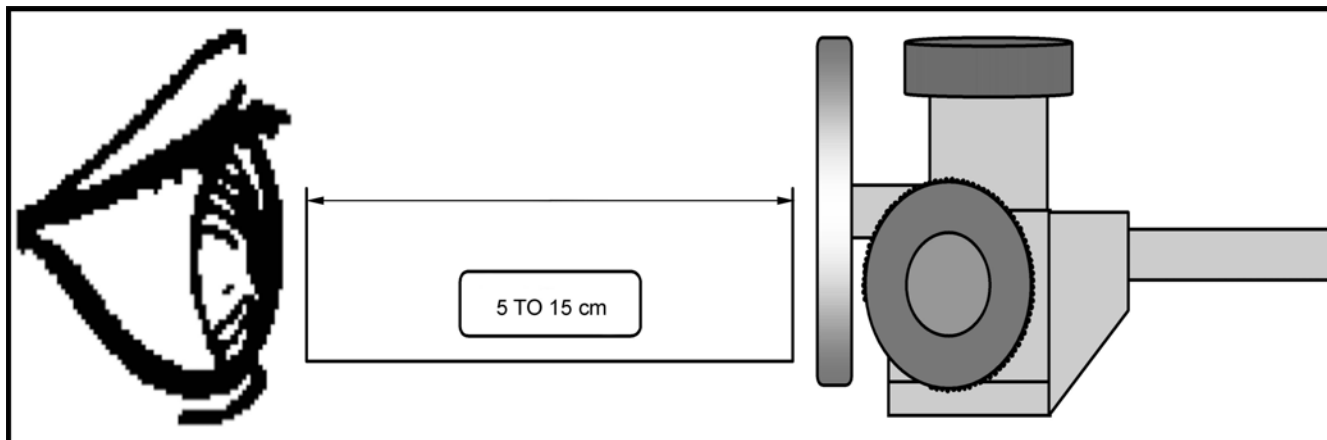
Figure 2-4-5 Head Position on the Butt Stock

Eye Relief. Eye relief is the distance between the eye and the peep sight on the rear aperture sight (as illustrated in [Figure 2-4-6](#)). Depending on an individual's build and position, the distance is usually 5–15 cm. Eye relief should be comfortable, natural and allow the head to be as erect as possible during the firing process. It is important to maintain the same eye relief from shot to shot and to find an eye relief that allows a circle of light (line-of-white) between the rear aperture and the front sight (as illustrated in [Figure 2-4-7](#)). If the eye relief is less than 5 cm, the line-of-white around the front sight becomes larger, making the sight picture more difficult

to keep aligned (as illustrated in [Figure 2-4-8](#)); if the eye relief starts to become greater than 15 cm the line-of-white will disappear (as illustrated in [Figure 2-4-9](#)), making accurate centring more difficult. The ideal line of white is illustrated in [Figure 2-4-10](#).

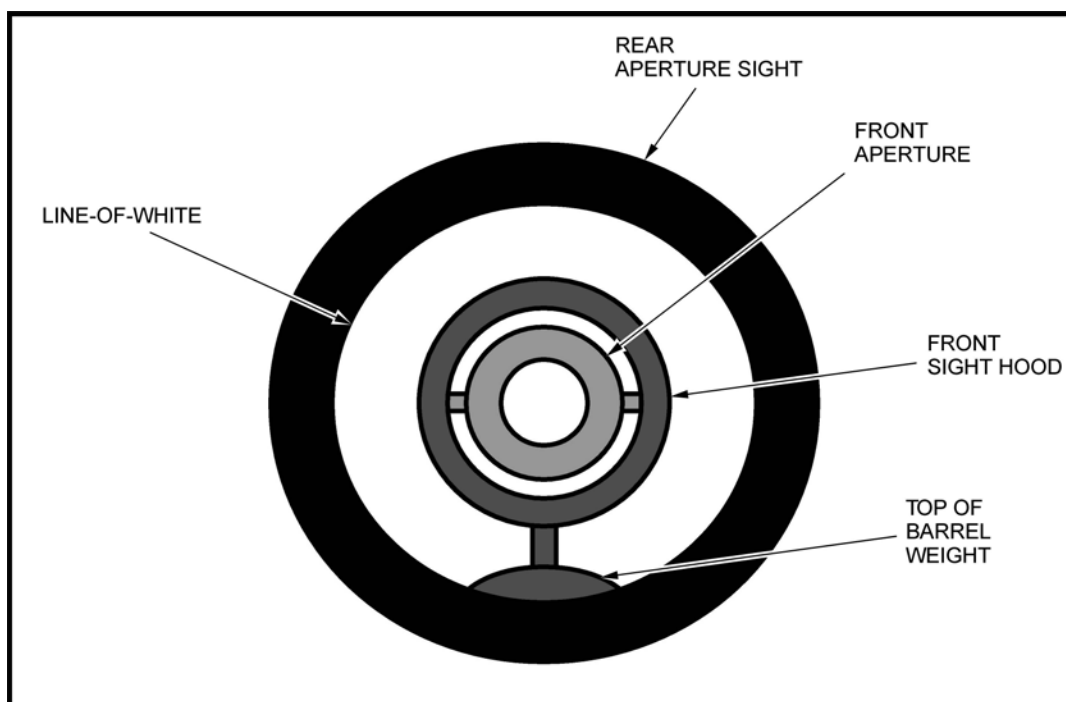


Eye relief is hard to adjust on some rifles due to the limited range of movement of the rear sight along the rail. Therefore, head position may have to be adjusted or butt spacers added or removed for a large adjustment of eye relief.



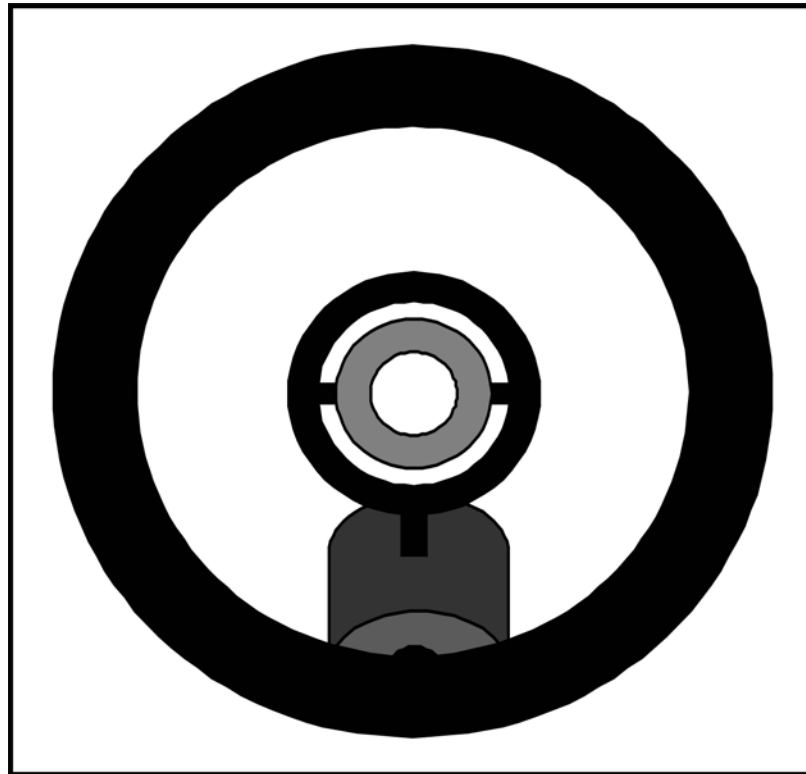
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Figure 2-4-6 Eye Relief



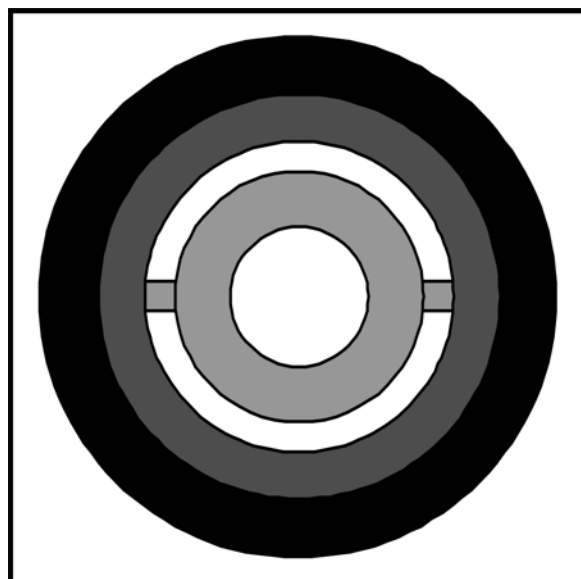
Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-7 Line-of-White



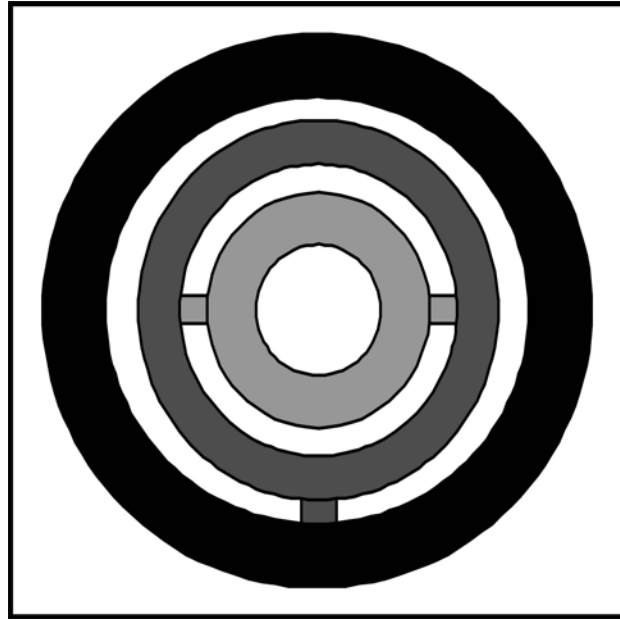
Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-8 Eye Relief Is Too Close



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Figure 2-4-9 Eye Relief Is Too Far



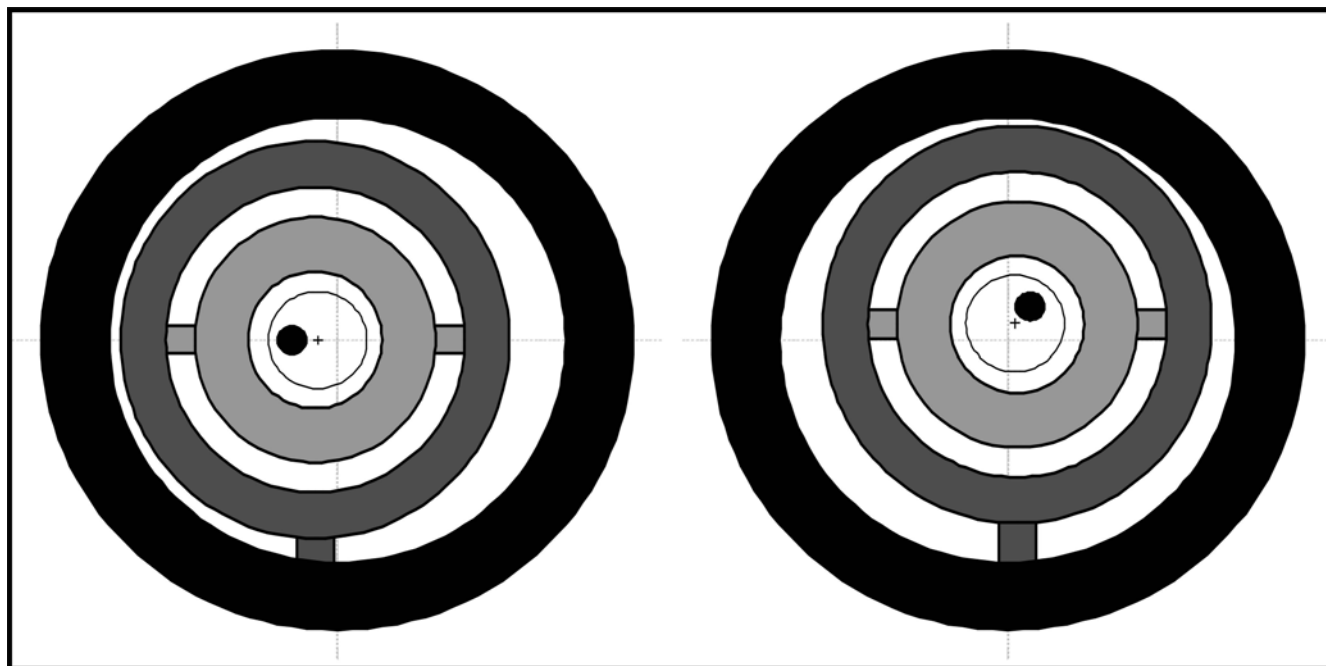
Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-10 Eye Relief Is Good

Effects of Sight Misalignment. The front and rear sight of the cadet air rifle must be aligned with the aiming mark in order for the Mean Point of Impact (MPI) to be centred on the aiming mark. When the MPI is not centred on the aiming mark, adjustments to the rear sight have to be made to move the MPI in the desired direction. Misalignment will not be evident until firing has started and pellets start to form a group or pattern on the target. As illustrated in [Figure 2-4-11](#), the front sight is misaligned and the MPI is not centred on the aiming mark.



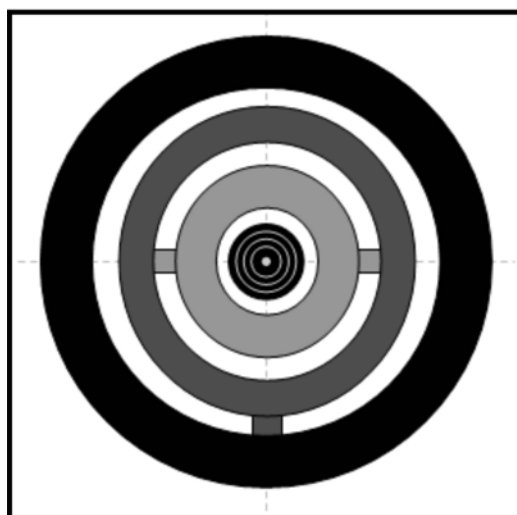
Centring the MPI is very important when firing at a competition target. Firing at the sighting diagrams on a competition target to check the MPI is advisable.



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Figure 2-4-11 Effects of Sight Misalignment

The development of a sight picture begins once correct sight alignment has been achieved. Sight picture can be simply explained as sight alignment with the addition of the aiming mark. The correct sight picture to achieve is to centre the aiming mark within the aperture sight (as illustrated in [Figure 2-4-12](#)). Maintaining this correct sight picture while aiming and firing is a skill that must be mastered.



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Figure 2-4-12 Correct Sight Picture

Adjusting the Position to Achieve Sight Alignment. When aiming at the target in the prone position, achieve correct sight alignment by:

1. moving the body by pivoting around the elbows of the arms; this will change the point of aim; and
2. starting the breathing cycle and aiming process.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What is sight picture?
- Q2. What is the correct sight picture when using aperture sights?
- Q3. If the shots are not hitting the centre of the aiming mark, what can be done to move the shots to the centre of the aiming mark?

ANTICIPATED ANSWERS

- A1. Aligning the aiming mark within the front aperture and rear aperture sights.
- A2. The aiming black mark must be centred within the front aperture.
- A3. Adjust the rear sight by moving the elevation knob or the windage knob or both.

Teaching Point 3

Describe Obtaining a Steady Sight Picture

Time: 5 min

Method: Interactive Lecture

OBTAINING A STEADY SIGHT PICTURE

When beginning marksmanship training, steadiness will not be very good. The cadet is so busy concentrating on the other principles of marksmanship that it seems that there is information overload. As marksmanship skills are applied in training, the skills become easier to perform. As these skills become second nature, the ability to hold the cadet air rifle and follow the aiming process will become evident by the groups or scores achieved.



Practice makes perfect! Even with a score of 96/100 on a competition target, there is always room for improvement.

Obtaining an Equal Line of White Around the Aiming Mark. The equal line of white required by one person may not be the same for another because both people have different eye sight. No matter what the eye sight is, obtaining a line of white (as illustrated in [Figure 2-4-7](#)) should produce a good group or score. Practice aiming and applying the breathing technique should produce good results. Holding the cadet air rifle too long in the aim will cause the sight picture image to be burnt into the memory and cause an image to be seen in the eye after the eye is closed. To solve this problem, simply blink a few times to get rid of the image and start the aiming process all over again. This only takes a few seconds.

Changing the Front Sight Inserts. To increase or decrease the amount of white line space around the front sight, simply change the front insert to the desired amount of white space.



There are only four different sizes of front sight inserts for the cadet air rifle (Daisy 853C).

Maintaining the Same Sight Picture for Each Shot. Once the correct sight picture is acquired, squeeze the trigger in a timely manner. After firing numerous pellets, the marksman will develop a rhythm. This rhythm will only be accomplished through discipline. Do not squeeze the trigger unless the sight picture is perfect.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. How is the line of white changed when trying to achieve a sight picture?
- Q2. How many front sight inserts are there for the cadet air rifle?
- Q3. What happens when the aim is held too long?

ANTICIPATED ANSWERS

- A1. The line of line is changed by changing the front sight inserts.
- A2. There are four front sight inserts for the cadet air rifle
- A3. An image will be burnt into the memory when holding the cadet air rifle too long into the aim.

Teaching Point 4

Explain, Demonstrate and Have Cadets Perform the Marksmanship Breathing Cycle

Time: 20 min

Method: Demonstration and Performance



For this TP, it is recommended that instruction take the following format:

1. Describe the marksmanship breathing cycle, to include:
 - a. purpose, and
 - b. characteristics.
2. Demonstrate the marksmanship breathing cycle while cadets observe.
3. Explain and demonstrate each step required to compete the skill. Monitor cadets as they imitate each step.
4. Monitor the cadets' performance as they practice the complete skill.

Note: Assistant instructors may be employed to monitor the cadets' performance.

MARKSMANSHIP BREATHING CYCLE

Skills, such as meditation, yoga, public speaking, swimming, and marksmanship often require the participant to consciously control breathing. When participating in marksmanship activities, it is important to understand the effect breathing has on the body, the sight picture and the mean point of impact. A controlled breathing cycle will assist in maintaining a steady and consistent sight picture through the firing sequence. Marksmen

who develop a breathing cycle that works for them and are consistent in applying the breathing cycle tend to produce more consistent scores.

To understand the main effect that breathing has on marksmanship, the mechanics of breathing must be understood. When a person inhales (breaths in) the ribs rise a little and the lower edges flare out. At the same time, the diaphragm contracts and flattens out; this causes the lungs to expand and air to rush into the now expanded chest cavity. The opposite of this is the process of exhaling: muscles relax and the natural elasticity of the respiratory system causes the ribs and the diaphragm to move back into place shrinking the chest cavity, this forces air to exit the lungs, leaving the body through nose and mouth. [Figure 2-4-14](#) illustrates, the typical breathing cycle that should be practiced by the marksman.

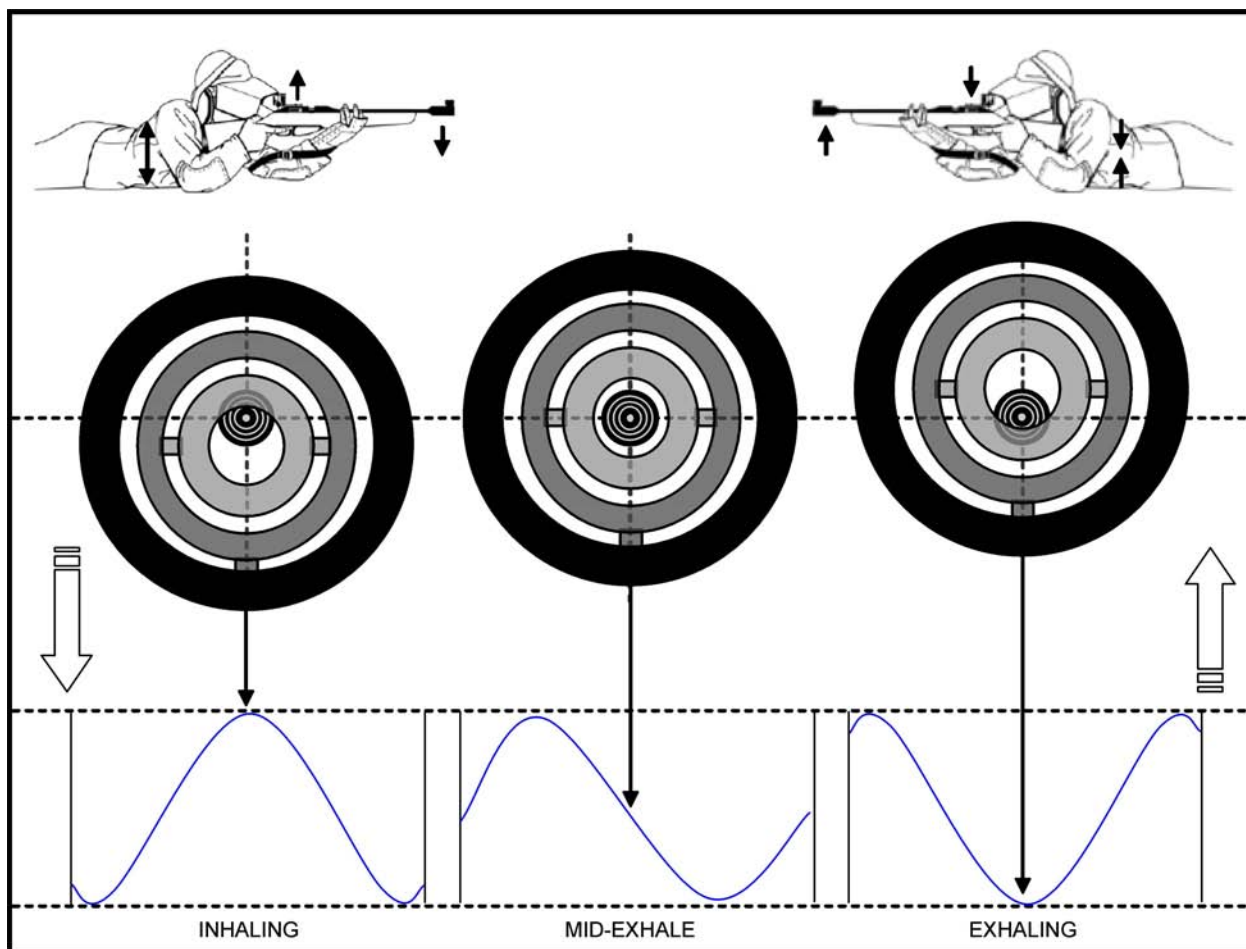
Purpose of the Marksmanship Breathing Cycle

The purpose of the marksmanship breathing cycle is to supply oxygen to the blood stream. It is necessary for the marksman to hold their breath during the firing sequence to minimize the movement of the rifle. Generally, most people can hold their breath for about 12-seconds without feeling the effects of oxygen deficiency. The following symptoms of oxygen deficiency will affect the aiming process and the final point of impact:

- blurred vision,
- diminished concentration,
- an increased heart rate, and
- the need to gasp for air.

Eliminating elements (such as carbon dioxide) from the blood stream is also achieved by breathing. The most important reason why a breathing cycle is practiced is to relax the muscles. Muscle tension plays a large part in the ability of the marksman to consistently fire shots in a group. By exercising a breathing cycle, the more oxygen that's taken into the bloodstream, the more relaxed the muscles will be in stabilizing the aim. As the marksman practices the breathing cycle, movement of the cadet air rifle while in the aim will become controlled increasing marksmanship performance.

When developing aiming techniques it is important to know the effect that breathing will have on the sight picture. When in the prone position, the raising and lowering of the chest during respiration will cause a see-saw effect on the rifle, as shown in [Figure 2-4-13](#). During inhalation the chest rises causing the upper body and butt of the rifle to rise. Since the arms are anchored while supporting the rifle, when the butt of the rifle raises the fore end lowers. This causes a drop in the sight picture (as illustrated in [Figure 2-4-13](#)). When expelling air, the chest cavity returns to its normal size. This lowers the upper body as well as the butt of the rifle and causes the fore end of the rifle to rise. This brings the sight picture up (as illustrated in [Figure 2-4-13](#)).



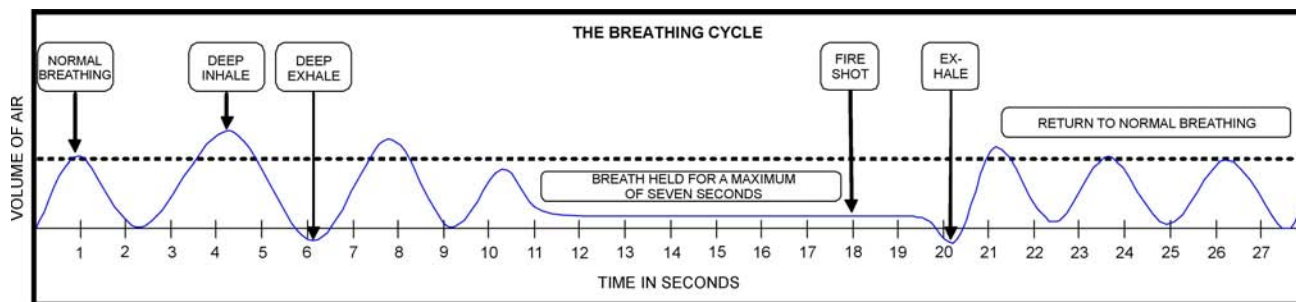
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Figure 2-4-13 The Effect of Breathing on Sight Picture

Characteristics of the Marksmanship Breathing Cycle Include:

1. breathing normally;
2. taking in a deep breath;
3. exhaling deeply;
4. taking another deep breath;
5. exhaling deeply;
6. taking in a shallow breath;
7. releasing about two thirds of the breath;
8. holding the breath no longer than seven seconds while:
 - a. steadying the sight picture;
 - b. simulating firing the shot; and
 - c. simulating applying follow-through;

9. exhaling remaining air; and
10. continuing to breathe normally.



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Figure 2-4-14 Breathing Cycle

Use breathing as a way to confirm that the rifle is moving up and down and that the rifle is not canted (rifle is tilted either left or right). Also, when breathing in and out, visually confirm that the cadet air rifle is still aimed at the selected target.

Due to the movement that is caused by respiration, maintaining a steady sight picture requires the use of the breathing cycle. For maximum stability when firing, the marksman will have to stop breathing for 5–7 seconds.



While observing cadets applying the marksmanship breathing cycle, the technique used by cadets may differ from cadet to cadet. This is acceptable as long as the cadet is comfortable and is obtaining a steady sight picture.



Some cadets are able to release the trigger much aggressively than others. When observing cadets in the aim, take notice as to how long the cadet holds their breath before firing the shot.



To cut down on involuntary movement of the rifle, an experienced marksman will time firing, so that the shot is fired between heart beats.



It is important that if another breath is necessary, do so. This is the body's way of signalling it does not have enough oxygen and is already starting to suffer. Starting the breathing cycle again will help to ensure that both body and mind are functioning at optimal levels before taking the shot.

CONFIRMATION OF TEACHING POINT 4

The cadets' performing the aiming and breathing technique will serve as confirmation for this TP.

Teaching Point 5**Have the Cadets Practice Applying Aiming and Breathing Techniques**

Time: 20 min

Method: Practical Activity

ACTIVITY**OBJECTIVE**

The objective of this activity is to have the cadets practice applying aiming and breathing techniques.

RESOURCES

- Cadet air rifle (one per firing lane),
- Shooting mat,
- Blinder (one per firing lane),
- Suitable target (one per firing lane), and
- Rifle rest (one per firing lane).

ACTIVITY LAYOUT

An air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8. If a range is not available, set-up the training area to have a defined mock firing point.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into two relays.
2. Have the cadets adopt the prone position using the rifle rest if required to support the cadet air rifle.
3. Have the cadets obtain a sight picture.
4. Have the cadets breath normally and observe the changes in sight picture.
5. Have the cadets begin the breathing cycle by:
 - a. using a blinder;
 - b. avoiding fixed vision;
 - c. aligning the front and rear sight;
 - d. acquiring a sight picture;
 - e. starting the marksmanship breathing cycle by:
 - (1) breathing normally;
 - (2) taking a deep breath;
 - (3) exhaling deeply;
 - (4) taking another deep breath;
 - (5) exhaling deeply;

- (6) taking in a shallow breath;
- (7) releasing about two thirds of the breath;
- (8) holding the breath no longer than seven seconds;
- (9) steadying the sight picture;
- (10) simulating firing the shot; and
- (11) simulating applying follow-through;

- f. exhaling remaining air; and
- g. continuing to breathe normally;

6. Change relays and repeat Steps 1–5.

SAFETY

Ensure the following:

- cadet air rifles are safe by performing individual safety precautions IAW A-CR-CCP-177/PT-001;
- all cadet air rifles are pointed in a safe direction throughout the lesson;
- no pellets or cleaning pellets are present in the training area; and
- all other applicable safety regulations are followed IAW local range standing orders.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in the activity will serve as the confirmation for this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the aiming and breathing activity in TP 5 will serve as confirmation for this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

CLOSING STATEMENT

It is important to apply aiming and breathing techniques when firing the cadet air rifle, as it aids in achieving a stable prone position and sight picture. This will help to ensure an accurate shot and a higher score.

INSTRUCTOR NOTES/REMARKS

The breathing exercise in TP 5 may be conducted with the cadet using a rifle rest to support the cadet air rifle if required.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- C2-098 Constantine, R. (1998). *Modern Highpower Competition: From Beginner to Master*. Manchester, CT: Precision Shooting Inc.
- C2-107 (ISBN 0-9691359-5-5) Koterlitzov, N., & Ball, A. (2000). *The Shooting Cookbook: Shooting Drills for Precision Shooting, Sequence Shooting, Biathlon and Summer Biathlon*. Vancouver, BC: Able Software Inc.
- C2-116 Encyclopaedia Britannica (n.d.) Online. *Human Respiration (Physiology)*. Retrieved April 21, 2009, from <http://www.britannica.com/EBchecked/topic/499530/human-respiration>.
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- C2-206 (ISBN 3-98-097461-8) Bühlmann, G., Reinkemeir, H., & Eckhart, M. (2005). *Ways of the Rifle*. (B. Murray, Trans.). Dortmund, Germany: MEC (original work published 2002).

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COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 5

EO S341.05 – APPLY NATURAL ALIGNMENT

Total Time:	40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1 and 2 to give direction on the procedure for applying natural alignment.

A practical activity was chosen for TP 3 as it is an interactive way to allow cadets to experience applying natural alignment. This activity contributes to the development of applying natural alignment skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to apply natural alignment using the cadet air rifle.

IMPORTANCE

It is important for the cadets to practice natural alignment when firing the cadet air rifle, as it helps achieve a stable prone position and sight picture.

Teaching Point 1**Describe Natural Alignment**

Time: 5 min

Method: Interactive Lecture

NATURAL ALIGNMENT

Natural alignment is obtained when the cadet air rifle is aimed while in the prone position without the use of muscles to obtain natural alignment.

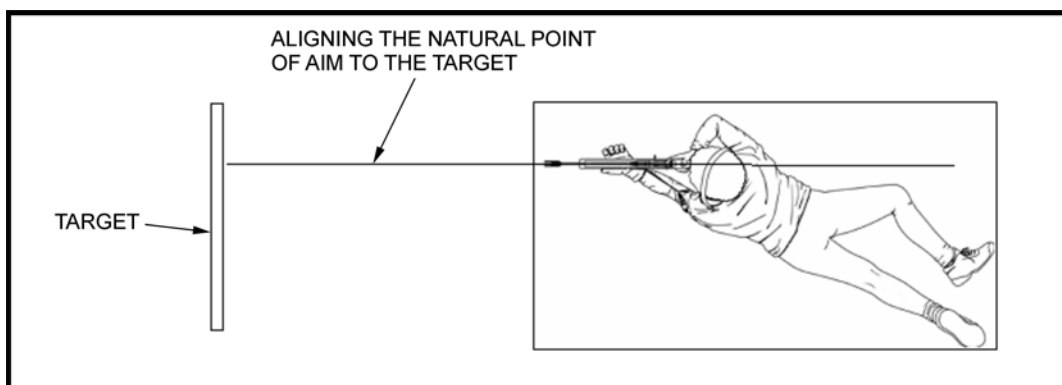


Natural alignment is also known as the “natural point of aim” commonly abbreviated as NPoA.

When holding the cadet air rifle in the aiming position and moving from aiming mark to aiming mark on the target, the muscles need to be totally relaxed. The muscles act like elastics, when forced to move the cadet air rifle, they have a tendency to move the rifle back to the original position. This is why eliminating muscle tension on the cadet air rifle is important to obtaining natural alignment.

Natural alignment is obtained by:

1. adopting a comfortable prone position;
2. acquiring a sight picture;
3. closing both eyes for a second or two;
4. taking two deep breaths to relax the muscles;
5. opening both eyes to inspect the sight picture;
6. maintaining a comfortable position; and
7. adjusting the body position until the correct sight picture is achieved.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 2-5-1 Natural Alignment

The key to mastering natural alignment is to remain relaxed and adjust the body's position to achieve a correct sight picture. When moving from target-to-target, it is important that the movement of the body does not disturb the position of the rifle. When in the prone position natural alignment can be adjusted horizontally by moving the body around the pivot point created by the elbow of the support arm. The rifle can move in a small horizontal arc

with minimal body movement. Natural alignment can be adjusted vertically by moving the torso slightly forward or back to lower or raise the sight picture respectively.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What is the key to mastering natural alignment?
- Q2. How can natural alignment be adjusted horizontally?
- Q3. How can natural alignment be adjusted vertically?

ANTICIPATED ANSWERS

- A1. The key to mastering natural alignment is to remain relaxed and adjust the body's position to achieve a correct sight picture.
- A2. Natural alignment can be adjusted horizontally by moving the body around the pivot point created by the elbow of the support arm.
- A3. Natural alignment can be adjusted vertically by moving the torso slightly forward or back to lower or raise the sight picture respectively.

Teaching Point 2

Explain the Importance of Natural Alignment

Time: 10 min

Method: Interactive Lecture

EFFECTS ON THE BODY

One of the benefits of natural alignment on the body is that it eliminates the muscular tension the marksman exerts on the rifle while aiming. When tense, muscles require more oxygen and add discomfort to the marksman's position. These factors can cause superfluous movements of the body/rifle and an increase in breathing rate, decreasing the overall stability of the rifle.

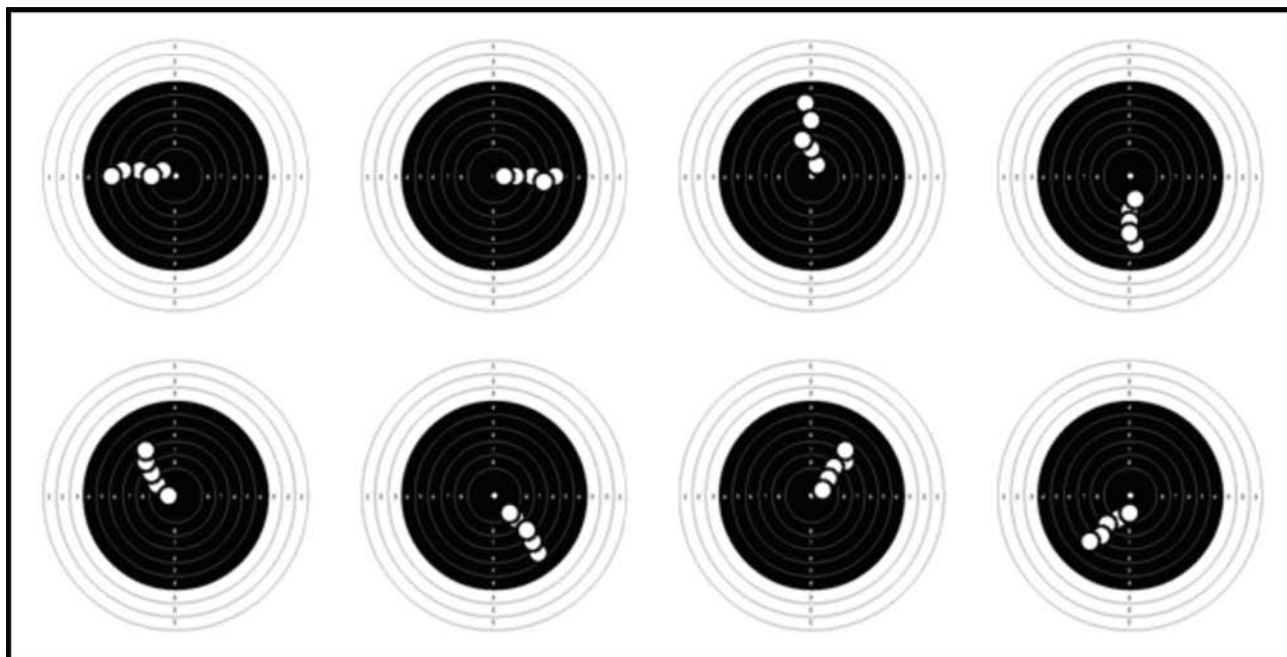
When the rifle is naturally aligned with the target, the bone structure of the marksman's body should be supporting the rifle. The rifle lies on the left hand; the right hand grips the small of the butt to prevent slipping from the shoulder. No muscular tension should be exerted.

EFFECTS ON THE AIMING PROCESS

With the rifle naturally aligned with the target, the marksman can focus their concentration on the other aspects of the aiming process: the breathing cycle, trigger control and follow-through. A naturally aligned position helps ensure consistent alignment on the target and reduces the chances of the aim drifting.

EFFECTS ON THE MEAN POINT OF IMPACT

If the marksman is forcing the rifle to aim at the target, the chances increase that the sight picture and the mean point of impact (MPI) will start to drift from shot to shot. This will usually show as either a horizontal, vertical or diagonal distribution of shots. Shots will emanate from the middle of the target opposite the direction the rifle is being forced (eg, back to the naturally aligned point of aim as illustrated in [Figure 2-5-2](#)).



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-5-2 How a Poor Naturally Aligned Position Effects the Mean Point of Impact

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What is the benefit of a good natural alignment on the body?
- Q2. What are the benefits of natural alignment on the aiming process?
- Q3. How does forcing the rifle to aim at the target effect the mean point of impact?

ANTICIPATED ANSWERS

- A1. It eliminates the muscular tension the marksman exerts on the rifle while aiming.
- A2. The marksman can focus their concentration on the other aspects of the aiming process: the breathing cycle, trigger control and follow-through.
- A3. The chances increase that the sight picture and the mean point of impact will start to drift from shot to shot.

Teaching Point 3

Have the Cadets Practice Applying Natural Alignment

Time: 20 min

Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have cadets practice applying natural alignment to achieve a correct sight picture.

RESOURCES

- Cadet air rifle (one per firing lane),
- Blinder (one per firing lane),
- Natural Alignment device (lollipop, one per firing lane), and
- Target located at [Annex C](#) (one per firing lane).

ACTIVITY LAYOUT

An air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8. If a range is not available, set up the training area to have a defined mock firing point.

ACTIVITY INSTRUCTIONS



Remind the cadets that the position of their target(s) on the backstop or target frame may affect their natural alignment. Generally targets should be placed at the same level as the individual's shoulder or head.

For this activity the use of the target located at [Annex C](#) is recommended however, the CCM competition target may also be used.

1. Divide the cadets into two relays.
2. Have the first relay hang a Natural Alignment target as illustrated in [Annex C](#).
3. Have the first relay adopt the prone position while the second relay observes.
4. Have the first relay acquire a correct sight picture.
5. Have the first relay close both eyes for a second or two.
6. Have the first relay take several deep breaths to relax the muscles.
7. Have the cadets open both eyes to inspect the sight picture.
8. Have the cadets maintain a comfortable position.
9. Have the cadets look through the sights when comfortable.
10. Have the cadets adjust the body position until a correct sight picture is achieved.
11. Have the relay repeat steps four to eight until the sight picture is correct after they open their eyes.
12. Have the relay practice natural alignment with all the aiming marks on the Natural Alignment Target.
13. Leave the Natural Alignment Target up for the second relay.
14. Change relays.
15. Have the relay repeat Steps 3. to 12.

SAFETY

Ensure the following:

- cadet air rifles are safe by performing individual safety precautions IAW A-CR-CCP-177/PT-001;

- all cadet air rifles are pointed in a safe direction throughout the lesson;
- no pellets or cleaning pellets are present in the training area; and
- all other applicable safety regulations are followed IAW local range standing orders.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the natural alignment activity will serve as the confirmation for this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the natural alignment activity will serve as the confirmation for this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

CLOSING STATEMENT

Natural alignment is essential to developing good marksmanship skills and habits. It helps the marksman maintain a stable position and sight picture when firing. With practice, natural alignment will improve a marksman's skill and their score.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- C2-098 Constantine, R. (1998). *Modern Highpower Competition: From Beginner to Master*. Manchester, CT: Precision Shooting Inc.



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SECTION 6

EO S341.06 – APPLY TRIGGER CONTROL AND FOLLOW-THROUGH

Total Time:	40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Construct a natural alignment device for each firing lane using the handout located at [Annex D](#).

For the trigger control and follow-through activities in TP 4, set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8. If a range is not available, set up the training area to have a defined mock firing point.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A demonstration was chosen for TPs 1–3 as it allows the instructor to explain and demonstrate trigger control and follow-through.

A practical activity was chosen for TP 4 as it is an interactive way to allow the cadets to practice trigger control and follow-through techniques in a safe and controlled environment. This activity contributes to the development of marksmanship skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have demonstrated trigger control and follow-through using the cadet air rifle.

IMPORTANCE

It is important for cadets to learn how to apply trigger control and follow-through as they are critical to ensuring there is minimal movement while the cadet air rifle is being fired. If the cadet moves the cadet air rifle during firing, the pellet will not hit the target in the spot where it was aimed. Ensuring these techniques are followed will allow the cadet to develop their skills and improve their score.

Teaching Point 1

Demonstrate Hand Placement by Positioning the Hand of the Trigger Finger on the Pistol Grip of the Cadet Air Rifle

Time: 5 min

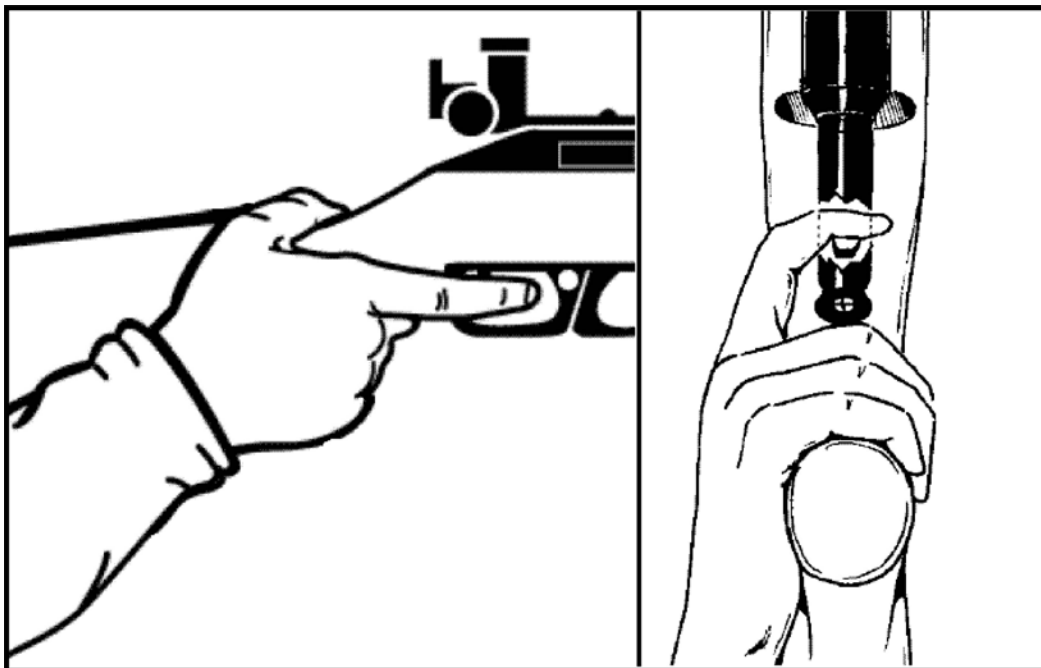
Method: Demonstration



While explaining trigger hand placement have an assistant instructor demonstrate the skill to the cadets.

TRIGGER HAND PLACEMENT

In order for the cadet air rifle to be fired in a consistent manner it is important that all elements of holding the cadet air rifle be the same from shot to shot. This consistency must include the position of the body and the trigger hand; with consistent trigger hand and trigger finger placement, consistent trigger manipulation will be possible. The pistol grip of the cadet air rifle (Daisy 853C) is not the same design as some high-end target air rifles. The pistol grip of the cadet air rifle does not allow the hand to be positioned close to right angles to the trigger. As illustrated in [Figure 2-6-1](#), the hand is slightly angled back due to the angle of the stock and is behind the trigger (small of the butt stock).



A-CR-CCP-177/PT-001 (p. 1-5-5)

Figure 2-6-1 Trigger Hand Placement

Positioning the Hand on the Rifle

The cadet shall have a firm grip on the small of the butt with the bottom three fingers of their hand (as illustrated in [Figure 2-6-1](#)). The hand shall not be strained and the pressure is applied consistently for every shot. The thumb should point forward and rest in a relaxed position behind the rear sight or shall be wrapped around the small of the butt.



Cadets with small hands should place the thumb on top of the small of the butt stock to be more comfortable.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. How should pressure be applied by the trigger hand when placed on the cadet air rifle?
- Q2. Where is the thumb of the trigger finger placed on the cadet air rifle?
- Q3. How should the cadet air rifle be held with the trigger hand?

ANTICIPATED ANSWERS

- A1. Pressure should be applied consistently for every shot when placed on the pistol grip of the cadet air rifle.
- A2. The thumb may be placed around the small of the butt stock or on top, whichever is more comfortable.
- A3. The cadet air rifle should be held firmly with trigger hand.

Teaching Point 2

Explain and Demonstrate Trigger Control Techniques

Time: 5 min

Method: Demonstration

TRIGGER CONTROL

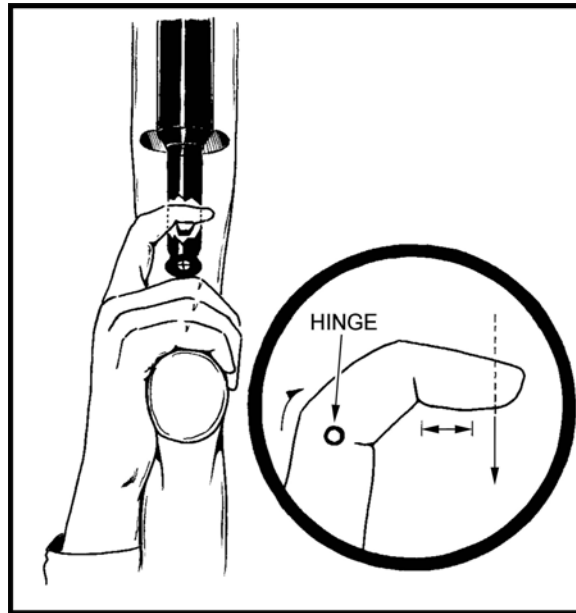
Trigger control is the manipulation of the trigger in such a way that there is no disturbance or motion of the foresight. It must be consistent, controlled, slow and deliberate.



Explain the technique of placing the trigger finger on the cadet air rifle while demonstrating how to place the trigger finger on the cadet air rifle as illustrated in [Figure 2-6-2](#).

Applying Trigger Control. The cadet should apply trigger control on the cadet air rifle by:

1. placing the trigger finger on the trigger halfway between the tip of the finger and the first joint of the finger;
2. ensuring the trigger finger never touches the stock;



A-CR-CCP-177/PT-001 (p. 2-16)

Figure 2-6-2 Trigger Finger Position

3. following the marksmanship breathing cycle; and
4. squeezing the trigger of the cadet air rifle under control by:
 - a. applying trigger pressure only when ready to fire;
 - b. applying pressure straight to the rear;
 - c. bending the second joint of the trigger finger; and
 - d. ensuring the pressure is constant and slow while holding the breath during the breathing cycle.



While explaining squeezing the trigger, have an assistant instructor demonstrate the skill to the cadets by dry firing the rifle several times using the seven second, gradual press method.

There are several methods that are common practice for squeezing the trigger to fire a shot. The most common method for squeezing the trigger when in the prone position is often referred to as the “gradual press” or the “seven second, gradual press”. This method involves a long gradual squeezing of the trigger until the trigger breaks and the shot is fired. It should be drawn out over about two to three seconds. This process is carried out in conjunction with the breathing cycle.



The “fast press” and “very fast press” are other methods of squeezing the trigger that are utilized by more experienced marksmen. These methods involve a shorter timeline, usually taking one second or less to complete.



It is important that while squeezing the trigger, the trigger finger and/or the thumb of the trigger hand not exert horizontal pressure (left or right) on the rifle. This pressure will force the rifle from its naturally aligned position causing a forced sight picture correction.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What is trigger control?
- Q2. What is the most common method of squeezing the trigger?
- Q3. How must squeezing the trigger be done?

ANTICIPATED ANSWERS

- A1. Trigger control is the manipulation of the trigger in such a way that there is no disturbance or motion of the foresight.
- A2. The “gradual press” or the “seven second, gradual press” is the most common method used for squeezing the trigger.
- A3. Squeezing the trigger must be done by lightly squeezing the entire hand in conjunction with the trigger finger.

Teaching Point 3

Explain and Demonstrate Follow-Through

Time: 5 min

Method: Demonstration



Since no pellets will be fired, position the cadets so they may observe and hear an assistant instructor simulate firing a shot and performing follow-through.

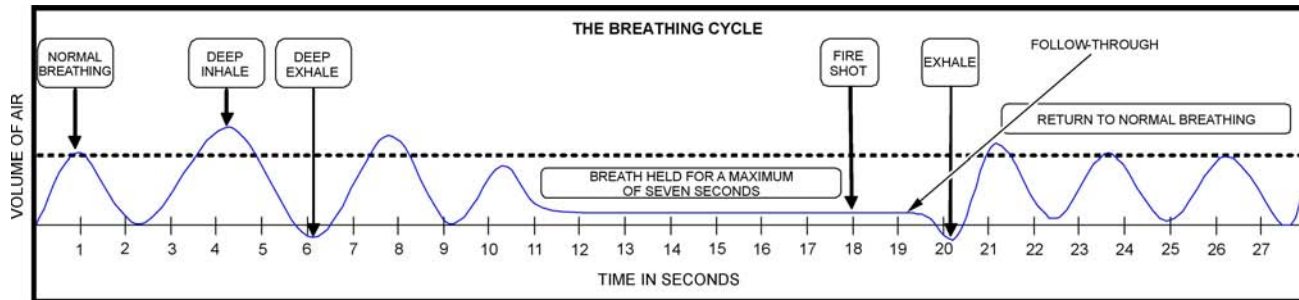
FOLLOW-THROUGH

Follow-through is essential to firing perfect shots. It is defined as the act of remaining in position for two to three seconds after the pellet is fired, as illustrated in [Figure 2-6-3](#).

Follow-through includes:

- continuing to aim;
- maintaining a steady firing position; and
- waiting two seconds for the pellet to reach the target.

As illustrated in [Figure 2-6-3](#) follow-through is maintained for two seconds. Follow-through aids in developing proper holding techniques for the cadet air rifle, maintaining stability and ensuring that there is no movement of the cadet air rifle as the shot is being fired.



Director Cadets 3, 2005, Ottawa, ON: Department of National Defence

Figure 2-6-3 Breathing Cycle

THE IMPORTANCE OF APPLYING FOLLOW-THROUGH

Applying follow-through is important because it:

- aids in the development of a proper hold on the cadet air rifle;
- maintains stability;
- ensures there is no movement of the cadet air rifle as the shot is being fired; and
- allows the cadet to call the shot after it is fired.



Follow-through is essential with air rifle marksmanship as the slower muzzle velocity causes the pellet to remain in the barrel for a fraction of a second longer than smallbore or largebore rifles.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What is the definition of follow-through?
- Q2. Why is follow-through essential in air rifle marksmanship?
- Q3. How long should sight picture be maintained after firing the shot?

ANTICIPATED ANSWERS

- A1. The act of remaining in position for a few seconds after the pellet is fired.
- A2. Due to the slower muzzle velocity of the air rifle pellet compared to a smallbore round, it takes longer for the air rifle pellet to exit the barrel, so it's essential to maintain follow-through after the air rifle pellet is fired.
- A3. Sight picture should be held for two to three seconds.

Teaching Point 4**Have the Cadets Practice Applying Trigger Control and Follow-Through**

Time: 20 min

Method: Practical Activity

ACTIVITY**OBJECTIVE**

The objective of this activity is to have the cadets practice trigger control and follow-through.

RESOURCES

- Air rifle marksmanship equipment,
- Cadet air rifle (one per firing lane),
- Cadet air rifle safety rod (one per cadet air rifle),
- Blinder,
- Shooting mat,
- Rifle rest, and
- Natural alignment device (eg, lollipop, one per firing lane).

ACTIVITY LAYOUT

An air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8. If a range is not available, set up the training area to have a defined mock firing point.



The cadet air rifle shall not be pumped for this activity. Cocking the action is only required to give the cadet the experience of squeezing the trigger in order to apply trigger control and follow-through.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into two relays.
2. Divide the cadets in each relay into pairs.
3. Have one cadet from each pair in the first relay put on their marksmanship equipment.
4. Have the other cadet in each pair take up the prone position facing up-range towards the cadet performing the skill, holding a natural alignment device.
5. Have the cadet performing the skill:
 - a. adopt the prone position and take aim at the natural alignment device;
 - b. cock the action of the cadet air rifle; and
 - c. make adjustments to their prone position while aiming until they are able to see the hole in the natural alignment device.

6. Have the cadet holding the natural alignment device verbally confirm that the cadet performing the skill is properly aligned and aiming correctly.
7. Have the cadet performing the skill continue to practice trigger control and follow-through for five minutes.
8. Monitor and assess the cadet performing the skill to ensure they are applying trigger control and follow-through.
9. Have the cadets switch positions and practice trigger control and follow-through by repeating Steps 3. to 8.
10. Repeat Steps 3. to 8. for the second relay.

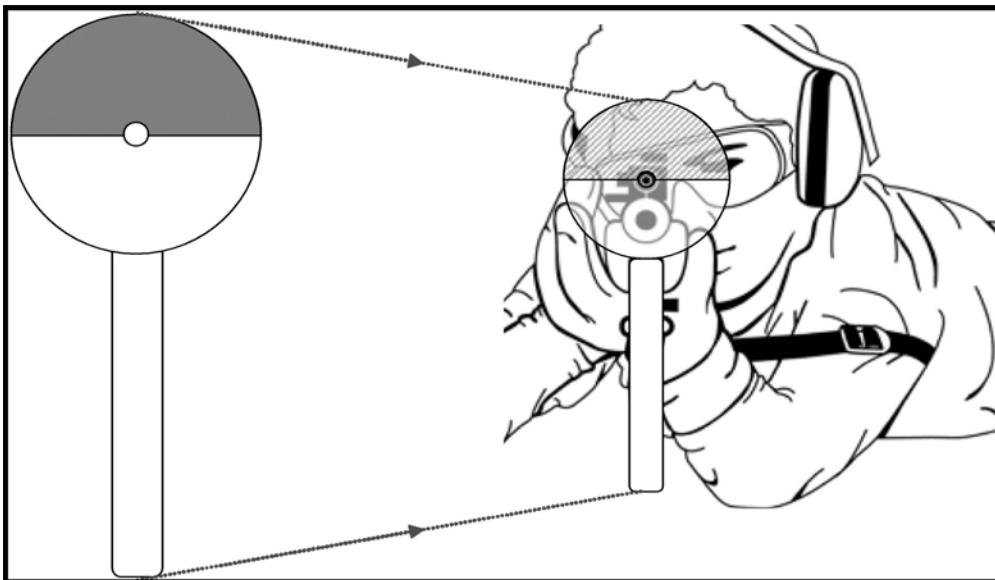


Cadets who are having difficulty holding the cadet air rifle steady may use a rifle rest.

SAFETY

Ensure the following:

- cadet air rifles are safe by performing individual safety precautions IAW A-CR-CCP-177/PT-001;
- no pellets or cleaning pellets are present in the training area; and
- all other applicable safety regulations are followed IAW local range standing orders.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-6-4 Using a Natural Alignment Device

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' applying trigger control and follow-through will serve as confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

CLOSING STATEMENT

Trigger control and follow-through are essential to developing marksmanship skills. They help to maintain a stable position and sight picture when firing the cadet air rifle. With practice using these firing techniques, marksmanship skills and score may improve.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-027	A-CR-CCP-177/PT-001 Director Cadets 3. (2005). <i>Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual</i> . Ottawa, ON: Department of National Defence.
C2-098	Constantine, R. (1998). <i>Modern Highpower Competition: From Beginner to Master</i> . Manchester, CT: Precision Shooting Inc.
C2-107	(ISBN 0-9691359-5-5) Koterlitzov, N., & Ball, A. (2000). <i>The Shooting Cookbook: Shooting Drills for Precision Shooting, Sequence Shooting, Biathlon and Summer Biathlon</i> . Vancouver, BC: Able Software Inc.

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SECTION 7

EO S341.07 – ADOPT THE STANDING POSITION

Total Time:

80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8. If a range is not available, set up the training area to have a defined mock firing point.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A demonstration was chosen for TPs 1 and 2 as it allows the instructor to explain and demonstrate the characteristics of the standing position, adopting the standing position, adjusting the aim and checking natural alignment while providing an opportunity for the cadets to practice the skill under supervision.

A practical activity was chosen for TP 3 as it is an interactive way to allow the cadets to experience adopting the standing position, adjusting the aim and practicing natural alignment in a safe and controlled environment.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to adopt the standing position with the cadet air rifle.

IMPORTANCE

It is important for cadets to adopt the standing position with the cadet air rifle because there are opportunities for cadets to participate in standing air rifle activities. These activities may be fun or competitive and standing air rifle is fired at the local, provincial, national and international level.

Teaching Point 1**Explain and Demonstrate the Standing Position**

Time: 20 min

Method: Demonstration



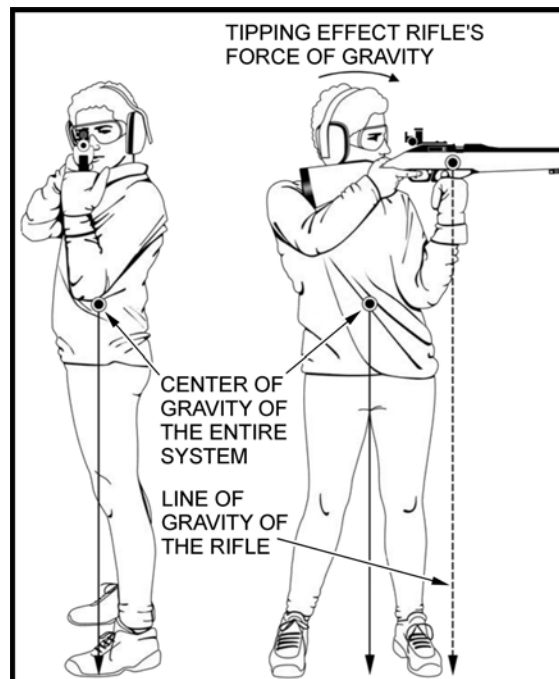
For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill. Monitor cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.

THE STANDING POSITION

The standing position is more technical and physically demanding, adopting the standing position is faster than the prone position. The standing position has a higher centre of gravity than the prone position. No artificial support is used in the standing position (such as a sling) but the body itself is used to support the cadet air rifle.



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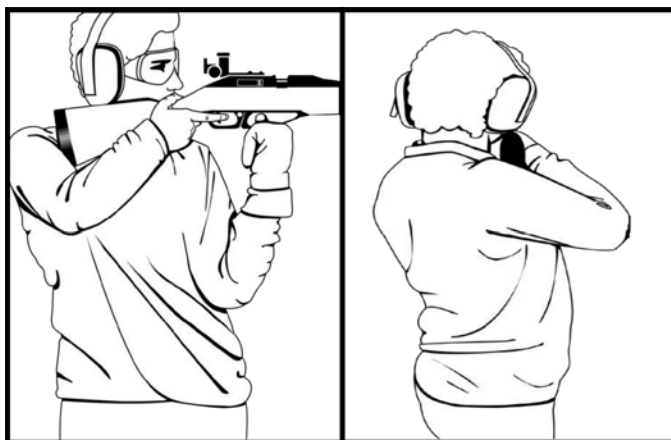
Figure 2-7-1 The Standing Position

Characteristics of the Standing Position

The characteristics of the standing position include:

- turning to the right, approximately 90 degrees to the target;
- standing with the feet shoulder width apart;
- distributing the weight of the body and the rifle equally between both feet;
- pointing the feet straight ahead in relation to the body or turning slightly outward for comfort;

- standing straight but not locking the knees;
- directing the hips 90 degrees to the target and without thrusting the hip forward;
- establishing a proper centre of gravity between the body and the rifle by:
 - bending the back to the rear of the stance;
 - twisting the body back towards the target without moving the feet;
 - placing the rifle in the shoulder;
 - bending slightly backwards at the waist;
 - ensuring the legs remain straight; and
 - twisting the torso from the small of the back (without rotating the hips, as illustrated in [Figure 2-7-2](#));



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Figure 2-7-2 Back and Hip Position

- resting the left arm against the rib cage;
- placing the left arm directly under the rifle without using the muscles to support the rifle or using the muscles to correct sight alignment;
- placing the left hand just forward of the trigger guard to support the rifle (as illustrated in [Figures 2-7-3 to 2-7-6](#)) either by:
 - using a clenched fist;



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Figure 2-7-3 Clinched Fist

- forming a “V” shape with the thumbs and fingers;



A-CR-CCP-177/PT-001 (p. 2-9)

Figure 2-7-4 V Shape

- using the “split fingers” technique; or



A-CR-CCP-177/PT-001 (p. 2-9)

Figure 2-7-5 Split Fingers

- using the heel of the hand while keeping the fingers relaxed;



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Figure 2-7-6 Heel of The Hand

- placing the right hand on the pistol grip without strain;
- keeping the trigger finger off the stock to produce a straight back trigger pull;
- keeping the head in an upright position with the eyes looking forward through the rear sight;
- resting the head on the cheek of the butt stock of the cadet air rifle in a relaxed manner; and
- maintaining a comfortable eye relief between 5–15 cm (as illustrated in [Figure 2-7-7](#)).



A-CR-CCP-177/PT-001 (p. 2-9)

Figure 2-7-7 Head Position and Eye Relief

Adopting the Standing Position



No two bodies are exactly the same, not even twins; therefore, no two bodies will look alike in any shooting position. Building the best position for your performance, means your standing position will differ from the person standing beside you.

The following guidelines should be adhered to when adopting the standing position:

1. lay the rifle down on a table;
2. stand 90 degrees to the target;
3. position the feet shoulder width apart;



The weight of the body and the rifle should be equally distributed between both feet.

4. pick up the rifle;
5. place the butt plate of rifle high in the shoulder pocket (as illustrated in [Figure 2-7-2](#));
6. positioning the left hand under the rifle stock (choose from one of the four methods as illustrated in [Figures 2-7-3 to 2-7-6](#)).
7. laying the right hand on the small of the butt;
8. orienting the position toward the target;
9. laying the rifle on the rest;
10. adjusting the height of the rest (if an adjustable rest is available, if not, use a table);
11. adjusting the length of the butt using butt spacers.



The instructions given are based on a right-handed marksman. For a left-handed marksman, substitute the left for right and right for left throughout the points.

The combination of back bend and body twist is the most important feature of the standing position and will contribute significantly to the cadet's level of performance (as illustrated in [Figure 2-7-2](#)). However, cadets should understand that discomfort is common during the first few practice sessions. After a short period of time, however, this discomfort will diminish and an increasingly stable hold will be achieved.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What angle are the feet positioned when facing the target?
- Q2. How far apart should the feet be placed when in the standing position?
- Q3. Name four ways to support the cadet air rifle with the non-trigger finger hand in the standing position.
- Q4. Where is the butt plate placed into the shoulder?
- Q5. What can be used to rest the rifle?
- Q6. What's the most important feature of the standing position?

ANTICIPATED ANSWERS

- A1. The feet are positioned at 90 degrees to the target.
- A2. The feet should be shoulder width apart.
- A3. Four ways to support the cadet air rifle with the non-trigger finger hand are as follows:
 - a. using a clenched fist;
 - b. forming a "V" shape with the thumb and fingers;
 - c. using a "split finger" technique;
 - d. using the heel of the hand on the pistol grip without strain.
- A4. The butt plate is placed high in the shoulder pocket.
- A5. An adjustable rifle rest or a table can be used to rest the rifle.
- A6. The most important feature of the standing position is the combination of back bend and body twist.

Teaching Point 2**Explain and Demonstrate How to Adjust the Aim and How to Obtain Natural Alignment**

Time: 20 min

Method: Demonstration



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill.

Note: Assistant instructors may be employed to demonstrate the skill as it is explained.



When firing in the standing position, the larger of the two front apertures should be selected to provide the best sight picture.

HOW TO ADJUST THE AIM

When aiming the cadet air rifle in the standing position, the aiming process is the same as it is for the prone position. It is achieved by adopting a comfortable position, ensuring body alignment with the target, aligning the sights and obtaining a sight picture. The only thing that varies from the prone position is that the front aperture should be larger and eye relief may be longer, but still between 5–15 cm (2–6 inches).

Adjust the aim by:

1. selecting a front aperture 1-1/2 times bigger than the aiming mark;
2. moving the left hand rearward closer to the trigger guard to aim higher;
3. moving the left hand forward away from the trigger guard to lower the aim;



When smaller adjustments higher or lower are required, they can be achieved by adjusting the hold of the breath during the breathing cycle.

4. correcting for canting of the rifle through sight adjustment;
5. moving the feet in such a manner as to move the aim of the rifle to the left or right;



When smaller adjustments left or right are required, they can be achieved by adjusting the position of the left hand and forearm.

6. placing the head on the cheek of the rifle stock to create a comfortable position and to lessen the strain on the eyes;
7. adjusting the eye relief to produce a desirable sight picture; and
8. maintaining perfect sight alignment as much as possible.

HOW TO OBTAIN NATURAL ALIGNMENT



Natural alignment uses the same procedure for the standing position as it is for the prone position.

Natural alignment describes the direction that the cadet air rifle is aimed when the marksman is in a comfortable standing position with the cadet air rifle at the ready. In a comfortable position, the cadet air rifle should not be forced to point at the target. Even with a comfortable standing position and sight alignment, forcing the cadet air rifle can cause muscle tension and will affect the accuracy of each shot.

Natural alignment is achieved by:

1. assuming a proper standing position;
2. looking through the sights and acquiring a proper sight picture;
3. closing the eyes, taking 3–4 normal breaths and relaxing into a comfortable position;
4. looking through the sights after becoming comfortable and perfectly centred with the target, and then proceeding with firing;
5. adjusting the position, if required, to become centred with the target, to include:
 - a. moving the left hand position rearward or widening the stance slightly to aim higher;
 - b. moving the left hand position forward or reducing the size of the stance to aim lower; and
 - c. moving the feet forward or backward in relation to the line of sight to aim to the left or right;
6. checking final alignment by closing the eyes; and
7. starting all over again if not perfectly aligned.



The purpose of closing the eyes and relaxing is to allow the muscles to return to a natural position. This allows the position to be adjusted and avoids having to force the cadet air rifle to aim at the target.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. How does aiming in the standing position vary from the prone position?
- Q2. How is aiming adjusted higher or lower in the standing position?
- Q3. How is aiming adjusted to the left or right in the standing position?
- Q4. What position should the marksman be in when naturally aligned with the target?
- Q5. How many breaths are taken to obtain natural alignment?
- Q6. What negative effect can forcing the cadet air rifle have?

ANTICIPATED ANSWERS

- A1. The front aperture should be larger and eye relief may be longer, but still between 5–15 cm (2–6 inches).
- A2. By moving the left hand rearward or forward of the trigger guard.
- A3. By moving both feet in such a way as to keep them in the same position in relation to each other, as if on a rotating disc.
- A4. In a comfortable standing position with the cadet air rifle at the ready.
- A5. The marksman should take 3–4 normal breaths to obtain natural alignment.
- A6. It can cause muscle tension and will affect the accuracy of each shot.

Teaching Point 3**Have the Cadets Practice Adopting the Standing Position**

Time: 30 min

Method: Practical Activity

ACTIVITY**OBJECTIVE**

The objective of this activity is to have the cadets practice the standing position.

RESOURCES

- Air rifle marksmanship equipment (per each cadet),
- Cadet air rifle (one per firing lane),
- Cadet air rifle safety rod (one per rifle),
- Blinder (one per rifle),
- Target (one per firing lane), and
- Rifle rest (one per firing lane).

ACTIVITY LAYOUT

Construct an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

1. Divide cadets into equal relays according to the number of firing lanes.
2. Have the relays take turns assuming the standing position using the cadet air rifle.
3. With assistance, allow the cadets to practice the standing position as taught.
4. Have cadets adjust their standing position, to include:
 - a. laying the rifle down on a table;
 - b. standing 90 degrees to the target;
 - c. positioning the feet shoulder width apart;

- d. picking up the rifle;
 - e. placing the butt plate of the rifle high in the shoulder pocket;
 - f. positioning the left hand under the rifle stock;
 - g. laying the right hand on the small of the butt;
 - h. orienting the position towards the target;
 - i. laying the rifle on the rest;
 - j. adjusting the height of the rest;
 - k. adjusting the length of the butt using spacers; and
 - l. adjust the position as required.
5. Inspect each cadet for a comfortable position.
 6. Repeat Steps 1. to 5. as required, within the allotted time.

SAFETY

Ensure that the cadet air rifles are pointed in a safe direction at all times.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the standing position activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the activity in TP 3 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1 (S341 PC).

CLOSING STATEMENT

The standing position is the least stable position due to its high centre of gravity and small support area. It requires a great amount of concentration and practice. The standing position is seen as a progression for recreational marksmanship and is the only position for the international air rifle competitions.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lessons related to EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- C2-204 (ISBN 3-9809746-3-4) Reinkemeier, H., Bühlmann, G., Eckhardt, M., Kulla, C., & Linn, U. (1st Edition [English], April 2006) *Air Rifle Shooting*. MEC Gmbh, High Tech Shooting Equipment: Dortmund, Germany.

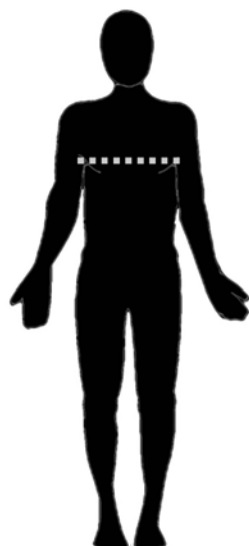
CADET AIR RIFLE RANGE COMMANDS AIDE-MEMOIRE

Command	Action
Cover off your firing point.	Stand up, move behind the firing point and wait for further commands.
Place your equipment down and stand back.	Lay the equipment down on the mat and stand back when finished.
Adopt the prone position.	Adopt the prone position, pick up the cadet air rifle, ready the equipment and put on hearing (optional) and eye protection.
Type of firing – GRIT (eg, Relay No. ____, 10 m, five rounds, grouping, on your own time fire).	This command includes information about the range and type of firing.
Relay, load, commence firing.	1. Pick up and hold the cadet air rifle with the left hand. 2. Ensure the safety catch is ON. 3. Pump the cadet air rifle. 4. When the pump lever is fully extended, pause for about three seconds. 5. Load the pellet. 6. Close the bolt. 7. Place the safety catch in the OFF position; aim the cadet air rifle at the target. 8. Squeeze the trigger. 9. Open the bolt. 10. Repeat the sequence for each shot. 11. Place the safety catch in the ON position and partially open the pump lever immediately after firing the practice. 12. Lay down the cadet air rifle.
Relay, unload.	1. Pick up the cadet air rifle. 2. Remove the five pellet clip if used. 3. Open the bolt. 4. Pump the cadet air rifle. 5. Close the bolt. 6. Place the safety catch in the OFF position. 7. Aim the cadet air rifle at the target. 8. Pull the trigger. 9. Place the safety catch in the ON position.

Command	Action
Relay, prepare for inspection.	1. Open the bolt. 2. Open the pump lever 5–8 cm. 3. Place the cadet air rifle against the shoulder, muzzle pointed down range. 4. Wait to be cleared by the RSO. 5. Lay the cadet air rifle down. 6. Remove hearing and eye protection.
Relay, stand up.	Stand and leave the equipment on the ground.
Commands That May be Given	Action
Relay, cease fire.	Stop firing immediately, put the safety catch in the ON position and lay the cadet air rifle down.
Relay, resume fire.	Put the safety catch in the OFF position and continue the practice.
Change targets.	Walk down the lane to remove old targets and replace them with new ones. Return to the firing point.
Change relays.	Cadets who have just fired pick up their personal equipment and move off the firing point. The new relay covers off behind the firing point.

SIZING AND MEASURING GUIDE FOR MARKSMANSHIP EQUIPMENT

MARKSMANSHIP JACKET



Chest/Bust Measurement:

Measure the chest/bust at the fullest circumference, keeping the tape under the arms across the shoulder blades.

Size	S	M	L	XL
Imperial (inches)	37	40	43	47
Metric (cm)	94	101.5	109	119.5

Off-the-shelf jackets are typically made in standard jacket sizes (eg, 36, 38, 40, 42, etc).

Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2B-1 Chest/Bust Measurement

MARKSMANSHIP HAT



Head Measurement:

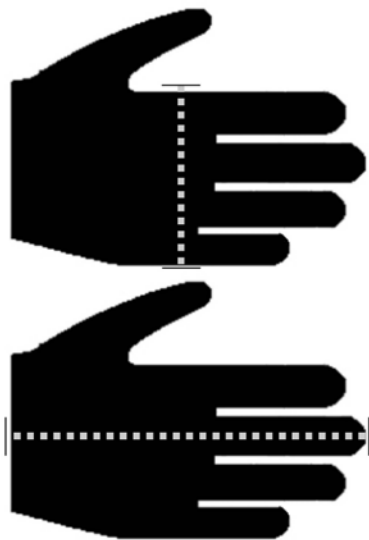
Measure the circumference of the head above the brow ridges and ears.

Hat Size	S	M	L	XL
	$6\frac{7}{8}$ –7	$7\frac{1}{8}$ – $7\frac{1}{4}$	$7\frac{3}{8}$ – $7\frac{1}{2}$	$7\frac{5}{8}$ – $7\frac{3}{4}$
Imperial (inches)	21.5–22	22.5–23	23–23.5	24–24.5
Head (cm)	54.5–56	57–58	58.5–60	60.5–62

Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2B-2 Head Measurement

SHOOTING GLOVE



Hand Measurement:

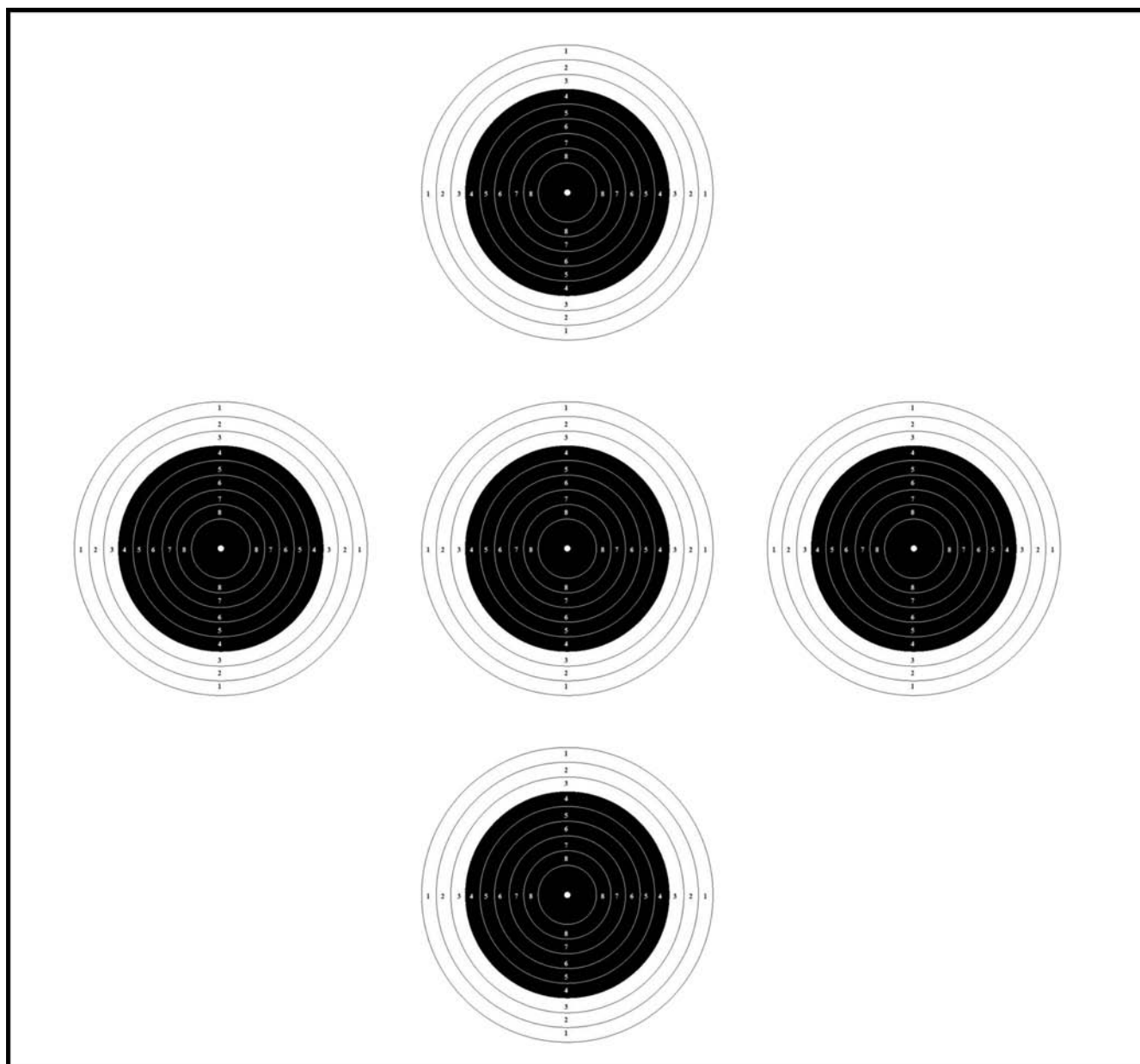
Measure the circumference on the hand around the knuckles (excluding the thumb) and then measure the length of the hand from the base of the palm to the tip of the middle finger. Use the larger of the two measurements to determine the hand size.

Glove Size	XS	S	M	L	XL
	Size 7	Size 8	Size 9	Size 10	Size 11
Imperial (inches)	6–6.5	7–7.5	8–8.5	9–9.5	10–10.5
Hand (cm)	15–16.5	18–19	20–21.5	23–24	25–27

Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2B-3 Hand Measurement

NATURAL ALIGNMENT TARGET

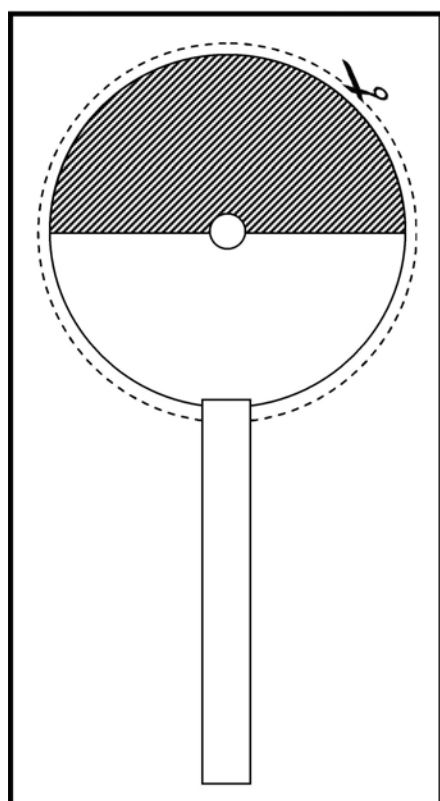
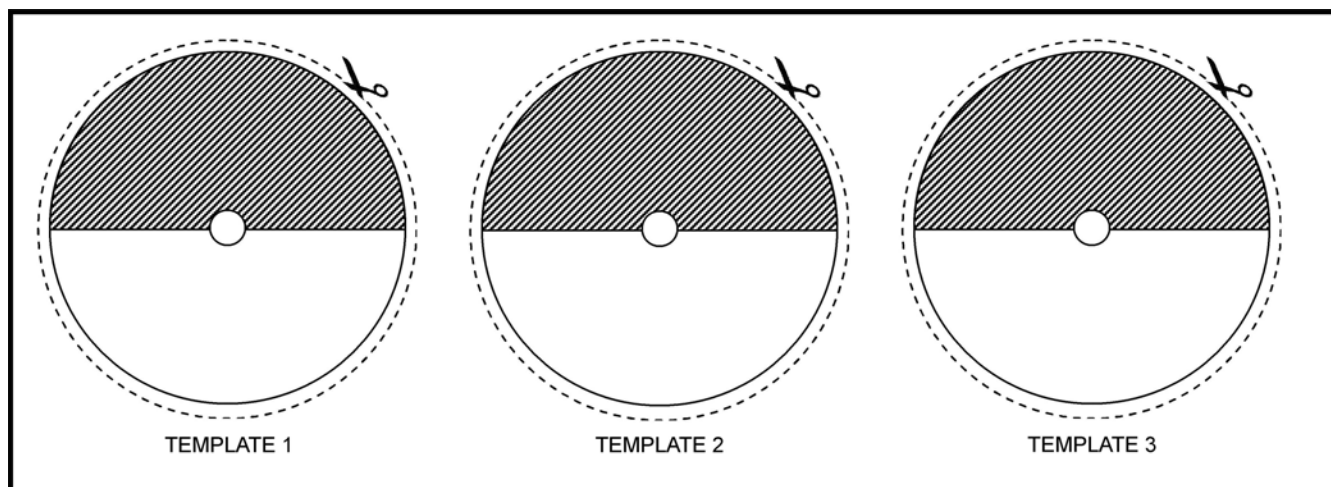


Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2C-1 Natural Alignment Target

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NATURAL ALIGNMENT DEVICE



HOW TO CONSTRUCT A NATURAL ALIGNMENT DEVICE

1. Print out/photocopy this page on card stock paper.
2. Cut out the desired number of templates from the page.
3. Cut, punch or drill out the circle in the centre of the template.
4. Paste the cut-out template onto the end of a Popsicle stick, ensuring the hole in the centre is not obscured.

Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2D-1 Natural Alignment Device

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CHAPTER 3

PO S342 – LEAD AIR RIFLE MARKSMANSHIP ACTIVITIES



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 1

EO S342.01 – PREPARE TO LEAD AIR RIFLE MARKSMANSHIP ACTIVITIES

Total Time: 80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide (IG) within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.



The activities of this PO will be conducted in 42 occurrences to give each cadet a minimum of one opportunity to lead an air rifle marksmanship activity. The number of occurrences of each EO activity are as follows:

- S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)) 12 occurrences,
- S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)) 12 occurrences,
- S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)) 2 occurrences,
- S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)) 8 occurrences, and
- S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)) 8 occurrences.

Assign one air rifle marksmanship activity to each cadet.

Photocopy enabling objectives and lesson specifications located at A-CR-CCP-903/PG-001, Chapter 4 as listed above.

Photocopy IGs and attachments as listed above.

Photocopy S342 PC Assessment Checklist (Lead an Air Rifle Marksmanship Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2) for each cadet.

Photocopy the handouts located at [Annexes A, B and C](#) for each cadet.

Review EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)) for each cadet.

Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)) to confirm the answers to the questions asked in [Annex A](#).

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TPs 1, 4 and 5 as it is an interactive way to provoke thought and stimulate interest among cadets about preparing to lead air rifle marksmanship activities.

An interactive lecture was chosen for TPs 2 and 3 to orient the cadets and generate interest in the lesson plan format for an air rifle marksmanship activity and the organization of marksmanship relays.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall prepare to lead air rifle marksmanship activities.

IMPORTANCE

It is important for cadets to prepare to lead air rifle marksmanship activities because one of the duties of an Air Rifle Marksmanship Instructor will be to lead air rifle marksmanship activities at the corps/squadron. Cadets on the Air Rifle Marksmanship Instructor course will also be expected to lead air rifle marksmanship activities during EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)).

Teaching Point 1

Conduct an Activity Where the Cadet Will Become Familiar With the Enabling Objectives, Lesson Specifications and Instructional Guides for Air Rifle Marksmanship Activities

Time: 15 min

Method: In-Class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets become familiar with their assigned enabling objectives, lesson specifications and IGs from EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)).

RESOURCES

- Enabling objectives and lesson specifications for EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity,

[Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)),

- IGs and attachments for EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)), and
- Prepare to Lead an Air Rifle Marksmanship Activity handout located at [Annex A](#).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute enabling objectives, lesson specifications and IGs with attachments for the selected air rifle marksmanship activities to the assigned cadets.
2. Distribute the Prepare to Lead an Air Rifle Marksmanship Activity handout.
3. Have the cadets answer the questions on the handout by reading their assigned documents.
4. Discuss the answers to the questions on the handout.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadet's participation in the activity will serve as the confirmation of this TP.

Teaching Point 2

Review the Lesson Plan Format for Leading an Air Rifle Marksmanship Activity

Time: 10 min

Method: Interactive Lecture



This material was previously taught in EO M309.06 (Plan a Lesson) at the corps/squadron.

LESSON PLAN FORMAT

The lesson plan is a way for the instructor to organize the lesson and summarize the information included in the lesson specification and the IG and to incorporate their personal ideas. Lesson plans provide detailed directions for delivering one or more periods of instruction.



Distribute the Lesson Plan handout located at [Annex B](#) to each cadet.

The lesson plan is arranged in this specific order:

Part	Purpose
1. Introduction	Builds the cadets' interest and motivation.
2. Body	Presents and explains each TP.
3. End of Lesson Confirmation	Confirms the cadets' comprehension of the lesson.
4. Conclusion	Summarizes key points and identifies future lessons.

Introduction

The introduction is the instructor's first verbal interaction with the cadets. It should capture the cadets' interest. The following should be included in the introduction:

- **What.** A description of what the cadets will be expected to accomplish by the end of the lesson.
- **Where.** A description of how and where the lesson fits into the Cadet Program.
- **Why.** A description of why it is important for the cadets to achieve the objectives.

Body

The body of the lesson plan is where the content is presented, explained and supported. The teaching points (TPs) direct the instructor and the cadets.

Each TP in the lesson includes:

- **Introduction.** Briefly introduce the content to be taught during the TP.
- **Teaching Method.** Identify which teaching method has been chosen for the TP.
- **Lesson Content.** Present the content of the TP in a clear and logical order, from easy to difficult, known to unknown and simple to complex.
- **Confirmation.** Confirm the TP with oral questions, games, role-play, in-class activities or practical activities. IGs offer suggestions for how to confirm TPs. Instructors may choose to use those confirmation suggestions or develop their own.

End of Lesson Confirmation

The lesson plan outlines how to confirm the learning of the TP. End of lesson confirmations are carried out to ensure that the cadets have understood the whole lesson and that any weaknesses in performance are identified.

Confirmation activities are based on the lesson objectives. The end of lesson confirmation may be oral questions, games, role-play, in-class activities or practical activities. IGs offer suggestions for how to conduct end of lesson confirmations. Instructors may choose to use those confirmation suggestions or develop their own.

Conclusion

The conclusion of a lesson summarizes the key points and links them to the coming lessons and their practical use. The conclusion includes:

- **A Summary of Important Points and Weak Areas.** The summary reviews the TPs. The depth of the summary will be determined by the lesson objectives and the results of the cadets' end of lesson confirmation. If the cadets achieved the objectives successfully, the summary may be brief. If they experienced some difficulties, the instructor should identify them and indicate how the issue will be addressed.
- **Re-Motivation Statement.** The re-motivation statement restates the importance of the lesson (the "why") and re-motivates the cadets. The instructor should take this time to address any precautions the cadets should be aware of when applying the knowledge in a practical setting and give an overview of the next lesson.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What are the four sections of a lesson plan?
- Q2. What three questions are answered in the introduction?
- Q3. What are the four sections of a teaching point?

ANTICIPATED ANSWERS

- A1. The four sections of a lesson plan are:
- introduction,
 - body,
 - end of lesson confirmation, and
 - conclusion.
- A2. The three questions answered in the introduction are:
- what,
 - where, and
 - why.
- A3. The four sections of a teaching point are:
- introduction,
 - teaching method,
 - lesson content, and
 - confirmation.

Teaching Point 3**Describe the Factors to Consider When Organizing Marksmanship Relays**

Time: 10 min

Method: Interactive Lecture

FACTORS TO CONSIDER WHEN ORGANIZING MARKSMANSHIP RELAYS

Relay. A set of people appointed to relieve others or to operate in shifts.

A marksmanship relay is a group of participants grouped together like a team and appointed to fire in the order of relay numbers. The number of relays required will depend on many different factors.

When organizing marksmanship relays, factors to consider include:

- number of participants,
- number of range assistants,
- whether coaches are required,
- number of firing points available,
- type of activity being conducted, and
- time to complete the activity.

Steps to Organizing Marksmanship Relays

1. Determine the type of marksmanship activity (classification, competition, fun, or timed).
2. Determine if coaches are required (if yes, add one relay).
3. Determine the number of firers by:
 - a. determining the total number of participants;
 - b. subtracting the team leader; and
 - c. subtracting the range assistants.
4. Determine the number of firing points available.
5. Divide the number of firers by the number of firing points; this is the number of relays required.

When there is more than one relay, additional relays will either be coaching or participating in a concurrent activity. At the end of each relay, relays will switch positions. For example, Relay 1 will go from firing to participating in concurrent activities, Relay 2 will go from participating in concurrent activities to coaching, and Relay 3 will go from coaching to firing.



Distribute the Marksmanship Relay Examples located at [Annex C](#) to each cadet.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What is a marksmanship relay?
- Q2. What are the factors to consider when organizing marksmanship relays?
- Q3. When organizing relays, what are the steps to determine the number of firers?

ANTICIPATED ANSWERS

- A1. A marksmanship relay is a group of participants grouped together like a team and appointed to fire in the order of relay numbers.
- A2. Factors to consider when organizing marksmanship relays include:
- number of participants,
 - number of range assistants,
 - whether coaches are required,
 - number of firing points available,
 - type of activity being conducted, and
 - time to complete the activity.
- A3. The steps to determine the number of firers are:
1. determine the total number of participants;
 2. subtract the team leader; and
 3. subtract the range assistants.

Teaching Point 4

Conduct an Activity Where the Cadets Become Familiar With S342 PC (Lead an Air Rifle Marksmanship Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2)

Time: 5 min

Method: In-Class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets describe how they will be assessed during S342 PC (Lead an Air Rifle Marksmanship Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2).

RESOURCES

S342 PC Assessment Checklist (Lead an Air Rifle Marksmanship Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute S342 PC Assessment Checklist (Lead an Air Rifle Marksmanship Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2) to each cadet.
2. Have cadets familiarize themselves with the assessment.
3. Ask cadets if they have any questions about the assessment.
4. Answer questions about the assessment.



It is advisable for cadets to use the S342 PC Assessment Checklist (Lead an Air Rifle Marksmanship Activity, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2) as a self-assessment tool. Self-assessment is an important aspect of leadership.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 5
Have the Cadets Develop a Written Plan for the Assigned Air Rifle Marksmanship Activity

Time: 30 min

Method: In-Class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets develop a written plan for their assigned air rifle marksmanship activity.

RESOURCES

- Air rifle marksmanship activity assignment,
- Enabling objectives and lesson specifications for EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)),

- IGs and attachments for EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)), and
- Lesson Plan format handout located at [Annex B](#).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Provide each cadet with an air rifle marksmanship activity assignment.
2. Distribute the Lesson Plan format handout located at [Annex B](#) to each cadet.
3. Supervise and provide assistance while cadets prepare to lead an air rifle marksmanship activity using the lesson plan format.



If Air Rifle Marksmanship Instructor course cadets do not complete this activity in the time allotted, they must complete their preparations before they lead an air rifle marksmanship activity.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadet's participation in the activity in TP 5 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

Review the written plan created during TP5 prior to leading an air rifle marksmanship activity.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

One of the duties of an Air Rifle Marksmanship Instructor is to lead air rifle marksmanship activities at the corps/squadron. Cadets on the Air Rifle Marksmanship Instructor course will be expected to lead air rifle marksmanship activities during EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position

Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)).

INSTRUCTOR NOTES/REMARKS

Schedule all Air Rifle Marksmanship Instructor course cadets for their leadership assignment for EOs S342.02 (Lead a Classification Air Rifle Marksmanship Activity, [Section 2](#)), S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, [Section 3](#)), S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, [Section 4](#)), S342.05 (Lead a Fun Air Rifle Marksmanship Activity, [Section 5](#)), and S342.06 (Lead a Timed Air Rifle Marksmanship Activity, [Section 6](#)) prior to this lesson. This will ensure that cadets can prepare accordingly.

REFERENCES

N/A.



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 2

EO S342.02 – LEAD A CLASSIFICATION AIR RIFLE MARKSMANSHIP ACTIVITY

Total Time:	960 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Assign one cadet to be the team leader and other cadets to be range assistants for each occurrence of this activity.

Photocopy and distribute the Classification Air Rifle Marksmanship Activity sheet located at [Annex D](#) to each cadet.

Photocopy and distribute the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#) to the team leader.

PRE-LESSON ASSIGNMENT

The team leader shall:

1. review the applicable activity instructions;
2. develop a written plan for the activity; and
3. complete the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#).

APPROACH

A practical activity was chosen for this lesson as it is an interactive way to allow the cadets to lead a classification air rifle marksmanship activity in a safe and controlled environment. This activity contributes to the development of leadership and air rifle marksmanship skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have led a classification air rifle marksmanship activity.

IMPORTANCE

It is important for cadets to lead classification air rifle marksmanship activities because one of the duties of an Air Rifle Marksmanship Instructor is to lead a classification air rifle marksmanship activity at the corps/squadron, CSTC or during regionally directed activities.

Teaching Point 1**Lead a Classification Air Rifle Marksmanship Activity**

Time: 70 min

Method: Practical Activity

ACTIVITY**OBJECTIVE**

The objective of this activity is to have the cadet lead a classification air rifle marksmanship activity.

RESOURCES

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- CCT2000GRTD (CCM Air Rifle Grouping Target),
- Air rifle grouping template,
- Target frame,
- Stopwatch,
- Classification Air Rifle Marksmanship Activity sheet, and
- Lead an Air Rifle Marksmanship Activity sheet.

ACTIVITY LAYOUT

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

Assess the assigned team leader and range assistants, and oversee the entire activity.

1. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other guidelines pertaining to the activity.

2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets;
 - b. introduce and explain the activity;
 - c. distribute a CCM Air Rifle Grouping Target to each participant;
 - d. have the participants write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give each participant on the firing line 10 pellets; and
 - f. supervise range assistants and participants during the activity.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets using the air rifle grouping template;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in leading a classification air rifle marksmanship activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2 (S342 PC).

CLOSING STATEMENT

This lesson provides background information on how to lead a classification air rifle marksmanship activity. This information will be helpful when conducting air rifle marksmanship activities, which is a duty of an Air Rifle Marksmanship Instructor.

INSTRUCTOR NOTES/REMARKS

This activity will be conducted 12 times over the course in two-period blocks, giving the cadet opportunities to improve their marksmanship skills and refine their knowledge of conducting air rifle marksmanship activities. It is suggested that the first occurrence be lead by an instructor to model the expected leadership skills.

The cadet's best score from any classification air rifle marksmanship activity shall be used to give the cadet their classification and badge.

This IG has been developed so that it can be used by both the instructors and the course cadets to lead an air rifle marksmanship activity.

REFERENCES

N/A.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 3

EO S342.03 – LEAD A COMPETITIVE AIR RIFLE MARKSMANSHIP ACTIVITY

Total Time:	960 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Assign a cadet as the team leader and range assistants for each occurrence of this activity.

Photocopy and distribute the Competitive Air Rifle Marksmanship Activity sheet located at [Annex F](#) to each cadet.

Photocopy and distribute the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#) to the team leader.

PRE-LESSON ASSIGNMENT

The team leader shall:

1. review the applicable activity instructions;
2. develop a written plan for the activity; and
3. complete the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#).

APPROACH

A practical activity was chosen for this lesson as it is an interactive way to allow the cadets to lead a competitive air rifle marksmanship activity in a safe and controlled environment. This activity contributes to the development of leadership and air rifle marksmanship skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have led a competitive air rifle marksmanship activity.

IMPORTANCE

It is important for cadets to lead competitive air rifle marksmanship activities because one of the duties of an Air Rifle Marksmanship Instructor is to lead a competitive air rifle marksmanship activity at the corps/squadron, CSTC or during regionally directed activities.

Teaching Point 1**Lead a Competitive Air Rifle Marksmanship Activity**

Time: 70 min

Method: Practical Activity

ACTIVITY**OBJECTIVE**

The objective of this activity is to have the cadet lead a competitive air rifle marksmanship activity.

RESOURCES

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- CCT2001AR853 (CCM Competition Target),
- .177-/.22-scoring magnifier (scoring magnifier),
- Scoring plug,
- Scoring template,
- Target frame,
- Stopwatch,
- Competitive Air Rifle Marksmanship Activity sheet, and
- Lead an Air Rifle Marksmanship Activity sheet.

ACTIVITY LAYOUT

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

Assess the assigned team leader and range assistants, and oversee the entire activity.

1. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a CCM Competition Target to each participant;
 - d. instruct the participants to write their name and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets using the scoring magnifier and/or scoring template;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in leading a competitive air rifle marksmanship activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2 (S342 PC).

CLOSING STATEMENT

This lesson provides background information on how to lead a competitive air rifle marksmanship activity. This information will be helpful when conducting air rifle marksmanship activities, which is a duty of an Air Rifle Marksmanship Instructor.

INSTRUCTOR NOTES/REMARKS

This activity will be conducted 12 times over the course in two-period blocks, giving the cadet opportunities to improve their marksmanship skills and refine their knowledge of conducting air rifle marksmanship activities. It is suggested that the first occurrence be lead by an instructor to model the expected leadership skills.

The final competitive air rifle marksmanship activity shall be used to give the cadet an opportunity to experience a Stage 2: Zone level competition against their peers.

This IG has been developed so that it can be used by both the instructors and the course cadets to lead an air rifle marksmanship activity.

REFERENCES

N/A.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 4

**EO S342.04 – LEAD A STANDING POSITION
 FAMILIARIZATION AIR RIFLE MARKSMANSHIP ACTIVITY**

Total Time:	160 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Assign one cadet to be the team leader and other cadets to be range assistants for each occurrence of this activity.

Photocopy and distribute the Standing Position Familiarization Air Rifle Marksmanship Activity sheet located at [Annex G](#) to each cadet.

Photocopy and distribute the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#) to the team leader.

PRE-LESSON ASSIGNMENT

The team leader shall:

1. review the applicable activity instructions;
2. develop a written plan for the activity; and
3. complete the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#).

APPROACH

A practical activity was chosen for this lesson as it is an interactive way to allow the cadets to lead a standing position familiarization air rifle marksmanship activity in a safe and controlled environment. This activity contributes to the development of air rifle marksmanship skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have led a standing position familiarization air rifle marksmanship activity.

IMPORTANCE

It is important for cadets to lead standing position familiarization air rifle marksmanship activities because one of the duties of an Air Rifle Marksmanship Instructor is to lead a standing position familiarization air rifle marksmanship activity at the corps/squadron.

Teaching Point 1**Lead a Standing Position Familiarization Air Rifle Marksmanship Activity**

Time: 70 min

Method: Practical Activity

ACTIVITY**OBJECTIVE**

The objective of this activity is to have the cadet lead a standing position familiarization air rifle marksmanship activity.

RESOURCES

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- CCT2000GRTD (CCM Air Rifle Grouping Target),
- Air rifle grouping template,
- Target frame,
- Stopwatch,
- Standing Position Familiarization Air Rifle Marksmanship Activity sheet, and
- Lead an Air Rifle Marksmanship Activity sheet.

ACTIVITY LAYOUT

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

Assess the assigned team leader and range assistants, and oversee the entire activity.

1. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets;
 - b. introduce and explain the activity;
 - c. distribute a CCM Air Rifle Grouping Target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give each participant on the firing line 10 pellets;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets using the Air Rifle Grouping Template;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in leading a standing position familiarization air rifle marksmanship activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2 (S342 PC).

CLOSING STATEMENT

This lesson provides background information on how to lead a standing position familiarization air rifle marksmanship activity. This information will be helpful when conducting air rifle marksmanship activities, which is a duty of an Air Rifle Marksmanship Instructor.

INSTRUCTOR NOTES/REMARKS

This activity will be conducted two times over the course in two-period blocks, giving the cadet opportunities to improve their marksmanship skills and refine their knowledge of conducting air rifle marksmanship activities.

The final standing position familiarization air rifle marksmanship activity could be fired on the CT2001AR853 (air rifle competition target) to show the cadets the difference in score compared to firing in the prone position.

This IG has been developed so that it can be used by both the instructors and the course cadets to lead an air rifle marksmanship activity.

REFERENCES

N/A.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 5

EO S342.05 – LEAD A FUN AIR RIFLE MARKSMANSHIP ACTIVITY

Total Time:	640 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Assign one cadet to be the team leader and other cadets to be range assistants for each occurrence of this activity.

Select the activity to be conducted by the team leader. Other activities may be conducted, as time permits.

Photocopy and distribute the selected Fun Air Rifle Marksmanship Activity sheets located at [Annexes H to K](#) to the team leader.

Photocopy and distribute the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#) to the team leader.

PRE-LESSON ASSIGNMENT

The team leader shall:

1. review applicable activity instructions;
2. develop a written plan for the activity; and
3. complete the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#).

APPROACH

A practical activity was chosen for this lesson as it is an interactive way to allow the cadets to lead a fun air rifle marksmanship activity in a safe and controlled environment. This activity contributes to the development of leadership and air rifle marksmanship skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have led a fun air rifle marksmanship activity.

IMPORTANCE

It is important for cadets to lead fun air rifle marksmanship activities because one of the duties of an Air Rifle Marksmanship Instructor is to lead a fun air rifle marksmanship activity at the corps/squadron or CSTC activities.

Teaching Point 1**Lead a Fun Air Rifle Marksmanship Activity**

Time: 70 min

Method: Practical Activity

RACK'EM UP ACTIVITY

This activity (located at [Annex H](#)) gives the cadets 15 pellets and 15 minutes to fire a pellet at the centre of each billiard ball. Targets will be scored by totalling the value for each billiard ball where the centre circle has a pellet hole located in it. Value for each ball is found on the rack'em up answer sheet (located at [Annex H](#), page 4).

LIGHTS OUT ACTIVITY

This activity (located at [Annex I](#)) gives the cadets 10 pellets and 15 minutes to break all 6 light bulbs. One point is awarded for each broken bulb and two points for each broken element. No points to be awarded for the screw base.

CUT THE FUSE ACTIVITY

This activity (located at [Annex J](#)) gives the cadets 5 pellets and 10 minutes to fire at (cut) the fuse of the dynamite. The cadet must hit the top portion of fuse without hitting the dynamite. If the fuse is hit below the split, all three pieces must be hit to defuse the dynamite.

FLOWER POT ACTIVITY

This activity (located at [Annex K](#)) gives the cadets 10 pellets and 15 minutes to hit any part of the flower. One point is awarded for each petal hit and two points for each hit in the centre. No points to be awarded for the flower pot.

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets lead a fun air rifle marksmanship activity.

RESOURCES

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- Selected targets (located at [Annexes H to K](#)),
- Target frame,

- Selected Fun Air Rifle Marksmanship Activity (located at [Annexes H to K](#)), and
- Lead an Air Rifle Marksmanship Activity (located at [Annex E](#)).

ACTIVITY LAYOUT

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS



Assess the assigned team leader and range assistants, and oversee the entire activity.

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay time to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);

- d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the fun air rifle marksmanship activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2 (S342 PC).

CLOSING STATEMENT

This lesson provides background information on how to lead a fun air rifle marksmanship activity. This information will be helpful when conducting air rifle marksmanship activities, which is a duty of an Air Rifle Marksmanship Instructor.

INSTRUCTOR NOTES/REMARKS

This activity will be conducted eight times over the course in two-period blocks, giving the cadet opportunities to improve their marksmanship skills and refine their knowledge of conducting air rifle marksmanship activities. It is suggested that the first occurrence be lead by an instructor to model the expected leadership skills.

This IG has been developed so that it can be used by both the instructors and the course cadets to lead an air rifle marksmanship activity.

REFERENCES

N/A.



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 6

EO S342.06 – LEAD A TIMED AIR RIFLE MARKSMANSHIP ACTIVITY

Total Time:	640 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Assign one cadet to be the team leader and other cadets to be range assistants for each occurrence of this activity.

Select the activity to be conducted by the team leader. Other activities may be conducted, as time permits.

Photocopy and distribute the Timed Air Rifle Marksmanship Activity sheets located at [Annexes L to O](#) to the team leader.

Photocopy and distribute the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#) to the team leader.

PRE-LESSON ASSIGNMENT

The team leader shall:

1. review applicable activity instructions,
2. develop a written plan for the activity, and
3. complete the Lead an Air Rifle Marksmanship Activity sheet located at [Annex E](#).

APPROACH

A practical activity was chosen for this lesson as it is an interactive way to allow the cadets to lead a timed air rifle marksmanship activity in a safe and controlled environment. This activity contributes to the development of air rifle marksmanship skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have led a timed air rifle marksmanship activity.

IMPORTANCE

It is important for cadets to lead timed air rifle marksmanship activities because one of the duties of an Air Rifle Marksmanship Instructor is to lead a timed air rifle marksmanship activity at corps/squadron or CSTC activities.

Teaching Point 1**Lead a Timed Air Rifle Marksmanship Activity**

Time: 70 min

Method: Practical Activity



Using the chosen activity, allocate 20–30 seconds per pellet (the shorter the time, the harder the activity). Other activities may be conducted as time permits. Prepare for each activity in advance using resources available.

DARTBOARD ACTIVITY

This activity (located at [Annex L](#)) gives the cadets 10 pellets to fire at the dartboard. Targets are scored by totalling the value for each pellet located in each slice of the board. The bull's-eye has a value of 25 and the area around the outside with the numbers has no point value.

CUT THE FUSES ACTIVITY

This activity (located at [Annex M](#)) gives the cadets 10 pellets to fire at the fuse of all 4 pieces of dynamite. The cadet must hit any portion of the fuse without hitting the dynamite; all four pieces must be hit to defuse the dynamite.

SHOO-FLY ACTIVITY

This activity (located at [Annex N](#)) gives the cadets 20 pellets to fire at the flies, a maximum of one pellet per fly. Targets are scored by totalling the number of flies hit.

GOOD BREAK ACTIVITY

This activity (located at [Annex O](#)) gives the cadets 10 pellets to randomly fire a maximum of one pellet per billiard ball. Targets are scored by totalling the value for each billiard ball where the centre circle has a pellet hole located in it; additional pellets will be scored as zero. Value for each ball is found on the answer sheet (located at [Annex O](#)).

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadet lead a timed air rifle marksmanship activity.

RESOURCES

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,

- Air rifle pellets (as required),
- Selected targets (as required),
- Target frame, and
- Lead an Air Rifle Marksmanship Activity sheet (located at [Annex E](#)).

ACTIVITY LAYOUT

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS



Assess the assigned team leader and range assistants, and oversee the entire activity.

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay a time limit to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;

- c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the timed air rifle marksmanship activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 2 (S342 PC).

CLOSING STATEMENT

This lesson provides background information on how to lead a timed air rifle marksmanship activity. This information is helpful when conducting air rifle marksmanship activities, which is a duty of an Air Rifle Marksmanship Instructor.

INSTRUCTOR NOTES/REMARKS

This activity will be conducted eight times over the course in two-period blocks, giving the cadet opportunities to improve their marksmanship skills and refine their knowledge of conducting air rifle marksmanship activities. It is suggested that the first occurrence be lead by an instructor to model the expected leadership skills.

This IG has been developed so that it can be used by both the instructors and the course cadets to lead an air rifle marksmanship activity.

REFERENCES

N/A.

PREPARE TO LEAD AN AIR RIFLE MARKSMANSHIP ACTIVITY

Read the enabling objective, lesson specification and IG for the applicable EO. Answer the following questions.

ENABLING OBJECTIVE/LESSON SPECIFICATION

1. What are cadets given to participate in air rifle marksmanship activities?

2. What methods of instruction are used for this lesson?

3. How many periods are allocated for the air rifle marksmanship activity?

4. How will this activity be assessed?

INSTRUCTIONAL GUIDE

5. What are the activity instructions?

6. What is the purpose of the closing statement?

7. What is the purpose of the instructor notes/instructions?

8. What is the purpose of each attachment?

LESSON PLAN

[illegible]

	Teaching Method: TP 2: TP 2 Confirmation:	
TIME	END OF LESSON CONFIRMATION	NOTES
TIME	CONCLUSION	NOTES
	Summary: In this lesson you have learned Re-Motivation: Your next lesson will be	

MARKSMANSHIP RELAY EXAMPLES

All examples are based on a division/platoon/flight of 30 participants and a time limit of 15 minutes per target. Each relay takes approximately 20 minutes.

EXAMPLE #1

Activity:	Classification
Coaches:	Not required
Participants:	30
Team Leader:	1
Range Assistants:	3
Number of firers:	26
Firing points:	13
Relays required:	2

In this example, there will be 2 relays of 13 participants. One relay will fire and one will do a concurrent activity.

EXAMPLE #2

Activity:	Competition
Coaches:	Yes
Participants:	30
Team Leader:	1
Range Assistants:	3
Number of firers:	26
Firing points:	10
Relays required:	3

In this example, there will be 2 relays of 9, and 1 relay of 8 participants. One relay will fire, one will coach, and one will do a concurrent activity.

EXAMPLE #3

Activity:	Timed
Coaches:	Yes
Participants:	30
Team Leader:	1
Range Assistants:	3
Number of firers:	26
Firing points:	13
Relays required:	2
Time to complete:	40 min

In this example, there will be 2 relays of 13 participants. While one relay is firing, the other will coach.

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CLASSIFICATION AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

To provide cadets the opportunity to lead a classification air rifle marksmanship activity.

SCORING

The standard for the classification levels are:

Marksman: Two five-round groupings within a circle of 3 cm in diameter.

First class marksman: Two five-round groupings within a circle of 2.5 cm in diameter.

Expert marksman: Two five-round groupings within a circle of 2 cm in diameter.

Distinguished marksman: Two five-round groupings within a circle of 1.5 cm in diameter.

EQUIPMENT REQUIRED

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- CCT200GRTD (CCM Air Rifle Grouping Target),
- Air Rifle Grouping Template,
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

1. Assess the assigned team leader and range assistants as well as oversee the entire activity.
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other guidelines pertaining to the activity.
3. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a CCM Air Rifle Grouping Target to each participant;
 - d. have the participants write their name and date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give each participant on the firing line 10 pellets; and
 - f. supervise range assistants and participants during the activity.
4. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.

5. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets using the air rifle grouping template;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
6. Have the team leader hand in the Lead an Air Rifle Marksmanship Activity sheet.

LEAD AN AIR RIFLE MARKSMANSHIP ACTIVITY

Date/Periods: _____

Activity Type: _____

Team Leader: _____

RANGE ASSISTANTS:

Position:	Name:

[illegible]

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COMPETITIVE AIR RIFLE MARKSMANSHIP ACTIVITIES

COMPETITIVE AIR RIFLE MARKSMANSHIP ACTIVITY #1

SIMULATED STAGE 1 CHAMPIONSHIP
OBJECTIVE To provide cadets the opportunity to compete in a simulated CCMCS Stage 1 Championship (Match 1.1), intended for team selection by: • competing as an individual against each other; • firing at a distance of 10 m; • firing in the prone unsupported position; • firing one target per relay; • loading single pellets only; and • coaching on the firing line as permitted. Note: This activity shall be conducted IAW A-CR-CCP-177/PT-001, Part 4, Section 3.
SCORING Targets will be scored IAW A-CR-CCP-177/PT-001, to include: • Each CCM Competition Target has a highest possible score of 100 points (10 diagrams worth 10 points each). • All pellet holes are scored using the highest value of the scoring ring that it is broken. • Pellet holes outside the scoring rings are given a value of zero. • If a cadet fires more than the prescribed number of shots on the scoring area, the shot(s) with the highest value will be discarded until the correct number of shots remains. In addition, a two (2) point penalty will be deducted for each excess shot. • If a cadet fires more than the prescribed number of shots on a scoring diagram, the cadet must fire a like number of fewer shots on a subsequent scoring diagram (eg, if two shots were fired at the first diagram, one diagram on the target has to remain free of pellet holes). In competition, the cadet would not be penalized for the first two (2) such occurrences, but will be penalized two (2) points for each succeeding occurrence.
EQUIPMENT REQUIRED • Air rifle marksmanship equipment, • Cadet air rifle, • Cadet air rifle safety rod, • Air rifle pellets, • CCT2001AR853 (CCM Competition Target), • .177-/ .22-scoring magnifier (scoring magnifier), • Scoring plug, • Scoring template, • Target frame, • Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a CCM Competition Target to each participant;
 - d. instruct the participants to write their name and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give pellets to each participant on the firing line; and
 - f. supervise range assistants and participants during the activity.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets using the scoring magnifier and/or scoring template;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

The following are prohibited:

- cross firing,
- alterations made to the cadet air rifle,
- supports used as a rest for the rifle or the forearm,
- a spotting scope, and
- use of sights not provided with the cadet air rifle.

COMPETITIVE AIR RIFLE MARKSMANSHIP ACTIVITY #2

SIMULATED STAGE 2 CHAMPIONSHIP	
OBJECTIVE	To provide cadets the opportunity to compete in a simulated CCMMCS Stage 2 Championship (Match 1.2 A), intended for team competition by: • competing as a team of five competitors; • firing at a distance of 10 m; • firing in the prone unsupported position; • firing two targets per relay; • firing two relays; • loading single pellets only; and • coaching on the firing line as permitted. Note: This activity shall be conducted IAW A-CR-CCP-177/PT-001, Part 4, Section 3.
SCORING	Targets will be scored IAW A-CR-CCP-177/PT-001, to include: • Each member has a highest possible score of 400 points (40 diagrams worth 10 points each). • The top four competitors will be counted towards the team's highest possible score of 1600 points. • All shot holes are scored using the highest value of the scoring ring that it is broken. • Shots outside the scoring rings are given a value of zero. • If a cadet fires more than the prescribed number of shots on the scoring area, the shot(s) with the highest value will be discarded until the correct number of shots remains. In addition, a two (2) point penalty will be deducted for each excess shot. • If a cadet fires more than the prescribed number of shots on a scoring diagram, the cadet must fire a like number of fewer shots on a subsequent scoring diagram (eg, if two shots were fired at the first diagram, one diagram on the target has to remain free of pellet holes). In competition, the cadet would not be penalized for the first two (2) such occurrences, but will be penalized two (2) points for each succeeding occurrence.
EQUIPMENT REQUIRED	• Air rifle marksmanship equipment, • Cadet air rifle, • Cadet air rifle safety rod, • Air rifle pellets, • CCT2001AR853 (air rifle competition target), • .177-/.22-scoring magnifier (scoring magnifier), • Scoring plug, • Scoring template, • Target frame, and • Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute an air rifle competition target to each participant;
 - d. instruct the participants to write their name and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give pellets to each participant on the firing line; and
 - f. supervise range assistants and participants during the activity.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 30 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets using the scoring magnifier and/or scoring template;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

The following are prohibited:

- cross firing,
- alterations made to the rifles,
- supports used as a rest for the rifle or the forearm,
- a spotting scope, and
- use of sights not provided with the cadet air rifle.

STANDING POSITION FAMILIARIZATION AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

To provide cadets the opportunity to become familiarized with the standing position.

SCORING

Targets will be scored IAW A-CR-CCP-177/PT-001.

EQUIPMENT REQUIRED

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- CCT200GRTD (CCM Air Rifle Grouping Target),
- CCT2001AR853 (CCM Competition Target),
- Air Rifle Grouping Template,
- .177-/ .22-scoring magnifier (scoring magnifier),
- Scoring plug,
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets;
 - b. introduce and explain the activity;
 - c. distribute a CCM Air Rifle Grouping Target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give each participant on the firing line 10 pellets;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:

- a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets using the air rifle grouping template;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

The following are prohibited:

- cross firing,
- alterations made to the cadet air rifle,
- supports used as a rest for the rifle or the forearm,
- a spotting scope, and
- use of sights not provided with the cadet air rifle.

RACK'EM UP AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 15 pellets and 15 minutes to fire one pellet at the centre of each billiard ball.

SCORING

Targets will be scored by totalling the value for each billiard ball where the centre circle has a pellet hole located in it. Value for each ball is found on the billiard ball score sheet.

EQUIPMENT REQUIRED

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (15 per participant),
- Rack'em up Target (one per participant),
- Rack'em up scoresheet,
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

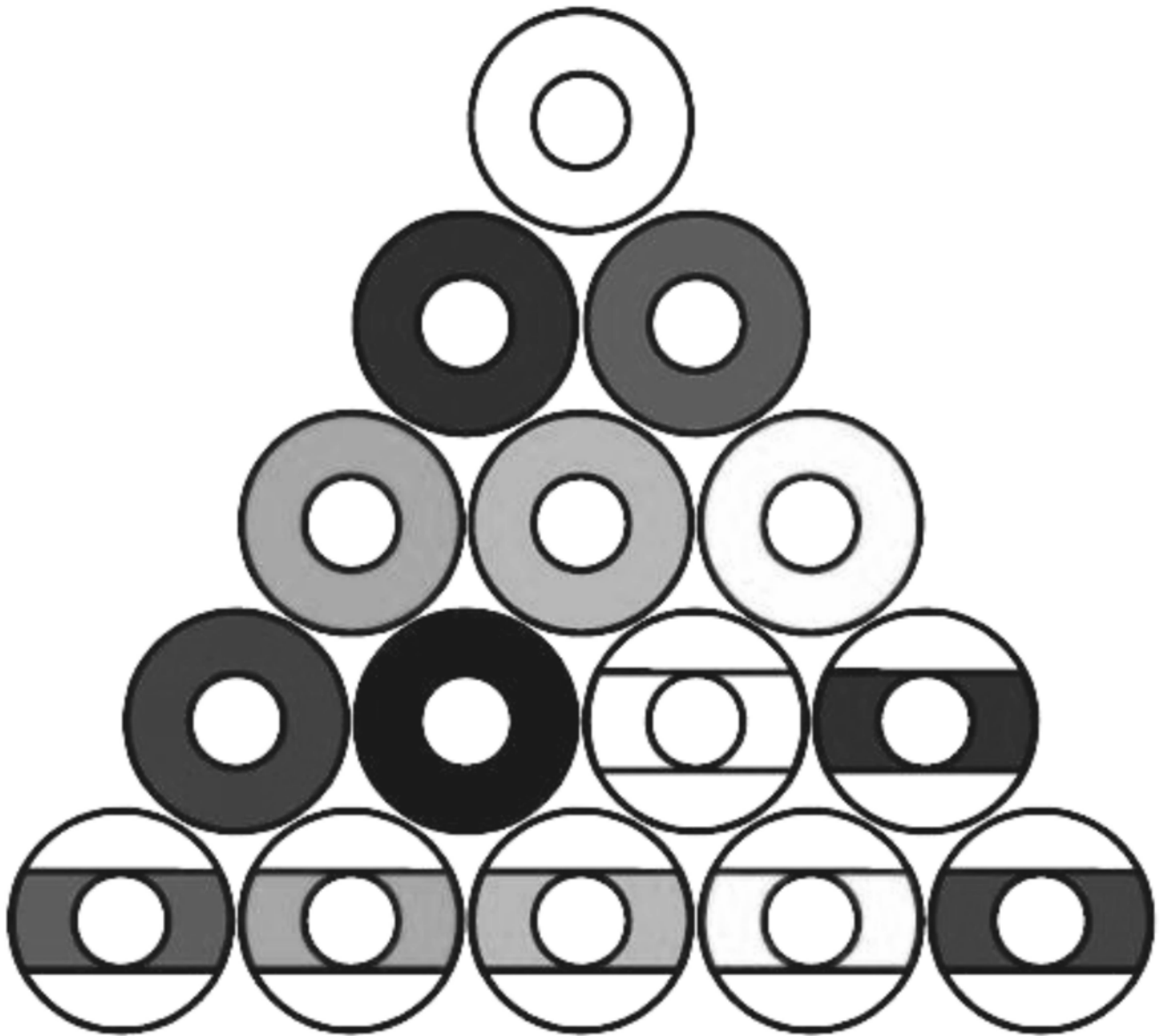
1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give 15 pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;

- c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

The following is prohibited:

- Cross firing.
- Alterations made to the rifles.
- Supports used as a rest for the rifle or the forearm.
- A spotting scope.
- Use of sights not provided with the cadet air rifle.

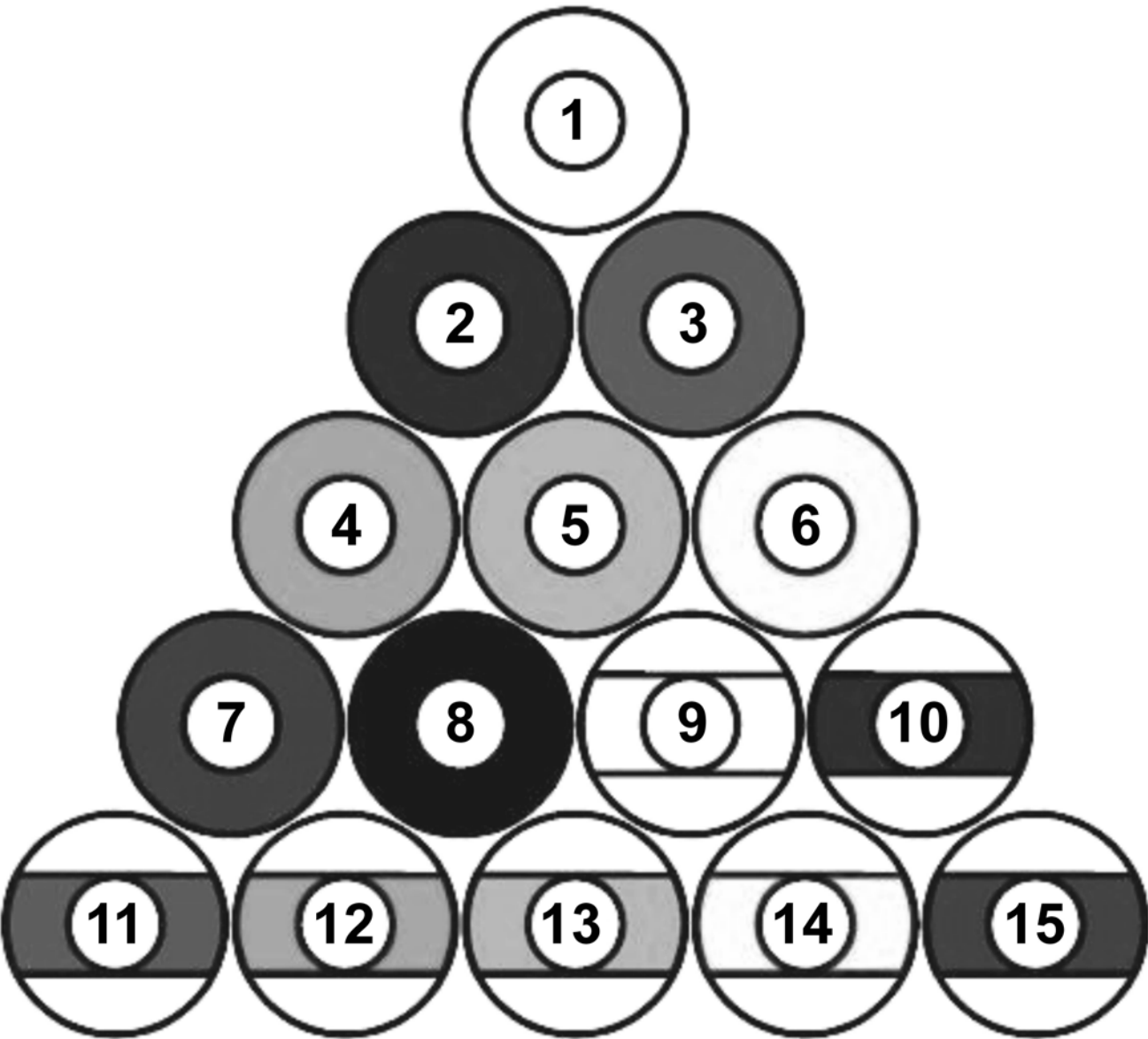
RACK'EM UP TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

RACK'EM UP SCORESHEET



LIGHTS OUT AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 10 pellets and 15 minutes to break all 6 light bulbs.

SCORING

One point is awarded for each broken bulb and two points for each broken element. No points will be awarded for the screw base.

EQUIPMENT REQUIRED

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (10 per participant),
- Lights Out Target (one per participant),
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give 10 pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);

- d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

The following is prohibited:

- Cross firing.
- Alterations made to the rifles.
- Supports used as a rest for the rifle or the forearm.
- A spotting scope.
- Use of sights not provided with the cadet air rifle.

LIGHTS OUT TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

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CUT THE FUSE AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 5 pellets and 10 minutes to fire at (cut) the fuse of the dynamite.

SCORING

To defuse the dynamite, the cadet must hit the fuse above the split without hitting the dynamite. If the fuse is hit below the split, all three pieces must be hit to defuse the dynamite. A hit on the dynamite will cause it to explode.

EQUIPMENT REQUIRED

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (five per cadet),
- Cut the Fuse Targets (one per cadet),
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

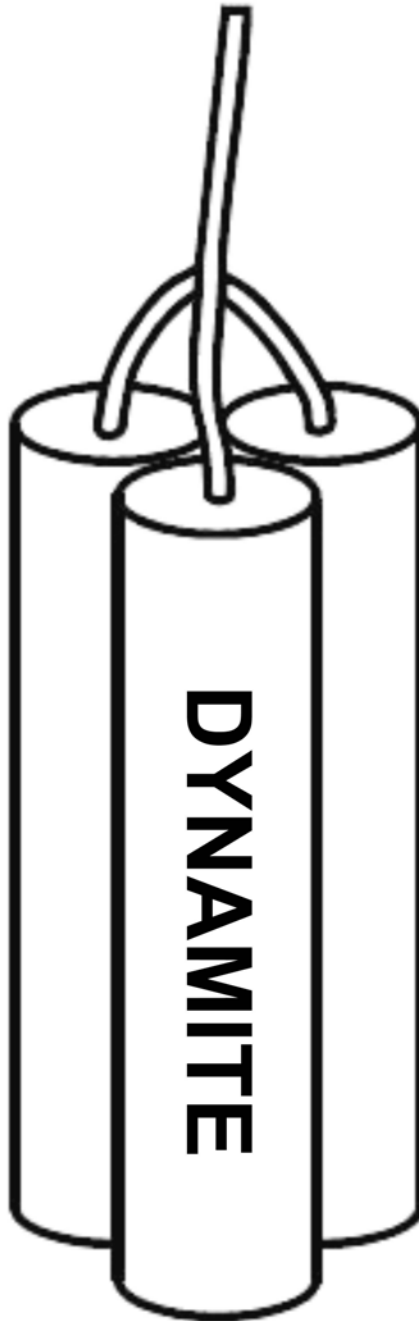
1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give five pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 10 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);

- d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

The following is prohibited:

- Cross firing.
- Alterations made to the rifles.
- Supports used as a rest for the rifle or the forearm.
- A spotting scope.
- Use of sights not provided with the cadet air rifle.

CUT THE FUSE TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

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FLOWER POT AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 10 pellets and 15 minutes to hit any part of the flower.

SCORING

One point is awarded for each petal, leaf or stem, and two points for each hit in the centre. One point will be deducted for each hit on the flower pot.

EQUIPMENT REQUIRED

- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (10 pellets per participant),
- Flower Pot Target (one per participant),
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

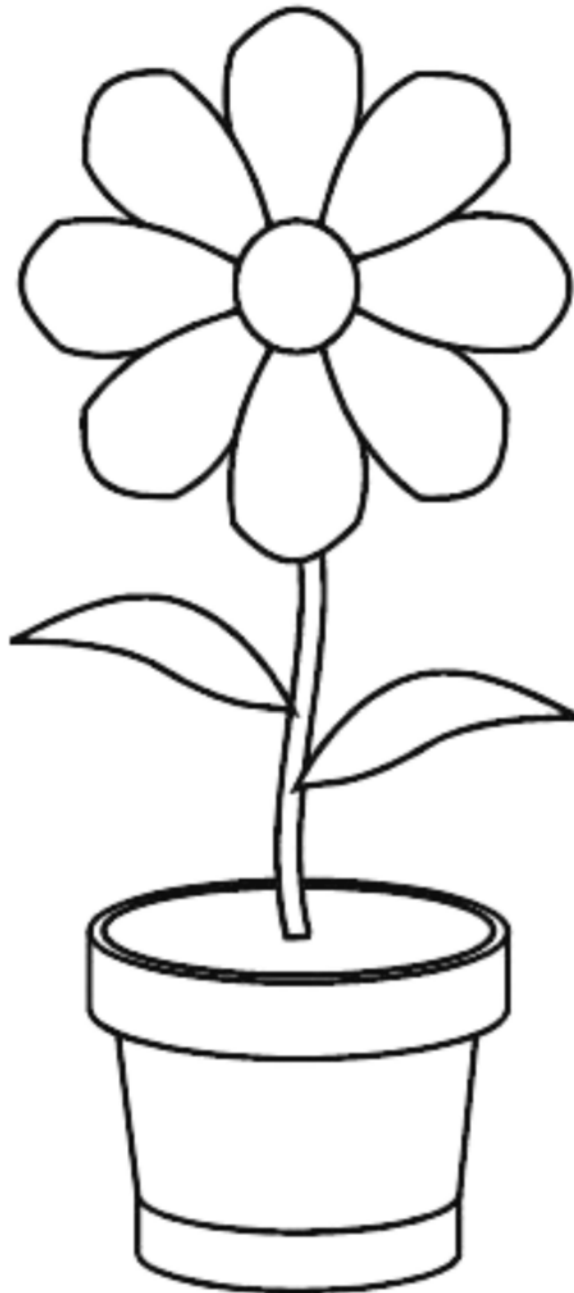
1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give 10 pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay 15 minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);

- d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

The following is prohibited:

- Cross firing.
- Alterations made to the rifles.
- Supports used as a rest for the rifle or the forearm.
- A spotting scope.
- Use of sights not provided with the cadet air rifle.

FLOWER POT TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

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DARTBOARD AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 10 pellets and 20–30 seconds per pellet to fire at the highest scores on the dartboard.

SCORING

Targets will be scored by totalling the value for each pellet located in each slice of the board. The bull's-eye has a value of 25 and the area around the outside with the numbers has no point value.

EQUIPMENT REQUIRED

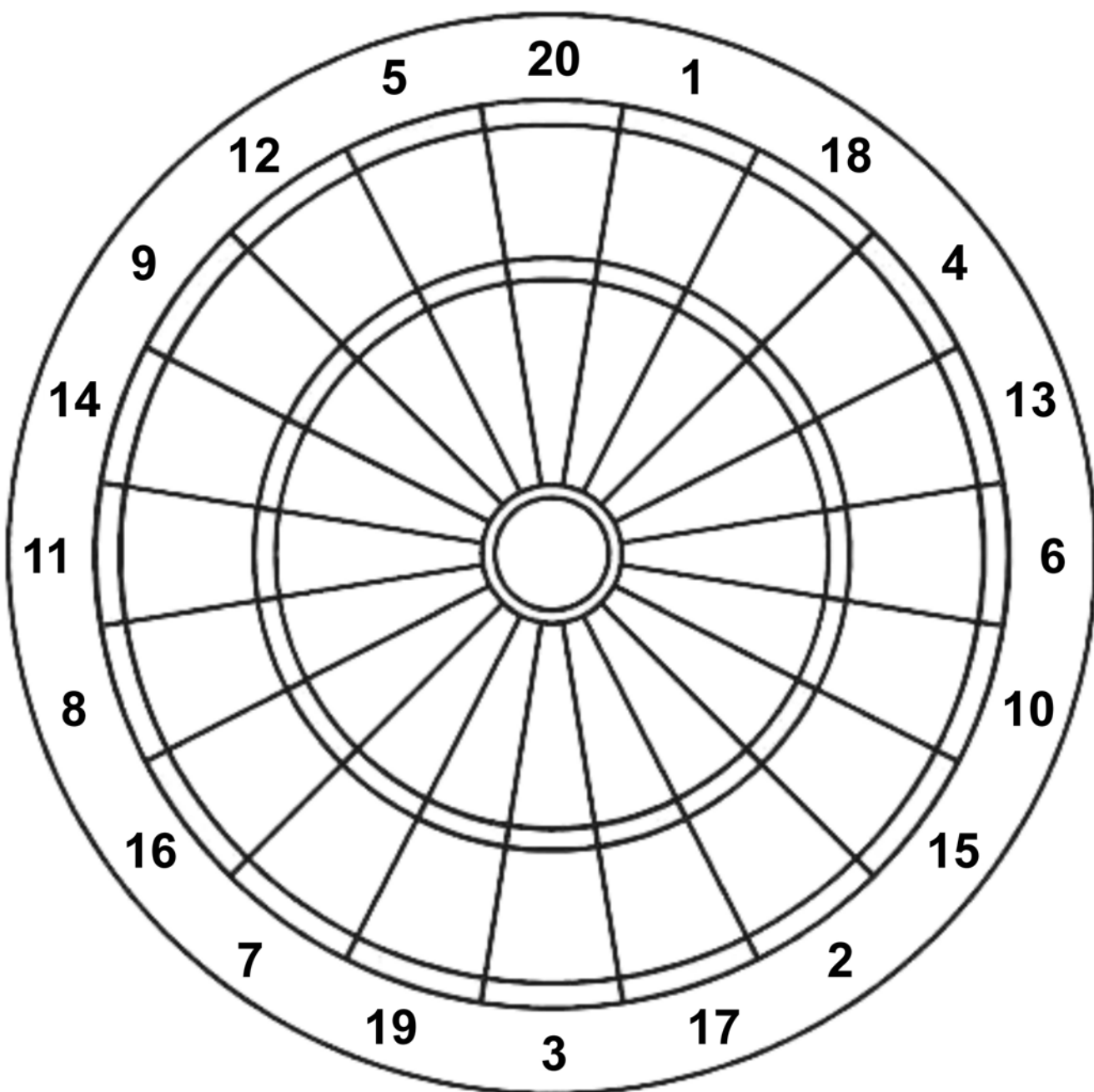
- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (10 per participant),
- Dartboard Target (one per participant),
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give 10 pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay a limited number of minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);

- d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

DARTBOARD TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

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CUT THE FUSES AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 10 pellets and 20–30 seconds per pellet to fire at the fuses of all 4 pieces of dynamite.

SCORING

The cadets must hit any portion of the fuse without hitting the dynamite; all four pieces must be hit to defuse the dynamite.

EQUIPMENT REQUIRED

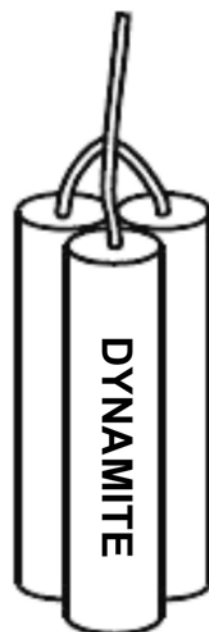
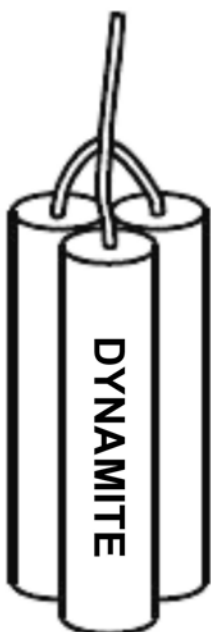
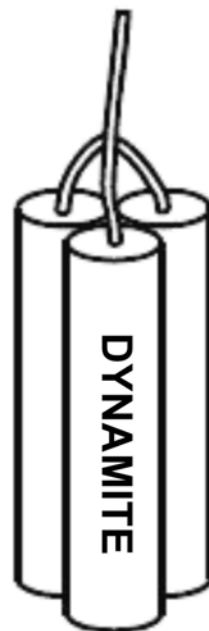
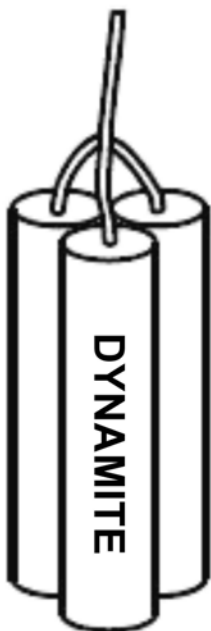
- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (10 per participant),
- Cut the Fuses Target (one per participant),
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give 10 pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay a limited number of minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;
 - c. supervise assigned range assistants dismantling the air rifle range (if required);

- d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

CUT THE FUSE TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

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SHOO-FLY AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 20 pellets and 20–30 seconds per pellet to fire at a maximum number of flies.

SCORING

Targets will be scored by totalling the number of flies hit. Each fly can only be hit once.

EQUIPMENT REQUIRED

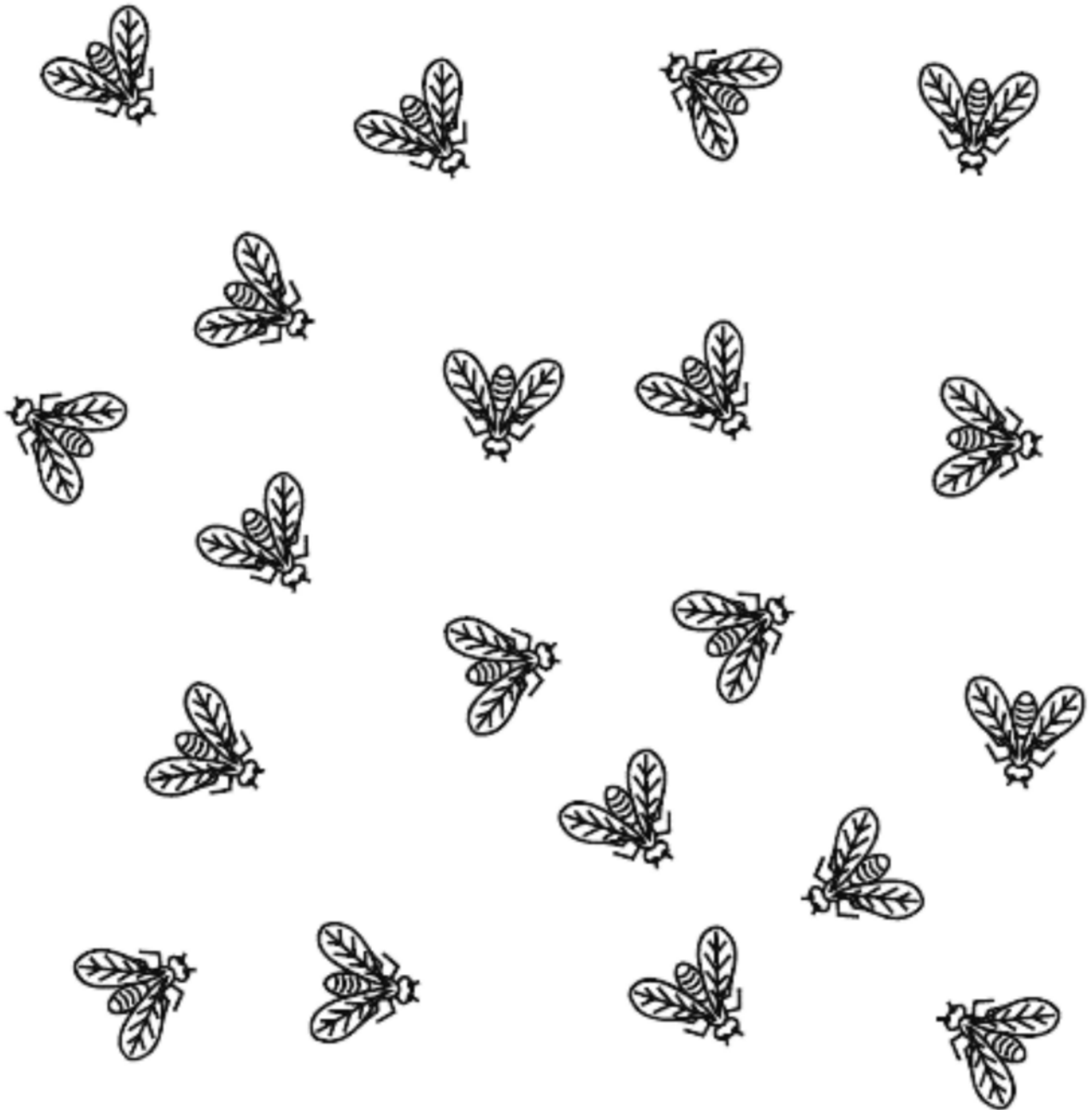
- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (20 per participant),
- Shoo-fly Target (one per participant),
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give 20 pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay a limited number of minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;

- c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
5. Record the scores and allow the participants to keep their targets.

SHOO-FLY TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

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GOOD BREAK AIR RIFLE MARKSMANSHIP ACTIVITY

OBJECTIVE

The cadets will be given 10 pellets to fire a maximum of one pellet per billiard ball.

SCORING

Targets will be scored by totalling the value for each billiard ball where the centre circle has a pellet hole located in it; additional pellets will be scored as zero.

EQUIPMENT REQUIRED

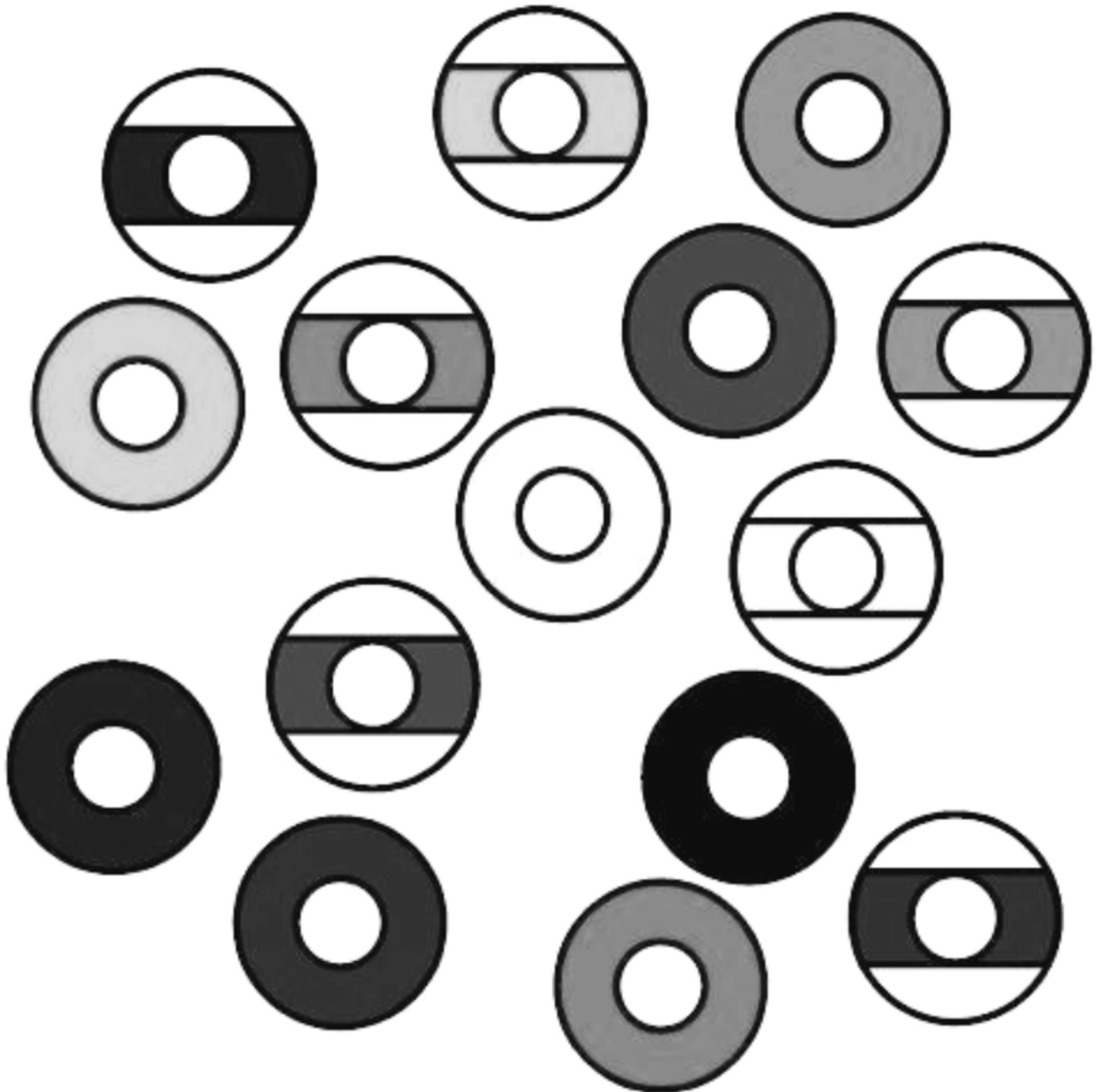
- Air rifle marksmanship equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets (10 per participant),
- Good Break Target (one per participant),
- Good Break scoresheet,
- Target frame, and
- Stopwatch.

ACTIVITY INSTRUCTIONS

1. Have the Range Safety Officer (RSO) brief cadets on safety rules or any other guidelines pertaining to the activity.
2. Have the team leader:
 - a. supervise assigned range assistants:
 - (1) setting up the air rifle range (if required);
 - (2) performing as sentries;
 - (3) performing as firing point assistants;
 - (4) performing as pellet controllers; and
 - (5) scoring targets.
 - b. introduce and explain the activity;
 - c. distribute a target to each participant;
 - d. instruct the participants to write their names and the date on the target and attach it to the target frame;
 - e. instruct the pellet controller to give 10 pellets to each participant on the firing line;
 - f. supervise assigned coaches and participants during the activity; and
 - g. solve problems as required.
3. Have the RSO:
 - a. instruct the participants to fire in relays; and
 - b. give each relay a limited number of minutes to complete firing.
4. Have the team leader:
 - a. instruct the participants to retrieve their targets;
 - b. instruct the range assistants to score the targets;

- c. supervise assigned range assistants dismantling the air rifle range (if required);
 - d. conduct a debriefing on the activity; and
 - e. report to the RSO at the end of the activity.
- 5. Record the scores and allow the participants to keep their targets.

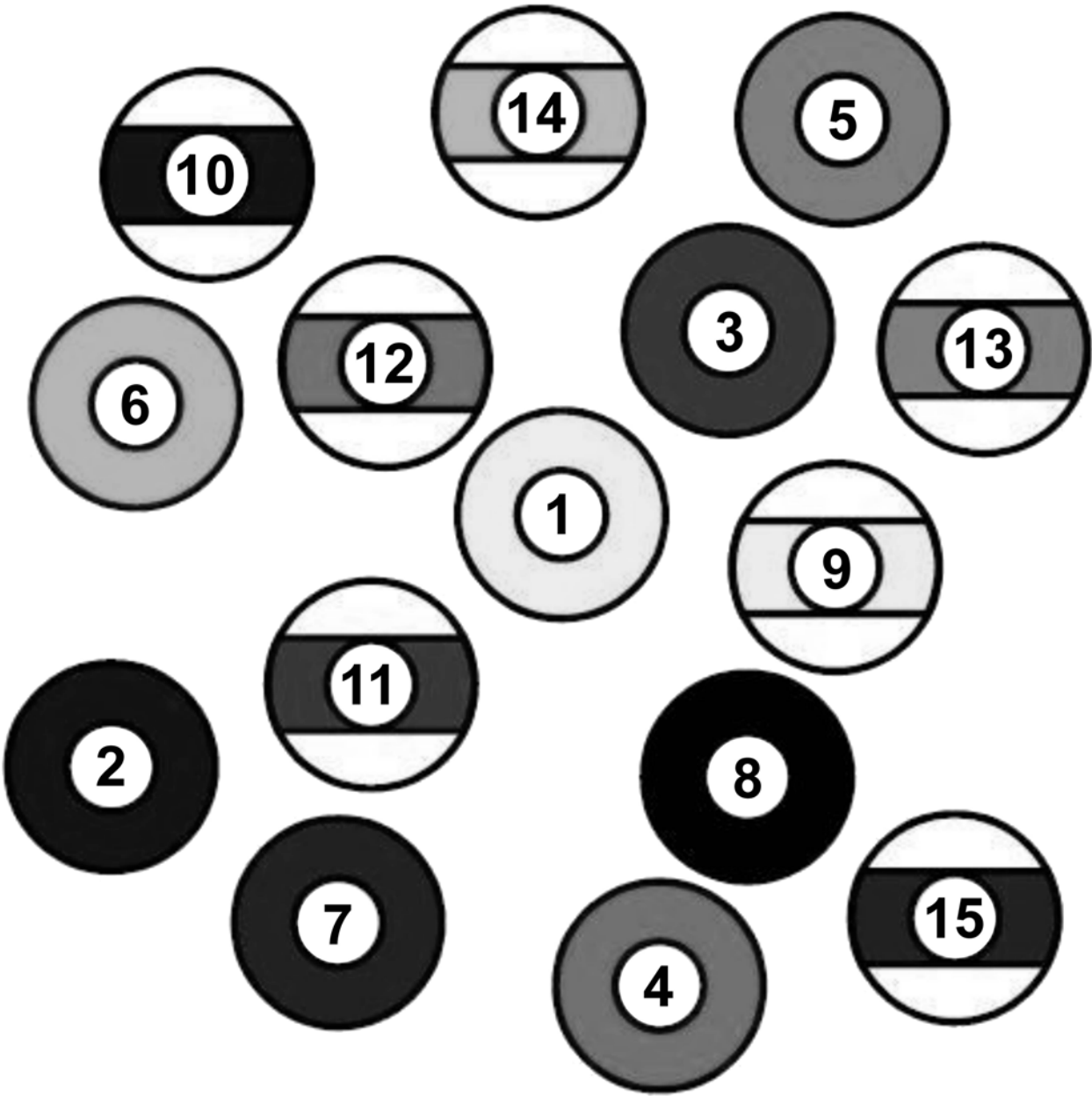
GOOD BREAK TARGET



Name: _____ Date: _____

Witness: _____ Score: _____

GOOD BREAK SCORESHEET



CHAPTER 4

PO S343 – ASSIST THE RANGE SAFETY OFFICER (RSO)



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 1

EO S343.01 – SET UP AND DISMANTLE AN AIR RIFLE RANGE

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Collect cadet air rifles, cadet air rifle safety rods and air rifle range equipment to set up a temporary indoor range.

Photocopy the Air Rifle Range Layout handout located at [Annex A](#) for each cadet.

Photocopy the Duties of a Pellet Controller handout located at [Annex B](#) for each cadet.

Photocopy the Cadet Air Rifle Usage Log located at [Annex C](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1 and 5 to orient the cadets to equipment used during air rifle marksmanship activities and the duties of a pellet controller.

A demonstration was chosen for TPs 2, 4 and 6 as it allows the instructor to explain and demonstrate inspecting the cadet air rifle, setting up an air rifle range and dismantling an air rifle range in a safe and controlled environment.

A group discussion was chosen for TP 3 as it allows the cadets to interact with their peers and share their knowledge, opinions, and feelings about different types of air rifle ranges.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to set up and dismantle an air rifle range.

IMPORTANCE

It is important for an Air Rifle Marksmanship Instructor to know how to properly set up and dismantle an air rifle range as it is part of their duties when assisting the Range Safety Officer (RSO).

Teaching Point 1

Identify Equipment Required for an Air Rifle Range Activity

Time: 15 min

Method: Interactive Lecture

AIR RIFLE RANGE EQUIPMENT

When setting up an air rifle range, the required equipment must be collected and inspected for serviceability. Broken and malfunctioning equipment must not be used for an air rifle range activity. It should be tagged and returned to supply for a replacement.



For the purposes of the Air Rifle Marksmanship Instructor course, the term air rifle marksmanship equipment will be used to denote the list of equipment required to set up a basic air rifle range. This is not inclusive of any further equipment that may be required for each cadet (eg, shooting jacket, hat) or any equipment required for a specific type of air rifle marksmanship activity (eg, classification, standing position familiarization air rifle marksmanship activity).

Cadet Air Rifle

The cadet air rifle is the .177 calibre, Daisy, model 853C. One cadet air rifle for each firing point is required on the air rifle range and spare cadet air rifles are required to replace malfunctioning ones.

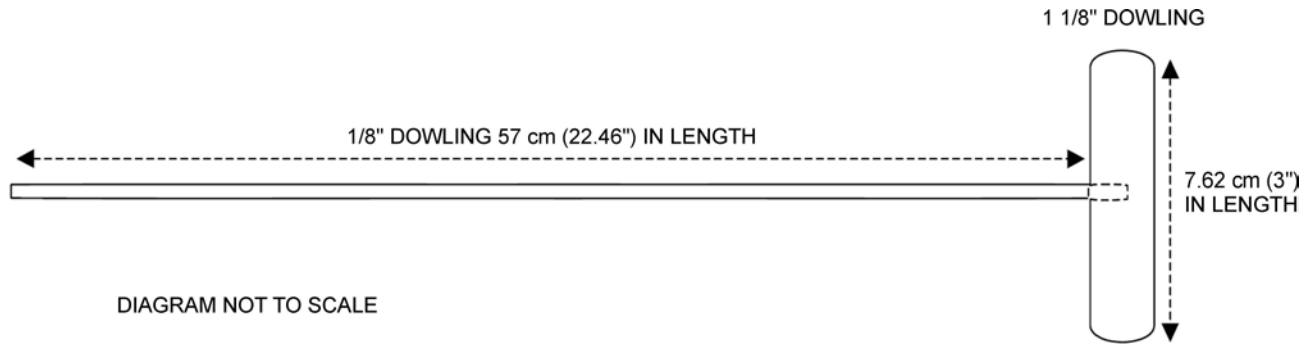


"Model 853C Legend EX", Daisy Outdoor Products. Retrieved March 24, 2009, from <http://www.daisy.com/shopping/customer/product.php?productid=16205&cat=253&page=1>

Figure 4-1-1 Cadet Air Rifle

Cadet Air Rifle Safety Rod

To ensure air rifles are not moved to and from the firing point or stored with a pellet in the chamber or barrel, a cadet air rifle safety rod is inserted in the barrel from the muzzle end. It consists of two sections of wooden dowelling joined together in a "T" shape (it can also be made of other materials). The tip of the cadet air rifle safety rod is coloured red. One cadet air rifle safety rod is required for each cadet air rifle on the air rifle range.



A-CR-CCP-177/PT-001 (p. 1-3-1)

Figure 4-1-2 Cadet Air Rifle Safety Rod

Safety Glasses/Goggles

The wearing of safety glasses or shatterproof eyeglasses is mandatory when firing cadet air rifles except during biathlon training/competition. The wearing of specialized glasses (eg, shatterproof eyeglasses) is permitted only if the lenses completely cover the eyes. All firers, coaches and range staff must wear safety glasses during the course of fire. Safety glasses/goggles that are broken or scratched will not be used.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4-1-3 Safety Glasses

Target Frame

Target frames are the pieces of equipment where the pellets impact after they are fired. There may be differences in the appearance of target frames depending on the type of range being set up. The standard portable target frame is used at the majority of cadet units. It is constructed from plywood attached at a 45-degree angle to the face of the target frame. The plywood forms the backstop of the target frame, which acts as a non-penetrable surface to stop pellets not caught by the pellet trap. It allows for the insertion of cardboard or light cellular plastics to provide the target holder a surface on which to affix the target. A pellet trap, a non-penetrable material capable of withstanding a pellet impact, is hung from the target frame to add a second layer of protection and contain the pellets once they impact. One target frame is required for each firing point. The target frame must not have broken or missing components (eg, missing straps, torn pellet trap) as this would affect its ability to properly stop pellets.



During competitive air rifle marksmanship activities the target frames must be numbered. The far left firing lane is denoted Lane 1.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

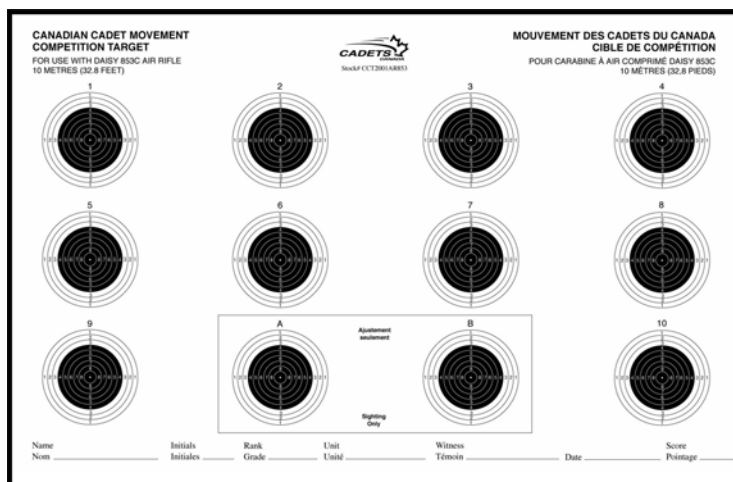
Figure 4-1-4 Target Frame

Target

There are two official targets used for air rifle marksmanship activities: the CCM Competition Target (CCT2001AR853) and the CCM Air Rifle Grouping Target (CCT2000GRTD). The CCM Competition Target consists of 10 scoring diagrams and two sighting diagrams. The CCM Air Rifle Grouping Target consists of two black diagrams with a 3-cm diameter. Different quantities of each target are required depending on the type of air rifle marksmanship activity being conducted and the number of participants.

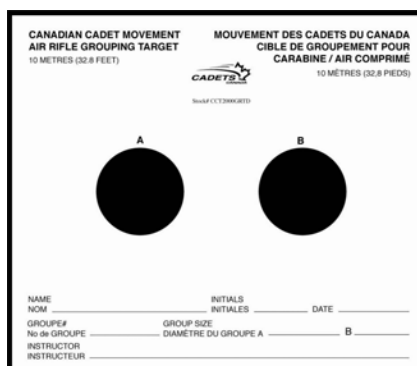


There are various other types of fun targets available that can be reproduced locally for use during fun and timed air rifle marksmanship activities.



Director Cadets 4, 2001, Ottawa, ON: Department of National Defence

Figure 4-1-5 The CCM Competition Target (CCT2001AR853)



Director Cadets 4, 2000, Ottawa, ON: Department of National Defence

Figure 4-1-6 The CCM Air Rifle Grouping Target (CCT2000GRTD)

Shooting Mat

Shooting mats are provided at each firing point to allow cadets a soft, stable surface on which to adopt the prone position. There are many types that can be used, including standard gym mats and specialized shooting mats. During competitions, the thickness of the mat is not to exceed 50 mm uncompressed and 10 mm compressed. During recreational activities, any suitable mat may be used.



"Center the Group" by P. Bawden. Retrieved March 18, 2009, from <http://www.centerthegroup.com/trifold08.htm>

Figure 4-1-7 Shooting Mat

Spotting Scope

A spotting scope is permitted for use by firers and coaches on the firing point during air rifle marksmanship activities except during a classification air rifle marksmanship activity. Ideally, one spotting scope is provided for each set of cadets on the firing point and for the range staff. Currently there are no standards for or restrictions on the magnification power or type of spotting scope.



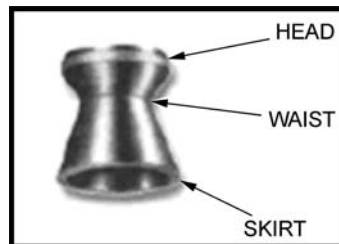
"Night Vision Planet". Retrieved March 18, 2009, from <http://www.nightvisionplanet.com/v/vspfiles/photos/Bushnell-781545-2T.jpg>

Figure 4-1-8 Spotting Scope

Air Rifle Pellets

The most popular pellet design is the hourglass-shaped air rifle pellet, commonly referred to as the diabolo. The “waisted” design of the pellet minimizes the friction between the pellet and the rifling. The thin hollow base (or skirt) expands during its travel down the bore to grip the rifling grooves and to establish an effective air seal. In a well designed diabolo pellet, most of the pellet weight is forward of the skirt in the head of the pellet. This gives the pellet maximum stability in flight – similar in concept to a badminton shuttle.

For marksmanship and competition training, the wadcutter pellet is used. This flat-headed pellet is designed for cutting neat, clean holes in paper, which allows for accurate, precise scoring of the target. Only diabolo-design wadcutter pellets supplied by the Canadian Forces (CF) are authorized for use in cadet air rifles. The quantity of pellets required will vary from activity to activity and with the number of participants.



*Air Gun Shooting Sports Safety Guide, by Education & Training and Competitive Shooting Divisions.
Fairfax, VA: National Rifle Association of America. Copyright 2006 by National Rifle Association of America*

Figure 4-1-9 Diabolo-Design Wadcutter Pellet

Folding Table

A folding table is required to organize targets, pellets and other small materials used by the range staff during air rifle marksmanship activities. The number and size of folding tables will be determined by specific needs of local air rifle ranges.

First Aid Kit and Stretcher

As with all cadet activities, safety is the number one concern. During air rifle marksmanship activities, a first aid point shall be established on the range and its location clearly identified to all participants. A stretcher is also required.

Handwashing Facility

Each time someone handles pellets, a small trace of lead is left on their hands and can be transferred to other parts of their body or to food. Over a period of time, this contact could increase lead levels in the body. Hands must be washed thoroughly following contact with pellets.

Warning Signals (Red and Green)

All air rifle ranges must be constructed with limited access. As such, warning signals shall be posted at all entrances advising that live firing is in progress. These signals should be red. A green signal indicates there are personnel on the range and no firing is in progress. The number and type of warning signals will vary from range to range but will always be present. Some examples of warning signals are:

- range flags located at the firing point and backstop of a permanent outdoor range;
- range flags supported by movable flag poles on a temporary outdoor range;

- range lights located outside the entrance to a permanent indoor range;
- signs posted to indicate firing in progress on secured entrances to a temporary indoor range; and
- sentries posted to indicate firing in progress on unsecured entrances to a temporary indoor range.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What is the purpose of a cadet air rifle safety rod?
- Q2. What are the two official targets used by the CCM?
- Q3. What type of air rifle pellet is issued for all cadet air rifle marksmanship activities?

ANTICIPATED ANSWERS

- A1. The purpose of the cadet air rifle safety rod is to ensure cadet air rifles are not moved to and from the firing point or stored with a pellet in the chamber or barrel.
- A2. The two official targets are the CCT2001AR853 Competition Target and the CCT2000GRTD Air Rifle Grouping Target.
- A3. Diabolo-design wadcutter pellets are issued for all cadet air rifle marksmanship activities.

Teaching Point 2

Explain and Demonstrate How to Inspect the Cadet Air Rifle

Time: 5 min

Method: Demonstration

INSPECT THE CADET AIR RIFLE

The cadet air rifle must be inspected prior to each use to ensure proper operation. A cadet air rifle that is not serviceable may be a safety concern (depending on the nature of the problem) and may cause unnecessary delays during the relay while a replacement cadet air rifle is being provided to the firer. Four actions are performed to inspect the cadet air rifle prior to use.

Ensure the Sights Are Properly Attached

The barrel weight may require tightening of the set screws to prevent it from becoming misaligned on the barrel. The rear sight screws may also require tightening if they are loose.



The rear sight screws are made of a soft metal and are easily damaged. Care must be taken not to over tighten the screws.

Ensure There Are No Loose Screws in the Stock

The stock screws and nuts hold the barrelled action in the stock. They will require tightening if they are loose.

Clean the Barrel

Under the direction of the RSO, fire two or three felt cleaning pellets through the barrel to ensure it is clean. The stock and action of the cadet air rifle should also be visually inspected for breaks or loose parts.

Test the Function of the Safety and Action

The safety catch and proper functioning of the cadet air rifle shall be tested by:

1. pulling back the bolt;
2. pumping the rifle;
3. loading a cleaning pellet;
4. placing the safety catch to ON;
5. pulling the trigger (the rifle should not fire);
6. placing the safety catch to OFF; and
7. pulling the trigger (the rifle should fire).

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. Why is the cadet air rifle inspected prior to each use?
- Q2. How many cleaning pellets should be fired to ensure the barrel of the cadet air rifle is clean?
- Q3. What are the steps in testing the safety catch and proper functioning of the cadet air rifle?

ANTICIPATED ANSWERS

- A1. The cadet air rifle must be inspected prior to each use to ensure proper operation. A cadet air rifle that is not serviceable may be a safety concern and may cause unnecessary delays during the relay while a replacement cadet air rifle is being provided to the firer.
- A2. Two to three cleaning pellets should be fired to ensure the barrel of the cadet air rifle is clean.
- A3. The safety catch and proper functioning of the cadet air rifle shall be tested by:
1. pulling back the bolt;
 2. pumping the rifle;
 3. loading a cleaning pellet;
 4. placing the safety catch to ON;
 5. pulling the trigger (the rifle should not fire);
 6. placing the safety catch to OFF; and
 7. pulling the trigger (the rifle should fire).

Teaching Point 3**Discuss Types of Air Rifle Ranges**

Time: 10 min

Method: Group Discussion

BACKGROUND KNOWLEDGE

The purpose of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

TYPES OF AIR RIFLE RANGES

There are four types of air rifle ranges authorized for cadet training. Each type of range will require slightly different requirements for the set-up and layout.

Existing Indoor Ranges

Existing indoor ranges that have been decommissioned and decontaminated may be used for air rifle marksmanship activities. The target frames, shooting mats, tables and warning signals may already be in place so set-up will be limited to the remaining air rifle range equipment.



No training, of any type, is to be conducted on any small-bore or large-bore indoor range that is still actively being used as a small-bore or large-bore range.



"Broken Britain". Retrieved March 18, 2009, from http://www.broken-britain.net/stealth/Buckmore2/100_1789.jpg

Figure 4-1-10 Existing Indoor Range

Temporary Indoor Ranges

Any room that provides at least 15 m of length may be adapted into a temporary indoor range. It should provide as much access control as possible to prevent a person from entering the range from anywhere other than the designated entrance/exit. All air rifle range equipment will be required for the set-up of a temporary indoor range.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4-1-11 Temporary Indoor Range

Existing Outdoor Ranges

Any existing outdoor smallbore or fullbore range may be adapted for use as an air rifle range. Target frames are placed on the range with the backstops, providing a safety barrier to prevent pellets from leaving the area. The existing outdoor range backstops will be 1.7 m high and extend 3 m from the backstop toward the firing point at the wings. The firing point may or may not be covered, which will determine whether range equipment can be left in place or whether it must be removed after each activity.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4-1-12 Existing Outdoor Range

Temporary Outdoor Ranges

Air rifle marksmanship activities may be conducted outdoors in an open area. To meet safety requirements, the temporary outdoor range shall have an area 250 m in depth behind the target frames (called the danger area) and extend 50 mls (2.8 degrees) from the centre line of each firing position. The danger area must be fully controlled by the RSO and any entrances to the danger area must be physically blocked. All air rifle range equipment will be required for the set-up of a temporary outdoor range.



"EX Splice the Mainbrace 2008". Retrieved March 18, 2009, from <http://www.rcscwarrior.ab.ca/Resouces/pictures/EXSplicetheMainbrace2008/rangecomp4.html>

Figure 4-1-13 Temporary Outdoor Range



For more information on types of air rifle ranges refer to CATO 14-41, *Authorized Rifle Training*.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. What types of ranges have you participated in during air rifle marksmanship activities?
- Q2. What similarity have you observed in warning signals on indoor and outdoor ranges?
- Q3. What precautions have you observed being used to secure a temporary outdoor range?
- Q4. What differences in target frames have you observed on indoor and outdoor ranges?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 4

Explain and Demonstrate How to Set Up an Air Rifle Range

Time: 15 min

Method: Demonstration



The following procedure applies to an indoor temporary air rifle range. The following procedure has been developed as a suggested format for setting up a temporary indoor air rifle range. These steps may be adjusted as local needs require.



Distribute the Air Rifle Range Layout handout located at [Annex A](#) to each cadet. Have assistant instructors demonstrate the procedure as it is explained to the cadets.

PROCEDURE FOR SETTING UP AN AIR RIFLE RANGE

Once the required air rifle range equipment has been collected and the cadet air rifles have been inspected, the equipment can be set up. The specific details of an air rifle range layout may vary depending on the type of air rifle range; however, the dimensions and location of the equipment will remain the same. The air rifle range will be set up by:

1. **Posting Warning Signals.** A sentry should be posted at access points if they cannot be permanently blocked (eg, a door to a gymnasium that does not have a lock).

2. **Setting Up Equipment at the Backstop.** At one end of the room, the target frames will be set up in front of a wall. Care should be taken to avoid using a wall with windows or other items (eg, light switch, fire alarm, smoke detector) that would be damaged by a stray pellet. If this is unavoidable, a plywood covering should be placed over those items. The front of the target frame must be perpendicular to the floor and aligned with the front of other target frames along a target line. Additional lighting may be required for the target during some competition activities to satisfy competition rules. Lighting will not interfere with the cadets' view of the target frame.
3. **Indicating Firing Lanes.** Target frames will be centred in a lane at least 1.25 m wide and extend away from the target line toward the firing point a distance of 10 m. 10 m from the target line, another line will be marked on the floor. This is the firing line and no person will move forward of it without permission from the RSO.
4. **Placing Equipment at the Firing Point.** Behind the firing line is the firing box, an area at least 1.25 m wide by 2.5 m deep. A firing box will be allocated for each firer. A shooting mat will be placed within the firing box aligned with the firing line (during standing position firing no mat is required). Safety glasses/goggles and a spotting scope will be placed on every shooting mat. An area behind the firing box will be allocated for range staff.
5. **Placing Equipment Behind the Firing Point.** The area behind the firing point contains the table(s) required to set up a pellet distribution point, scoring area or other workspace as required for the specific air rifle marksmanship activity being conducted. The first aid point with stretcher is located in this area and must be clearly identified. The handwashing facility may be located on the range behind the firing point or in a washroom within the building.
6. **Placing the Cadet Air Rifle at the Firing Point.** A cadet air rifle with cadet air rifle safety rod will be the last item placed on the air rifle range. When removing the cadet air rifle from the case, control the muzzle by carrying the cadet air rifle in a vertical position with a cadet air rifle safety rod inserted into the barrel. Once the cadet air rifle is placed on the firing point, the cadet air rifle safety rod may be removed.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

- Q1. What are some items that may be damaged by pellets at the backstop?
- Q2. What are the dimensions of a firing lane?
- Q3. What will be the last piece of equipment placed on the air rifle range?

ANTICIPATED ANSWERS

- A1. Windows, switches, fire alarms, and smoke detectors.
- A2. A firing lane is 10 m long and at least 1.25 m wide.
- A3. The cadet air rifle will be the last piece of equipment placed on the air rifle range.

Teaching Point 5**Describe the Duties of a Pellet Controller**

Time: 10 min

Method: Interactive Lecture



Distribute the Duties of a Pellet Controller handout located at [Annex B](#) and the Cadet Air Rifle Usage Log located at [Annex C](#) to each cadet.

DUTIES OF A PELLET CONTROLLER

During an air rifle marksmanship activity, cadets may be appointed to assist the RSO by acting as a pellet controller. The duties of a pellet controller include:

- **Maintaining Possession of Pellets at All Times.** Pellets are placed in the possession of the pellet controller. They ensure the pellets are secured at all times by means of direct supervision.
- **Distributing Pellets.** Depending on the specific type of air rifle marksmanship activity being conducted, the pellet controller counts pellets into containers that will be placed on the firing point upon the RSO's command.
- **Disposing of Pellets.** Once the air rifle marksmanship activity is concluded, the pellet controller ensures that the area around the target frame is swept. The spent pellets are collected into a container for disposal by the RSO.



Since pellets are made of lead, a hazardous material, they must be disposed IAW local standing orders.

- **Recording the Number of Pellets Used During the Activity.** As the activity proceeds, the pellet controller tracks the number of pellets being used during each relay. Once the activity is complete, the total number of pellets used can be calculated. Any additional pellets given by the RSO/range assistants to cadets during the activity (eg, misfires, deformed pellets) are added to the total. This information is used by the RSO to track the quantity of pellets available at the unit.



The need to record the number of pellets used at a corps/squadron/CSTC may or may not be regionally directed. In the case where no requirement exists, it is still an effective tool for the RSO and a practical leadership opportunity for the cadets acting as pellet controllers.

- **Recording the Number of Pellets Used for Each Rifle.** The Cadet Air Rifle Usage Log shows the RSO when one thousand pellets have been fired by each cadet air rifle. When one thousand pellets have been fired the cadet air rifle requires cleaning. The pellet controller records the total number of pellets used in each cadet air rifle during the air rifle activity.



The Cadet Air Rifle Usage Log was developed as a practical leadership opportunity for cadets to be given added responsibility while they act as a pellet controller.

CONFIRMATION OF TEACHING POINT 5

QUESTIONS

- Q1. What are the five duties of a pellet controller?
- Q2. How must pellets be disposed?
- Q3. What is one benefit of tracking how many pellets were fired during an air rifle activity?

ANTICIPATED ANSWERS

- A1. The duties of a pellet controller are:
- maintaining possession of the pellets at all times;
 - distributing pellets;
 - disposing of pellets;
 - recording the number of pellets used during the activity; and
 - recording the number of pellets used for each rifle.
- A2. Pellets must be disposed of by the RSO IAW local standing orders.
- A3. It allows the RSO to track the quantity of pellets available at the unit.

Teaching Point 6

Explain and Demonstrate the Procedure for Dismantling an Air Rifle Range

Time: 15 min

Method: Demonstration



Have assistant instructors demonstrate the dismantling procedure as it is explained to the cadets.



The following dismantling procedure applies to an indoor temporary air rifle range. The following procedure has been developed as a suggested format for dismantling a temporary indoor air rifle range. These steps may be adjusted as needs require.

PROCEDURE FOR DISMANTLING AN AIR RIFLE RANGE

Once the air rifle marksmanship activity has been completed, the air rifle range can be dismantled. The air rifle range will be dismantled by:

1. **Storing the Cadet Air Rifle.** After an air rifle marksmanship activity, the cadet air rifle is the first piece of range equipment secured. A cadet air rifle safety rod is inserted into the barrel before the cadet air rifle is moved from the firing point. Cadet air rifles are securely stored at the unit according to current policy guidelines.



For detailed storage requirements for the cadet air rifle refer to NDSI 65, *Storage and Transportation of Rifles for Canadian Rangers, Cadets and Junior Canadian Rangers*.

2. **Storing the Equipment Behind the Firing Point.** Equipment used behind the firing point is stored next. Equipment must be cleaned (if required) and stored to prevent damage. If the first aid kit has been used, it may require refilling.
3. **Storing the Equipment at the Firing Point.** Equipment used at the firing point is stored next. Equipment must be cleaned (if required) and stored to prevent damage. Care should be taken to minimize scratching of safety glasses/goggles. Shooting mats are folded or rolled properly to minimize rips or tears. Spotting scopes are stored in their cases (if applicable).
4. **Cleaning the Backstop Area.** Once the firing point equipment has been secured, the target frames are thoroughly emptied of spent pellets. The target holder is cleaned of any material (eg, targets, thumbtacks, staples) and the target frame is folded and stored.
5. **Cleaning the Firing Lanes.** Since lead dust in the air is a minor hazard to safety, a method of sweeping/mopping that reduces the amount of dust produced should be used. One set of cleaning gear is used after air rifle marksmanship activities to limit cross-contamination of other areas of the building.
6. **Removing the Warning Signals.** Once all other air rifle marksmanship equipment has been secured, the range warning signals are removed. This will indicate that the room in which the temporary indoor range was set up is now cleaned and ready for general use.

CONFIRMATION OF TEACHING POINT 6

QUESTIONS

- Q1. In what order should an air rifle range be dismantled?
- Q2. What must be done to clean the backstop area?
- Q3. What method of cleaning should be used to clean the firing lanes on an indoor temporary air rifle range?

ANTICIPATED ANSWERS

- A1. The order for dismantling an air rifle range is:
 1. storing the cadet air rifle;
 2. storing the equipment behind the firing point;
 3. storing the equipment at the firing point;
 4. cleaning the backstop area;
 5. cleaning the firing lanes; and
 6. removing the warning signals.

- A2. The target holder is cleaned of any material (eg, targets, thumbtacks, staples) and the target frame is folded and stored.
- A3. Since lead dust in the air is a minor hazard to safety, a method of sweeping/mopping that reduces the amount of dust produced should be used.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. Are shatterproof eyeglasses permitted to be worn in place of safety glasses/goggles during an air rifle marksmanship activity?
- Q2. What are some considerations when using a room as a temporary indoor range?
- Q3. Are pellets given directly to the competitor by the RSO?

ANTICIPATED ANSWERS

- A1. Yes, the wearing of specialized glasses (eg, shatterproof eyeglasses) is permitted, but only if the lenses completely cover the eyes.
- A2. Care should be taken to avoid using a wall with windows or other items (eg, light switch, fire alarm, smoke detector) that would be damaged by a stray pellet. It will also require cleaning to eliminate lead dust.
- A3. No, the pellet controller is responsible for the distribution of pellets during an air rifle marksmanship activity.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3 (S343 PC).

CLOSING STATEMENT

The ability to set up and dismantle an air rifle range is critical to air rifle marksmanship activities. Knowing the equipment required and how to properly lay out an air rifle range will enable cadets to take a leadership role in the conduct of any air rifle marksmanship activity.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lessons related to EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)), EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

There is no policy to stipulate that a Cadet Air Rifle Usage Log must be kept. The Cadet Air Rifle Usage Log has been created to enhance the leadership task of acting as a pellet controller as it provides the cadet with additional responsibility in the performance of their duties.

If facilities permit, cadets should be given the opportunity to observe and participate in the set-up of different types of air rifle ranges.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-041 CATO 14-41 Director Cadets 4. (2009). *Authorized Rifle Training*. Ottawa, ON: Department of National Defence.



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 2

EO S343.02 – ENFORCE SAFETY ON AN AIR RIFLE RANGE

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Cadet Air Rifle Handling Test located at A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1 for each cadet.

Photocopy the Range Safety Briefing handout at [Annex D](#) for each cadet.

Photocopy the Range Commands handout at [Annex E](#) for each cadet.

Photocopy the Duties of a Range Sentry handout at [Annex F](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A group discussion was chosen for TPs 1 and 2 as it allows the cadets to interact with their peers and share their knowledge, opinions, and feelings about safety briefings and range commands.

An interactive lecture was chosen for TP 3 to introduce the cadets to the duties of a range sentry and give an overview.

A practical activity was chosen for TP 4 as it is an interactive way to allow the cadets to assist with the administration of the Cadet Air Rifle Handling Test. This activity contributes to the development of instructional skills, and reinforces the air rifle marksmanship skills required to pass the test.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to enforce safety on an air rifle range.

IMPORTANCE

It is important for cadets to have knowledge of range safety and to be able to assist the Range Safety Officer (RSO) with supervising cadets.

Teaching Point 1

Discuss the Content of a Range Safety Briefing

Time: 20 min

Method: Group Discussion



Distribute the Range Safety Briefing handout located at [Annex D](#) to each cadet.

BACKGROUND KNOWLEDGE



The purpose of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

RANGE SAFETY BRIEFING

It is the responsibility of the RSO to conduct a range safety briefing prior to each air rifle marksmanship activity. The range safety briefing contains information that is essential to the safety and well-being of all participants. There are as many as fifteen sections to a standard range safety briefing; they can be tailored to the individual needs of the RSO depending on the local specifications of the air rifle range being used.

Welcome/Introduction

A brief introduction to the range activity includes introducing the range staff and providing background information on the range and activity. The introduction includes:

- welcome to the range (eg, name of the range),
- personal introduction of the RSO (eg, "My name is Capt Bloggins; I am the RSO."),
- introduction of range staff (eg, assistant RSOs, firing point assistants), and
- background information.

Overview of the Range Layout

It is important that all participants are familiar with the physical layout of the range, facilities and training area. Items covered in the overview of the range include but are not limited to the following:

- components of the range (eg, firing point, scoring area, first aid point),
- danger/out-of-bounds areas,

- location of washrooms/hand washing facilities/drinking water,
- locations of concurrent activities,
- location of the safety vehicle, and
- routes of access to the range.

General Safety Rules

Inform participants of general safety rules, such as:

- no running, horseplay or shouting;
- no food or drinks on the range;
- no electronic devices (eg, cell phones, mp3 players) on the range;
- not engaging in any behaviour that may cause a disruption on the range;
- waiting until instructed before standing up or leaving the firing point; and
- raising your hand to contact the RSO, if required.

Activity and Course of Fire

Inform participants of the type of activity being conducted and the scope of the training. It is important that the details of the activity and the course of fire are discussed during the range briefing. Information on the course of fire includes:

- type of activity being conducted (eg, classification, competition, summer biathlon),
- distance (eg, 10 m for air rifle),
- target being used (eg, grouping target, fun target, competition target),
- indication (eg, 5 rounds, 10 rounds), and
- scoring (eg, how the targets are scored).

Equipment

As part of the range briefing inform participants of the main equipment used during the range activity, to include:

- rifles (eg, make, model, feeding [hand fed, 5 shot clip fed]),
- ammunition (eg, .177-calibre pellets, disposal of used pellets), and
- safety equipment (eg, safety glasses, warning signals).

Safety Precautions

Include a brief review of the following safety precautions in the range safety briefing:

- carrying out individual safety precautions; and
- determining safe rifle status.

Range Commands

It is important that all participants are familiar with the range commands so conduct a brief review as part of the range safety briefing.

Cease Fire Command

The cease fire command is one of the most important commands given on the range. As such, it is imperative that all participants are aware of their duties and responsibilities with regards to:

- situations in which the command is given (eg, hazards on the range);
- who may give the command; and
- actions upon hearing the cease fire command.

Immediate Actions and Stoppages

Include a brief review of the following in the range safety briefing:

- types of common stoppages (eg, misfires, mechanical malfunctions, etc); and
- immediate actions to resolve the stoppage.

Personal Hygiene

Remind participants that lead (used in air rifle pellets) and the oils used on the cadet air rifles are toxic, therefore, washing hands after handling cadet air rifles, pellets and before eating is required.

First Aid and Emergencies

Inform participants of first aid and emergency procedures/precautions in place on the range. These include:

- location of the first aid point;
- identification of the appointed first aider on site;
- location of the safety vehicle;
- actions to be taken in the event of an emergency;
- emergency routes of access; and
- the emergency response plan.

Assignment of Relays

Inform participants of the breakdown and order of the relays/groups. For a longer range activity, the time the various relays must be in the waiting area may be indicated here as well as any additional information (eg, Relay 3 must have lunch prior to firing).

Concurrent Activities

For range activities that involve multiple relays, concurrent activity occupies the participants who are not immediately firing or preparing to fire. Inform personnel of:

- type (eg, sports, marksmanship training),
- timing (eg, 30-minute rotation), and
- supervisory staff/OPI of concurrent activity.

Additional Items

Depending on the range/training area in use there may be other conditions or information that is pertinent to the activity. These additional items may be found in local range standing orders, local fire or safety orders or may be information specific to the RSO or corps/squadron. Additional items may include:

- ensuring a handling test has been completed by all personnel;
- timings for the activity (eg, start time, end time, etc);
- if a declaration is required;
- breaks;
- weather (eg, heat stress levels);
- messing/meals/snacks; and
- setting up/dismantling of the range.

Questions

The final component of any briefing is a question period; this allows personnel to clarify any points that may be unclear. In the interest of safety, ensure participants know that no question is too minor and that this is the time to ask.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. What information is contained in a range safety briefing?
- Q2. What are some general safety rules commonly reinforced during a range safety briefing?

Q3. What first aid and emergency information should a range safety briefing contain?

Q4. What information regarding concurrent activities is contained in a range safety briefing?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 2

Discuss Range Commands

Time: 15 min

Method: Group Discussion

BACKGROUND KNOWLEDGE



The purpose of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.



Distribute the Range Commands handout located at [Annex E](#) to each cadet.

RANGE COMMANDS

To assist the RSO, Air Rifle Marksmanship Instructor cadets need to understand, in detail, the commands given during cadet air rifle marksmanship activities.

Standard Range Commands

When conducting non-competitive air rifle marksmanship activities, direct control over firing on the range is of the utmost importance (especially when participants are inexperienced). For this reason, commands are used during the firing sequence to ensure control on the range and help guide participants through the relay. Commands for use during these activities are found in A-CR-CCP-177/PT-001.



GRIT is the acronym for:

1. group (relay),
2. range,
3. indication, and
4. type.

Command	Action
COVER OFF YOUR FIRING POINT.	Stand up, move behind the firing point and await further commands.
PLACE YOUR EQUIPMENT DOWN AND STAND BACK.	Lay the equipment down on the mat and stand back when finished.
ADOPT THE PRONE POSITION.	Adopt the prone position, pick up the cadet air rifle, ready the equipment and put on eye protection.
RELAY NO. ___, RANGE ___ m, THIS IS ___ ROUNDS, GROUPING/ APPLICATION/OTHER.	This command includes information about the range and type of firing.
RELAY, LOAD, COMMENCE FIRING.	1. Pick up and hold the cadet air rifle with the left hand. 2. Ensure the safety catch is in the ON position. 3. Pump the cadet air rifle. 4. When the pump lever is fully extended, pause for about three seconds. 5. Load the pellet. 6. Close the bolt. 7. Place the safety catch in the OFF position; aim the cadet air rifle at the target. 8. Squeeze the trigger. 9. Open the bolt. 10. Repeat the sequence for each shot. 11. Place the safety catch in the ON position and partially open the pump lever immediately after firing the last pellet. 12. Lay down the cadet air rifle.

A-CR-CCP-177/PT-001 (p. 1-5-3)

Figure 4-2-1 (Sheet 1 of 2) Range Commands

Command	Action
RELAY, UNLOAD.	1. Pick up the cadet air rifle. 2. Remove the five-pellet clip, if used. 3. Open the bolt. 4. Pump the cadet air rifle. 5. Close the bolt. 6. Place the safety catch in the OFF position. 7. Aim the cadet air rifle at target. 8. Pull the trigger. 9. Place the safety catch in the ON position.
RELAY, PREPARE FOR INSPECTION.	1. Open the bolt. 2. Open the pump lever 5–8 cm. 3. Place the cadet air rifle against the shoulder, muzzle pointed down range. 4. Wait to be cleared by the RSO. 5. Lay the cadet air rifle down. 6. Remove eye protection.
RELAY, STAND UP.	Stand and leave the equipment on the ground.
Commands That May be Given	Action
RELAY, CEASE FIRE.	Stop firing immediately, put the safety catch in the ON position and lay the cadet air rifle down.
RELAY, RESUME FIRE.	Put the safety in the OFF position and continue firing.
CHANGE TARGETS.	Walk down the lane to remove old targets and replace them with new ones. Return to the firing point.
CHANGE RELAYS.	Cadets who have just fired pick up their personal equipment and move off the firing point. The new relay covers off behind the firing point.

A-CR-CCP-177/PT-001 (p. 1-5-3)

Figure 4-2-1 (Sheet 2 of 2) Range Commands

Competition Range Commands

Following verbal commands used during cadet marksmanship competitions helps ensure a safe and orderly conduct of firing on the range and standardize conditions that exist when conducting competitions. Additional commands are used to give information and instructions to the competitors regarding when to place targets, timings for preparation, relay duration and time warnings as the relay is coming to an end. Competition range commands are found in A-CR-CCP-177/PT-001.

Range Command	Action
COMPETITORS TO THE FIRING POINT.	Competitors and cadet coaches bring their equipment and targets to the firing point and stand behind their firing position.
PLACE YOUR EQUIPMENT DOWN AND STAND BACK.	Competitors and cadet coaches lay their equipment on the firing mats and stand to the rear of their mats when finished.
AFFIX TARGETS – YOU HAVE TWO MINUTES.	Competitors or cadet coaches post targets and return to the firing point.
DISTRIBUTE PELLETS.	Pellets are placed on the firing point.
ADOPT THE PRONE POSITION – YOUR THREE-MINUTE PREPARATION PERIOD BEGINS NOW.	Competitors adopt the prone position, ready their equipment and put on their eye protection. Cadet coaches adopt their position for the duration of the relay. Competitors and cadet coaches may inspect their pellets for uniformity.
LOAD AND COMMENCE FIRING – YOUR 30-MINUTE FIRING PERIOD BEGINS NOW.	Competitors commence firing.
YOU HAVE TEN MINUTES REMAINING.	Ten minutes are left before the end of the relay.
YOU HAVE FIVE MINUTES REMAINING.	Five minutes are left before the end of the relay.
YOU HAVE ONE MINUTE REMAINING.	One minute is left before the end of the relay.
CEASE FIRE – YOUR TIME HAS EXPIRED. UNLOAD AND PREPARE FOR INSPECTION.	Competitors cease firing and unload their rifles.
REMOVE YOUR EQUIPMENT FROM THE FIRING POINT.	Competitors and cadet coaches remove all their equipment from the firing point; officials will pick up targets.
EXIT THE RANGE.	Competitors proceed to the team room.

A-CR-CCP-177/PT-001 (p. 4-4-20)

Figure 4-2-2 Competition Range Commands

Summer Biathlon Range Commands

During either a recreational or competitive summer biathlon activity in which participants are running prior to firing, there are two range commands utilized to control the range. The commands the RSO uses ensure summer biathlon officials, competitors and coaches are aware of when the range is open (ready for firing) and when it is closed (firing ceases). The RSO may also specify whether the range is open for zeroing or for competition. The range commands utilized are:

- RANGE OPEN. RANGE OPEN FOR ZEROING. RANGE OPEN FOR COMPETITION.
- RANGE CLOSED.

Supervision of Cadets Responding to Range Commands

Supervision of cadets responding to range commands is of the utmost importance when assisting the RSO during the course of fire. By closely monitoring each cadet, any minor safety infractions can be corrected and any major violation reported to the RSO. Some minor infractions include eating on the range or talking. Major violations include not wearing safety glasses/goggles at all times or pointing the cadet air rifle somewhere other than downrange. Supervisors should move back and forth during the course of fire to observe the firing points they have been assigned. It is important during a competitive air rifle marksmanship activity to watch for rule violations committed by the firer or the coach. These violations will be reported to the RSO to be recorded.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Give the cadets time to respond to your questions.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Manage time by ensuring the cadets stay on topic.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. What are some types of range commands?
- Q2. What range commands are given during a standard air rifle marksmanship activity?
- Q3. What range commands are given for a competitive air rifle marksmanship activity?
- Q4. What safety violations should a range assistant be watching for?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 3

Describe the Duties of a Range Sentry

Time: 5 min

Method: Interactive Lecture



Distribute the Duties of a Range Sentry handout located at [Annex F](#) to each cadet.

RANGE SENTRY

A range sentry is responsible, during the course of fire, to restrict entry on to the range and for changing warning signals when instructed to do so by the RSO. They must be able to constantly communicate with the RSO to report any safety concerns.

Restricting Access to the Range During Firing

On most indoor temporary ranges, access points exist and must be secured during the course of fire. By posting a range sentry outside an access point, the RSO can be assured no one can access the range and be struck by pellets. On outdoor ranges, roads leading to the range may need to be blocked and a range sentry posted to control vehicle access. In a situation where the range sentry is unable to directly attract the attention of the RSO, a means of communication such as a hand-held radio may be required.

Controlling Range Warning Signals

Range sentries are responsible for controlling the range warning signals. At the commencement of an air rifle marksmanship activity, a green flag/light/signal shall be posted to alert people that the range is in use but no live firing is currently in progress. The location of warning signals vary based on the local specifications of the air rifle range being used. Typically, warning signals are posted at the backstop, firing point and on access roads leading to the range.

For indoor ranges, warning signals are posted at entranceways to the room in which the range is set up. On the command of the RSO, the range sentry changes the green warning signal to red. The red signal alerts people that the range is in use and live firing is in progress. The red warning signal is posted from before the course of fire begins until the RSO has cleared the last cadet air rifle of the relay. At this time, on the command of the RSO, the range sentry changes the warning signal back to green. At the conclusion of the air rifle marksmanship activity, all warning signals are removed to indicate that the range is no longer in use.

Notifying the RSO of Safety Concerns Inside/Outside the Range Area

During the conduct of an air rifle marksmanship activity, the range sentry is responsible for bringing safety concerns both on and off the range area to the attention of the RSO. These concerns may include wildlife entering the range or visitors requesting access to the range.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What are the responsibilities of a range sentry?
- Q2. Why is it important to restrict access points to the air rifle range?
- Q3. What does a red warning signal indicate?

ANTICIPATED ANSWERS

- A1. A range sentry is responsible, during the course of fire, for restricting entry on to the range, controlling warning signals when instructed to do so by the RSO and notifying the RSO of safety concerns.
- A2. By posting a range sentry outside an access point, the RSO can be assured no one can access the range and be struck by pellets.
- A3. A red warning signal alerts people that the range is in use and live firing is in progress.

Teaching Point 4

Have the Cadets Assist With the Administration of the Cadet Air Rifle Handling Test

Time: 30 min

Method: Practical Activity



Follow the Cadet Air Rifle Handling Test as laid out in A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 1.

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets assist in administering the Cadet Air Rifle Handling Test.

RESOURCES

- Cadet air rifle,
- Cadet air rifle safety rod,
- Safety glasses/goggles,
- Shooting mat,
- Cadet Air Rifle Handling Test,

- Clipboard, and
- Pencil with eraser.

ACTIVITY LAYOUT

- Lay out a cadet air rifle for each firing lane on the range (with a cadet air rifle safety rod).
- Provide a clipboard and pencil for each firing lane.
- Provide a Cadet Air Rifle Handling Test for each cadet being assessed.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into pairs.
2. Have one cadet perform the Cadet Air Rifle Handling Test while the other cadet assesses.
3. Switch cadets and conduct the Cadet Air Rifle Handling Test again.
4. Have the cadets hand in the completed tests to the RSO for signature.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What five points should be included in the activity and course of fire section of a range safety briefing?
- Q2. After firing has commenced, at what intervals are time warnings given during a competitive air rifle marksmanship activity?
- Q3. What does a green warning signal indicate?

ANTICIPATED ANSWERS

- A1. The five points include the type of activity being conducted, distance, target being used, indication and scoring.
- A2. Time warnings are given at 10 minutes remaining, five minutes remaining and one minute remaining.
- A3. A green warning signal indicates that the range is in use but no live firing is currently in progress.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3 (S343 PC).

CLOSING STATEMENT

The ability to enforce safety on an air rifle range is critical to air rifle marksmanship activities. Knowing the content of a range safety briefing, being able to supervise cadets, responding to range commands and assisting in administering the Cadet Air Rifle Handling Test will give you the ability to take an increased role in the conduct of any air rifle marksmanship activity.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lessons related to EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)), EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

REFERENCES

A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 3

EO S343.03 – SCORE AIR RIFLE MARKSMANSHIP TARGETS

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Retrieve the air rifle grouping and competition targets kept from the first occurrence of EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)) and EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)).

Photocopy the Sample Grouping Target Handout located at [Annex G](#) for each cadet.

Photocopy the Sample Competition Target Handout located at [Annex I](#) for each cadet.

Prepare slides of the Air Rifle Grouping Template and Scoring Template found at [Annexes H](#) and [J](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TP 1 to orient the cadets to the targets used during air rifle marksmanship activities and to generate interest.

A demonstration and performance was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate scoring grouping and competition targets while providing an opportunity for the cadets to practice under supervision.

A practical activity was chosen for TP 4 as it is an interactive way to allow the cadets to score air rifle marksmanship targets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to score the CCM Air Rifle Grouping Target and the CCM Competition Target.

IMPORTANCE

It is important for cadets to score air rifle marksmanship targets as it provides a skill that will be used when they assist a Range Safety Officer (RSO). Being able to determine the score on a target will allow the cadet to monitor their progress as they improve in applying the principles of marksmanship.

Teaching Point 1

Describe Air Rifle Marksmanship Targets

Time: 5 min

Method: Interactive Lecture

AIR RIFLE MARKSMANSHIP TARGETS

There are two official targets used for air rifle marksmanship activities: the CCM Air Rifle Grouping Target (CCT2000GRTD) and the CCM Competition Target (CCT2001AR853). There are various targets used in fun and timed air rifle marksmanship activities. These other targets are reproduced locally and can be found attached to the activity's applicable instructional guide.

CCM Air Rifle Grouping Target

The CCM Air Rifle Grouping Target is used during classification air rifle marksmanship activities. The target consists of two diagrams. Each diagram is a shaded black circle that is 3 cm in diameter. The diagram itself is provided on the target to give the marksman an aiming mark and thus any grouping fired at each diagram does not necessarily need to be contained on the black portion of the target.

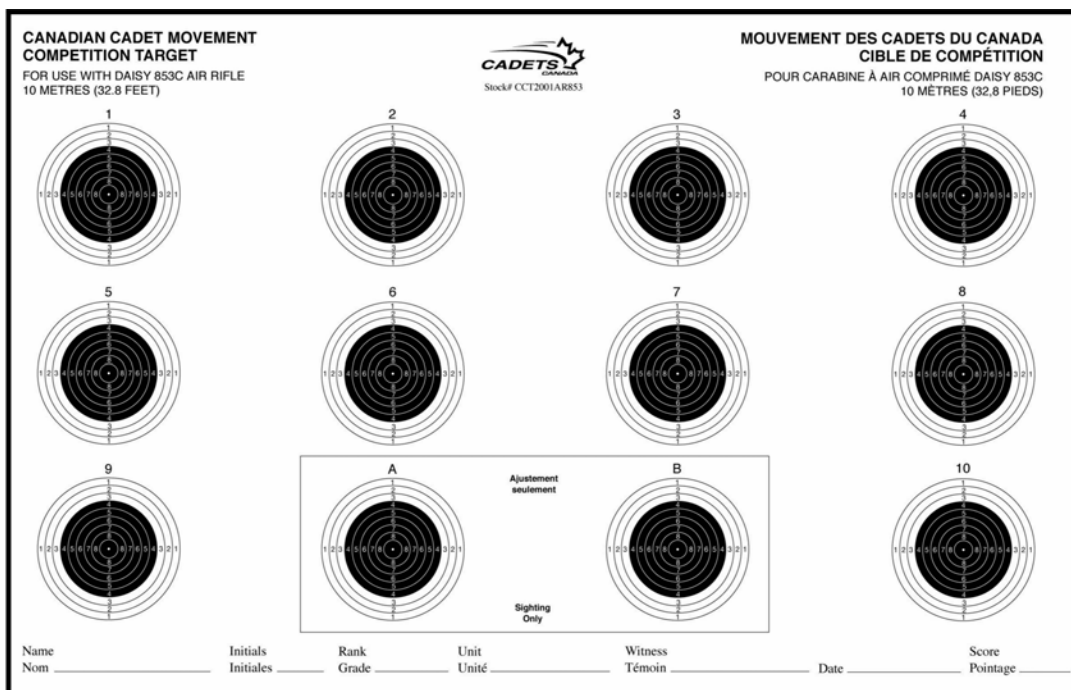
CANADIAN CADET MOVEMENT AIR RIFLE GROUPING TARGET 10 METRES (32.8 FEET)	MOUVEMENT DES CADETS DU CANADA CIBLE DE GROUPEMENT POUR CARABINE / AIR COMPRIMÉ 10 MÈTRES (32,8 PIEDS)																		
 Stock# CCT2000GRTD																			
A  B 																			
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">NAME _____</td> <td style="width: 33%;">INITIALS _____</td> <td style="width: 33%;">DATE _____</td> </tr> <tr> <td>NOM _____</td> <td>INITIALES _____</td> <td></td> </tr> <tr> <td>GROUPE# _____</td> <td>GROUP SIZE _____</td> <td></td> </tr> <tr> <td>No de GROUPE _____</td> <td>DIAMÈTRE DU GROUPE A _____</td> <td>B _____</td> </tr> <tr> <td colspan="3">INSTRUCTOR _____</td> </tr> <tr> <td colspan="3">INSTRUCTEUR _____</td> </tr> </table>		NAME _____	INITIALS _____	DATE _____	NOM _____	INITIALES _____		GROUPE# _____	GROUP SIZE _____		No de GROUPE _____	DIAMÈTRE DU GROUPE A _____	B _____	INSTRUCTOR _____			INSTRUCTEUR _____		
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Director Cadets 4, 2000, Ottawa, ON: Department of National Defence

Figure 4-3-1 The CCM Air Rifle Grouping Target (CCT2000GRTD)

CCM Competition Target

The CCM Competition Target, also called an application target, is the official target used in the CCM Marksmanship Championship Series. This target is used only with the cadet air rifle at a distance of 10 m (32.8 ft). The target contains 10 scoring diagrams and two sighting diagrams. Each scoring diagram consists of a 4.5-mm circle (the inner 3 cm of the scoring diagram is shaded black as an aiming mark) broken into 10 concentric scoring rings, scored from ten (the bull's eye) to one (the outer most ring). As there are 10 scoring diagrams, the highest possible score (HPS) is 100. The sighting diagrams, identical to the scoring diagrams and labelled A and B, are used by the firer to confirm zeroing the cadet air rifle during the competition relay.



Director Cadets 4, 2001, Ottawa, ON: Department of National Defence

Figure 4-3-2 The CCM Competition Target (CCT2001AR853)

Non-Standard Targets

Non-standard targets are used during fun and timed air rifle marksmanship activities. Non-standard targets are designed to give cadets a break from firing on the two official targets and allow for the development of activities that provide a different style marksmanship experience. Some examples of non-standard targets include the turkey shoot target, beat the clock targets, balloon targets and chase the dot targets. Other non-standard targets may be developed for use during fun and timed air rifle marksmanship activities by the activity leader as required.



Examples of non-standard targets used during fun and timed air rifle marksmanship activities can be found as attachments to EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)). These targets are reproduced locally.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. How many scoring diagrams are there on the CCM Competition Target?
- Q2. What is the HPS on the CCM Competition Target?
- Q3. What are some types of targets used during fun and timed air rifle marksmanship activities?

ANTICIPATED ANSWERS

- A1. There are 10 scoring diagrams on the CCM Competition Target.

- A2. The HPS on the CCM Competition Target is 100.
- A3. Some targets used during timed air rifle marksmanship targets are beat the clock, speed grid and chase the dots.

Teaching Point 2

Explain, Demonstrate and Have the Cadets Score the CCM Air Rifle Grouping Target

Time: 15 min

Method: Demonstration and Performance



For this TP it is recommended that the instructor explain and demonstrate each step required to complete the skill then monitor the cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.



Provide each cadet with the Sample Grouping Target Handouts located at [Annex G](#) and an Air Rifle Grouping Template located at [Annex H](#).

Air Rifle Grouping Template. The Air Rifle Grouping Template is a series of grouping circles engraved or printed on transparent material. It is used to confirm the diameter of a grouping fired during familiarization or classification firing. The Air Rifle Grouping Template consists of a series of grouping circle outlines, with diameters from 1–6 cm inclusive. It is very important to correctly and consistently measure grouping targets with the grouping template.

SCORING THE CCM AIR RIFLE GROUPING TARGET

Score the CCM Air Rifle Grouping Target using the following procedure:

1. **Determine There Are Five Shots in the Grouping.** Before scoring any grouping, the number of shots on the target is determined. If a cadet has not hit the target at least five times for each grouping the score will not count. It is difficult at times to determine when several pellet holes overlap. Observe the outline of the hole for the distinct outline of an arc of a clean pellet hole. This indicates the number of pellets that may have caused the larger hole. The skill level of cadets is also a good indication of how many shots are in a grouping. If a cadet is shooting a larger grouping size, the possibility for two pellets fired exactly through one hole is slim.



Each diagram on the Sample Grouping Target Handout contains five shots.

2. **Align the Air Rifle Grouping Template Over the Five-Shot Grouping so That All Shots Are Within a Scoring Ring.** Once the grouping has been confirmed as being made up of five shots, the Air Rifle Grouping Template is placed over the target. The Air Rifle Grouping Template should be aligned so that all the shots fit easily within a grouping circle without touching it.



A grouping size of 4.0 cm will be large enough to serve as a starting point for each diagram on the Sample Grouping Target Handout.

3. **Determine if the Grouping Will Fit Within the Next Smallest Ring Without Touching the Scoring Ring.** Choose the next smallest grouping circle and determine if the group fits within it. The entire group must fit within the grouping circle without touching the inside edge.
4. **Repeat as Required Until the Grouping Will Not Fit Within the Next Smallest Scoring Ring Without Touching the Scoring Ring.**



The correct grouping size for each diagram is:

- Target 1, Diagram A—3.5 cm,
- Target 1, Diagram B—2.7 cm,
- Target 2, Diagram A—1.8 cm, and
- Target 2, Diagram B—2.5 cm.

5. **Record the Grouping Size on the Target.** The grouping size recorded on the target is the corresponding grouping circle diameter.
6. **Repeat for the Second Grouping.**
7. **Determine the Classification Category.** In order to qualify for a specific category, a cadet shall meet the prescribed standard on two different targets within a year. Groupings do not have to be fired during the same relay. There are four categories of marksmanship classification:
 - **Marksman:** Each grouping must be within a circle of 3 cm in diameter.
 - **First Class Marksman:** Each grouping must be within a circle of 2.5 cm in diameter.
 - **Expert Marksman:** Each grouping must be within a circle of 2 cm in diameter.
 - **Distinguished Marksman:** Each grouping must be within a circle of 1.5 cm in diameter.

Classification obtained during the training year will be valid for the duration of the training year, including the summer period. Classification obtained at a CSTC will be valid for the duration of the subsequent training year, including the next summer period. Proficiency badges may be worn on the uniform. Cadets can wear the badge representing the highest category they have achieved to date, even though their classification may have expired.



Target 1 does not meet the requirements for a marksmanship classification category.
Target 2 meets the requirements for a First Class Marksman classification category.



Refer to CATO 14-43, *Marksmanship Program*, Annex A, for detailed instructions about the marksmanship classification program.

CONFIRMATION OF TEACHING POINT 2

The cadets' scoring of the Sample Grouping Target Handout will serve as the confirmation of this TP.

Teaching Point 3

Explain, Demonstrate and Have the Cadets Score the CCM Competition Target

Time: 20 min

Method: Demonstration and Performance



For this TP it is recommended that the instructor explain and demonstrate each step required to complete the skill then monitor the cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.



Divide the cadets into groups based on the number of scoring magnifiers and scoring plugs available. Distribute a Sample Competition Target Handout at [Annex I](#) to each cadet. Distribute a scoring magnifier, scoring plug and Scoring Template found at [Annex J](#) to each group.

Scoring Magnifier. A scoring magnifier is a magnifying overlay that can be used for close viewing of a pellet hole. This device does not affect the pellet hole. The device has an engraved ring(s) the diameter of a pellet. The engraved ring is centred over the pellet hole and used to determine if the pellet hole touches the scoring ring.



"Intershoot: Sundries". Retrieved April 16, 2009, from <http://www.intershoot.co.uk/acataloge/Sundries.html>

Figure 4-3-3 Scoring Magnifier

Scoring Plug. A scoring plug is a device with a clear plastic flange that is inserted into a pellet hole, with the flange being used to magnify the area around the hole. This gauge affects the pellet hole and consequently may only be used once in any pellet hole. When a scoring plug is used on a pellet hole, it is marked as "PLUGGED".



"Intershoot: Sundries". Retrieved April 16, 2009, from <http://www.intershoot.co.uk/acataloge/Sundries.htm>

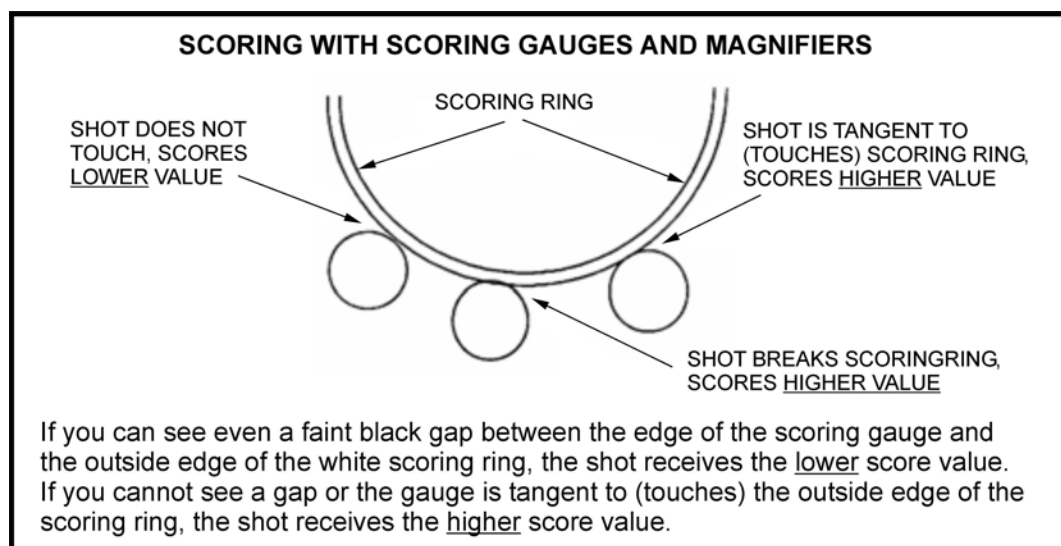
Figure 4-3-4 Scoring Plug

Scoring Template. A scoring template consists of transparent material engraved or printed with outlines of the pellet diameter and possible scoring rings. It is used to reconstruct the positions of the scoring ring and shot holes. It is primarily used in matches where multiple shots are fired on individual targets and the scoring rings can potentially be removed during the course of fire.

SCORING THE CCM COMPETITION TARGET

Score the CCM Competition Target using the following procedure:

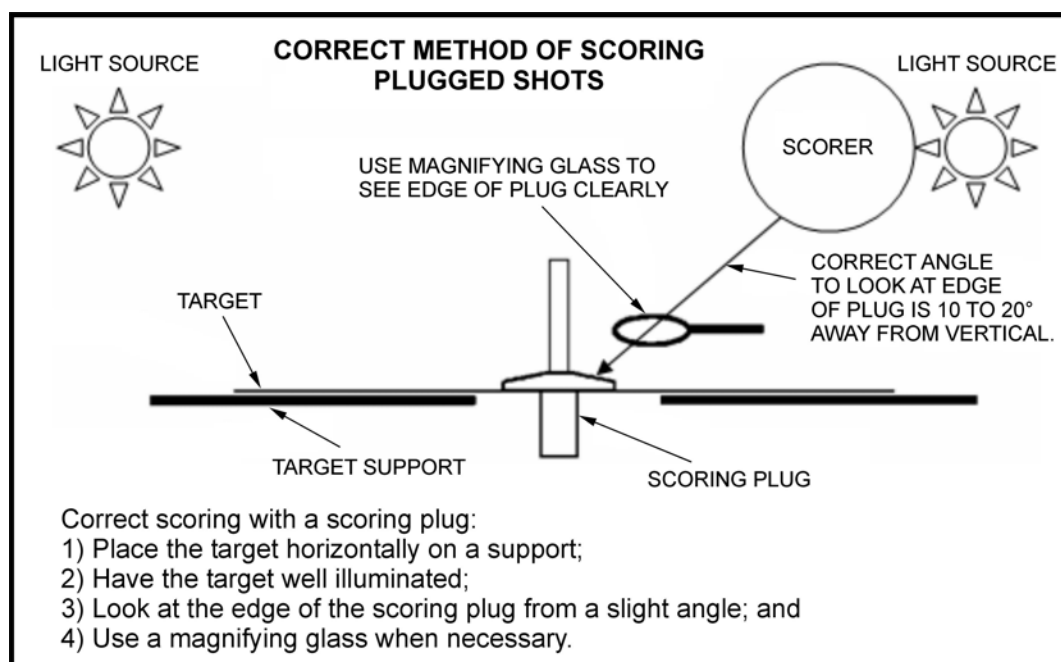
1. **Determine the Score on Each Diagram.** Determine the score for each diagram using one or more of the following methods:
 - a. **Determine the Value by Inspecting With the Naked Eye.** In most cases the scoring ring that has been broken is easily identifiable. The scoring diagrams on the competition target that can be scored in this manner are scored first as they can be completed in less time.
 - b. **Determine the Value Using the .177-/ .22-Scoring Magnifier.** If the pellet hole has occurred close to the edge of a scoring ring, it is necessary to use the scoring magnifier to enlarge the view and make a determination of value. Look through the magnifying lens and align the scoring magnifier over the pellet hole. If the pellet hole has broken or touched the higher scoring ring, award that value. If even a small gap exists between the pellet hole and the scoring ring the lower value must be awarded.



A-CR-CCP-177/PT-001 (p. 1-9-3)

Figure 4-3-5 Using a Scoring Magnifier

- c. **Determine the Value Using the Scoring Plug.** In a small number of cases it may be very hard to determine if a gap exists between the pellet hole and the scoring ring. In these instances the scoring plug may be used. To use the scoring plug, the target must be placed on a supported surface and illuminated. The plug is gently inserted into the pellet hole while the scorer observes the target from a slight angle. The magnifying flange on the scoring plug enlarges the gap between the pellet hole and the scoring ring to make determining the value much easier. Once a pellet hole is scored using the scoring plug it cannot be plugged again.



A-CR-CCP-177/PT-001 (p. 1-9-4)

Figure 4-3-6 Using a Scoring Plug



During the CCMMS, the scoring plug should only be used to score targets during the last two stages: Stage 3: Provincial/Territorial Championship and Stage 4: National Championship. It may be used during Stage 2: Zone Championship at the discretion of the RCSU. There is no restriction on using the scoring plug during any other competitive air rifle marksmanship activity. Refer to A-CR-CCP-177/PT-177, p. 4-4-24 for rules regarding use of the scoring plug.

- d. **Determine the Value Using the Scoring Template.** In some cases a pellet impacts the target and tears a larger hole towards the center of the diagram. When this occurs, the scoring rings are recreated by aligning the scoring template over the torn diagram. The naked eye or scoring magnifier is then used to determine the value.
2. **Calculate Penalties.** When scoring a target there are two penalties the scorer can determine and calculate. If a penalty is imposed, the rule number and penalty amount is noted next to the applicable diagram. The following rules are excerpts from the CCMMS.

22.3.4.1 If a Competitor fires more than the prescribed number of shots on the scoring area in a twenty (20) shot string, the shot(s) with the highest value will be discarded until the correct number of shots remain. In addition, a two (2) point Penalty will be deducted for each excess shot.

22.3.4.2 If a Competitor fires more than the prescribed number of shots on a scoring diagram, the Competitor must fire a like number of fewer shots on a subsequent scoring diagram in the same twenty (20) shot string. The Competitor will not be penalized for the first two (2) such occurrences in a Competition, but will be penalized two (2) points for each succeeding occurrence.

A-CR-CCP-177/PT-001 (p. 4-4-31)

Figure 4-3-7 Scoring Penalties

3. **Record the Score on the Target.** Once the diagrams are given values and penalties are calculated, the score is totalled and recorded on the target. It is important to ensure the addition of values is accurate since during a competition protests may be filed due to inaccurate calculations.

CONFIRMATION OF TEACHING POINT 3

The cadets' scoring of the Sample Competition Target Handout will serve as the confirmation of this TP.

Teaching Point 4

Conduct an Activity Where the Cadets Will Score Targets

Time: 30 min

Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets practice scoring the CCM Grouping Target and the CCM Competition Target.

RESOURCES

- Cadets' pre-shot grouping and competition targets,

- Air Rifle Grouping Template located at [Annex H](#),
- Scoring Template located at [Annex J](#),
- Scoring magnifier (one per group),
- Scoring plug (one per group), and
- Pencil.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups based on the amount of scoring magnifiers and scoring plugs available. Cadets will complete this activity individually but they will need to share scoring magnifiers and scoring plugs.
2. Distribute the pre-shot targets, Air Rifle Grouping Template, Scoring Template and a pencil to each cadet.
3. Distribute a scoring magnifier and scoring plug to each group.
4. Have the cadets score each grouping and record the grouping size on the target.
5. Have the cadets determine the classification level of each target (if applicable).
6. Have the cadets score each competition diagram, calculate any penalties and record the score on the target.
7. Monitor the cadets as they score the targets and assist as required.
8. Have the cadets discuss their experiences scoring targets.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What are the three types of targets used during air rifle marksmanship activities?
- Q2. What size must each grouping be to award a Distinguished Marksman classification category?
- Q3. What is the primary difference between a scoring magnifier and a scoring plug?

ANTICIPATED ANSWERS

- A1. The three types of targets are the CCM Grouping Target, CCM Competition Target and non-standard targets.

- A2. Each grouping must be within a circle of 1.5 cm in diameter.
- A3. A scoring magnifier does not affect the pellet hole while a scoring plug will affect a pellet hole and should only be used in a pellet hole once.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3 (S343 PC).

CLOSING STATEMENT

You must be able to score air rifle marksmanship targets to perform your duties when assisting the RSO. Being able to score air rifle marksmanship targets will also allow you to assess your own performance and the performance of others. These skills will allow you to better perform the duties of an Air Rifle Marksmanship Instructor.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lessons related to EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)), EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-148 CATO 14-43 Director Cadets 4. (2009). *Marksmanship Program*. Ottawa, ON: Department of National Defence.



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SECTION 4

EO S343.04 – DESCRIBE THE MECHANICAL OPERATION OF THE CADET AIR RIFLE

Total Time:	40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Cadet Air Rifle Mechanical Diagram handout located at [Annex K](#) for each cadet.

Arrange for a qualified cadet air rifle repairperson as an assistant instructor to disassemble a cadet air rifle.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to the mechanical operation of the cadet air rifle and to generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to describe the operating principles, the assemblies, and the common mechanical failures of the cadet air rifle.

IMPORTANCE

It is important for Air Rifle Marksmanship Instructors to have an understanding of the operation of the cadet air rifle. Knowing the mechanics allows the Air Rifle Marksmanship Instructor to better assess the cause when mechanical failures occur. This assists the Range Safety Officer (RSO) who can inform the repair staff of the nature of the failure.

Teaching Point 1**Explain the Operating Principles of a Single-Pump Pneumatic Rifle**

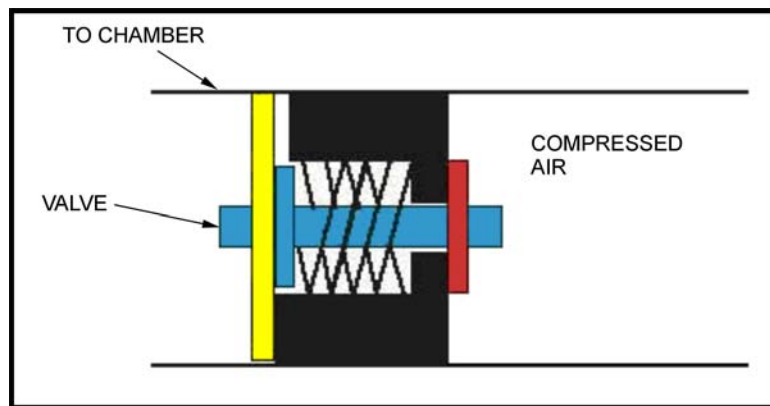
Time: 5 min

Method: Interactive Lecture

OPERATING PRINCIPLES OF A SINGLE-PUMP PNEUMATIC RIFLE

A single-pump pneumatic rifle uses compressed air to force a pellet out of the chamber and through the barrel of the rifle. The single-pump type uses one single stroke to generate the entire amount of air pressure required for one firing of the rifle. Other types of air rifles include multi-pump (several strokes are required to build up air pressure for one firing) and CO2 (a compressed gas cylinder is used to provide compressed air, eliminating the need for pumping and allowing multiple firings per cylinder).

In a single-pump pneumatic rifle, the pump level is attached to a plunger. Opening the pump level allows air into the pump tube. When the pump level is closed, the plunger compresses the air into a small space in front of the valve. At this point, the air rifle is charged.

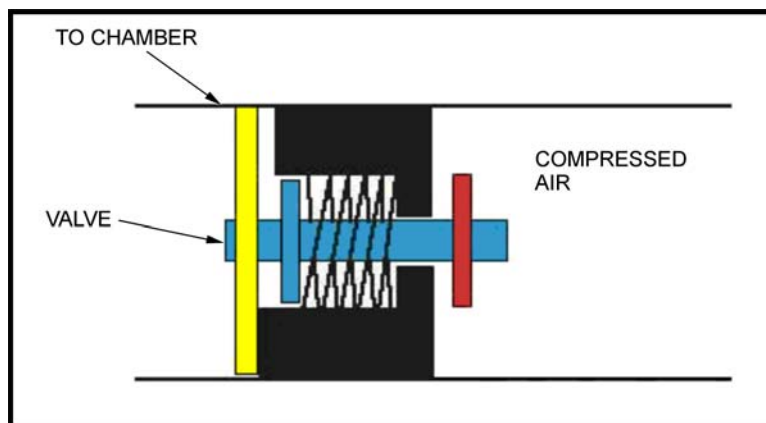


Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4-4-1 Closed Valve

A pellet must then be loaded into the chamber and the bolt closed. Unlike a firearm where the bolt contains a firing pin that strikes the primer cap of a cartridge, the bolt in a single-pump pneumatic rifle is used to seal the chamber. This seal is essential in ensuring the compressed air does not leak when it is released into the chamber. An air leak results in decreased muzzle velocity and loss of accuracy.

Once the chamber is sealed, the air rifle is ready to fire. When the trigger is pulled, it releases the sear which then releases the hammer, opening the valve. Once the valve is open, compressed air escapes into the chamber and forces the pellet out of the air rifle. After the compressed air has escaped, the valve reseals and is ready for the next pumping.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4-4-2 Valve Releasing Compressed Air

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. How does a single-pump pneumatic rifle generate air pressure?
- Q2. What is the function of the bolt in a single-pump pneumatic rifle?
- Q3. What part of the single-pump pneumatic rifle causes air to be released into the chamber?

ANTICIPATED ANSWERS

- A1. The single-pump pneumatic rifle uses one single stroke to generate the entire amount of air pressure required for one firing of the rifle.
- A2. The bolt in a single-pump pneumatic rifle is used to seal the chamber.
- A3. The valve allows air to be released into the chamber.

Teaching Point 2

Describe the Assemblies of the Cadet Air Rifle

Time: 25 min

Method: Interactive Lecture



Cadets shall not disassemble the cadet air rifle to replace malfunctioning parts or tamper with its operation. All maintenance beyond what is contained in EO S343.05 (Maintain the Cadet Air Rifle, [Section 5](#)) shall be performed by a cadet air rifle repairperson.



If a qualified cadet air rifle repairperson is available, have them disassemble the cadet air rifle to aid in the conduct of this lesson. If a qualified cadet air rifle repairperson is not available, an exploded view/cutaway model of the cadet air rifle should be used to illustrate the internal mechanics of the cadet air rifle.



Part diagram numbers are indicated in parentheses after the part descriptions contained in TP 2. The part diagram number identifies the part on the Cadet Air Rifle Mechanical Diagram.



Distribute the Cadet Air Rifle Mechanical Diagram handout located at [Annex K](#) to each cadet.

ASSEMBLIES OF THE CADET AIR RIFLE

The cadet air rifle is comprised of 54 parts contained in five assemblies. Some of these parts are serviceable by a cadet air rifle repairperson; others are not and any damage to them will require the cadet air rifle be returned for repair. The cadet air rifle is comprised of the following parts:

Stock Assembly

- **Stock.** The complete wooden portion of the rifle from the butt plate end forward (43).
- **Stock Screws.** With the stock nuts, these screws hold the wooden stock to the barrelled action assembly at the fore end of the stock (47).
- **Stock Nuts.** With the stock screws, these nuts hold the wooden stock to the barrelled action assembly at the fore end of the stock (46).
- **Stock Spacer.** The stock spacer prevents the stock from being drawn too tight around the barrelled action if the stock screws and nuts are over-tightened (48).
- **Sear Screw.** The sear screw holds the wooden stock to the barrelled action assembly at the small of the butt. It also secures the receiver assembly to the valve body (50).
- **Stock Blox Nut.** The nut into which the sear screw is threaded (49).
- **Left and Right Inletting Fillers.** These plastic inserts fill space between the barrelled assembly and the stock (44 and 45).
- **Barrel Band.** A metal retaining band that secures the barrel to the pump assembly (5).
- **Barrel Spacer.** The plastic spacer that separates the barrel and the pump assembly (55).
- **Butt Spacer.** Plastic inserts used to increase the length of the butt (51).
- **Butt Plate.** End cap that prevents damage to the wooden stock at the butt (52).
- **Butt Plate Screws.** Two screws that hold the butt plate and any butt spacers to the wooden stock at the butt (53).

Receiver Assembly

- **Receiver Housing.** This metal housing holds the receiver in place on the cadet air rifle (6).
- **Valve Body Screws.** Two screws that hold the receiver assembly and pump assembly to the valve body (10).

- **Single-Pellet Adaptor.** Plastic insert used to place a pellet into the breech before the bolt slides it forward into the chamber (7).
- **Five-Pellet Clip.** Plastic clip that holds a maximum of five pellets. It is advanced by the clip actuator and is used to place pellets in the chamber when the single-pellet adaptor is not used (8).
- **Rear Sight.** Micrometer sight adjustable for windage and elevation. It is easily attached to a metal rail located on the receiver assembly cover. This rail allows for adjustment of the sight forward or backward to maintain proper eye relief. The sight is attached using a small flat-blade screwdriver (1).
- **Bolt Handle.** Plastic lever used to move the bolt forward and backward (25).
- **Bolt Spring.** A spring used to provide tension for the operation of the bolt (26).
- **Bolt.** Plastic lever used to seal the chamber when firing occurs. The bolt also draws back the hammer when cocking the cadet air rifle (24).

Pump Assembly

- **Frame.** The frame is the housing that contains the pump tube and attaches to the valve body (11).
- **Lever Axis Pin.** A pin that connects the pump lever to the frame (12).
- **Pump Tube.** The hollow tube into which the plunger slides to compress the air used to fire the cadet air rifle (13).
- **Pump Lever.** The mechanism that when opened and closed compresses air into the valve body.
 - **Plunger.** Plastic piston that is used to compress air into the valve (20).
 - **Sling Bracket.** Metal bracket on the pump lever used to attach the cadet air rifle sling (21).
 - **Sling Bracket Adjustment Screw.** Screw used to adjust the sling bracket up or down the pump lever (22).
 - **Pump Wiper.** Foam ring used to keep the inside of the pump tube clean. It prevents debris from entering the valve (19).
 - **Pump O-Ring.** Rubber ring used to ensure a tight seal between the plunger and the pump tube (14).

Barrelled Action Assembly

- **Barrel Weight.** The barrel weight ensures that the rifle's weight is evenly distributed and that the rifle's balance is maintained (2).
 - **Barrel Weight Set Screws.** Two hex-head screws used to attach the barrel weight to the barrel (3).
 - **Front Sight Inserts.** A set of three disks that can be inserted into the front global sight. Used to adjust the sight picture when determining eye relief (4).
- **Barrel.** Steel tube through which the pellet travels, extending from the muzzle to the chamber (9).
- **Valve Body.** Metal housing attached to the end of the barrel. It is where air is stored prior to being released. It also contains the trigger assembly (23).
 - **Valve O-Ring.** It is used to ensure a tight seal between the valve body and the pump tube (15).
 - **Valve Retainer.** Metal tab that holds the valve in the valve body (18).

- **Valve Spring.** A spring that provides tension to the valve. It ensures the valve returns to the closed position after firing (17).
- **Valve.** Plastic post used to release air from the compression chamber into the chamber when the cadet air rifle is fired (16).

Trigger Assembly

- **Trigger Housing Screw.** This screw holds the trigger housing to the valve body (42).
- **Trigger Housing.** Contains the safety mechanism and holds the trigger assembly components in place (41).
- **Hammer.** The hammer is a strong metal component of the trigger assembly. It is what depresses the valve, allowing air to escape into the chamber when the cadet air rifle is fired (34).
- **Hammer Spring.** Spring that provides the momentum of the hammer (35).
- **Trigger Lock.** Plastic component that, when the bolt is open, prevents the trigger's movement (33).
- **Sear.** Metal tab that holds the hammer in place prior to firing. When the trigger is depressed, the sear moves and releases the hammer (32).
- **Sear Spring.** Spring that provides tension between the sear and hammer (54).
- **Trigger.** Plastic device that moves the sear, causing the hammer to strike the valve (30).
- **Trigger Spring.** Spring that provides tension between the trigger lock and trigger (31).
- **Latch.** Plastic block that holds the pump lever closed after the cadet air rifle has been pumped (36).
- **Latch Spring.** Provides tension to allow the latch to securely hold the pump lever (37).
- **Safety Mechanism.** This is a mechanism that, once engaged, prevents the rifle from firing by locking the trigger in place.
 - **Safety.** The safety contains a notch and raised portion. In the ON position, the raised portion prevents the forward movement of the trigger, which prevents firing. In the OFF position, the notch allows the forward movement of the trigger (38).
 - **Safety Ball.** Ball bearing that allows the safety to move side to side within its housing (39).
 - **Safety Spring.** Provides tension to the safety ball (40).
- **Clip Actuator.** Used to advance the five-pellet clip when used in the cadet air rifle (27).
- **Clip Actuator Bar.** Metal bar that is activated by the movement of the bolt. When the bolt is moved backward and forward, it causes the clip actuator bar to move the clip actuator, which advances the five-pellet clip to the left (28).
- **Clip Actuator Spring.** Spring that provides tension to hold the clip actuator bar in place (29).

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What is the function of the left and right inletting fillers?

Q2. What is the function of the valve?

Q3. What is the function of the sear?

ANTICIPATED ANSWERS

- A1. Left and right inletting fillers are plastic inserts that fill the space between the barrelled assembly and the stock.
- A2. The valve is a plastic post used to release air from the compression chamber into the chamber when the cadet air rifle is fired.
- A3. The sear is a metal tab that holds the hammer in place prior to firing. When the trigger is depressed, the sear moves and releases the hammer.

Teaching Point 3

Describe Common Malfunctions and Mechanical Failures of the Cadet Air Rifle

Time: 5 min

Method: Interactive Lecture



Cadets shall not disassemble the cadet air rifle to replace malfunctioning parts or tamper with its operation. All maintenance beyond what is contained in EO S343.05 (Maintain the Cadet Air Rifle, [Section 5](#)) shall be performed by a cadet air rifle repairperson.

Malfunction. A malfunction indicates that a cadet air rifle is not operating in a normal or satisfactory manner. Malfunctions are caused by not properly maintaining the rifle and are otherwise preventable. Malfunctions require corrective action.

Mechanical Failure. A mechanical failure indicates that a component of a cadet air rifle has broken or ceased to function and requires replacement. Mechanical failures require repair by a cadet air rifle repairperson.

COMMON MALFUNCTIONS

Improperly Maintained Pump Wiper. An improperly maintained pump wiper is identifiable when the cadet air rifle is hard to pump. It is caused by either oiling the pump wiper too much so that it is excessively wet or not oiling the pump wiper enough so that it has dried out. Notify the RSO if malfunctions suspected to be caused by an improperly maintained pump wiper are noticed.

Obstructed Barrel. An obstructed barrel is identifiable when no pellet leaves the barrel when the cadet air rifle is fired. It is caused by a previous malfunction causing a decrease in muzzle velocity, which leaves a pellet stuck in the barrel. A cadet air rifle with an obstructed barrel can normally be fixed by:

1. discharging any compressed air;
2. placing the safety in the ON position; and
3. inserting a cadet air rifle safety rod from the muzzle to push the pellets back through the barrel toward the breech.

Jammed Chamber. A jammed chamber can be caused by closing the bolt too quickly and jamming a pellet into the chamber. It may also occur when a pellet is inserted backward into the chamber. A cadet air rifle with a jammed chamber can normally be fixed by:

1. discharging any compressed air;

2. placing the safety in the ON position; and
3. inserting a cadet air rifle safety rod from the muzzle to push the pellets back through the barrel toward the breech.

Seized Bolt. A seized bolt is identifiable when the bolt will not close completely, not open completely or not move at all. It is caused when pellets are inadvertently inserted into the receiver assembly through the opening for the bolt handle, causing the moving parts inside to jam. Notify the RSO if a seized bolt is observed.

COMMON MECHANICAL FAILURES

The cadet air rifle is susceptible to several common mechanical failures. These commonly are:

Worn Pump O-Ring. A worn pump o-ring causes a hissing sound to come from the pump assembly. The worn pump o-ring causes either a decrease in pressure or an inability to create any pressure at all in the valve.

Worn Pump Wiper. A worn pump wiper causes material to be forced into the valve body. This causes either a decrease in pressure or an inability to create any pressure at all in the valve.

Worn Valve O-Ring. A worn valve o-ring causes a hissing sound to come from the pump assembly. The worn valve o-ring causes either a decrease in pressure or an inability to create any pressure at all in the valve.

Broken Valve. A broken valve may produce a hissing sound, indicating that it is not holding air in the valve body. It may also cause the cadet air rifle not to fire. Another sign of a broken valve is when pressure being generated by the pump assembly and the sound of the hammer can be heard when the trigger is depressed but no sound of air escaping can be heard.

Broken Clip Actuator. A broken clip actuator prevents the five-pellet clip from operating properly. The metal from the clip actuator is very soft and easily broken. The cadet air rifle still operates safely for single-shot use with a broken clip actuator.

Broken Clip Actuator Bar. A broken clip actuator bar prevents the five-pellet clip from operating properly. The metal from the clip actuator bar is very soft and easily broken. The cadet air rifle still operates safely for single-shot use with a broken clip actuator bar.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What malfunctions should be suspected if pellets do not emerge from the barrel when firing the cadet air rifle?
- Q2. What is one indication of a broken valve?
- Q3. What impact will a broken clip actuator or broken clip actuator bar have on a cadet air rifle?

ANTICIPATED ANSWERS

- A1. An obstructed barrel or jammed chamber should be suspected if pellets do not emerge from the barrel when firing the cadet air rifle.
- A2. A broken valve may produce a hissing sound, indicating that it is not holding air in the valve body. It may also cause the cadet air rifle not to fire. Another sign of a broken valve is when pressure being generated by the pump assembly and the sound of the hammer can be heard when the trigger is depressed but no sound of air escaping can be heard.
- A3. A broken clip actuator or broken clip actuator bar will prevent the five-pellet clip from operating properly.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What is the impact of an air leak on the operation of a single-pump pneumatic air rifle?
- Q2. What function does the valve spring serve?
- Q3. What impact does a worn pump wiper have on a cadet air rifle?

ANTICIPATED ANSWERS

- A1. An air leak results in decreased muzzle velocity and loss of accuracy.
- A2. The valve spring provides tension to the valve. It ensures the valve returns to the closed position after firing.
- A3. A worn pump wiper forces debris into the valve.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

It is important for an Air Rifle Marksmanship Instructor to have an understanding of the operation of the cadet air rifle. Knowing the mechanics will allow you to better assess the cause when mechanical failures occur. Being able to identify common malfunctions and mechanical failures will enable you to determine why, in some cases, a cadet air rifle is not operating properly and inform the RSO so they may take the appropriate action to get it repaired.

INSTRUCTOR NOTES/REMARKS

The content contained in this lesson is provided for information purposes. Cadets shall not disassemble the cadet air rifle to replace malfunctioning parts or tamper with its operation. All maintenance beyond what is contained in EO S343.05 (Maintain the Cadet Air Rifle, [Section 5](#)) shall be performed by a cadet air rifle repairperson.

If a qualified cadet air rifle repairperson is available, have them disassemble the cadet air rifle to aid in the conduct of this lesson. If a qualified cadet air rifle repairperson is not available, an exploded view/cutaway model of the cadet air rifle should be used to illustrate the internal mechanics of the cadet air rifle.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-147 C-71-349-000/DM-001 Director Soldier System Program Management 5. (2003). *Mechanical Diagram: Rifle, Air, .177 Calibre, Daisy, Model 853C*. Ottawa, ON: Department of National Defence.

- C0-085 Daisy Outdoor Products (2006). *AVANTI Competition Pellet Rifle: Operation Manual: AVANTI Legend Model 853*. Rogers, AR: Daisy Outdoor Products.
- C0-429 Pelletier, B.B. (2008). *Air Guns – Pyramid Air Report: How Does a Pneumatic Airgun Work?* Retrieved March 4, 2009, from <http://www.pyramydair.com/blog/2008/07/how-does-pneumatic-airgun-work.html>.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 5

EO S343.05 – MAINTAIN THE CADET AIR RIFLE

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Cadet Air Rifle Maintenance Log located at [Annex L](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A group discussion was chosen for TP 1 as it allows the cadets to interact with their peers and share their knowledge, opinions, and feelings about cleaning the cadet air rifle.

A demonstration was chosen for TP 2 as it allows the instructor to explain and demonstrate air rifle maintenance.

A practical activity was chosen for TP 3 as it is an interactive way to allow the cadets to perform maintenance on the cadet air rifle.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to maintain the cadet air rifle.

IMPORTANCE

It is important for cadets to maintain the cadet air rifle as it is a duty of an Air Rifle Marksmanship Instructor when assisting the Range Safety Officer (RSO). Maintaining the cadet air rifle ensures that it is clean, which enhances accuracy and increases the rifles' lifespan.

Teaching Point 1**Conduct a Group Discussion to Review Cleaning the Cadet Air Rifle**

Time: 10 min

Method: Group Discussion

BACKGROUND KNOWLEDGE

The purpose of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.



The barrel is the hollow tube through which a pellet travels when fired from a cadet air rifle. The bore refers to only the inside surface of the barrel.

CLEANING THE BORE**Types of Bore Residue**

A dirty bore eventually causes accuracy problems. Cadet air rifles must be cleaned and maintained on a regular basis to ensure sustained accuracy. Although cadet air rifles do not suffer from powder deposits like smallbore and largebore rifles, they do experience a buildup of residue on the bore. This residue takes two forms: leading and caking.

- **Leading.** Leading is the residue that results from traces of the lead pellet left on the bore as the pellet travels down the barrel.
- **Caking.** Caking results when residue in the air is blown into the bore from the compression chamber and condenses on the bore.



Air in the compression chamber is super heated for a fraction of a second during the firing sequence. This can cause “dieseling” – the detonation of the lubricant inside the chamber. Only high flash point lubricants (eg, SAE 30 motor oil) are approved for air rifles and are used for cleaning and maintenance.

.177-Calibre Felt Cleaning Pellets

A .177-calibre felt cleaning pellet is inserted into the chamber and fired in the same manner as a normal pellet. A .177-calibre felt cleaning pellet is stamped to the optimum diameter for cleaning the bore. The natural elasticity of the felt results in compression of the pellet during firing, forcing it to expand to the diameter of the bore, and ensuring that the entire bore is cleaned and polished. When conducting preservation maintenance, the natural absorbency of felt allows it to hold oils and lubricants, resulting in an even, protective film on the bore.

The Occasions to Clean the Bore

There are different procedures to follow depending on when the bore is cleaned. The occasions to clean the bore are:

- **Cleaning Before Firing.** Before each use of the cadet air rifle, fire two to three 0.177-calibre felt cleaning pellets through the bore to ensure it is clean.

- **Cleaning After Firing.** After each use of the cadet air rifle, fire two to three 0.177-calibre felt cleaning pellets through the bore to ensure it is clean.
- **Periodic Cleaning.** The bore must be thoroughly cleaned after every 1000 pellets fired.



Petroleum-based cleaners or preservatives must not be used. These solvents damage seals and may result in dieseling. Use only SAE 30 motor oil.

The following steps are steps for periodic cleaning:

1. Fire a .177-calibre felt cleaning pellet soaked in SAE 30 motor oil through the bore.
 2. Wait five minutes.
 3. Fire three .177-calibre felt cleaning pellets through the bore.
- **Cleaning Before Storage.** A cadet air rifle that is stored for three months or longer requires preservation and bore deterioration prevention.

The following steps should be followed for cleaning before storage:

1. Fire two or three .177-calibre felt cleaning pellets through the bore.
2. Fire a .177-calibre felt cleaning pellet soaked in SAE 30 motor oil through the bore.
3. Store the cadet air rifle, leaving the bore oiled.
4. When the cadet air rifle is taken out of storage, fire three .177-calibre felt cleaning pellets through the bore.

CLEANING THE STOCK

The stock is frequently wiped clean with a damp cloth.

CLEANING THE EXTERIOR METALLIC PARTS

The exterior metallic parts of the rifle are cleaned on a regular basis with the aid of a lightly oiled flannel patch. The pivot points should also be lightly lubricated on a regular basis.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. Why should a cadet air rifle be cleaned?
- Q2. When would you clean a cadet air rifle?
- Q3. What benefits result in a clean cadet air rifle?
- Q4. What cleaning schedule does your corps/squadron follow?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 2**Explain and Demonstrate Maintenance of the Cadet Air Rifle and Use of the Cadet Air Rifle Maintenance Log**

Time: 10 min

Method: Demonstration



For this TP it is recommended that the instructor explain and demonstrate each step required to complete the skill.

Note: Assistant instructors may be used to assist in demonstrating for the cadets.

Cadet air rifles are only taken apart by authorized personnel to carry out authorized repairs as needed. Unnecessary stripping contributes to premature wear of the rifle parts.

TYPES OF CADET AIR RIFLE MAINTENANCE**Before Firing Maintenance**

Before firing maintenance is conducted at the start of each air rifle marksmanship activity. It consists of:

1. inspecting the cadet air rifle to ensure its sights are properly attached, its screws are tight, and it is clean and functioning properly; and
2. firing two or three felt cleaning pellets through the bore to ensure it is clean under the direction of the RSO.

After Firing Maintenance

After firing maintenance is conducted at the end of each air rifle marksmanship activity. It is intended to ensure the cadet air rifle is clean, functioning, and is ready for the next training session. It consists of:

1. firing two or three felt cleaning pellets through the bore to ensure it is clean under the direction of the RSO; and
2. cleaning all external parts of the cadet air rifle with a clean, lint-free rag.

Storage or Preservation Maintenance

Storage or preservation maintenance is conducted when a cadet air rifle is stored for more than three months without firing. It consists of:

1. cleaning of the exterior parts and light oiling of all exposed metal parts; and
2. firing, under the direction of the RSO:
 - a. two or three .177-calibre felt cleaning pellets through the bore;
 - b. one .177-calibre felt cleaning pellet soaked in SAE 30 motor oil through the bore; and
 - c. three .177-calibre felt cleaning pellets through the bore when taking the cadet air rifle out of storage.

Pump Piston Lubrication

The piston should be lubricated after every 1000 pellets fired. To lubricate the piston:

1. Turn the cadet air rifle upside down.

2. Open the pump lever to full extension. and
3. Insert one drop of SAE 30 motor oil in the place indicated “OIL HERE”.



Do not saturate the piston with oil. Usage of a non-recommended oil is dangerous and can damage the mechanism. Use only high flash point lubricants.



Distribute the Cadet Air Rifle Maintenance Log located at [Annex L](#) to each cadet.

CADET AIR RIFLE MAINTENANCE LOG



The need to record maintenance performed on a cadet air rifle at a corps/squadron/CSTC may or may not be regionally directed. In the case where no requirement exists, it is still an effective tool for the RSO and a practical leadership opportunity for the cadets when they maintain the cadet air rifle.

The Cadet Air Rifle Maintenance Log is used to record each time periodic cleaning or other maintenance has been performed. In conjunction with the Cadet Air Rifle Usage Log, cadets can determine when a cadet air rifle has fired 1000 pellets. Periodic maintenance is performed and recorded in the Cadet Air Rifle Maintenance Log. If other components are replaced by the RSO (eg, o-rings, valves) this can also be recorded to indicate how long these parts have been installed in the particular cadet air rifle.



The Cadet Air Rifle Maintenance Log was developed as a practical leadership opportunity for cadets to be given added responsibility as they maintain the cadet air rifle.

CONFIRMATION OF TEACHING POINT 2

The cadets' observation of the performing of maintenance on the cadet air rifle will serve as the confirmation of this TP.

Teaching Point 3

Conduct an Activity Where the Cadets Will Perform Maintenance on the Cadet Air Rifle

Time: 15 min

Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets perform maintenance on the cadet air rifle.

RESOURCES

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- .177-calibre felt cleaning pellets,
- SAE 30 motor oil,
- Clean, lint free rags,
- Cadet Air Rifle Maintenance Log, and
- Pencil with eraser.

ACTIVITY LAYOUT

This activity will be conducted on an air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of three. Each group will share a cadet air rifle and firing point.
2. Provide a cadet air rifle, a cadet air rifle safety rod, .177-calibre felt cleaning pellets, SAE 30 motor oil, lint-free rags and a Cadet Air Rifle Maintenance Log to each group.
3. Have one cadet from each group perform before firing maintenance on the cadet air rifle.
4. Have the same cadet fire two pellets downrange.
5. Describe to the group that the two pellets will simulate having fired 1000 pellets.
6. Have a different cadet from each group perform periodic maintenance on the cadet air rifle.
7. Have the same cadet record that periodic maintenance has occurred in the Cadet Air Rifle Maintenance Log.
8. Have the same cadet fire two pellets downrange.
9. Have the last cadet perform storage maintenance on the cadet air rifle (including steps required when taking the cadet air rifle out of storage).

SAFETY

Individual safety precautions shall be taken by each cadet when handling the cadet air rifle. Before attempting to perform maintenance on the cadet air rifle, confirm that it is unloaded.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' maintaining of a cadet air rifle will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3 (S343 PC).

CLOSING STATEMENT

As an Air Rifle Marksmanship Instructor you must be able to maintain a cadet air rifle. It is part of your duties when assisting the RSO to ensure cadet air rifles are maintained. An enhanced knowledge of cadet air rifle maintenance will allow the Air Rifle Marksmanship Instructor to identify common malfunctions of the cadet air rifle.

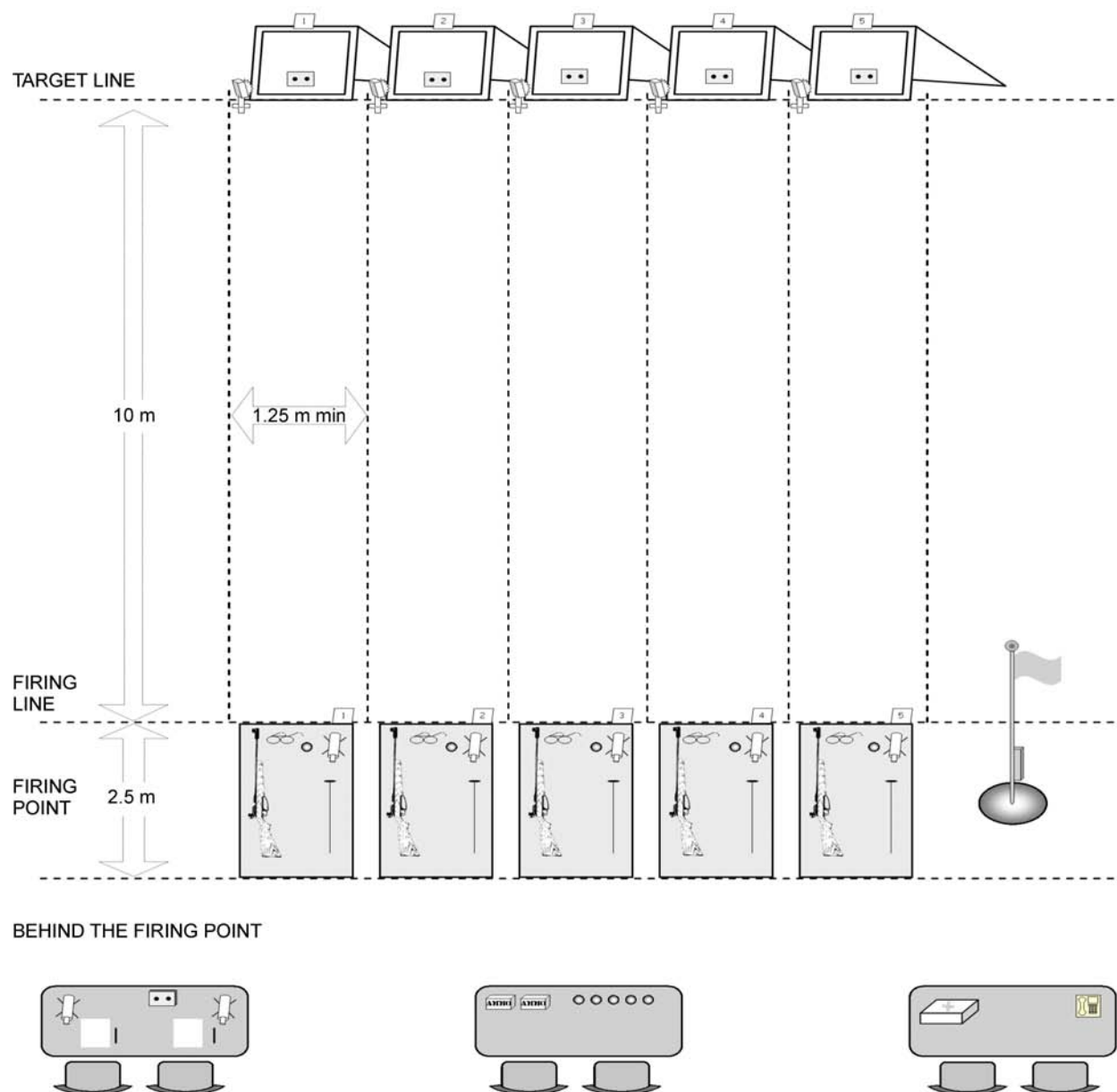
INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lessons related to EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Lead a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)), EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

REFERENCES

A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.

AIR RIFLE RANGE LAYOUT



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4A-1 Air Rifle Range Layout

SET UP OF AN AIR RIFLE RANGE

1. **Posting Warning Signals.** A sentry should be posted at access points if they cannot be permanently blocked (eg, a door to a gymnasium that does not have a lock).
2. **Setting Up Equipment at the Backstop.** At one end of the room, the target frames will be set up in front of a wall. Care should be taken to avoid using a wall with windows or other items (eg, light switch, fire alarm, smoke detector) that would be damaged by a stray pellet. If this is unavoidable, a plywood covering should be placed over those items. The front of the target frame must be perpendicular to the floor and aligned with the front of other target frames along a target line. Additional lighting may be required for the target during some competition activities to satisfy competition rules. Lighting will not interfere with the cadets' view of the target frame.
3. **Indicating Firing Lanes.** Target frames will be centred in a lane at least 1.25 m wide and extend away from the target line toward the firing point a distance of 10 m. 10 m from the target line, another line will be marked on the floor. This is the firing line and no person will move forward of it without permission from the RSO.
4. **Placing Equipment at the Firing Point.** Behind the firing line is the firing box, an area at least 1.25 m wide by 2.5 m deep. A firing box will be allocated for each firer. A shooting mat will be placed within the firing box aligned with the firing line (during standing position firing no mat is required). Safety glasses/goggles and a spotting scope will be placed on every shooting mat. An area behind the firing box will be allocated for range staff.
5. **Placing Equipment Behind the Firing Point.** The area behind the firing point contains the table(s) required to set up a pellet distribution point, scoring area or other workspace as required for the specific air rifle marksmanship activity being conducted. The first aid point with stretcher is located in this area and must be clearly identified. The handwashing facility may be located on the range behind the firing point or in a washroom within the building.
6. **Placing the Cadet Air Rifle at the Firing Point.** A cadet air rifle with cadet air rifle safety rod will be the last item placed on the air rifle range. When removing the cadet air rifle from the case, control the muzzle by carrying the cadet air rifle in a vertical position with a cadet air rifle safety rod inserted into the barrel. Once the cadet air rifle is placed on the firing point, the cadet air rifle safety rod may be removed.

DISMANTLING AN AIR RIFLE RANGE

1. **Storing the Cadet Air Rifle.** After an air rifle marksmanship activity, the cadet air rifle is the first piece of range equipment secured. A cadet air rifle safety rod is inserted into the barrel before the cadet air rifle is moved from the firing point. Cadet air rifles are securely stored at the unit according to current policy guidelines.
2. **Storing the Equipment Behind the Firing Point.** Equipment used behind the firing point is stored next. Equipment must be cleaned (if required) and stored to prevent damage. If the first aid kit has been used, it may require refilling.
3. **Storing the Equipment at the Firing Point.** Equipment used at the firing point is stored next. Equipment must be cleaned (if required) and stored to prevent damage. Care should be taken to minimize scratching of safety glasses/goggles. Shooting mats are folded or rolled properly to minimize rips or tears. Spotting scopes are stored in their cases (if applicable).
4. **Cleaning the Backstop Area.** Once the firing point equipment has been secured, the target frames are thoroughly emptied of spent pellets. The target holder is cleaned of any material (eg, targets, thumbtacks, staples) and the target frame is folded and stored.

5. **Cleaning the Firing Lanes.** Since lead dust in the air is a minor hazard to safety, a method of sweeping/mopping that reduces the amount of dust produced should be used. One set of cleaning gear is used after air rifle marksmanship activities to limit cross-contamination of other areas of the building.
6. **Removing the Warning Signals.** Once all other air rifle marksmanship equipment has been secured, the range warning signals are removed. This will indicate that the room in which the temporary indoor range was set up is now cleaned and ready for general use.

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DUTIES OF A PELLET CONTROLLER

During an air rifle marksmanship activity, cadets may be appointed to assist the RSO by acting as a pellet controller. The duties of a pellet controller include:

- **Maintaining Possession of Pellets at All Times.** Pellets are placed in the possession of the pellet controller. They ensure the pellets are secured at all times by means of direct supervision.
- **Distributing Pellets.** Depending on the specific type of air rifle marksmanship activity being conducted, the pellet controller counts pellets into containers that will be placed on the firing point upon the RSO's command.
- **Disposing of Pellets.** Once the air rifle marksmanship activity is concluded, the pellet controller ensures that the area around the target frame is swept. The spent pellets are collected into a container for disposal by the RSO.
- **Recording the Number of Pellets Used During the Activity.** As the activity proceeds, the pellet controller tracks the number of pellets being used during each relay. Once the activity is complete, the total number of pellets used can be calculated. Any additional pellets given by the RSO/range assistants to cadets during the activity (eg, misfires, deformed pellets) are added to the total. This information is used by the RSO to track the quantity of pellets available at the unit.
- **Recording the Number of Pellets Used for Each Rifle.** The Cadet Air Rifle Usage Log shows the RSO when one thousand pellets have been fired by each cadet air rifle. When one thousand pellets have been fired the cadet air rifle requires cleaning. The pellet controller records the total number of pellets used in each cadet air rifle during the air rifle activity.

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CADET AIR RIFLE USAGE LOG

Unit: _____

Unit Rifle Identification: _____

Serial Number: _____

Date	Rounds Fired	Total Rounds Fired

Cleaning performed on: _____

Cleaning performed by: _____

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RANGE SAFETY BRIEFING

Component	Example Statements
1. Welcome/Introduction: - Welcome - Staff Introduction: - RSO - Range assistants	Welcome to <i>(name of range or activity)</i>. My name is <i>(rank name)</i>. I will be the RSO and my job is to <i>(list duties of the RSO applicable to the activity being conducted)</i>. The following staff will be assisting on the range <i>(ranks, names, appointments, responsibilities)</i>.
2. Overview of range layout: - Components of the range - Danger/out of bounds areas - Locations of range facilities - Location of concurrent activities - Routes of access	The range layout is as follows <i>(describe the components of the range [eg, firing point, pellet point, firing lanes])</i>. For safety reasons the following areas are out of bounds <i>(describe/identify areas which are out of bounds [eg, danger areas])</i>. The following facilities are also available on the range <i>(describe/identify the location of the various range facilities)</i>. Concurrent activities will be taking place <i>(describe/identify the training area(s) that will be used for concurrent activities)</i>. When moving on and off the range you will enter <i>(describe/identify routes of access to the range)</i>.
3. General safety rules:	While on the range you must adhere to the following rules: <i>(list the general safety rules/guidelines which will apply to personnel while they are on the range [eg, no running, horseplay, shouting or food on the range])</i>.
4. Activity and Course of fire: - Type of activity/training being conducted - Distance - Target being used - Indication - Scoring	We will be conducting <i>(describe the type of activity or training being conducted [eg, air rifle biathlon, marksmanship classification])</i>. Firing will be at a distance of <i>(10 m)</i>. The target used will be <i>(name the type of target)</i>. You will be firing <i>(explain number of rounds to be fired and how they will be fired [eg, 5 rounds grouping on each of the targets])</i>. Scoring will be based on <i>(describe scoring method [eg, size of the group, application score, number of falling targets hit])</i>.
5. Equipment: - Rifles - Ammunition - Safety equipment	The rifle being used is <i>(describe the rifle being used for the activity [eg, make & model])</i>. The ammunition used will be <i>(describe the pellets to be used)</i>. The following safety equipment will be used on the range <i>(list safety equipment that will be available on the range [eg, safety glasses, aural protection])</i>.

Component	Example Statements
6. Safety precautions: • Carrying out individual safety precautions • Rifle safety principles • Safe rifle status	Upon receiving a cadet air rifle, passing a cadet air rifle or handling a cadet air rifle that the safety is in question, you must perform individual safety precautions <i>(review the steps for carrying out safety precautions).</i> Whenever handling cadet air rifles always adhere to the rifle safety principles <i>(review rifle safety principles [ACTS]).</i> When cadet air rifles are not in use they must be unloaded and <i>(explain the safe rifle status that applies to the activity [eg, when the rifles are on the line, in a rack]).</i>
7. Range commands: • Standard range commands • Competition range commands • Summer biathlon range commands	For this (activity/training) commands are as follows <i>(briefly explain the commands and associated actions that will be used for the activity/ training being conducted).</i>
8. Cease fire command: • When to use • Who can call • Action upon hearing a cease fire	Safety is of the utmost importance. If at any time there is a need to halt firing, a “cease fire” will be called. A cease fire maybe called if <i>(describe situations which may warrant a cease fire).</i> It is important to note that a cease fire may be called by anyone (staff, participants or spectators) on the range who witnesses a safety concern that in their opinion justifies a cease fire. If a cease fire is called the following actions are to be taken <i>(explain the actions to be taken upon hearing the cease fire command).</i>
9. Immediate actions and stoppages: • Types of stoppages that may occur • Immediate actions	While firing, a cadet air rifle may <i>(describe common stoppages for the type of rifle in use).</i> If this occurs you must <i>(describe the immediate actions to take to resolve the stoppages).</i>
10. Personal Hygiene:	It is important to remember that lead and gun oil are toxic. After handling any pellets or cadet air rifles, you must wash your hands, especially before eating.

Component	Example Statements
11. First aid and emergencies: • Location of first aid point and safety vehicle • Identification of first aider • Action in the event of an emergency • Emergency routes of access • Emergency response plan	If any minor injuries occur, the first aid point is located (<i>describe and identify the location the first aid point</i>). The appointed first aider will be (<i>identify the appointed first aider and where they will be</i>). If there are any injuries or emergencies that cannot be handled on site, the procedure is (<i>describe emergency procedures [eg, actions to be taken in the event of emergencies, routes of access, emergency response plan]</i>).
12. Assignment of relays: • Number of relays • Assignment of relays • Timing of relays	For this (<i>training/activity</i>), there will be (<i>number of relays</i>) relays. They are as follows (<i>assignment of relays</i>). Relay number (<i>relay number</i>) will begin at (<i>time [eg, 1100 hrs]</i>), relay (<i>relay number</i>) will begin at (<i>time [eg, 1130 hrs]</i>). You must be in the waiting area (<i>time [eg, 5 min]</i>) prior to your relay beginning.
13. Concurrent activity: • Type • Timing • Supervisory staff/OPI	When not on the range you will be participating in (<i>name/describe the concurrent activity</i>). The concurrent activity will be (<i>explain timing of the concurrent activity [eg, run in 30-minute rotations, run from 0900–1130 hrs]</i>). (Name/introduce the supervisory staff/OPI) will be running/in charge of the concurrent activity.
14. Additional Items: • Ensuring handling tests a have been completed • Timing for activity • Declaration requirements (if required) • Breaks • Messing/meals/snacks • Setting up/dismantling the range	Before firing on the range, you must have completed a Cadet Air Rifle Handling Test. Is there anyone here who has not yet completed a handling test? The activity will begin at (<i>time [eg, 0930 hrs]</i>). Following the activity, you will have to make a declaration stating that you do not have any live rounds or empty cases in your possession. (if required) Lunch will be served (<i>location of messing area</i>) from (<i>time [eg, 1200–1300 hrs]</i>).
15. Questions:	Does anyone have any questions?
The above may be used as a guide when drafting a range briefing. Pick which components apply to the activity being conducted and, if desired, use the sample statements to begin writing your briefing. Remember that although the list of components provided should be extensive enough to cover most range activities and conditions, additional items may be required.	

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RANGE COMMANDS

✂ Standard Range Commands 1. Cover off your firing point. 2. Place your equipment down and stand back. 3. Adopt the prone position. 4. Relay No. __, Range __ m, this is __ rounds, grouping/application/other. 5. Relay, load, and commence firing. 6. Relay, unload. 7. Relay, prepare for inspection. 8. Relay, stand up. 9. Change targets. 10. Change relays. <i>From: A-CR-CCP-177/PT-001 (p. 1-8-3)</i>	✂ Competition Range Commands 1. Competitors to the firing point. 2. Place your equipment down and stand back. 3. Affix targets – you have two minutes. 4. Distribute pellets. 5. Adopt the prone position – your three-minute preparation period begins now. 6. Load and commence firing – your 30-minute firing period begins now. 7. You have 10 minutes remaining.	✂ Summer Biathlon Range Commands 1. Range open/range open for zeroing/range open for competition. 2. Range closed.
	Competition Range Commands (Con't) 8. You have five minutes remaining. 9. You have one minute remaining. 10. Cease fire – your time has expired. Unload and prepare for inspection. 11. Remove your equipment from the firing point. 12. Exit the range. <i>From: A-CR-CCP-177/PT-001 (p. 4-4-20)</i>	✂

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DUTIES OF A RANGE SENTRY

A range sentry is responsible, during the course of fire, to restrict entry on to the range and for changing warning signals when instructed to do so by the RSO. They must be able to constantly communicate with the RSO to report any safety concerns.

Restricting Access to the Range During Firing

On most indoor temporary ranges, access points exist and must be secured during the course of fire. By posting a range sentry outside an access point, the RSO can be assured no one can access the range and be struck by pellets. On outdoor ranges, roads leading to the range may need to be blocked and a range sentry posted to control vehicle access. In a situation where the range sentry is unable to directly attract the attention of the RSO, a means of communication such as a hand-held radio may be required.

Controlling Range Warning Signals

Range sentries are responsible for controlling the range warning signals. At the commencement of an air rifle marksmanship activity, a green flag/light/signal shall be posted to alert people that the range is in use but no live firing is currently in progress. The location of warning signals vary based on the local specifications of the air rifle range being used. Typically, warning signals are posted at the backstop, firing point and on access roads leading to the range.

For indoor ranges, warning signals are posted at entranceways to the room in which the range is set up. On the command of the RSO, the range sentry changes the green warning signal to red. The red signal alerts people that the range is in use and live firing is in progress. The red warning signal is posted from before the course of fire begins until the RSO has cleared the last cadet air rifle of the relay. At this time, on the command of the RSO, the range sentry changes the warning signal back to green. At the conclusion of the air rifle marksmanship activity, all warning signals are removed to indicate that the range is no longer in use.

Notifying the RSO of Safety Concerns Inside/Outside the Range Area

During the conduct of an air rifle marksmanship activity, the range sentry is responsible for bringing safety concerns both on and off the range area to the attention of the RSO. These concerns may include wildlife entering the range or visitors requesting access to the range.

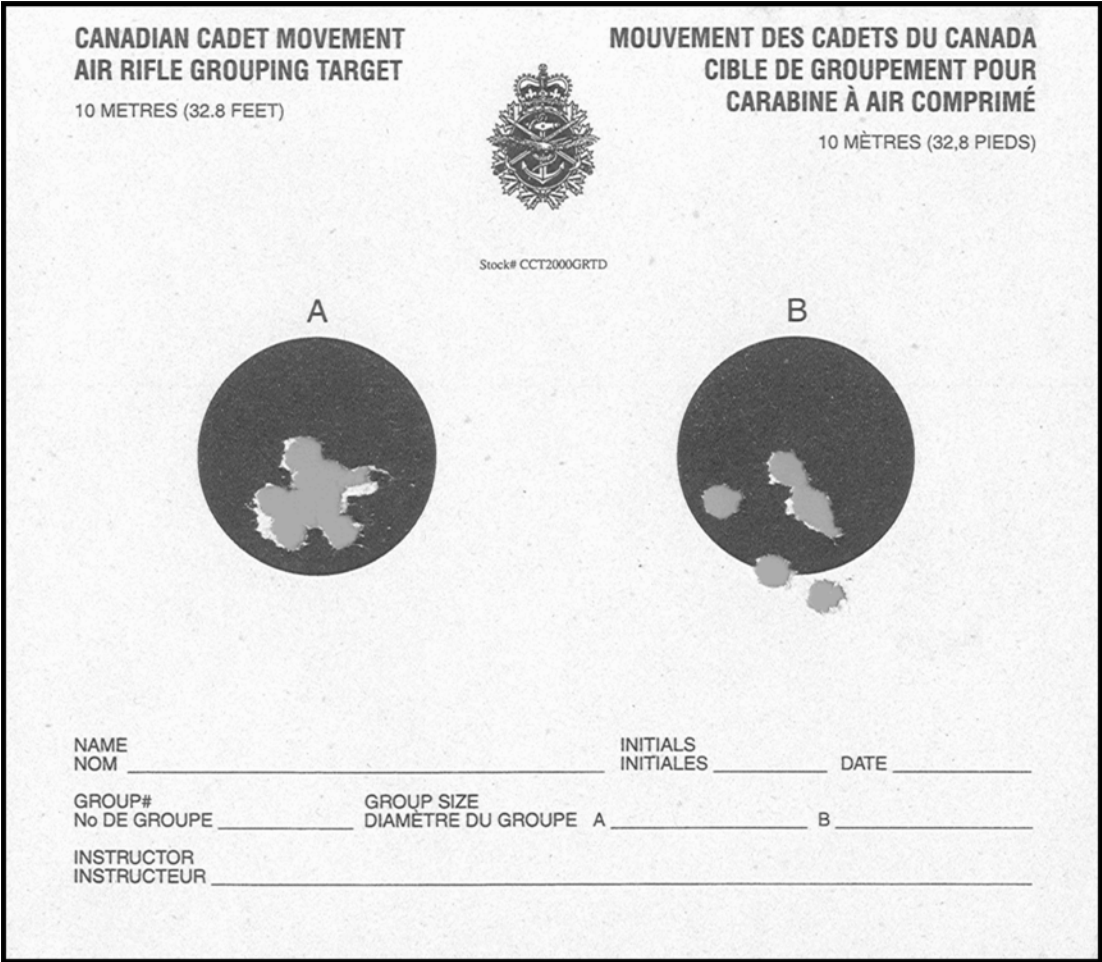
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SAMPLE GROUPING TARGET HANDOUT

CANADIAN CADET MOVEMENT AIR RIFLE GROUPING TARGET 10 METRES (32.8 FEET)	 Stock# CCT2000GRTD	MOUVEMENT DES CADETS DU CANADA CIBLE DE GROUPEMENT POUR CARABINE À AIR COMPRIMÉ 10 MÈTRES (32,8 PIEDS)									
A 		B 									
<table border="0" style="width: 100%;"><tr><td style="width: 50%;">NAME NOM _____</td><td style="width: 20%;">INITIALS INITIALES _____</td><td style="width: 30%;">DATE _____</td></tr><tr><td>GROUP# No DE GROUPE _____</td><td colspan="2">GROUP SIZE DIAMÈTRE DU GROUPE A _____ B _____</td></tr><tr><td colspan="3">INSTRUCTOR INSTRUCTEUR _____</td></tr></table>			NAME NOM _____	INITIALS INITIALES _____	DATE _____	GROUP# No DE GROUPE _____	GROUP SIZE DIAMÈTRE DU GROUPE A _____ B _____		INSTRUCTOR INSTRUCTEUR _____		
NAME NOM _____	INITIALS INITIALES _____	DATE _____									
GROUP# No DE GROUPE _____	GROUP SIZE DIAMÈTRE DU GROUPE A _____ B _____										
INSTRUCTOR INSTRUCTEUR _____											

Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

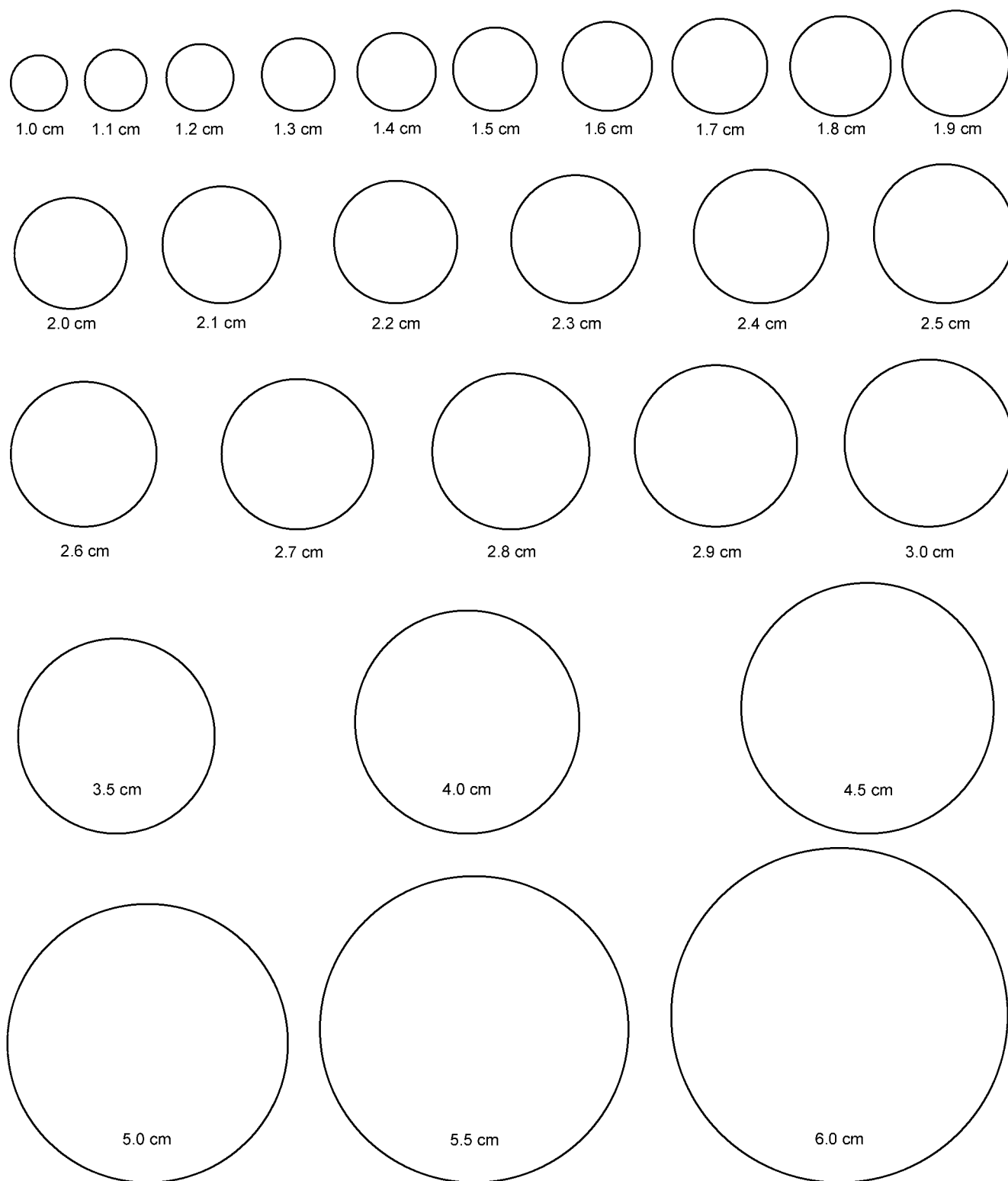
Figure 4G-1 Target 1



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Figure 4G-2 Target 2

AIR RIFLE GROUPING TEMPLATE

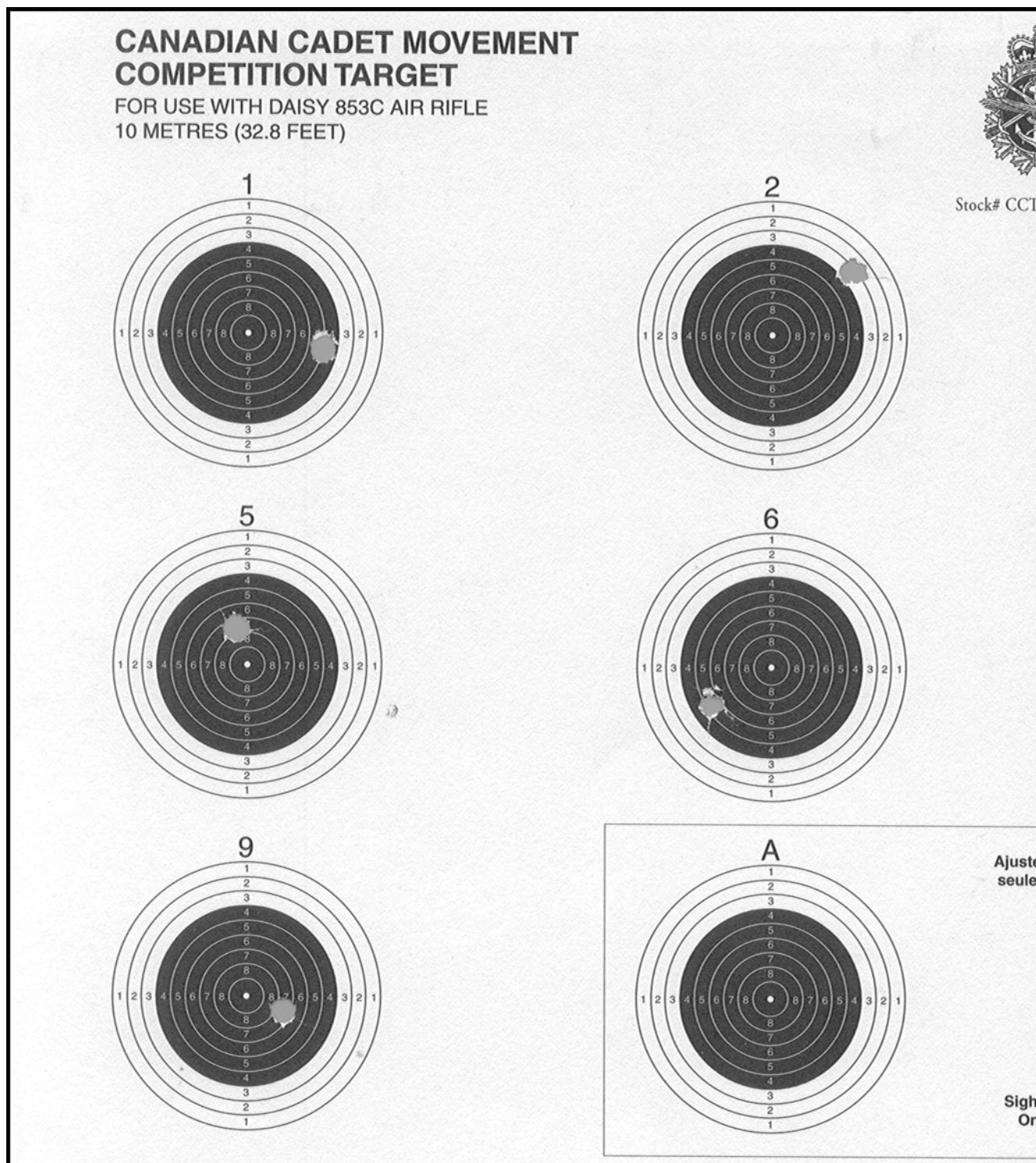


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Figure 4H-1 Air Rifle Grouping Template

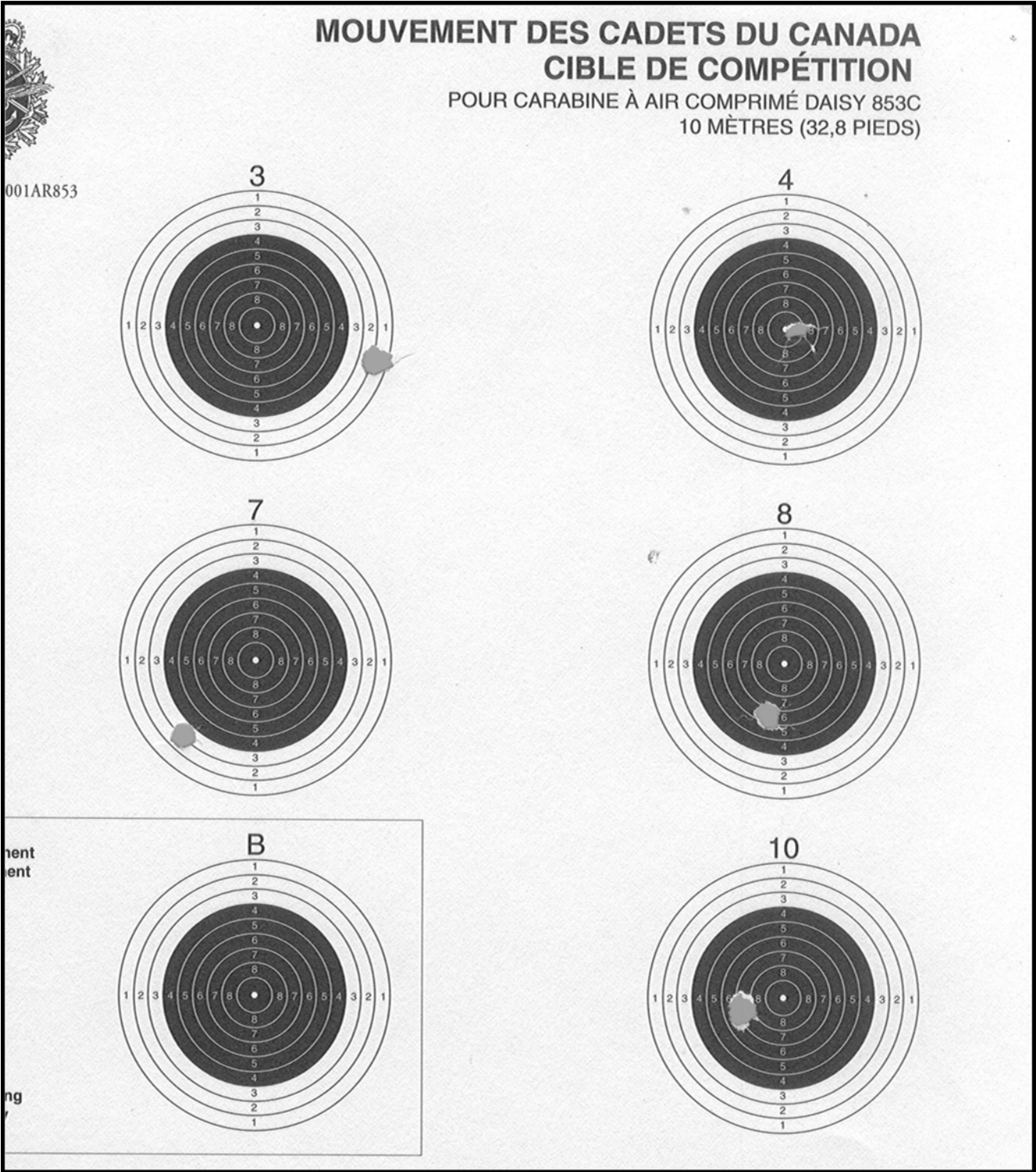
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SAMPLE COMPETITION TARGET HANDOUT



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Figure 4I-1 Target 1 (Left Half)



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Figure 4I-2 Target 1 (Right Half)

SCORING TEMPLATE



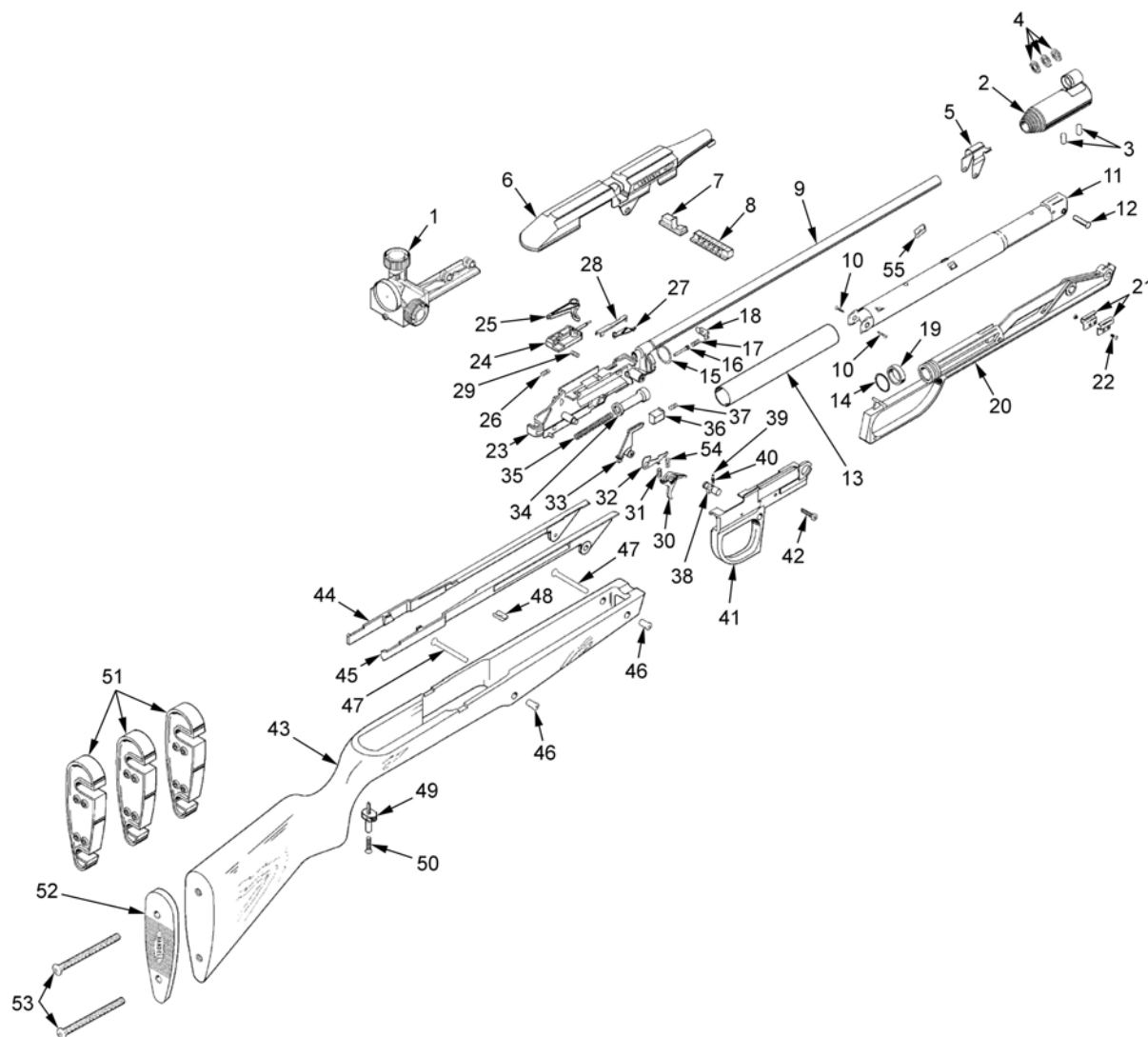
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Figure 4J-1 Scoring Template

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CADET AIR RIFLE MECHANICAL DIAGRAM AND PARTS IDENTIFICATION LIST

CADET AIR RIFLE MECHANICAL DIAGRAM



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Figure 4K-1 Cadet Air Rifle Mechanical Diagram

CADET AIR RIFLE MECHANICAL DIAGRAM PARTS IDENTIFICATION LIST

Part Diagram Number	Part Name	Part Diagram Number	Part Name
1	Rear sight	30	Trigger
2	Barrel weight	31	Trigger spring
3	Barrel weight set screws	32	Sear
4	Front sight inserts	33	Trigger lock
5	Barrel band	34	Hammer
6	Receiver housing	35	Hammer spring
7	Single-pellet adaptor	36	Latch
8	Five-pellet clip	37	Latch spring
9	Barrel	38	Safety
10	Valve body screws	39	Safety ball
11	Frame	40	Safety spring
12	Lever axis pin	41	Trigger housing
13	Pump tube	42	Trigger housing screw
14	Pump o-ring	43	Stock
15	Valve o-ring	44	Left inletting filler
16	Valve	45	Right inletting filler
17	Valve spring	46	Stock nuts
18	Valve retainer	47	Stock screws
19	Pump wiper	48	Stock spacer
20	Plunger	49	Stock blox nut
21	Sling bracket	50	Sear screw
22	Sling bracket adjustment screws	51	Butt spacers
23	Valve body	52	Butt plate
24	Bolt	53	Butt plate screws
25	Bolt handle	54	Sear spring
26	Bolt spring	55	Barrel spacer
27	Clip actuator	The same o-ring can be interchanged for either 14 or 15. The same spring can be interchanged for either 26 or 54.	
28	Clip actuator bar		
29	Clip actuator spring		

CADET AIR RIFLE MAINTENANCE LOG

Unit: _____

Unit Rifle Identification: _____

Serial Number: _____

Date	Type of Maintenance Performed	Name (Print)	Signature

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CHAPTER 5

PO S344 – COACH CADETS DURING AN AIR RIFLE MARKSMANSHIP AND A SUMMER BIATHLON ACTIVITY



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 1

EO S344.01 – PROVIDE FEEDBACK TO CADETS

Total Time:	40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Effective Feedback handout located at [Annex A](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to providing feedback to cadets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall provide feedback to cadets.

IMPORTANCE

It is important for cadets to provide feedback because it is an essential skill for a team leader. Feedback is given to help team members improve. Providing feedback correctly to team members gives the team members regular guidance to complete their tasks.

Teaching Point 1**Explain the FAST Principles of Effective Feedback**

Time: 10 min

Method: Interactive Lecture



Distribute the Effective Feedback handout located at [Annex A](#) to each cadet.

FAST PRINCIPLES OF EFFECTIVE FEEDBACK

Feedback is a reactive form of communication. It is a response to some kind of action or input. Feedback may:

- answer a question;
- fulfill a request for information;
- reply to or rebut a point of discussion;
- suggest a revision during a task; or
- evaluate task or job performance.

Feedback may be given to the team as a whole or it may be given to individual team members. Giving feedback well is a skill. FAST feedback is a practical method for giving team members feedback. It is based on the formula FAST, an acronym that stands for:

- frequent,
- accurate,
- specific, and
- timely.

Frequent

Frequent means occurring often or in close succession. Team leaders should give feedback often. After giving feedback, a team leader should note if the team members are responding. If the feedback is not being used by the team members, it may need to be restated in a different way.

Accurate

Accurate means careful, precise or lacking errors. Accurate feedback means giving feedback that is truthful and fact-based. Accurate feedback should be correct, balanced and appropriate; if not, team members may begin to lose respect for the team leader as every instance of feedback has an effect on the team members' trust.

Specific

Specific means clearly defined, definite or precise. Specific feedback means giving feedback that is detailed and clear-cut. Telling team members what they do right and wrong is not specific enough; the team leader must also tell team members exactly what steps are necessary to improve their performance. This is usually done by asking reflective questions to the team members so they generate suggestions for improvement. When giving specific feedback, team leaders should set concrete goals and deadlines for team members.

Timely

Timely means opportune, occurring, done or made at suitable or appropriate time. Timely feedback means giving feedback at the right time. The closer in time the feedback follows the performance, the more impact it will have on team members because the performance and the feedback are tied closely together.



FAST feedback must be based on the team member's behaviour and/or performance – not the person or their personality.



Ask cadets to give examples of when feedback has been given to them that was frequent, accurate, specific, and timely.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What does frequent feedback mean?
- Q2. What does accurate feedback mean?
- Q3. What does specific feedback mean?
- Q4. What does timely feedback mean?

ANTICIPATED ANSWERS

- A1. Frequent feedback means giving feedback to team members often.
- A2. Accurate feedback means giving feedback that is truthful and fact-based.
- A3. Specific feedback means giving feedback that is detailed and clear-cut.
- A4. Timely feedback means giving feedback at the right time.

Teaching Point 2

Explain the Ground Rules for Providing Feedback

Time: 15 min

Method: Interactive Lecture

GROUND RULES FOR PROVIDING FEEDBACK

The following ground rules for providing feedback may enable the team leader to give helpful, constructive feedback, without creating conflict or confrontational behaviour with team members.

Focusing on What Is Observed

Team leaders should give feedback based on what they see because it is factual. What team leaders believe is based on supposition and inference; it is an interpretation of what they have seen. When team leaders give feedback based on interpretation rather than fact, the interpretation may be wrong.

For example:

A team member is looking at their boots as the team leader speaks to him. The team leader says “Pay attention.” This is incorrect because the team leader is inferring that the team member is not paying attention. The team leader should say “You should not be looking at your feet.” This statement focuses on what the team leader saw.

Focusing on Behaviour

Team leaders should give feedback based on the behaviour of team members, not on the person or personality of a team member.

For example:

A team leader observes a team member slouching against a wall. The team leader says “Don’t be lazy.” This is incorrect because the team leader is making judgment on the team member’s personality. The team leader should say “Stand up straight.” This statement does not make any judgment but focuses directly on the behaviour required by the team member.

Keeping it Neutral

Team leaders should give feedback that is unbiased and does not make judgments. When a team leader is objective when giving feedback, the team members can determine for themselves the effect of their behaviour. This presents a more meaningful learning opportunity for team members.

For example:

The team leader observes a team member arriving late again. The team leader says “You are late a lot.” This is incorrect because the team leader has made a judgment on how many times the team member has been late. The team leader should say “You have been late three times in the past two months.” This is a statement of fact.

Using it to Inform

Team leaders should give feedback that is enlightening and does not advise. When the team leader gives feedback, it leaves the team members free to draw their own conclusions. This freedom allows the team members to decide what actions are necessary to change their behaviour.

For example:

A team leader does an inspection and observes that a team member’s boots are not up to standard. The team leader says “Everyone needs to work on their boots.” The team leader should say “Our team’s boots are not meeting inspection standard.” This statement allows team members to decide what should be done.



If the team members cannot generate an idea, the team leader may have to explain what behaviour is required.

Making it Supportive

Team leaders should give feedback that is reassuring and not threatening. When the team leader gives feedback that is supportive, it does not sound like a put-down. The choice of language and tone must be carefully considered. Even the friendliest and best intentioned feedback can sound intimidating.

For example:

A team leader observes a team member leading a team-building activity. The team leader says “I want to talk to you about that activity.” This may be perceived as frightful and ominous. The team leader should say “I thought

your activity went well, but let's have a chat about making it even better." This statement starts with something positive and then offers an opportunity to discuss ways of improving.

Keeping it Simple

Team leaders should give feedback that is uncomplicated. Team members can usually only process one or two pieces of information at any one time. If team leaders overload team members with too much feedback, there is a possibility that the information will not be received. Feedback on one or two major points is more useful than feedback on six or seven minor points.

For example:

A team leader supervises as a team member conducts an inspection. The team leader notices that the team member's uniform and boots are not up to inspection standard. The team member starts the inspection at the cadet's back and continues to make errors. The team leader says "Very few things went correctly during that inspection – you look bad, you started with their backs and your comments made no sense." This is incorrect because the team leader is focusing on too many issues at once. The team leader should have said "Very few things went correctly during that inspection and we will start with your uniform." This allows the team member to focus on one behaviour at a time.

ACTIVITY

Time: 5 min

OBJECTIVE

The objective of this activity is to have the cadets identify the ground rules for providing feedback.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have the cadets find a partner.
2. Have the cadet with the earliest birthday recite one ground rule for providing feedback to their partner.
3. Have the cadet with the latest birthday recite another ground rule for providing feedback to their partner.
4. Have the cadets take turns reciting the ground rules for providing feedback until all the ground rules have been recited.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 3**Explain the Steps for Providing Feedback**

Time: 10 min

Method: Interactive Lecture

STEPS FOR PROVIDING FEEDBACK

The purpose for providing feedback is to let team members know how they are doing and when they are not meeting expectations. Team leaders should ensure that feedback is given when team members meet and/or exceed their commitments, as well as when team members do not meet their commitments. There are five steps for providing feedback. They are:

1. planning what to say;
2. providing examples of behaviours;
3. allowing time for feedback;
4. motivating; and
5. setting a timeline for action and follow-up.

Planning What to Say

Team leaders need to plan what they will say during feedback using the ground rules for providing feedback. Team leaders should think ahead of time about the team member's behaviour to be discussed. Team leaders should also have suggestions for improvement; however, these ideas should only be given if the team member cannot generate suggestions for improvement themselves.

Providing Examples of Behaviours

Team leaders need to give feedback that provides examples of the behaviour that needs to change. Giving unclear or vague examples may lead to anxiety in team members because they are not sure what behaviour needs to be modified.

Allowing Time for Feedback

Once team leaders have provided examples to the team members, they should allow time for discussion. The team members may agree, disagree or provide their perspective of the situation to the team leader. The team members may need to ask for clarification of the behaviours or they may ask for suggestions to assist them in changing their behaviour.

Motivating

Once team leaders have allowed time for discussion of the feedback, team leaders should motivate the team members. The team member may be disappointed by the feedback so the team leader should encourage and stimulate them to reach their goals.

Setting a Timeline for Action and Follow-Up

Team leaders need to set a timeframe for action by the team member to check for progress on the behaviour change. Team leaders need to follow up to ensure the team members are making the corrections required.

ACTIVITY

Time: 5 min

OBJECTIVE

The objective of this activity is to have the cadets identify the steps for providing feedback.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have the cadets find a different partner than they did in TP 3.
2. Have the cadet with the earliest birthday recite the first step for providing feedback to their partner.
3. Have the cadet with the latest birthday recite the second step for providing feedback to their partner.
4. Have the cadets take turns reciting the steps for providing feedback until all the steps have been recited.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. FAST is an acronym for what formula for providing feedback?
- Q2. When making feedback supportive, does the choice of language and tone have an impact on the participant?
- Q3. What is the purpose of providing feedback?
- Q4. How many steps are there for providing feedback? What are they?

ANTICIPATED ANSWERS

A1. The acronym FAST stands for:

- frequent,
- accurate,
- specific, and
- timely.

- A2. Yes, the choice of language and tone may have a negative impact. Language and tone should be spoken in a positive and reassuring manner.
- A3. The purpose of providing feedback is to let team members know how they are doing and when they are not meeting expectations.
- A4. There are five steps for providing feedback. They are:
1. planning what to say;
 2. providing examples of behaviours;
 3. allowing time for feedback;
 4. motivating; and
 5. setting a timeline for action and follow-up.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Providing feedback is an essential skill for a team leader. Feedback is given to help team members improve. Providing feedback correctly to team members gives the team members regular guidance to complete their tasks.

INSTRUCTOR NOTES/REMARKS

The application of these skills is related specifically to EO S344.02 (Apply Coaching Techniques During an Air Rifle Marksmanship Activity, [Section 2](#)), EO S344.03 (Apply Coaching Techniques During Competitive Summer Biathlon Activities, [Section 3](#)) and all practical leadership opportunities.

REFERENCES

- C0-403 Peeling, G. (2000). *Feedback Techniques: 7 Things to Know About Giving Feedback: Trainers Guide*. Cambridgeshire, England: Fenman Limited.
- C0-404 Mochal, T. (2006). *Follow These Six Steps When Providing Constructive Performance Feedback*. Retrieved February 5, 2009, from http://articles.techrepublic.com.com/5100-10878_11-6102736.html.
- C0-412 (ISBN 978-0-87425-495-2) Tulgan, B. (1999). *Fast Feedback (2nd Ed)*. Amherst, MA: HRD Press, Inc.



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 2

EO S344.02 – APPLY COACHING TECHNIQUES DURING AN AIR RIFLE MARKSMANSHIP ACTIVITY

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Distribute a Canadian Cadet Movement Competition Target (CCT2001AR853) to each cadet.

Photocopy the Marksmanship Coaching Diary located at [Annex B](#) (page 1 and 2).

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

Assistant instructors are required for TPs 2 and 4.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A interactive lecture was chosen for TP 1 as it allows the instructor to explain the application target and its components, the use of the sighting diagrams on the application target and the sequence of firing to an application target.

A demonstration was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate applying coaching techniques by using the firing point sequence and adjusting sights on the cadet air rifle.

A practical activity was chosen for TP 4 as it allows the cadets to experience coaching techniques using the firing point sequence, adjusting sights on the cadet air rifle and maintaining a coaching diary during an air rifle marksmanship activity in a safe, controlled environment. This activity contributes to the development of coaching skills and knowledge in a fun and challenging setting.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to apply coaching techniques during an air rifle marksmanship activity.

IMPORTANCE

It is important for cadets to apply coaching techniques during an air rifle marksmanship activity so the marksman can improve their marksmanship skills and results.

Teaching Point 1

Explain Applying the Sequence of Firing to an Application Target (Canadian Cadet Movement Competition Target, CCT2001AR853)

Time: 10 min

Method: Interactive Lecture

APPLICATION TARGET AND ITS COMPONENTS

The application target (Canadian Cadet Movement Competition Target, CCT2001AR853) that cadets use for competition during cadet activities is a 10-bull competition scoring target and two diagrams in a sighting box for sighting shots. The target is produced on a high quality neutral coloured paper 8-1/2 inches high by 14 inches wide (as illustrated in [Figure 5-2-1](#) [not to scale]). This target is used with the cadet air rifle at a distance of 10 m (32.8 ft).

Components of the CCM Competition Target include:

Competitor Information Section

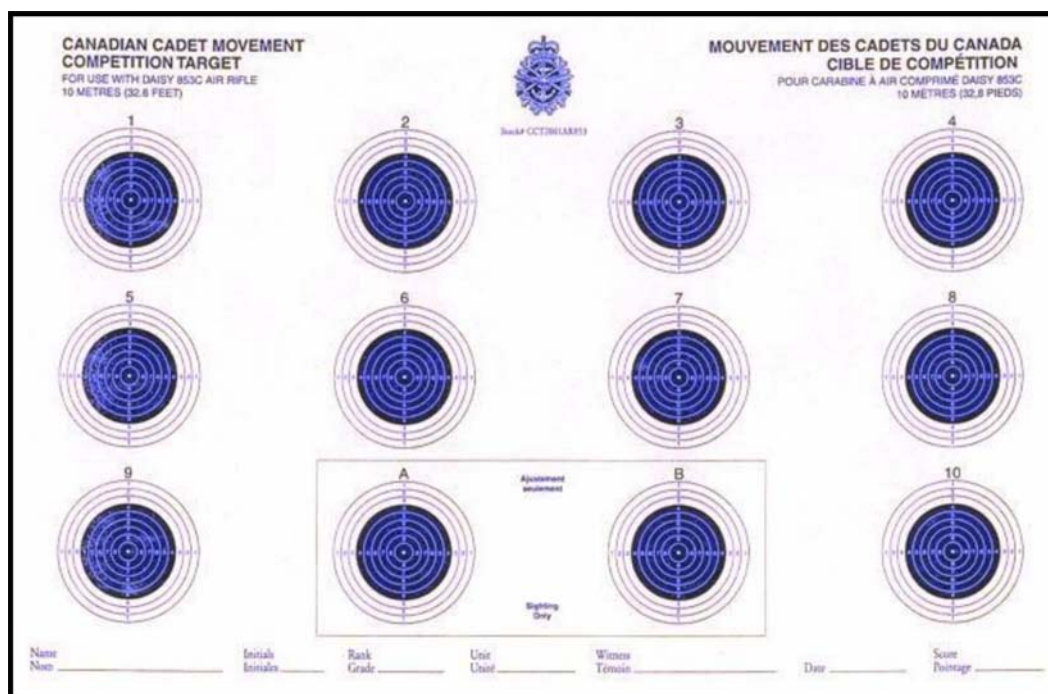
This includes the competitor's name, rank, unit, score, date and the signature of a witness.

Two Sighting Diagrams

The sighting diagrams are identical to the scoring diagrams and are labelled A and B. They are used by the competitor to confirm zeroing of the cadet air rifle during the competition relay.

Ten Scoring Diagrams

Each target has 10 scoring diagrams with 10 concentric rings, scored from 10 (the bull's eye) to 1 (the outer most ring). As there are 10 scoring diagrams, the highest possible score (HPS) is 100.



Director Cadets 4, 2001, Ottawa, ON: Department of National Defence

Figure 5-2-1 The CCM Competition Target (CCT2001AR853)

THE USE OF SIGHTING DIAGRAMS ON THE APPLICATION TARGET

Sighting shots fired at the CCM Competition Target must fall within the defined area marked on the application target. Should shots be fired and fall outside the defined area, penalties may be assessed.

The Number of Sighting Shots

The cadet has an unlimited number of sighting shots that may be fired on the two sighting diagrams within the allotted time for firing the target(s).

Time Limits Per Application Target(s)

The cadets have 30 minutes to fire both sighting and scoring shots during the competition relay of the CCM Marksmanship Championship Series competitions.



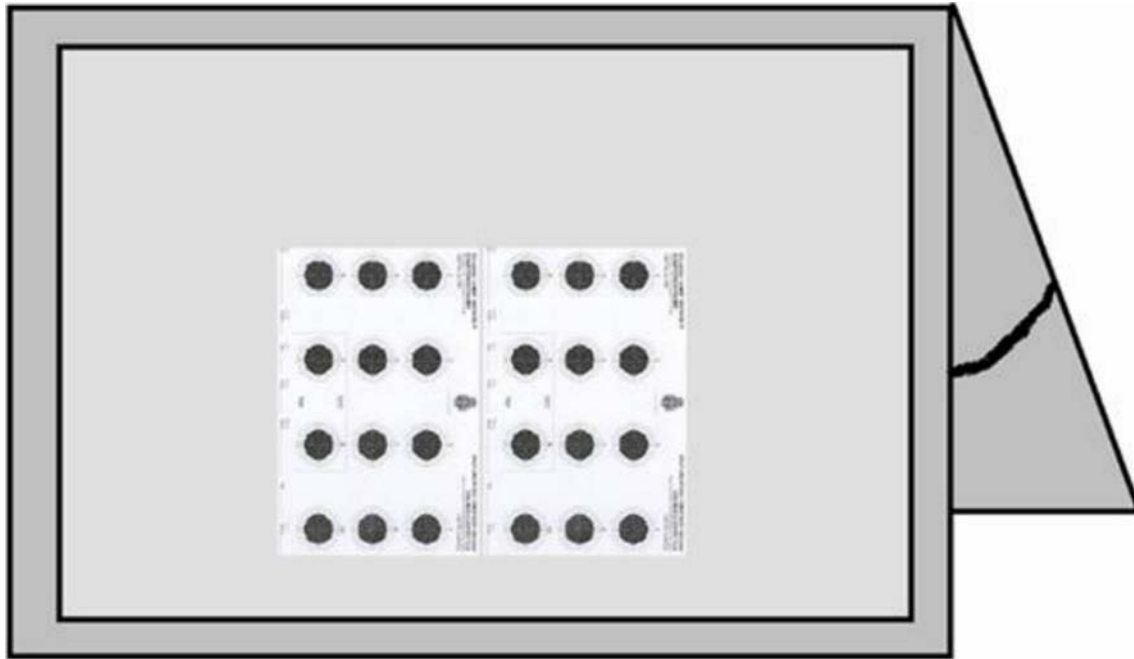
Refer to A-CR-CCP-177/PT-001, Part 4, Section 4, for further details on specific rules regarding competition firing and zeroing shots.

THE SEQUENCE OF FIRING TO AN APPLICATION TARGET

The sequence of firing to an application is not a hard and fast rule that must be followed by all marksmen. When developing the principles of marksmanship, especially natural alignment, the sequence of firing to an application target should be introduced. As the marksman continues to practice the sequence of firing to an application target, they will usually follow the same sequence throughout their training.

Turning the Application Target to a Portrait Orientation

Turn the application target to a portrait orientation with the sighting diagrams facing to the left or right (as illustrated in [Figure 5-2-2](#)). Placing a target in this manner ensures that there is minimal movement between each of the scoring diagrams. A marksman will find it is easier to keep their natural alignment and aim when moving vertically rather than horizontally, as this causes less strain on their body.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 5-2-2 Example of Placing the Application Target on the Target Backstop

Firing at the Target in a Logical Sequence

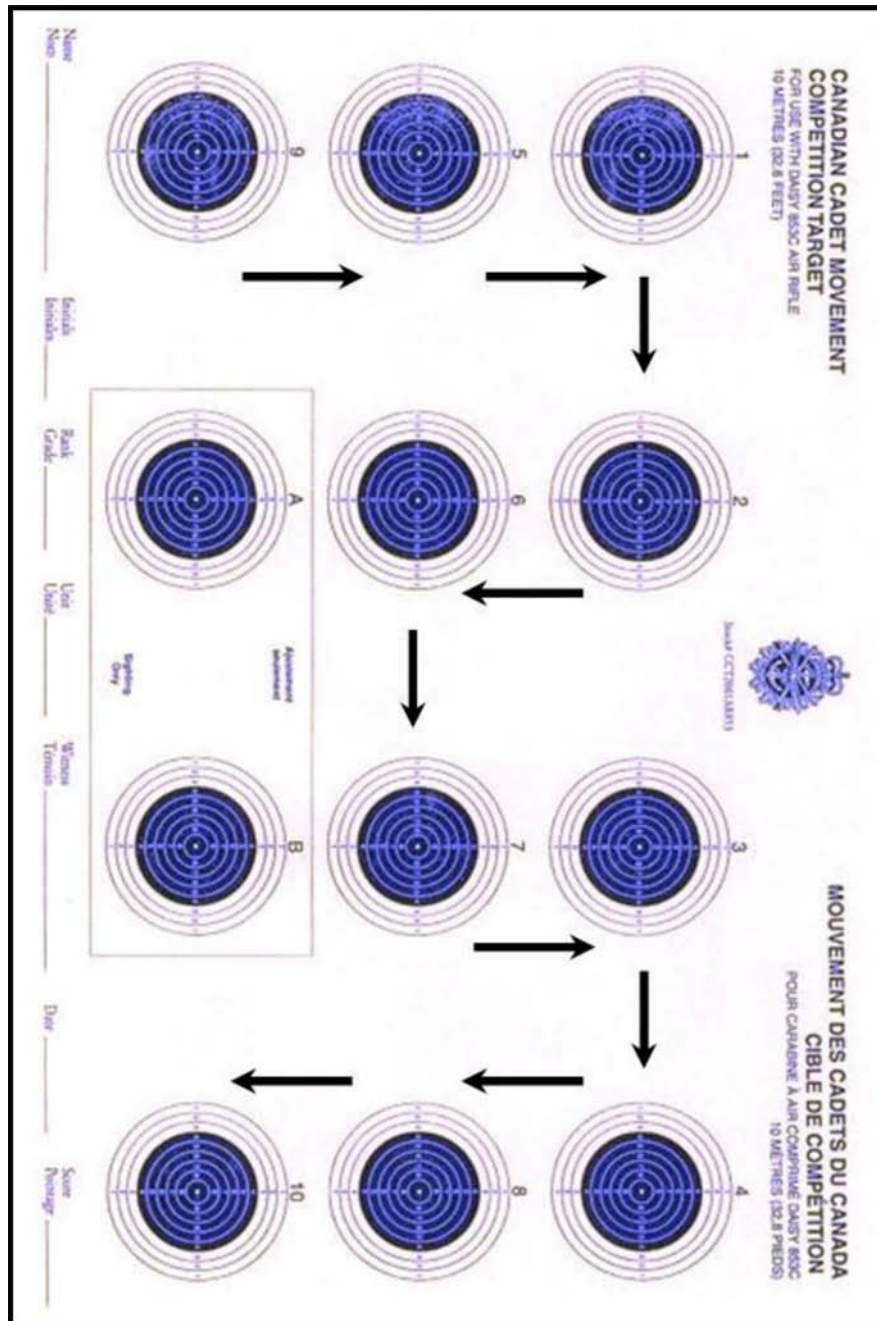
Firing at an application target in a logical sequence (as illustrated in [Figure 5-2-3](#)) will assist the cadet in achieving a higher score during marksmanship activities. This is done by ensuring the least amount of movement and strain when firing at each diagram and when moving from diagram to diagram. It also ensures that every diagram is fired on.



The logical sequence to be used will be the preference of the individual marksman.



Firing at four rows of six scoring diagrams rather than three rows of eight scoring diagrams lessens the amount of movement and strain on the body.



Director Cadets 4, 2001, Ottawa, ON: Department of National Defence

Figure 5-2-3 Example of Applying a Firing Sequence to an Application Target



The position and orientation of the targets and firing sequence supports the principles of natural alignment as the marksman can be naturally aligned comfortably with all 10 scoring diagrams on the target without being muscled into position.

The position of the targets and firing sequence supports breathing because most of the movement is vertical; the marksman can adjust to each row by their breathing cycle.

The position of the targets and firing sequence supports aiming as the head position will have less movement, keeping good sight alignment.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What does placing the target in a portrait orientation ensure?
- Q2. When firing to the CCM competition target, which direction of movement has less strain on the body?
- Q3. When choosing a sequence to fire at the scoring diagrams, what are some factors to consider?

ANTICIPATED ANSWERS

- A1. It ensures minimal movement between scoring diagrams.
- A2. Vertical movement strains the body less than horizontal movement.
- A3. The marksman should ensure that when a sequence is chosen, it is in a logical and ordered sequence with the least amount of movement and strain when firing at each diagram and that every diagram is fired upon.

Teaching Point 2

Explain and Demonstrate Applying the Coach's Firing Point Sequence

Time: 20 min

Method: Demonstration



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while the cadets observe.
2. Explain and demonstrate each step required to complete the skill.



Perform the firing point routine on an air rifle range with the assistance of an assistant instructor as the marksman. This will allow the cadets to observe the coach following the firing point routine.

THE COACH'S FIRING POINT SEQUENCE

In order for the coach to apply a coaching technique and to correct the principles of marksmanship, the coach has to be at the firing line or close enough to see what the marksman is doing.

The coach applies the firing point sequence by:

1. positioning themselves on the right side of the cadet (left side for a left-handed individual) or at the back of the firing lane in the best position to observe, without affecting the cadet or their position;



Refer to A-CR-CCP-177/PT-001, Part 4, Section 4, for further details on specific rules regarding cadet coaches and coaching.

2. ensuring that the cadet is in-line with their assigned target and the rear sight is correctly set;
3. observing the cadet's natural alignment;



To see the difference from the initial position and the corrected position of the cadet, have a camera on hand to take a picture of both positions and show the cadet the two pictures.

4. directing the cadet to adjust their:
 - a. position,
 - b. hold (be aware of possible canting),
 - c. eye relief,
 - d. breathing sequence, and
 - e. trigger squeezing if required;
5. encouraging the cadet to relax;
6. assuming the rest position as required by:
 - a. taking the cadet air rifle down from the shoulder;
 - b. remaining in the prone position;
 - c. keeping the elbows in-place; and
 - d. holding onto the cadet air rifle until ready to resume putting the cadet air rifle back into the shoulder;
7. analyzing the cadet's performance;



During the period of time the coach observes the cadet on the firing line, take notes on what the cadet is or not doing correctly. Once targets have been fired, some of the observations will be reflected by the position of the shots fired.

8. providing feedback to the cadet to correct the various aspects of the principles of marksmanship;
9. maintaining a marksmanship coaching diary by:
 - a. completing the training event information;
 - b. completing the checklist of equipment;

- c. recording the settings of the cadet air rifle and marksmanship equipment, to include:
 - (1) position of the sling on the arm;
 - (2) position of the handstop on the cadet air rifle;
 - (3) front sight insert size;
 - (4) position of the rear sight;
 - (5) use of blinder on the rear sight; and
 - (6) number of butt spacers used on the cadet air rifle;
- d. recording the results of the groups or scores;
- e. establishing goals, to include:
 - (1) long-term goals,
 - (2) mid-term goals, and
 - (3) training goals.



When establishing goals, ensure the goals are SMART. The term SMART refers to maximizing the potential of goals and ensuring they meet the cadets' needs. Goals should be:

- **Specific.** Goals must be specific in what the cadet wishes to achieve;
- **Measurable.** Goals require a method of determining whether or not they have been achieved. Each goal requires a quantitative method to evaluate the success;
- **Achievable.** The goals need to be attainable in the set period of time. It may not be realistic to establish a goal such as competing in the Olympics this year if you have never fired an air rifle before;
- **Relevant.** Ensure the goal is worthwhile; and
- **Timed.** When establishing goals, consider the time in which you wish to achieve it successfully. Each goal needs a time limit to determine success.



Provide each cadet with a copy of the Marksmanship coaching diary located at [Annex B](#). Coaches should have a diary sheet for each cadet they are coaching. Keep these sheets in a well-organized binder or folder. These diaries are very important when interviewing and providing feedback to cadets on their performance.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. Where should the coach be located to apply the firing point sequence?

- Q2. After observing the cadet in the position, what are the areas the coach should be directing the cadet to adjust?
- Q3. What settings on the cadet air rifle and marksmanship equipment would the coach record in the diary?

ANTICIPATED ANSWERS

- A1. The coaches would position themselves on the right side of the cadet (left side for a left-handed individual) or at the back of the firing lane in the best position to observe, without affecting the cadet or their position.
- A2. After observing the cadet in the position, the coach should be directing the cadet to adjust:
- position,
 - hold (be aware of possible canting),
 - eye relief,
 - breathing sequence, and
 - trigger squeezing if required.
- A3. The coach would record settings of the cadet air rifle and marksmanship equipment, to include:
- position of the sling on the arm;
 - position of the handstop on the cadet air rifle;
 - front sight insert size;
 - position of the rear sight;
 - use of blinder on the rear sight; and
 - number of butt spacers used on the cadet air rifle.

Teaching Point 3

Explain and Demonstrate Adjusting Sights on the Cadet Air Rifle

Time: 10 min

Method: Demonstration



For this TP, it is recommended that instruction take the following format:

1. Explain and demonstrate the complete skill while cadets observe.
2. Explain and demonstrate each step required to complete the skill.

ADJUSTING THE SIGHTS ON THE CADET AIR RIFLE

Once a front sight insert is selected and proven to provide a desired sight picture, adjusting the rear sight may now be required. Rarely does the cadet fire the cadet air rifle without adjusting the rear sights. The initial requirement for a cadet to adjust the sights is called “zeroing” the cadet air rifle. Because each cadet’s eyes are different, it may be necessary to zero the rifle each time a different cadet fires the cadet air rifle.



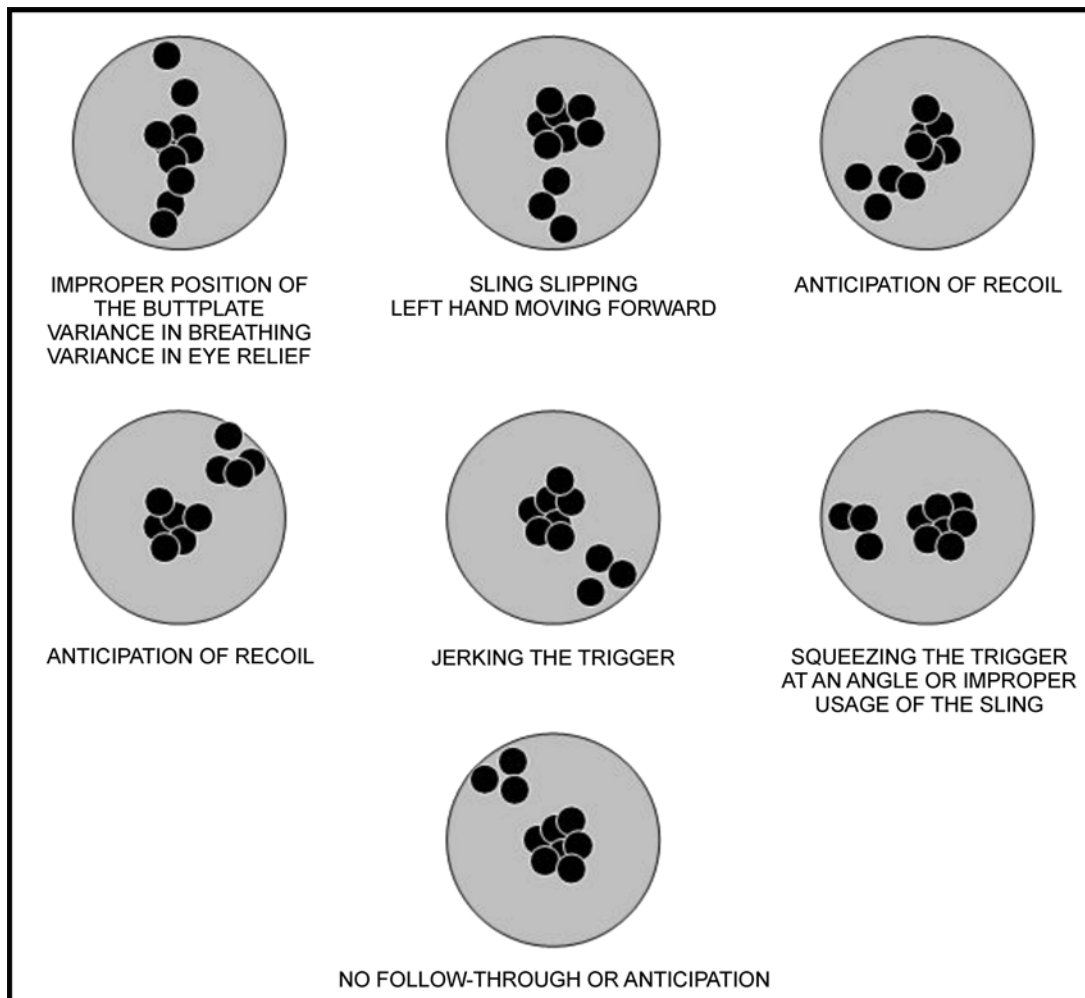
When zeroing a cadet air rifle on the CCM Competition Target sighting diagrams, unlimited sighting shots are allowed on the sighting diagrams within the time limit given for the specified application. It's common practice to fire some zeroing shots before moving onto fire on any application target.



The cadet coach will learn from advice given by the instructors and with time through their own observations and experience.

Analyzing Common Errors on a Target

Analyzing common errors on a target is not an easy task to perform and takes time to obtain the experience needed to be confident in accurately analyzing the errors on a target. There are several common errors that most marksmen make when firing at a single aiming mark or by firing a group of shots. Analyzing a group of shots on a target is far easier to do because the potential of developing patterns. These patterns are a result of either the influence of the marksman, equipment and/or both (as illustrated in [Figure 5-2-4](#)).



Director Cadets 4, 2005, Ottawa, ON: Department of National Defence

Figure 5-2-4 Common Errors

Adjusting the Elevation

The adjustment of the knobs is measured in clicks that can be felt as the knob is turned. It takes three clicks to move the mean point of impact (MPI) approximately one pellet width.



When making adjustments on the rear sight, pay close attention to the movement of the sight and try to feel the clicks of the elevation and windage knobs. Should the clicks become unnoticeable, it may be time to change the rear sight on the cadet air rifle.

To lower the MPI, turn the elevation knob counter-clockwise (to the left). To raise the MPI, turn the elevation knob clockwise (to the right), as per the arrow and the word “UP”.

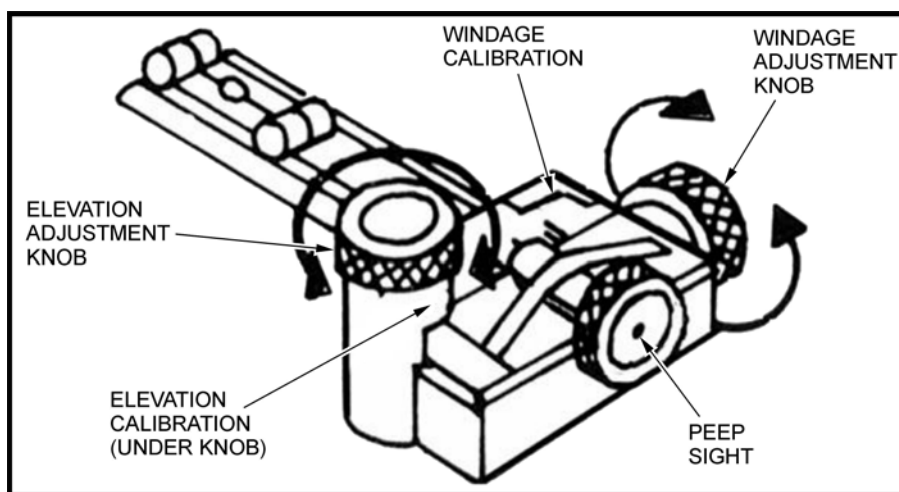
Adjusting the Windage

To move the MPI to the left, turn the windage knob counter-clockwise (to the left). To move the MPI to the right, turn the windage knob clockwise (to the right).



Remember to adjust the rear sight on the cadet air rifle (as illustrated in [Figure 5-2-5](#)) by:

- UP & RIGHT = clockwise,
- DOWN & LEFT = counter-clockwise.



Daisy Outdoor Products, AVANTI Competition Pellet Rifle: Operation Manual: AVANTI Legend Model 853, Daisy Outdoor Products (p. 6)

Figure 5-2-5 Sight Adjustment on the Cadet Air Rifle



Before the cadet starts to fire the cadet air rifle, time and pellets can be saved by “neutralizing” the windage setting. This means the rear aperture is set in the middle of the windage setting.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. How many clicks on the adjustment knob will move the MPI on the target one pellet width in any direction?
- Q2. What direction is required of the marksman to turn the elevation adjustment knob in order to raise the MPI?
- Q3. What direction is required of the marksman to turn the windage adjustment knob in order to move the MPI to the left?

ANTICIPATED ANSWERS

- A1. Three clicks are required to move the MPI on the target one pellet width in any direction.
- A2. The marksman turns the elevation adjustment knob clockwise (to the right) in order to raise the MPI.
- A3. The marksman turns the windage adjustment knob counter-clockwise (to the left) in order to move the MPI to the left.

Teaching Point 4**Practice Coaching Using the Firing Point Sequence,
Adjusting Sights on the Cadet Air Rifle and Maintaining a
Coaching Diary**

Time: 30 min

Method: Practical Activity

ACTIVITY

OBJECTIVE

The objective of this activity is have the cadet coach using the firing point sequence.

RESOURCES

- Air rifle marksmanship equipment,
- Cadet air rifle (one per lane),
- Cadet air rifle safety rod (one per cadet air rifle),
- Blinder (one per cadet air rifle),
- Target (CCT2001AR853,) (one per cadet),
- Range equipment,
- Marksmanship coaching diary sheet (one per cadet being coached),
- Clip board (one per lane), and
- Pencil with eraser (one per cadet)

ACTIVITY LAYOUT

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into pairs.
2. Assign one cadet per pair to Relay 1 and the other to Relay 2.
3. Have the cadets for Relay 1 prepare to fire by wearing their marksmanship equipment.
4. Have the cadets from Relay 2 prepare the marksmanship coaching diary sheet for the cadet that they have been paired up to coach on Relay 1.
5. Have assistant instructors monitor the cadet coaches.
6. Have cadets from Relay 1 post their target.
7. Have the cadets on Relay 1 adopt the prone position.
8. Have the cadet coach begin the coaching firing point sequence as the cadet adopts the prone position.
9. Have Relay 1 fire at their target (time limit of 15 minutes for the target), so that each diagram has one pellet fired at the diagram (unlimited sighting shots within the time limit for the target).
10. Have the cadet coach take notes and make comments on the diary sheet.
11. Have the cadet coach debrief the marksman at the end of the relay.
12. Have the cadets on Relay 2 repeat Steps 3. to 11.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in applying the coach's firing point sequence, adjusting sights on the cadet air rifle and maintaining a coaching diary will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 4 (S344 PC).

CLOSING STATEMENT

The development of all marksmen is directly related to the ability and dedication of the coach. Coaches that display a keen interest and fulfill their coaching duties will generally produce better marksmen. Coaches are mentors to inexperienced marksmen so coaches must be willing to go that extra step to point out faults as well as give praise when achievements are made.

INSTRUCTOR NOTES/REMARKS

Cadets will maintain a marksmanship coaching diary on each cadet they are coaching.

The application of this skill occurs during the lessons related to EO S342.02 (Lead a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Lead Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.04 (Lead a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)), EO S342.05 (Lead a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)) and EO S342.06 (Lead a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)).

REFERENCES

A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 3

**EO S344.03 – APPLY COACHING TECHNIQUES DURING
A COMPETITIVE SUMMER BIATHLON ACTIVITY**

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

Photocopy [Annexes C, D, E](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An in-class activity was chosen for TP 1 as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about applying the coaching techniques before, during and after a competitive summer biathlon activity. This helps develop rapport by allowing the instructor to evaluate the cadets' responses in a non-threatening way while helping them refine their ideas. A group discussion also helps the cadets improve their listening skills and develop as members of a team.

An interactive lecture was chosen for TPs 2–4 to give the cadets an overview of the coaching techniques before, during and after a competitive summer biathlon activity.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to apply coaching techniques during a competitive summer biathlon activity.

IMPORTANCE

It is important for cadets to apply coaching techniques during a competitive summer biathlon activity to help improve scores and techniques during a competitive summer biathlon activity.

Teaching Point 1

Conduct an In-Class Activity Where the Cadets Will Brainstorm How the Coach Assists the Competitor During a Competitive Biathlon Activity

Time: 15 min

Method: In-Class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets brainstorm how the coach assists the competitor during a competitive biathlon activity.

RESOURCES

- Paper, and
- Pen/pencil.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute paper and a pen/pencil to each cadet.
2. Divide the cadets into small groups.
3. Introduce the topics the cadets will discuss, to include:
 - a. assisting the cadet before the competition;
 - b. assisting the cadet during the competition; and
 - c. assisting the cadet after the competition.
4. Assign each group a leader. The group leader is responsible for writing down responses to the topics introduced by the instructor.
5. Have the cadets discuss each topic and write their responses down on the paper provided.
6. Give the cadets five minutes to discuss each topic.
7. Instruct the group leader to present their responses to the class.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of the TP.

Teaching Point 2

Describe How the Cadets Will Apply Coaching Techniques Before a Competitive Summer Biathlon Activity

Time: 20 min

Method: Interactive Lecture

APPLYING COACHING TECHNIQUES BEFORE A COMPETITIVE SUMMER BIATHLON ACTIVITY

The duties of a biathlon coach start before the competition begins. A prepared coach helps to alleviate confusion when executing the training plan for the competitor. Planning and preparation beforehand increases the chances of the competitor accomplishing their goals.

Ensuring the Competitor Is Prepared for Physical Activity

When developing training for the competitor, begin at a level where the competitor is capable of achieving success. Build on the training by introducing new activities to cover a wide range of physical activity. Have the competitor go through a series of exercises to confirm their fitness level before the summer biathlon activity.

Attending the Coach's Meeting (if Applicable) to Receive Start Times, Course Layout, Firing Bouts, Lane Assignments for Zeroing/Competition and Bibs

The time and location for the coach's meetings is generally found in the event information published by the organizing committee for the event. The coach's meeting is the place for coaches to ask any questions about start times, course layout, firing bouts, lane assignments for zeroing and competition and issuing of bibs.



Start times and bibs are assigned based on a start draw conducted at the coach's meeting. A start list is generated for both male and female competitions. The start number of the competitor corresponds with the number assigned to the bib the competitor wears for the summer biathlon activity. Start times may be set at 30 second or one minute intervals.



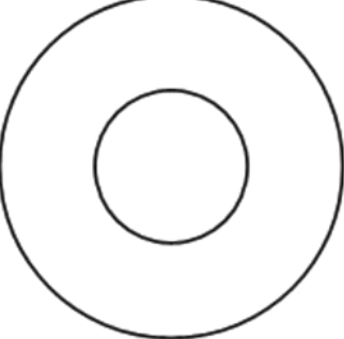
Distribute the Sample Start List located at [Annex C](#).

Confirming the Competitor's Equipment Is on the Range and at the Appropriate Lane Number

Prior to the summer biathlon activity taking place at the venue, the coach should make a list of all the equipment that will be required for the event. When it is time to transport the competitor's equipment to the range, the competitor and coach should confirm that all equipment required is on the range and at the lane number assigned by the draw made at the coach's meeting. Coaches should keep a list of serial numbers of the cadet air rifles in case rifles get mixed up with other rifles.

Assisting With the Zeroing of the Cadet Air Rifle

The cadet and the coach normally work together to zero the cadet air rifle prior to the competition. The coach should set up a spotting scope in the coach's designated area and have the cadet fire a series of shots at a paper biathlon target. The coach should record the zeroing shots on a sample target or an individual scoresheet (as illustrated in [Figure 5-3-1](#)) in order to determine the required sight corrections.

BIB # _____		LANE # _____				
 ZEROING SHOTS	LANE # _____					
	IN _____	OUT _____	RANGE TIME _____		STOP TIME _____	
	LANE # _____					
	IN _____	OUT _____	RANGE TIME _____		STOP TIME _____	
	LANE # _____					
	IN _____	OUT _____	RANGE TIME _____		STOP TIME _____	

Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 5-3-1 Individual Zeroing/Scoresheet

Leading the Competitor Through a Warm-Up Session

Competitors preparing for a summer biathlon activity should participate in a warm-up session. A warm-up session is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise muscle temperature to facilitate reactions in muscle tissue.

Stretching the muscles before an activity reduces the risk of injuries. Coaches should select warm-up activities that get the blood flowing and motivate the competitor for the activity.

Ensuring the Competitor Is at the Start at the Appropriate Time

The coach has the responsibility to pass the start times onto the competitors. The coach should give the competitor the time when they are required to be in the warm-up area. From the warm-up area, competitors are directed to the start area where they are arranged in order of the start list. Competitors who are unable to start should return their bibs to the coach, so the coach can inform the start officials that the competitor will not start the competition (DNS). Should a competitor show up late for a start, the start time would follow the rules set out for cadet summer biathlon.



Make sure that the competitor knows what to do if they are late for a start.



Regulations regarding procedures for missed start times may be found in *Biathlon Competition Rules and IBU/Cadet Disciplinary Rules*.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What information may be obtained from attending the coach's meeting?
- Q2. How does the coach keep track of the zeroing shots for the competitor?
- Q3. Where would the coach find the start times for the competitors?

ANTICIPATED ANSWERS

- A1. Coaches attending the coaches meeting may receive information on the start times, course layout, firing bouts and the bibs for the competitors.
- A2. The coach records the zeroing shots on an Individual Zeroing/Scoresheet.
- A3. The start times for the competitors are found on a Start List that is handed out at the coaches meeting.

Teaching Point 3

Describe How the Cadets Will Apply Coaching Techniques During a Competitive Summer Biathlon Activity

Time: 20 min

Method: Interactive Lecture

APPLYING COACHING TECHNIQUES DURING A COMPETITIVE SUMMER BIATHLON ACTIVITY

During a summer biathlon activity, the coach is limited to where they can coach the competitor. However, the coach still plays an important role in assisting and directing the competitor. The cadet can apply coaching techniques during a competitive summer biathlon by:

Providing Encouragement

Coaches should provide encouragement through all phases of training and during a summer biathlon activity. The encouragement should be positive and motivating for the competitor. Providing encouragement can be as simple as making a positive comment on their training success.

Laying Out the Required Number of Air Rifle Pellets Before Each Firing Bout

At the start of the competitive summer biathlon activity, the coach places the required number of air rifle pellets in a container beside the mat. As the competition progresses and the cadet advances from one firing bout to another, the coach distributes the required air rifle pellets to the competitor. Should the cadet lose an air rifle pellet during any of the firing bouts, the competitor may receive additional air rifle pellets by calling out "pellets". The coach replaces the lost air rifle pellets on the approval of a summer biathlon official.



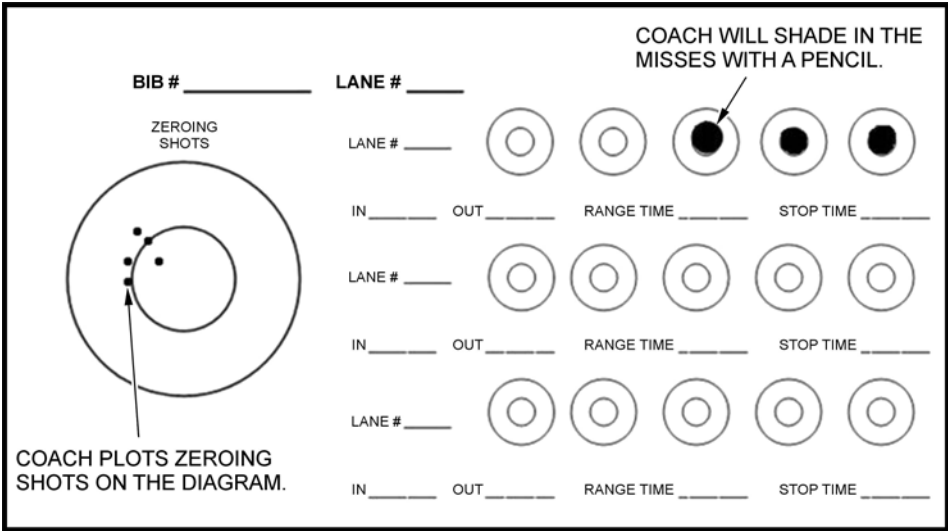
Coaches should be very observant when replacing air rifle pellets for the competitor because of other competitors running into the range area. Coaches who make contact with other competitors may be assessed penalties for their individual competitor or team.



Refer to the A-CR-CCP-178/PT-001, *Canadian Cadet Movement: Biathlon Championship Series*, for actual penalties for interference by coaches and conduct during a summer biathlon activity.

Spotting the Competitor's Shots During Each Firing Bout to Make Corrections

During the competition, the coach keeps track of the competitor's hits of the competitor on the Individual Zeroing/ Scoresheet (as illustrated in [Figure 5-3-2](#)). The coach spots the shots by using a spotting scope set up in the designated coach's area. Should there be any discrepancies, the coach may use this record of shots to settle any disputes regarding scores. The coach may make sight corrections on the cadet air rifle between firing bouts.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 5-3-2 Plotting Zeroing and Misses

Recording the Competitor's Missed Shots to Compare With the Results

The coach records the misses on the Individual Zeroing/ Scoresheet (as illustrated in [Figure 5-3-2](#)) by shading in the inner circle that represents the falling plate of the Biathlon Air Rifle Target (BART). The total misses on the BART would be three. Missed shots are recorded on the Zeroing/ Scoresheet (as illustrated in [Figure 5D-1](#)).



Distribute [Annex D](#) to each cadet.



"Biathlon Air Rifle Target". Devin Manufacturing Incorporated, Copyright 2005 by Devin Mfg., Inc. Retrieved February 15, 2007, from <http://www.devinmfg.com/targets1.html>

Figure 5-3-3 BART

Recording Any Stop Times

The coach records any stop times the competitor may receive on the Individual Zeroing/Scoresheet, (as illustrated in [Figure 5-3-2](#)). The time is recorded in minutes and seconds. Should there be stop times each firing bout, the coach adds the stop times to get a total stop time. The coach uses this information to determine if the biathlon officials have credited the competitor with the appropriate time credit.

Resetting the Target After the Official Has Recorded the Score

After the competitor has completed their firing bout, the coach approaches the competitor's firing lane and resets the BART. Before resetting, the coach should make eye contact with the official to ensure that the official has the score recorded. The coach resets the BART by pulling on the cord that is attached to the side of the BART. Reset the BART so that all plates are showing a black aiming mark. Should the BART not reset properly or malfunction, the coach should seek the assistance of the RSO to resolve the problem.

Analyzing the Competitor's Performance to Help Them Improve

During a competitive summer biathlon activity, the coach is primarily on the range. Most of the observations made on the cadet's performance are what the coach sees on the range. During the time the competitor is approaching the range or exiting the range area, the coach may pass on critical information to the competitor about their marksmanship skills or running performance. This passing of information must be made outside the Zone of Silence. If the coach has access to a digital camera, the coach can take pictures of the competitor as they compete, so the competitor can be shown what they have performed correctly or incorrectly.



The Zone of Silence is an area 10 m before the entrance and after the exit to the range where no communication with the competitor is permitted. The zones are marked by a sign displaying 'Zone of Silence'. Should officials witness any communication within these zones, the range officials record the observation and forward it to the Chief of Competition.

Providing Feedback to the Competitor

The coach can use the Individual Zeroing/Scoresheet to show the competitor their marksmanship performance as well as any other statistical information the coach has recorded on the competitor. When providing feedback to the competitor, follow up any negative points with some positive points. The coach should provide feedback on an ongoing basis so the competitor can make adjustments where required.



Coaches should be giving feedback on a regular basis to their competitors whether they are training or competing.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. How does the coach spot the competitor's shots in a competitive summer biathlon activity?
- Q2. How does the coach keep track of the zeroing and scoring shots?
- Q3. What should the coach do if the BART does not reset properly or malfunctions?

ANTICIPATED ANSWERS

- A1. The coach spots the competitor's shots by using a spotting scope.
- A2. The coach keeps track of the zeroing and scoring shots by recording them on an Individual Zeroing/Scoresheet.
- A3. The coach seeks the assistance of the RSO if the BART does not reset properly or malfunctions.

Teaching Point 4

Describe How the Cadets Will Apply Coaching Techniques After a Competitive Summer Biathlon Activity

Time: 15 min

Method: Interactive Lecture

APPLYING COACHING TECHNIQUES AFTER A COMPETITIVE SUMMER BIATHLON ACTIVITY

The duties of a coach do not end when the competition ends. The coach must accommodate the competitor's needs after a competitive summer biathlon activity to include:

Being at the Finish Line to Encourage the Competitor

As the coach keeps track of the time it takes the competitor to complete the last running loop, they should be at the finish line to see the competitor cross the finish line. This is an excellent time to encourage the competitor to give their last bit of energy or push to end the competition. The coach can show their encouragement by clapping and expressing themselves verbally in a positive manner.

Leading the Competitor Through a Cool-Down Session

Even though the competitor is exhausted after competing, they need to participate in a cool-down session.

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;

- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

The coach should provide water and some form of nourishment for the competitor to replace the nutrients lost during physical activity.

Comparing Official Results With Recorded Results

Once the competition has been declared completed, the results are posted where the coaches and competitors can view them. The coach should note any discrepancies in the results based on what they have recorded during the competition. The coach may or may not get the discrepancies resolved.

Maintaining a Summer Biathlon Coaching Diary

The progress of the competitor is recorded in a coaching diary that the coach maintains from the beginning of training or a competition to the end. The information recorded in the diary allows the coach to analyze the training or competitive performance of the competitor. This information also allows the coach to make suggestions to the competitor on areas where the competitor may require assistance in honing a particular skill. Before the competitor begins an activity, the coach should prepare a coaching diary sheet for each competitor they are responsible for and conduct a one-on-one interview with the competitor on their approach to the event and to record their goals in the diary. Sometimes, this may not happen; however, by maintaining and updating a Summer Biathlon Coaching Diary on a regular basis, the coach should be able to keep up with the development of the competitor.



The Summer Biathlon Coaching Diary located at [Annex E](#) is to be used by the coach to record important equipment data, goals and technical data on the cadet their coaching. Distribute [Annex E](#) to each cadet.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

- Q1. How can the coach show encouragement to the competitor at the finish line?
- Q2. Why must a coach lead a competitor into a cool-down session?
- Q3. What does the coach use to record information about the cadet they are coaching?

ANTICIPATED ANSWERS

- A1. The coach can show their encouragement by clapping and expressing themselves verbally in a positive manner.
- A2. The coach needs to lead the competitor in a cool-down to:
- allow the body time to slowly recover from physical activity and to help prevent injury;
 - prepare the respiratory system to return to its normal state; and
 - stretch the muscles to help relax and restore them to their resting length.
- A3. The coach uses the Summer Biathlon Coaching Diary to record information about the cadet they are coaching.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What start time intervals may be used in a competitive summer biathlon activity?
- Q2. What is the significance of a bib number?
- Q3. How can the results recorded on the Individual Zeroing/Scoresheet be used when official results are published?

ANTICIPATED ANSWERS

- A1. Start times may be set at 30-second or one-minute intervals.
- A2. The bib number of a competitor represents the start order of the competitor in the summer biathlon event.
- A3. The results recorded on the Individual Zeroing/Scoresheet by the coach can be used to settle discrepancies in the published results.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This lesson is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 4 (S344 PC).

CLOSING STATEMENT

Preparing the cadet for a summer biathlon activity is important. The coach plays an important role in accomplishing the goals set by the competitor. The coach is a role model and mentor to the cadet and the coach will gain the respect of cadet when a genuine interest is taken by the coach in the training and performance of the cadet.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lessons related to EO S345.05 (Participate in Summer Biathlon Activities, Chapter 6, [Section 5](#)).

REFERENCES

- A0-032 Cadets Canada. (2002). *Biathlon Competition Rules and IBU/Cadet Disciplinary Rules*. Ottawa, ON: Department of National Defence.
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- C0-057 Martha Jefferson Hospital. (2001). *Warm-Ups*. Retrieved April 30, 2009, from <http://www.marthajefferson.org/warm-up.php>.
- C0-149 Biathlon Canada, Coaching Association of Canada. (2007). *Biathlon Bears: Community Coaching (Version 3.0)* [Computer software]. Ottawa, ON: Biathlon.

EFFECTIVE FEEDBACK

FAST PRINCIPLES OF EFFECTIVE FEEDBACK

Feedback is a reactive form of communication. It is a response to some kind of action or input. Feedback may:

- answer a question;
- fulfill a request for information;
- reply to or rebut a point of discussion;
- suggest a revision during a task; or
- evaluate task or job performance.

Feedback may be given to the team as a whole or it may be given to individual team members. Giving feedback well is a skill. FAST feedback is a practical method for giving team members feedback. It is based on the formula FAST, an acronym that stands for:

- frequent,
- accurate,
- specific, and
- timely.

Frequent

Frequent means occurring often or in close succession. Team leaders should give feedback often. After giving feedback, a team leader should note if the team members are responding. If the feedback is not being used by the team members, it may need to be restated in a different way.

Accurate

Accurate means careful, precise or lacking errors. Accurate feedback means giving feedback that is truthful and fact-based. Accurate feedback should be correct, balanced and appropriate; if not, team members may begin to lose respect for the team leader as every instance of feedback has an effect on the team members' trust.

Specific

Specific means clearly defined, definite or precise. Specific feedback means giving feedback that is detailed and clear-cut. Telling team members what they do right and wrong is not specific enough; the team leader must also tell team members exactly what steps are necessary to improve their performance. This is usually done by asking reflective questions to the team members so they generate suggestions for improvement. When giving specific feedback, team leaders should set concrete goals and deadlines for team members.

Timely

Timely means opportune, occurring, done or made at suitable or appropriate time. Timely feedback means giving feedback at the right time. The closer in time the feedback follows the performance, the more impact it will have on team members because the performance and the feedback are tied closely together.

GROUND RULES FOR PROVIDING FEEDBACK

The following ground rules for providing feedback may enable the team leader to give helpful, constructive feedback, without creating conflict or confrontational behaviour with team members.

Focusing on What Is Observed

Team leaders should give feedback based on what they see because it is factual. What team leaders believe is based on supposition and inference; it is an interpretation of what they have seen. When team leaders give feedback based on interpretation rather than fact, the interpretation may be wrong.

Focusing on Behaviour

Team leaders should give feedback based on the behaviour of team members, not on the person or personality of a team member.

Keeping it Neutral

Team leaders should give feedback that is unbiased and does not make judgments. When a team leader is objective when giving feedback, the team members can determine for themselves the effect of their behaviour. This presents a more meaningful learning opportunity for team members.

Using it to Inform

Team leaders should give feedback that is enlightening and does not advise. When the team leader gives feedback, it leaves the team members free to draw their own conclusions. This freedom allows the team members to decide what actions are necessary to change their behaviour.

Making it Supportive

Team leaders should give feedback that is reassuring and not threatening. When the team leader gives feedback that is supportive, it does not sound like a put-down. The choice of language and tone must be carefully considered. Even the friendliest and best intentioned feedback can sound intimidating.

Keeping it Simple

Team leaders should give feedback that is uncomplicated. Team members can usually only process one or two pieces of information at any one time. If team leaders overload team members with too much feedback, there is a possibility that the information will not be received. Feedback on one or two major points is more useful than feedback on six or seven minor points.

STEPS FOR PROVIDING FEEDBACK

The purpose for providing feedback is to let team members know how they are doing and when they are not meeting expectations. Team leaders should ensure that feedback is given when team members meet and/or exceed their commitments, as well as when team members do not meet their commitments. There are five steps for providing feedback. They are:

1. planning what to say;
2. providing examples of behaviours;
3. allowing time for feedback;
4. motivating; and
5. setting a timeline for action and follow-up.

Planning What to Say

Team leaders need to plan what they will say during feedback using the ground rules for providing feedback. Team leaders should think ahead of time about the team member's behaviour to be discussed. Team leaders should also have suggestions for improvement; however, these ideas should only be given if the team member cannot generate suggestions for improvement themselves.

Providing Examples of Behaviours

Team leaders need to give feedback that provides examples of the behaviour that needs to change. Giving unclear or vague examples may lead to anxiety in team members because they are not sure what behaviour needs to be modified.

Allowing Time for Feedback

Once team leaders have provided examples to the team members, they should allow time for discussion. The team members may agree, disagree or provide their perspective of the situation to the team leader. The team members may need to ask for clarification of the behaviours or they may ask for suggestions to assist them in changing their behaviour.

Motivating

Once team leaders have allowed time for discussion of the feedback, team leaders should motivate the team members. The team member may be disappointed by the feedback so the team leader should encourage and stimulate them to reach their goals.

Setting a Timeline for Action and Follow-Up

Team leaders need to set a timeframe for action by the team member to check for progress on the behaviour change. Team leaders need to follow up to ensure the team members are making the corrections required

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MARKSMANSHIP COACHING DIARY

MARKSMANSHIP COACHING DIARY													
Cadet Being Coached: _____ Event Name: _____		Prone: ☐											
Date: _____ Training ☐ Competition ☐ Location: _____		Standing: ☐											
Pre-Activity Checklist ☐ Individual Safety Precaution ☐ Inspected Cadet Air Rifle ☐ Inspected Front Sight ☐ Inspected Rear Sight ☐ Inspected Cadet Air Rifle Sling ☐ Inspected Blinder ☐ Inspected Handstop		☐ Scope and Stand ☐ Timing Device ☐ Tools for Adjusting Equipment ☐ Marksmanship Hat ☐ Marksmanship Jacket ☐ Marksmanship Glove ☐ Marksmanship Mat											
☐ Position of Pellets on Mat ☐ Air Rifle Safety Rod ☐ Training Goal Set ☐ Reviewed Diary ☐ Correct Targets ☐ Pen/Paper/Diary ☐ _____													
Settings Sling: _____ Sling Handstop: _____ Front Sight Insert: _____ Butt Spacers: _____ Other: _____ Other: _____ Other: _____ Other: _____	Notes _____ _____ _____ _____ _____ _____ _____	Results/Groups/Scores <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Result # 1: _____</td> <td style="width: 50%; padding: 5px;">Result # 6: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 2: _____</td> <td style="padding: 5px;">Result # 7: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 3: _____</td> <td style="padding: 5px;">Result # 8: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 4: _____</td> <td style="padding: 5px;">Result # 9: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 5: _____</td> <td style="padding: 5px;">Result # 10: _____</td> </tr> </table>		Result # 1: _____	Result # 6: _____	Result # 2: _____	Result # 7: _____	Result # 3: _____	Result # 8: _____	Result # 4: _____	Result # 9: _____	Result # 5: _____	Result # 10: _____
Result # 1: _____	Result # 6: _____												
Result # 2: _____	Result # 7: _____												
Result # 3: _____	Result # 8: _____												
Result # 4: _____	Result # 9: _____												
Result # 5: _____	Result # 10: _____												
Interview the cadet prior to the event to determine their goals and objectives. Long-Term Goal: _____ _____ Mid-Term Goal: _____ _____ Training Goal: _____ _____		SMART Goals Specific Measurable Achievable Relevant Timed											
What was learned: _____ _____ _____ Areas to work on: _____ _____ _____		REMEMBER ... Think Safe Act Safe Be Safe											

Applying the Coach's Firing Point Sequence:

1. Position themselves in the best position to observe without affecting the cadet (eg. on the right-hand side of the cadet [left side for a left-handed cadet] or at the back of the firing lane).
2. Ensuring the cadet is in-line with their assigned target and the rear sight is correctly set.
3. Observing the cadet's natural alignment.
4. Directing the cadet to make adjustments if required, to include:
 - a. position,
 - b. hold (be aware of possible canting),
 - c. eye relief,
 - d. breathing sequence, and
 - e. trigger squeezing if required.
5. Encouraging the cadets to relax.
6. Assuming the rest position as required by:
 - a. taking the cadet air rifle down from the shoulder;
 - b. remaining in the prone position;
 - c. keeping the elbows in-place; and
 - d. holding onto the cadet air rifle until ready to resume putting the cadet air rifle back into the shoulder.
7. Analyzing the cadet's performance.
8. Providing feedback to the cadet to correct the various aspects of the principles of marksmanship.
9. Maintaining a marksmanship diary by:
 - a. completing the training event information;
 - b. completing the checklist of equipment;
 - c. recording the setting of the cadet air rifle and marksmanship equipment;
 - d. establishing goals, to include:
 - (1) long-term goals,
 - (2) mid-term goals, and
 - (3) training goals.

Summary and Notes of Overall Coaching Performance:

Name of Coach: _____ Signature of Coach: _____
(Please Print)

SAMPLE START LIST

Start/Finish Controller's Name: Lt (N) Bloggins

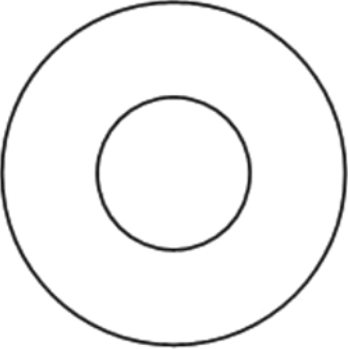
Cadet Name	Bib Number	Start Time	Started (√)	Remarks
		Hr Min Sec		
Mike Green	1	09 00 30	√	
Ryan Jones	2	09 01 00	√	
Roger Smith	3	09 01 30	√	
Adam White	4	09 02 00	√	
Kelly Leblanc	5	09 02 30	√	
Mike Wells	6	09 03 00	√	
Kara Sheppard	7	09 03 30	√	
Shayne Savage	8	09 04 00	√	
Angus McIssac	9	09 04 30	√	
Rob Davis	10	09 05 00	√	

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Figure 5C-1 Sample Start List

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INDIVIDUAL ZEROING/SCORESHEET

BIB # _____		LANE # _____				
ZEROING SHOTS 	LANE # _____					
	IN _____	OUT _____	RANGE TIME _____	STOP TIME _____		
	LANE # _____					
	IN _____	OUT _____	RANGE TIME _____	STOP TIME _____		
	LANE # _____					
	IN _____	OUT _____	RANGE TIME _____	STOP TIME _____		

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Figure 5D-1 Individual Zeroing/Scoresheet

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SUMMER BIATHLON COACHING DIARY

SUMMER BIATHLON COACHING DIARY													
Cadet Being Coached: _____ Event Name: _____		Prone: ☐											
Date: _____ Training ☐ Competition ☐ Location: _____		Standing: ☐											
Pre-Activity Checklist ☐ perform Individual Safety Precaution ☐ Inspect Cadet Air Rifle ☐ Inspect Front Sight ☐ Inspect Rear Sight ☐ Inspect Cadet Air Rifle Sling ☐ Inspect Blinder	☐ Inspect Handstop ☐ Assemble Scope and Stand ☐ Set Timing Device ☐ Adjust Equipment With Tools ☐ Wears Shade Hat ☐ Goals Set ☐ Reviewed Diary	Other Checks if Required ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____											
Settings Sling: _____ Sling Handstop: _____ Front Sight Insert: _____ Butt Spacers: _____ Other: _____ Other: _____ Other: _____ Other: _____	Notes _____ _____ _____ _____ _____ _____ _____	Results/Groups/Scores <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Result # 1: _____</td> <td style="width: 50%; padding: 5px;">Result # 6: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 2: _____</td> <td style="padding: 5px;">Result # 7: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 3: _____</td> <td style="padding: 5px;">Result # 8: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 4: _____</td> <td style="padding: 5px;">Result # 9: _____</td> </tr> <tr> <td style="padding: 5px;">Result # 5: _____</td> <td style="padding: 5px;">Result # 10: _____</td> </tr> </table>		Result # 1: _____	Result # 6: _____	Result # 2: _____	Result # 7: _____	Result # 3: _____	Result # 8: _____	Result # 4: _____	Result # 9: _____	Result # 5: _____	Result # 10: _____
Result # 1: _____	Result # 6: _____												
Result # 2: _____	Result # 7: _____												
Result # 3: _____	Result # 8: _____												
Result # 4: _____	Result # 9: _____												
Result # 5: _____	Result # 10: _____												
Interview the cadet prior to the event to determine their goals and objectives. Long-Term Goal: _____ _____ _____ Mid-Term Goal: _____ _____ _____ Training Goal: _____ _____ _____		SMART Goals Specific Measurable Achievable Relevant Timed											
What was learned: _____ _____ _____ _____ Areas to work on: _____ _____ _____ _____		REMEMBER ... Think Safe Act Safe Be Safe											

Figure 5E-1 (Sheet 1 of 2) Summer Biathlon Coaching Diary

Applying Coaching Techniques: Before the Competition: 1. Ensure the competitor is prepared for physical activity. 2. Attend the coach's meeting (if applicable) to receive start times, course layout, firing bouts and bibs. 3. Confirm the competitor's equipment is on the range and at the appropriate lane number. 4. Assist with zeroing the cadet air rifle. 5. Lead the competitor through a warm-up session. 6. Ensure the competitor is at the start at the appropriate time.
During the Competition: 1. Provide encouragement. 2. Lay out the required number of air rifle pellets before each firing bout. 3. Spot the competitor's shots during each firing bout to make corrections if required. 4. Record the competitor's missed shots to compare with the results. 5. Record any stop times. 6. Re-set the target after the official has recorded the score. 7. Analyze the competitor's performance to help them perform. 8. Provide feedback to the competitor.
After the Competition: 1. Be at the finish line to encourage the competitor. 2. Lead the competitor through a cool-down session. 3. Compare official results with recorded results. 4. Maintain a summer biathlon coaching diary.
Summary and Notes of Overall Coaching Performance:
Name of Coach: _____ Signature of Coach: _____ (Please Print)

Figure 5E-1 (Sheet 2 of 2) Summer Biathlon Coaching Diary
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CHAPTER 6

PO S345 – ASSIST WITH SUMMER BIATHLON ACTIVITIES



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 1

EO S345.01 – PREPARE FOR A SUMMER BIATHLON ACTIVITY

Total Time:	40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1–3 to introduce cadets to the nutrition requirements for a summer biathlon activity, dehydration and preventing heat stress during a summer biathlon activity.

A group discussion was chosen for TPs 4 and 5 as it allows the cadets to interact with their peers and share their knowledge, opinions, and feelings about athletic clothing and hygiene practices.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to prepare for a summer biathlon activity by selecting nutritious food, determining personal hydration requirements, choosing athletic clothing and applying hygiene practices.

IMPORTANCE

It is important for the cadets to know how to prepare for a summer biathlon activity to remain safe and healthy.

Teaching Point 1**Describe Nutrition Requirements for a Summer Biathlon Activity**

Time: 15 min

Method: Interactive Lecture

Healthy eating provides the body with essential nutrients and energy. Everyday eating should include at least three meals and healthy snacking. An individual will perform more efficiently if the body's energy levels are consistently maintained.

Glucose is produced when carbohydrate foods are broken down by the digestive track and the liver. Glucose is the body's preferred fuel when performing hard physical work or exercising intensely. As well, the brain, nervous system and red blood cells depend completely on glucose for their fuel.

Carbohydrates are found in foods from all food groups. Fruit and root vegetables provide more than leafy vegetables and legumes (beans, peas, lentils), grain products supply a large amount while seeds and nuts have some.

Carbohydrates and fat provide energy. Carbohydrates are stored in the body in the form of glycogen (a large molecule made up of glucose and water) and fat is stored in the body as fat. During high intensity exercise (eg, sprinting), glucose is the primary source of energy because fat cannot be used when oxygen is in short supply. During low-intensity exercise (eg, walking), cells use glucose and fat for energy since oxygen is available and make it possible for fat to be used. A well-conditioned individual has better oxygen delivery and can therefore use more fat than an individual with a lower fitness level.

Glycogen is used when necessary. The body can store only a small amount of glycogen. Glycogen is stored in the liver and the muscles. When the blood glucose level gets low, glycogen from the liver is converted to glucose and moved to the blood stream. Glycogen stored in the muscles is for muscle use only.

PRE-ACTIVITY NUTRITION

Since carbohydrates are the fuel for high intensity workouts it is important to consume them prior to exercising. When there are too few carbohydrates, the body changes protein into glucose to provide energy, and prevents the proteins from doing their job (supply amino acids to build muscles, hormones, enzymes and other chemicals).

Time to Allow Between Meal and Activity

The length of time between a meal and a summer biathlon activity determines how much and what you should eat. Ideally, there should be:

- a 3- to 4-hour period to digest a large meal containing carbohydrates, protein and some fat;
- a 2- to 3-hour period to digest a small meal; or
- a 1- to 2-hour period for a carbohydrate snack or liquid meal.

Foods to Choose

Use the following guidelines when choosing food prior to a summer biathlon activity:

- Drink fluids, such as water, fruit juice, milk or soup.
- Select foods high in carbohydrates, such as grain products, vegetables and fruit juice, low-fat milk or yogurt. Beans, peas and lentils are sources of slowly released carbohydrate, but unless they are eaten regularly these high fibre foods might cause discomfort.

- Select foods that are easy to digest. Since proteins and fats are digested slowly, it is better to limit them, particularly fat, especially if exercising intensely soon after eating.
- Select familiar foods in order not to upset the stomach.
- Avoid spicy or high in fibre foods unless they can be tolerated.

DURING ACTIVITY



Water is essential during a summer biathlon activity. Even a small amount of dehydration (1 percent of body weight) can increase cardiovascular strain as indicated by a disproportionate elevation of heart rate during exercise and limit the ability of the body to transfer heat from contracting muscles to the skin's surface where heat can be dissipated to the environment.

What to Eat

When an individual trains several times a day, there are opportunities to consume solid snacks between workouts. Those snacks should consist of foods that are easy to digest (low in fibre and in fat – less than 3 g of fat per 30-g serving). To maintain energy levels, the intake of carbohydrates during a summer biathlon activity should be between 30 g and 60 g per hour. It is also important to drink water to maintain the 4- to 8-percent carbohydrate concentration.

What to Drink

For a summer biathlon activity of less than one hour, water is all that is needed to hydrate. Sports drinks are designed so fluid and some carbohydrates enter your blood stream quickly. They have no other nutrients.

Urine volume and colour are simple indicators of hydration status. Ample quantities of lemon juice-coloured urine mean an individual is well hydrated while dark coloured, small volume and infrequent urination mean dehydration.

POST-ACTIVITY

When an individual has been sweating heavily during a summer biathlon activity, fluid replacement is the concern. Eating carbohydrates within 15 minutes of the end of the activity is the quickest way to refill muscle glycogen stores. Fat will slow the rate of absorption. Directly after a summer biathlon activity, look for low fat foods, high in carbohydrates with little protein.



Recent research has shown that chocolate milk is as effective as commercial products designed for recovery from a rigorous workout. In addition to helping replace lost fluids, the amount of carbohydrates and proteins in chocolate milk is ideal for exhausted muscles.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What fluid should be consumed during a summer biathlon?
- Q2. What is the recommended food to eat after a summer biathlon activity?
- Q3. What is the concern after a summer biathlon activity?

ANTICIPATED ANSWERS

- A1. Water is to be consumed during a summer biathlon activity.
- A2. Low fat foods, high in carbohydrates with little protein.
- A3. When an individual has been sweating heavily during a summer biathlon activity, fluid replacement is the concern.

Teaching Point 2

Describe Dehydration

Time: 5 min

Method: Interactive Lecture



As an example of maintaining hydration levels, have cadets drink from their personal drinking vessels at least twice during the TP.

Dehydration. The action whereby the body becomes deficient in water.

Dehydration is always a safety issue when participating in a summer biathlon activity. While attending the Air Rifle Marksmanship Instructor course everyone must be concerned about dehydration for themselves and others, at all times.

CAUSES

As your body temperature rises, the body begins to sweat; the fluid losses need to be replaced. Dehydration occurs when fluid losses are greater than one percent of body weight. Physical ability becomes impaired with a two percent loss of body weight in fluid.

SYMPTOMS

Typical symptoms of dehydration include thirst, fatigue, loss of coordination, mental confusion, irritability, dry skin, elevated body temperature and reduced urine output.

TREATMENT

The simplest treatment for dehydration is to consume liquids in the form of water or electrolyte drinks, cool to cold, taken in volumes of about 250 mL every 15 minutes.

PREVENTION

Consume a nutritionally balanced diet and drink eight glasses of fluids per day. Do not substitute water with soda, coffee, or tea. These beverages contain caffeine. During a summer biathlon activity, drink water at regular intervals. To replace all the water lost through sweating, (body weight loss) drink approximately one litre per hour of physical activity, or consume the maximal amount that can be tolerated.

Caffeine increases urine output and may reduce the amount of water in the body. A high volume of urine indicates good hydration while a small volume indicates poor hydration. Check the colour of excreted urine. Lemon juice-coloured urine indicates good hydration. If the urine's colour is dark yellow, fluid intake should be increased.



Drink about one half-litre of fluid about two hours before the summer biathlon activity to promote adequate hydration and to allow time for the body to excrete excess ingested water.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What are the symptoms of dehydration?
- Q2. What is the simplest treatment for dehydration?
- Q3. How much water should be consumed during a summer biathlon activity?

ANTICIPATED ANSWERS

- A1. Thirst, fatigue, loss of coordination, mental confusion, irritability, dry skin, elevated body temperature and reduced urine output.
- A2. The simplest treatment for dehydration is to consume liquids in the form of water or electrolyte drinks, cool to cold, taken in volumes of about 250 mL every 15 minutes.
- A3. Approximately one litre of water per hour.

Teaching Point 3

Describe How to Recognize and Prevent Heat Stress

Time: 5 min

Method: Interactive Lecture

Heat Stress. Heat stress is a condition where the body's ability to respond to heat production has been overwhelmed.

Illness due to heat stress can occur unless measures are taken to recognize the known risk factors and minimize their impact. Air temperature, air humidity and air movement are the main risk factors for heat stress during the summer months. Water intake and rest are the two primary ways to minimize the impact of heat stress.

DETERMINING THE RISK OF HEAT STRESS

Wet Bulb Globe Thermometer

The Wet Bulb Globe Thermometer (WBGT) is the device used to measure environmental heat stress. It provides an accurate measurement of the air temperature by means of three separate probes: a wet wick probe, a black spherical probe, and a white wind shielded probe as well as measuring the humidity. The WBGT will then calculate and display a WBGT index reading in degrees Celsius which is used to determine the water intake per hour and work/rest cycle per hour.

DETERMINING WATER INTAKE

Personnel who are subjected to high heat stress may lose body water in excess of one litre per hour by sweating. If these losses are not replaced, body temperature increases, work capacity decreases and heat stress will occur. To minimize the impact of dehydration on heat stress, the following water intake requirements have been developed:

WBGT Index	Water Intake
(degrees Celsius)	(Litres per Hour)
26–27.5	0.5
27.5–29	0.5–1.0
29–31	1.0–1.5
31–32	1.5–2.0
32 & above	2.0 +

Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6-1-1 Preventative Measures for Heat Stress – Water Intake

DETERMINING WORK/REST CYCLE

In an environment where heat stress is likely, physical activity must be restricted based on the physical condition of the personnel and to the activity being conducted. Cadets participating in a summer biathlon activity would be more likely to develop heat stress than a cadet participating in an air rifle marksmanship activity. To minimize the impact of physical activity on heat stress, the following work/rest cycles have been developed:

WBGT Index	Work/Rest Cycle
(degrees Celsius)	(Work/Rest)
26–27.5	50/10
27.5–29	50/10
29–31	45/15
31–32	30/30
32 & above	20/40

Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6-1-2 Preventative Measures for Heat Stress – Work/Rest Cycle



Refer to CF H Svcs Gp Instruction 4440-10 D FHP-OEH. (2006). *Heat Stress–Prevention* for further information on WBGT indexes, water intake and work/rest cycles.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. What is heat stress?

- Q2. How much water should be consumed if the WBGT index is 29–31 degrees Celsius?
- Q3. How many minutes of rest per hour should be observed if the WBGT index is 31–32 degrees Celsius?

ANTICIPATED ANSWERS

- A1. Heat stress is a condition where the body's ability to respond to heat production has been overwhelmed.
- A2. 1.0–1.5 L per hour.
- A3. 30 minutes.

Teaching Point 4

Review Types of Athletic Clothing

Time: 5 min

Method: Group Discussion

BACKGROUND KNOWLEDGE



The purpose of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

FOOTWEAR

Well-fitted athletic shoes will help to prevent discomfort and injury. The following are some tips for choosing athletic shoes:

- They should fit comfortably.
- The upper material should support the foot, be flexible and allow the foot to breathe.
- The heel box (back third of the shoe) should be sturdy to help control the rear of the foot.
- There should be sufficient arch support, depending on the foot type.
- Make sure to replace shoes that are damaged or worn out and if the shoes are no longer providing cushioning and support.



Compare these tips to the cadet issued athletic shoes.

If possible, provide examples of the different types of athletic footwear.

Types of Athletic Footwear

There are a number of different types of athletic footwear. The following types are appropriate for a summer biathlon activity depending on the location the activity is conducted in.

Basketball Shoes. Designed to provide traction on smooth surfaces and support for front to back and side movements. They are also a mid to high-top design to provide support for the ankles.

Court Shoes. Designed to provide traction on smooth surfaces and support for front to back and side movements.

Cross-Trainers. Designed for a wide variety of activities such as running, aerobics or weightlifting.

Trail-Running Shoes. Designed to provide good traction on uneven surfaces, contain a more weather resistant upper and have thicker soles.

Running Shoes. Lightweight, have cushioned rubber outsoles and provide front to back support.

WICKING CLOTHING

Wicking clothing absorbs very little water and draws moisture away from the body. Wicking clothing is breathable, in that it lets air in and sweat out. The term used to describe the fabric that wicking clothing is made of is polyamides. Polyamides have characteristics that attract moisture and move it away from the body and spread it out, to allow it to evaporate easily.



Cadet-issued physical training clothing is not made of wicking fabric.

The cadets must be diligent in keeping themselves clean and dry while participating in summer biathlon activities.

HATS



If possible, provide examples of the different types of hats.

Hats should be worn during all outdoor physical activities. In the summer they should shade the face, neck and ears, to prevent heat-related illnesses.

Ball Cap. Has a brim at the front that protects the face from the sun.

Wide-Brimmed Tan Summer Hat. Has a brim all the way around that protects the face and ears from the sun.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. What will well-fitted athletic shoes help to prevent?
- Q2. What is the term used to describe the fabric that wicking clothing is made of?
- Q3. When should hats be worn?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 5**Review Hygiene Practices for a Summer Biathlon Activity**

Time: 5 min

Method: Group Discussion

BACKGROUND KNOWLEDGE



The purpose of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

Hygiene practices are important for summer biathlon activities because germs are easily transmitted in the activity's environment.

HYGIENE DURING A SUMMER BIATHLON ACTIVITY

The following hygiene practices should be applied during a summer biathlon activity:

- Wear clean, dry clothing. Dirty clothing may give an offensive odour and increase the risk of health issues.
- Wear deodorant. Deodorant will help prevent any offensive body odour that may occur due to perspiration.
- Do not share water bottles. This will help prevent the spread of illnesses.
- Treat and cover all abrasions and open sores. This will help prevent the spread of diseases.

HYGIENE FOLLOWING A SUMMER BIATHLON ACTIVITY

The following hygiene practices should be applied following a summer biathlon activity:

- Shower or sponge bathe. This will clean perspiration and dirt off of the body.
- Change damp or wet clothing and reapply deodorant. This will help prevent bacteria growth from perspiration, which causes body odour.
- Wash athletic clothing. Clothing absorbs perspiration and odour; therefore it needs to be washed before wearing it again.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. Why is hygiene important for a summer biathlon activity?
- Q2. Why should you wear clean, dry clothing during a summer biathlon activity?
- Q3. What should you do following a summer biathlon activity?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 5

The cadet's participation in the group discussion will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What is an indicator of hydration status and how does it indicate it?

Q2. How does caffeine affect hydration?

Q3. What are the two main ways to minimize the impact of heat stress?

ANTICIPATED ANSWERS

A1. Urine volume and colours are indicators of hydration status. Ample quantities of lemon juice-coloured urine indicate good hydration while dark coloured, small volume infrequent urination indicates dehydration.

A2. Caffeine increases urine output and may reduce the amount of water in the body.

A3. Water intake and rest are the two main ways to minimize the impact of heat stress.

CONCLUSION

HOMEWORK/READING/PRACTICE

The cadets will apply hygiene practices and choose suitable athletic clothing each time they participate in a summer biathlon activity.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Meeting energy requirements is an important part of performing well and staying healthy while being active. Eating healthy foods will help the body grow strong, prevent illnesses and maintain energy during a summer biathlon activity. Applying hygiene practices and choosing suitable athletic clothing will also help to prevent illnesses and injuries during a summer biathlon activity.

INSTRUCTOR NOTES/REMARKS

N/A.

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COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 2

EO S345.02 – LEAD A WARM-UP AND COOL-DOWN SESSION

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the How to Lead a Warm-Up and Cool-Down Aide-Memoire located at [Annex A](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A group discussion was chosen for TP 1 as it allows the cadets to interact with peers and share knowledge, experiences, opinions, and feelings about warm-ups and cool-downs.

A demonstration and performance was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate warm-up and cool-down activities and stretches while providing an opportunity for the cadets to practice under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have lead a warm-up and cool-down session.

IMPORTANCE

It is important for the cadets to learn how to lead a warm-up and cool-down session because it is one of the duties of the Air Rifle Marksmanship Instructor when assisting with a summer biathlon activity. Preparing the body's muscles and ligaments prior to a summer biathlon activity as well as properly cooling the body down after the activity is important for injury prevention.

Teaching Point 1**Conduct a Group Discussion on the Purpose of a Warm-Up and Cool-Down Session**

Time: 20 min

Method: Group Discussion

BACKGROUND KNOWLEDGE

The point of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.



Terminology may be confusing when discussing warm-up sessions and warm-up activities.

Warm-Up/Cool-Down Sessions. When warm-up/cool-down activities and stretches are conducted.

Warm-Up/Cool-Down Activities. The active games that increase/decrease heart rates and warm or cool the body.

WARM-UP

Every exercise session should begin with an activity that warms and loosens the muscle and the connective tissues and raises the heart rate. Research has shown that the main factor in muscular injury prevention is muscle temperature muscles are more elastic when warm and less susceptible to injury.

The warm-up session should take 5–10 minutes and should facilitate the transition from rest to the level of exercise required in the exercise session. The warm-up should aim to achieve a change in the state of the body's activity level from rest to active, allowing it to work safely and effectively. Typical benefits of a warm-up are:

- an increase in body temperature, specifically core muscle temperature;
- an increase in the elasticity of muscular tissues;
- a decreased risk of muscle or tissue injury;
- an increase in mental alertness; and
- the release of a bodily fluid called synovial fluid that lubricates and protects the joints.

Warm-up activities that are used to prepare the cadets for a summer biathlon activity shall relate to summer biathlon. For example, the warm-up activity should centre on the leg muscles and torso flexibility. This is not to say that it is not important to warm other muscles. It is, however, important to warm the muscles that will be used extensively.

Before conducting a warm-up session, determine the type of activity that will be necessary to warm the muscles (warm-up activities are similar to games of low organization). It is important to ensure the warm-up activity will:

- stretch the muscles;
- gradually increase respiratory action and heart rate;

- expand the muscles' capillaries to accommodate the increase in blood circulation; and
- raise muscle temperature to facilitate reactions in muscle tissue.

COOL-DOWN

Summer biathlon activities should end with a proper cool-down. Due to the increased heart rate from the activity, individuals need to take time to gradually slow down the body to bring the heart rate back to normal and the body back to its normal temperature and resting levels.

Approximately 5–10 minutes is enough time to properly cool-down. Cool-downs also prevent stiffness and sore muscles. After a strenuous activity cadets should not stop moving. A scaled-down version of the main activity or similar activity should be conducted. This should be followed by more stretching. The cool-down helps to:

- disperse lactic acid build up in the muscles;
- prevent blood pooling;
- return the body systems to normal levels;
- assist in returning the deoxygenated blood to the heart (venous return);
- reduce the potential for dizziness; and
- dissipate body heat.

Before conducting the cool-down session determine the type of activity that will be effective to cool-down the muscles (cool-down activities are similar to games of low organization). It is important to ensure the cool-down activity will:

- allow the body time to slowly recover from physical activity and help to prevent injury;
- prepare the respiratory and cardiovascular systems to return to their normal state; and
- stretch the muscles.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. What should a cadet do to prepare the body for a summer biathlon activity?
- Q2. How long should it take to warm up the body for a summer biathlon activity?
- Q3. What are the benefits of warming up the body?
- Q4. When choosing an activity to use for a warm-up, what should the activity accomplish?
- Q5. After participating in an activity, what should a cadet do to cool down the body safely?
- Q6. How long should it take to cool down the body?
- Q7. How does completing a cool-down after an activity help the body?
- Q8. Before choosing an activity to use as a cool-down what should it accomplish?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

If the benefits of a warm-up and cool-down were not discussed in the group discussion take a few moments and cover the points listed in the background information.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 2

Explain, Demonstrate and Have the Cadets Perform Warm-Up/Cool-Down Activities

Time: 25 min

Method: Demonstration and Performance



Cadets will be required to lead warm-ups and cool-downs throughout the course and at their home corps/squadron.

Distribute the How to Lead a Warm-Up and Cool-Down Aide-Memoire located at [Annex A](#) to each cadet.

The main reason to conduct warm-ups and cool-downs is to minimize the risk of injury. To add interest when warming up the body, a variety of warm-up activities can be used.

These activities focus on preparing the body and muscles for a summer biathlon activity and encourage cadets to participate because the activities are simple to understand and enjoyable to participate in. The activities located at [Annex A](#) have been developed and can be used as both a warm-up or cool-down activity.

A body at rest requires only a minor change to increase its activity level providing a warming effect, that being said, a highly active body must be slowed gradually to minimize the risk of injury.



Cadets will have to be able to determine how the activity will challenge the body's cardiovascular state and decide whether an activity will be suitable for a warm-up or cool-down.



For the demonstration and performance determine a suitable activity to use as a warm-up and cool-down. Activities are detailed in [Annex A](#).

ACTIVITY

Time: 20 min

OBJECTIVE

The objective of this activity is to demonstrate and have cadets perform warm-up and cool-down activities.

RESOURCES

IAW [Annex A](#).

ACTIVITY LAYOUT

A clear open area with a flat surface.

ACTIVITY INSTRUCTIONS

Stage 1: Warm-Up (5 min)

1. Review [Annex A](#) and select a warm-up activity to use for demonstration.
2. Discuss that when determining an activity, preparation will have to be conducted to ensure a suitable activity is selected to sufficiently prepare the body for a summer biathlon activity. When preparing, the cadets will have to:
 - a. determine level of required physical activity that will provide a suitable cardiovascular warm-up; and
 - b. select a suitable warm-up activity.
3. Using the selected activity, demonstrate how to conduct a warm-up activity by:
 - a. introducing the activity;
 - b. identifying the number of cadets required or defining the group breakdown;
 - c. describing the set-up and key objectives of the activity; and
 - d. describing how to play the activity.
4. Conduct the demonstration warm-up.

Stage 2: Cool-Down (5 min)

1. Review [Annex A](#) and select a cool-down activity to use for demonstration.
2. Discuss that when determining an activity, preparation will have to be conducted to ensure a suitable activity is selected to gradually slow down the body, bringing the heart rate back to normal and the body back to its normal temperature and resting state. When preparing, the cadets will have to :
 - a. determine level of required physical activity that will provide a suitable cardiovascular cool-down; and
 - b. select a suitable cool-down activity.
3. Using the determined activity, demonstrate how to conduct a cool-down activity by:
 - a. introducing the activity;
 - b. identifying the number of cadets required or defining the group breakdown;
 - c. describing the setup and key objectives of the activity; and
 - d. describing how to play the activity.
4. Conduct the demonstration cool-down.

Stage 3: Practice (10 min)

1. Divide the cadets into groups of five.
2. Distribute an activity (warm-up or cool-down) located at [Annex A](#) to each cadet.
3. Have cadets practice performing the activity in their groups.
4. Each cadet will be given two minutes to conduct their assigned activity.

SAFETY

- Although activities are simple and enjoyable, focus must be on the objective of warming up and cooling down.
- A first aid kit shall be prepared and on site for this activity.
- Ensure a first aid station/kit is accessible.
- Ensure a first-aider is identified at the start of the activity and is available at all times.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the demonstration and performance will serve as the confirmation of this TP.

Teaching Point 3

Explain, Demonstrate and Have the Cadets Perform Stretches for Each Major Muscle Group

Time: 25 min

Method: Demonstration and Performance



Open this TP with a short discussion on the purpose of stretching and point out the guidelines to be followed when stretching.

The primary purpose of stretching is to reduce injury and enhance performance through increased flexibility of the muscles and tendons. Stretching is considered an important part of the warm-up, after conducting warm-up activities the muscles and tendons are ready to stretch.

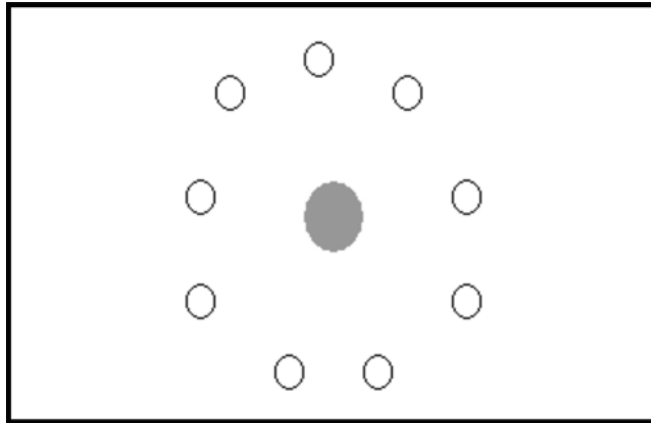
When stretching, hold each stretch approximately 5–30 seconds, depending on the muscle being stretched. The intensity of the stretch should be just before discomfort. When leading others in stretching, the following guidelines shall be followed:

- Ease into the stretch slowly.
- Hold the stretch still; do not bounce.
- Feel mild tension in the middle of the stretched muscle.
- If you feel any pain or the muscle starts shaking, ease off the stretch immediately.
- Relax all other parts of your body, particularly your head, shoulders and back.
- Do not fight against the muscle; try to relax.
- If comfortable and the muscle feels relaxed, try increasing the stretch gently and holding the new position still.
- Gently ease out of the stretch.

Group Formations for Stretching

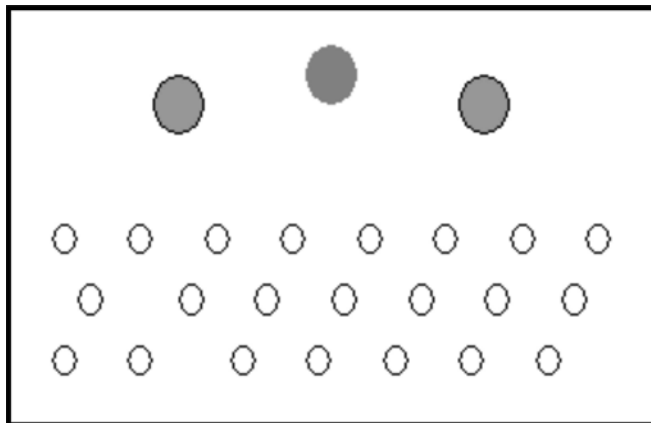
When preparing to conduct stretches, cadets will have to be positioned in a formation that will allow a cadet to move freely in position while following direction on how to perform the stretch.

The formation that cadets shall be positioned will depend on the group size. The cadets shall be spaced with at least two arm lengths between each other. The leader should be able to see all cadets when giving instruction. If a group is too large for one instructor to effectively supervise instruction additional instructors can assist. Cadets can be arranged in one of two set-up styles. The set-up styles can either be the warm-up circle or rows (as illustrated in [Figures 6-2-1](#) and [6-2-2](#)).



Director Cadets 3, 2006, Ottawa, ON: Department of National Defence

Figure 6-2-1 Warm-Up Circle (Instructor in the Centre)



Director Cadets 3, 2006, Ottawa, ON: Department of National Defence

Figure 6-2-2 Rows (Instructor at the Front With Two Assistant Instructors)



When determining stretches for an activity, preparation will have to be conducted to ensure suitable stretches are selected to prepare the body for a summer biathlon activity. Stretching instructions are located at [Annex A](#).



Demonstrate the proper way to conduct the following stretches.

Be thorough, dictating exactly what must be done to properly complete each stretch.

Have the cadets try each stretch while following the leaders guidance. When conducting the stretches, continuously reiterate the stretching guidelines.

It is common as a result of stretching one muscle that another connecting muscle will be stretched as well.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What is the primary purpose for stretching?
- Q2. While stretching, how intense should the stretch feel?
- Q3. What are the guidelines to follow when stretching?

ANTICIPATED ANSWERS

- A1. The primary purpose for stretching is to reduce injury.
- A2. The muscle should be stretched just before discomfort.
- A3. The guidelines are:
- Ease into the stretch slowly.
 - Hold the stretch still; do not bounce.
 - Feel mild tension in the middle of the stretched muscle.
 - If you feel any pain or the muscle starts shaking, ease off the stretch immediately.
 - Relax all other parts of your body, particularly your head, shoulders and back.
 - Do not fight against the muscle; try to relax.
 - If comfortable and the muscle feels relaxed, try increasing the stretch gently and holding the new position still.
 - Gently ease out of the stretch.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. How long should it take to warm up the body for a summer biathlon activity?
- Q2. Why should you conduct a warm-up and cool-down activity?
- Q3. What are the five body part categories for stretching?

ANTICIPATED ANSWERS

- A1. 5–10 minutes.

A2. The reason to conduct warm-up and cool-down activities is to minimize the risk of injury.

A3. Shoulders, arms, chest, back and legs.

CONCLUSION

HOMEWORK/READING/PRACTICE

The cadets should apply warm-up/cool-down practices when participating in recreational sports activities as well as summer biathlon.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5 (S345 PC).

CLOSING STATEMENT

Conducting a proper warm-up and cool-down reduces the chances of injury. Leading a warm-up and cool-down session is one of the duties of an Air Rifle Marksmanship Instructor while assisting with a summer biathlon activity.

INSTRUCTOR NOTES/REMARKS

The application of this knowledge occurs during the lesson related to EO S345.05 (Participate in Summer Biathlon Activities, [Section 5](#)) and during any recreational sports periods.

REFERENCES

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- C0-162 (ISBN 0-87322-384-5) Foster, E., Hartinger, K., & Smith, K. (1992). *Fitness Fun: 85 Games and Activities for Children*. Windsor, ON: Human Kinetics, Inc.
- C0-163 (ISBN 0-7360-4849-9) Byl, J. (2004). *101 Fun Warm-Up and Cool-Down Games*. Windsor, ON: Human Kinetics, Inc.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 3

**EO S345.03 – APPLY THE PRINCIPLES OF AIR RIFLE
 MARKSMANSHIP DURING A SUMMER BIATHLON ACTIVITY**

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1, 2, 4 and 5 to introduce the cadets to the corps/squadron complementary summer biathlon training program, the principles of air rifle marksmanship during a summer biathlon activity, mental preparation for the range component of a summer biathlon, and physical preparation for the range component of a summer biathlon.

A practical activity was chosen for TP 3 as it is an interactive way to allow the cadets to apply the principles of marksmanship during a summer biathlon activity while providing an opportunity for the cadets to practice under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to apply the principles of air rifle marksmanship during a summer biathlon activity.

IMPORTANCE

It is important for cadets to apply the principles of air rifle marksmanship during a summer biathlon activity to improve their performance. Without practicing these principles cadets will not achieve success when participating in summer biathlon activities.

Teaching Point 1

Describe Corps/Squadron Complementary Summer Biathlon Training

Time: 10 min

Method: Interactive Lecture

THE AIMS OF CORPS/SQUADRON COMPLEMENTARY SUMMER BIATHLON TRAINING

The aims of corps/squadron complementary summer biathlon training are to provide:

- opportunity to develop cadets personal air rifle marksmanship and summer biathlon skills;
- opportunity to develop cadets level of physical fitness; and
- assist corps/squadrons who wish to participate in the Canadian Cadet Movement Biathlon Championship Series (CCMBCS).

PERFORMANCE OBJECTIVES/ENABLING OBJECTIVES OF CORPS/SQUADRON COMPLEMENTARY SUMMER BIATHLON TRAINING



Performance Objectives (POs) are a description of the cadet's ability after training is complete. They include a description, in performance terms, of what the individual must do, the conditions under which the performance must be completed, and the standard to which the performance must conform.

Enabling Objectives (EOs) are a description of the cadet's ability after each unit of learning is complete and constitutes a major step towards achieving the PO.

PO C111 – Participate in Recreational Summer Biathlon Activities

The training within this PO provides an introduction to the sport of biathlon. This information is helpful when cadets participate in summer biathlon training at their corps/squadrons or CSTCs. EOs within this PO include:

- EO C111.01 (Participate in a Biathlon Briefing),
- EO C111.02 (Run Wind Sprints),
- EO C111.03 (Fire the Cadet Air Rifle Following Physical Activity), and
- EO C111.04 (Participate in a Recreational Summer Biathlon Activity).

PO C211 – Participate in a Recreational Summer Biathlon Activity

The training within this PO builds on the basic skills taught in the first year training program. This is helpful as it builds on that knowledge and provides a more advanced knowledge of summer biathlon skills. EOs within this PO include:

- EO C211.01 (Identify Civilian Biathlon Opportunities),
- EO C211.02 (Run on Alternating Terrain),
- EO C211.03 (Fire the Cadet Air Rifle Using a Sling Following Physical Activity), and

- EO C211.04 (Participate in a Recreational Summer Biathlon Activity).

PO C311 – Participate in Competitive Summer Biathlon Activities

The training within this PO provides information on the more competitive aspects of summer biathlon. This information is helpful as cadets' ability levels increase and they choose to participate in the CCMBCS. EOs within this PO include:

- EO C311.01 (Practice Aiming and Firing the Cadet Air Rifle Following Physical Activity), and
- EO C311.02 (Participate in a Competitive Summer Biathlon Activity).

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What are the aims of corps/squadron complementary summer biathlon training?
- Q2. What is the purpose of the training contained in PO C211 (Participate in a Recreational Summer Biathlon Activity)?

ANTICIPATED ANSWERS

- A1. The aims of corps/squadron complementary summer biathlon training are to provide:
- opportunity to develop cadets personal air rifle marksmanship and summer biathlon skills;
 - opportunity to develop cadets level of physical fitness; and
 - assist corps/squadrons who wish to participate in the CCMBCS.
- A2. The training within this PO builds on the basic skills taught in the first year training program. This is helpful as it builds on that knowledge and provides a more advanced knowledge of summer biathlon skills.

Teaching Point 2

Explain the Principles of Air Rifle Marksmanship During a Summer Biathlon Activity

Time: 10 min

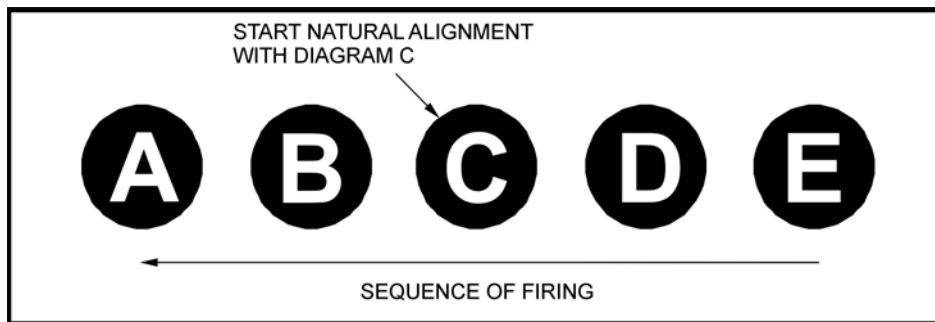
Method: Interactive Lecture

The principles of marksmanship as they apply during a summer biathlon differ in some areas than the principles of marksmanship for an air rifle marksmanship activity. Marksmanship inherently requires calm, focused attention to detail and activities provide a range environment where a participant is relaxed and rested prior to firing. During summer biathlon, speed of fire must be balanced with accuracy when firing. The physical activity component of summer biathlon poses another challenge to the marksman during the range component, as the competitor is tired, breathing heavily and must make the transition from running to firing in a prone/standing position. The principles of air rifle marksmanship are applied during summer biathlon as they are applied during air rifle marksmanship with the exception of natural alignment and the breathing cycle.

ENSURING NATURAL ALIGNMENT

When a cadet adopts a proper marksmanship position, relaxes, and exhales without looking through the sights, the rifle naturally aligns with some point downrange. This is referred to as natural alignment. The purpose of the natural alignment check is to move the marksmanship position so that the natural point of aim coincides with the target. If it does not, and the cadet uses muscular tension to hold the sights on target, the shot will

not hit the target. Instead, the shot is away from the target in the direction of the natural point of aim. This is because the muscles relax when the shot is released.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6-3-1 Biathlon Target Diagram Firing Sequence

Prone/Standing Natural Alignment

When adopting a prone or standing position during a summer biathlon activity, the body is naturally aligned with the centre diagram, Diagram C, of the Biathlon Air Rifle Target (BART). Since time is critical when firing, right-handed competitors should fire from right to left (reversed for left-handed competitors). By following this sequence, the competitor is able to establish a pattern. Each successive target is the same distance to the left whether or not the preceding target was hit or missed. Also, by firing only once at each diagram, any mechanical failure of the BART will be mitigated and shots will not be wasted on a malfunctioning target.

FOLLOWING A PROPER BIATHLON BREATHING CYCLE

The exertion of running places great demand on the respiratory system. Good marksmanship, however, requires that breathing be under tight control while shooting. Breath control begins the moment physical output is reduced, just before entering the range.

Voluntary Breathing

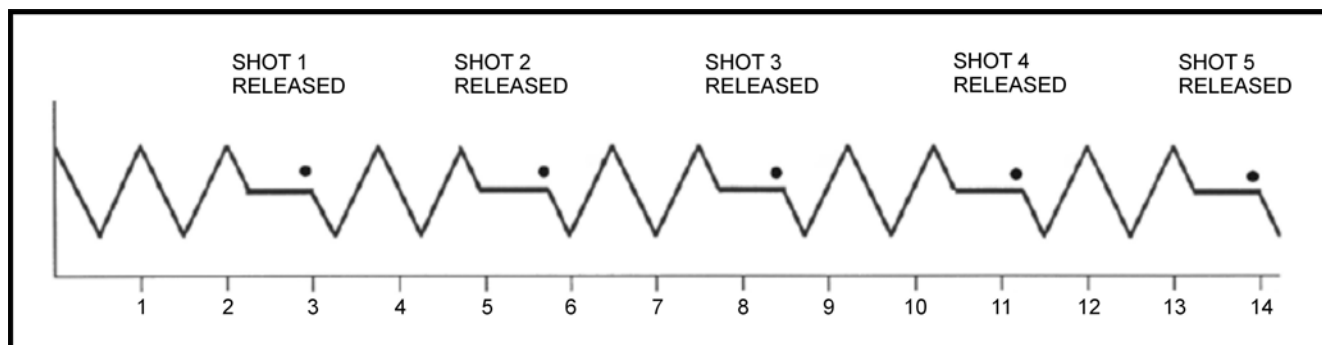
Running causes the body to breathe very fast. Gasping for breath, the body is using reflex actions to draw air into the lungs to provide oxygen to the body. This is called involuntary breathing. There are two strategies that help gain control of involuntary breathing. The first is to pause momentarily at the top of the in-breath to exert some voluntary control. Second, breathe out forcefully to expel carbon dioxide from the bottom of the lungs. This helps bring breathing under control as a competitor transitions from the physical activity component to the range component of a summer biathlon.

Breathing and Shooting

The appropriate breathing pattern for a single shot begins with a complete exhalation. The competitor then comfortably inhales, exhales, and inhales before slowly exhaling 50–60 percent of their breath. At this point, they gently hold their breath (no more than 3–4 seconds) during which time the shot is released. Exhalation of the remaining breath takes place after the follow through. A three- or four-breath cycle is recommended for cadets new to summer biathlon.

Five-Shot Breathing Cycle

For a series of five shots, the competitor must reload and move to the next target during the exhalation. It is very important for cadets to establish a consistent breathing rhythm and release the shot at the same point within each cycle. Cadets new to summer biathlon may take more than two breaths per cycle. As skills improve, the cadet may take fewer breaths between shots, decreasing to a one-breath cycle at the expert level.



Biathlon Bears: Community Coaching, 2005, Ottawa, ON: Biathlon Canada

Figure 6-3-2 Five-Shot Breathing Cycle

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What principles of air rifle marksmanship are applied differently in summer biathlon than they are applied during air rifle marksmanship activities?
- Q2. What diagram on the BART should a competitor use to perform natural alignment?
- Q3. For cadets new to summer biathlon, how many breaths should make up a breathing cycle?

ANTICIPATED ANSWERS

- A1. The two principles of air rifle marksmanship that are applied differently are natural alignment and the breathing cycle.
- A2. The competitor should use Diagram C on the BART to perform natural alignment.
- A3. A three- or four-breath cycle is recommended for cadets new to summer biathlon.

Teaching Point 3

Conduct Activities Where the Cadets Will Apply the Principles of Air Rifle Marksmanship During a Summer Biathlon Activity

Time: 30 min

Method: Practical Activity

ACTIVITY 1

Time: 5 min

OBJECTIVE

The objective of this activity is to practice natural alignment during a summer biathlon activity.

RESOURCES

- Cadet air rifle,
- Cadet air rifle safety rod,

- Air rifle pellets,
- Cadet air rifle sling,
- Safety glasses/goggles, (if requested by the cadet)
- Shooting mat, and
- BART.

ACTIVITY LAYOUT

This activity will be conducted on an air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

1. Have the cadets assemble in a starting area behind the biathlon range.
2. Ensure each cadet is wearing a cadet air rifle sling and safety glasses/goggles (if safety glasses are requested by the cadet).
3. Have each cadet run from the starting area onto the ramp and select a firing lane. If the range can not accommodate all the cadets, have them wait until a lane becomes available.
4. Have the cadets adopt the prone position, attach the cadet air rifle sling to the cadet air rifle, load, perform natural alignment with Diagram C of the BART, aim and fire one shot. Give the cadets 60 seconds.
5. Have the cadets ensure safe rifle status, unattach the cadet air rifle sling from the cadet air rifle, lay down the cadet air rifle and exit the ramp.
6. Have the cadets return to the starting area to wait for all cadets to finish.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

ACTIVITY 2

Time: 10 min

OBJECTIVE

The objective of this activity is to have cadets practice following a proper biathlon breathing cycle during a summer biathlon activity.

RESOURCES

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- Cadet air rifle sling,
- Safety glasses/goggles, (if requested by the cadet)
- Shooting mat, and
- BART.

ACTIVITY LAYOUT

This activity will be conducted on an air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

1. Have the cadets assemble in a starting area behind the biathlon range.
2. Have each cadet run from the starting area onto the ramp and select a firing lane. If the range can not accommodate all the cadets, have them wait until a lane becomes available.
3. Have the cadets adopt the prone position, attach the cadet air rifle sling to the cadet air rifle, load, and perform natural alignment with Diagram C of the BART, aim and fire three shots following the biathlon breathing cycle. Give the cadets 60–90 seconds.
4. Have the cadets ensure safe rifle status, unattach the cadet air rifle sling from the cadet air rifle, lay down the cadet air rifle and exit the ramp.
5. Have the cadet return to the starting area to wait for all cadets to finish.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

ACTIVITY 3

Time: 15 min

OBJECTIVE

The objective of this activity is practice completing the range component of a summer biathlon activity.

RESOURCES

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle pellets,
- Cadet air rifle sling,
- Safety glasses/goggles, (if requested by the cadet)
- Shooting mat, and
- BART.

ACTIVITY LAYOUT

This activity will be conducted on an air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

ACTIVITY INSTRUCTIONS

1. Have the cadets assemble in a starting area behind the biathlon range.
2. Lead the cadets in a warm-up stretching exercise.
3. Have the cadets begin to jog in a circular path in the starting area behind the range to increase their heart rate.

4. Have each cadet run from the starting area onto the ramp and select a firing lane. If the range can not accommodate all the cadets, have them wait until a lane becomes available.
5. Have the cadets adopt the prone position, attach the cadet air rifle sling to the cadet air rifle, load, and perform natural alignment with Diagram C of the BART, aim and fire five shots following the biathlon breathing cycle. Give the cadets 90–120 seconds.
6. Have the cadets ensure safe rifle status, unattach the cadet air rifle sling from the cadet air rifle, lay down the cadet air rifle and exit the ramp.
7. Have the cadets return to the starting area to wait for all cadets to finish.
8. Lead the cadets in a cool-down stretching exercise.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 3

The cadets' participation in the activities will serve as the confirmation of this TP.

Teaching Point 4

Describe How to Mentally Prepare for the Range Component of a Summer Biathlon

Time: 10 min

Method: Interactive Lecture

MENTAL PREPARATION

The mental state required for running favours great physiological effort and maximizes large muscle motor skills. It is a very excited and externally focused state. In contrast, marksmanship requires a mental state which favours intense focus, optimizes small muscle motor skills and hand-eye coordination and a cool, calm, narrowly focused mental state. The transition from an external focus to an internal focus must be accomplished between the time a competitor enters the range to the time natural alignment has been obtained. The ability to make this mental transition improves with practice, utilizing the following steps:

Acquire an Externally-Focused Mental State. Competitive games where focus on outcome is a great mental distraction, team games where cheering is a great mental arouser/distracter, fun games where the focus is on interpersonal interaction between shots or upbeat music and dancing between shooting sequences all produce an externally-focused mental state.

Utilize Visualizations to Focus the Mental State. Utilizing visualizations involve the cadet picturing in their mind the actions or steps they will perform prior to the time they occur. For example, a cadet about to enter the range imagines they are already at the firing lane, adopting a marksmanship position, performing natural alignment, loading, aiming, firing, reloading, etc. By envisioning the steps they will perform they are narrowing their focus and this results in a better performance of those steps once they arrive at the firing lane.

Achieve a Narrowly-Focused Mental State. Once a cadet arrives at the firing lane they should have completed their visualizations. This concentration results in the cadet achieving a narrowly-focused mental state and are now ready to complete the firing bout.

ACTIVITY

Time: 5 min

OBJECTIVE

The objective of this activity is to have the cadets practice mentally preparing for the range component of a summer biathlon.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Divide the cadets into pairs and have them sit in the area behind the biathlon range.
2. Have both cadets close their eyes.
3. Have one cadet begin to describe in detail the steps they would take from the time they arrive at the firing lane to the time they fire the first shot while the other cadet silently visualizes the steps being described.
4. Have the second cadet describe in detail the steps they would take from the time they fire the first shot until they exit the range at the end of a five-shot bout of firing while the other cadet silently visualizes the steps being described.
5. Have the cadets discuss their experiences with visualizations amongst the whole group.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 5

Describe How to Physically Prepare for the Range Component of a Summer Biathlon

Time: 10 min

Method: Interactive Lecture

PHYSICAL PREPARATION

The main goal of physical preparation is learning how to regain voluntary control of breathing, so that a controlled breathing cycle can be used as an anchor for a smooth and consistent five-shot firing sequence. The key to breath control is to break the natural compulsive involuntary breathing induced by exercise. This is best done at the top of the breath cycle.

Utilize Breathing Control Exercises Prior to Entering the Range Area. Pause slightly at the top of each breath cycle and then breathe out forcefully and deliberately. It is as important to breath all the way out as it is to pause, as this helps clear carbon dioxide from the bottom of the lungs, where it tends to accumulate causing the body to pant for breath.

Utilize Visualizations to Focus Breathing. Breath control is also linked to mental preparation during the approach to the range. A cadet about to enter the range imagines they are already at rest breathing calmly and deeply. By envisioning a calm state they are better able to physically achieve a controlled breathing once they arrive at the firing lane.

ACTIVITY

Time: 5 min

OBJECTIVE

The objective of this activity is to have the cadets practice physically preparing for the range component of a summer biathlon.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have the cadets assemble in a starting area behind the biathlon range.
2. Lead the cadets in a warm-up stretching exercise.
3. Have the cadets begin to jog in a circular path in the starting area behind the range to increase their heart rate.
4. Once the cadets achieve an increased heart rate have them stop and:
 - a. breathe in;
 - b. pause;
 - c. breathe forcefully all the way out under voluntary control; and
 - d. repeat five times.
5. Have the cadets begin to jog in a circular path in the starting area behind the range to increase their heart rate.
6. While the cadets are jogging have them envision themselves already at rest breathing calmly and deeply.
7. Have the cadets stop a second time and:
 - a. breathe in;
 - b. pause;
 - c. breathe forcefully all the way out under voluntary control; and
 - d. repeat five times.
8. Have the cadets discuss their experiences with visualizations.
9. Lead the cadets in a cool-down stretching exercise.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in applying the principles of air rifle marksmanship during summer biathlon activities will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5 (S345 PC).

CLOSING STATEMENT

Applying the principles of air rifle marksmanship during a summer biathlon activity allows you to improve your results. By understanding the variations in these principles you will be able to better transition from one discipline to the other. As an Air Rifle Marksmanship Instructor, you should always be focused on maintaining and increasing your personal proficiency with the cadet air rifle.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lesson related to EO S345.05 (Participate in Summer Biathlon Activities, [Section 5](#)).

REFERENCES

C0-149 Biathlon Canada, Coaching Association of Canada. (2007). *Biathlon Bears: Community Coaching* (Version 3.0) [Computer software]. Ottawa, ON: Biathlon Canada.

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COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 4

EO S345.04 – PERFORM THE ROLE OF A SUMMER BIATHLON OFFICIAL

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Summer Biathlon Official Aide-Memoire located at [Annex B](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to the role of summer biathlon officials and to generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to perform the role of a summer biathlon official.

IMPORTANCE

It is important for cadets to understand the role of a summer biathlon official so they can carry out their duties as an Air Rifle Marksmanship Instructor.

Teaching Point 1**Describe the Organizational Chart for Biathlon Officials
at an International Biathlon Union (IBU)/Biathlon Canada
Biathlon Event**

Time: 10 min

Method: Interactive Lecture



The structure of officials for standard IBU/Biathlon Canada competitions is sometimes different than the structure of officials used during summer biathlon activities in the Canadian Cadet Movement. The higher level of skill of the competitors and the larger number of athletes in an IBU/Biathlon Canada competition requires a more complex organization.

IBU/BIATHLON CANADA OFFICIALS STRUCTURE

In the sport of biathlon, the personnel who oversee the conduct of an event or competition are known as officials. All aspects of an event are handled by the organizing committee led by the competition's chairperson. The organizing committee is composed of two sub-committees: one responsible for non-technical functions – the logistics committee and one responsible for the technical aspects – the competition committee.

Logistics Committee

The logistics committee is designed to provide all the services and functions for the event that are not directly connected to the competitions. It is headed by the logistics chairperson and may be divided into various committees and sub-committees. The logistics committee performs the following primary functions in hosting an event:

- general admission,
- invitations,
- accommodations and food services,
- transport,
- spectator services,
- medical matters,
- finances,
- marketing,
- public relations,
- media relations,
- ceremonies, and
- social and cultural activities.

Competition Committee

The competition committee is overseen by the competition chief who is responsible to the event chairperson to ensure the competition facilities are prepared and the competition is conducted according to the rules. The competition chief liaises with the Technical Delegate (TD), IBU/Biathlon Canada's official representative at the competition to ensure the competition is organized and conducted in the appropriate manner. It should be noted

that although the competition chief is responsible for conducting the biathlon competition according to the rules, it is the competition jury, composed of the TD, competition chief, and three team officials elected by the team coaches, who ultimately impose penalties for violations of the rules. The official results are compiled by the competition secretary and published with the consent of the competition jury.

The competition chief supervises four groups that prepare and conduct the biathlon event. These groups are:

Course Group

The course group, under the direction of the chief of course, is responsible for all matters related to the course, to include:

- course layout and configuration;
- manning and operating the course;
- grooming of the trail, warm-up loop, penalty loop and ski test area (winter biathlon only);
- trail marking and signage;
- fencing, and barricading unused trails;
- course control (of competitors);
- medical assistance; and
- safety on the course.

Timing Group

The timing group, under the direction of the chief of timing, is responsible for all matters related to time-keeping, records of the competition and control of competitors in the start/finish areas, to include:

- manning and operating all timing and start/finish functions;
- electronic timing (if applicable);
- manual timing;
- compiling of records sent by other groups;
- production of interim results;
- control and supervision of the start and finish areas;
- control and supervision of equipment check points including safety;
- control and supervision of the relay handover zone (if applicable); and
- providing information to the public announcer and electronic information board operator (if applicable).

Range Group

The range group, under the direction of the chief of range, is responsible for all matters related to the range, to include:

- range layout and configuration;
- manning and operating the range and penalty loop(s);
- range grooming (winter biathlon only);

- target painting, adjustment and operation;
- range markings, numbering and signage;
- rifle repair (emergency only), exchange of rifles and replacing lost/defective ammunition;
- control and supervision of competitors on the range and the penalty loop;
- range scoring and recording;
- penalty loop recording;
- conducting zeroing and training on the range (as required); and
- safety on the range.

Stadium Group

The stadium group, under the direction of the chief of stadium, is responsible for all support functions related to the competition, primarily in the stadium area, to include:

- stadium layout and configuration;
- manning and operating all support functions;
- stadium grooming;
- stadium marking and signage;
- preparation and updating of all information boards (temperatures, start times, etc);
- preparation, care and cleanliness of all stadium facilities (waxing huts, toilets, etc);
- organizer's equipment storage and issue;
- access control (traffic, personnel, etc);
- public announcing and operating of the electronic information board (if applicable); and
- medical evacuations.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What two committees comprise the organizing committee of an IBU/Biathlon Canada event or competition?
- Q2. What is the composition of the competition jury?
- Q3. What are the range group's responsibilities during an IBU/Biathlon Canada event?

ANTICIPATED ANSWERS

- A1. The organizing committee is composed of two sub-committees: one responsible for non-technical functions – the logistics committee and one responsible for the technical aspects – the competition committee.
- A2. The competition jury is composed of the TD, competition chief, and three team officials elected by the team coaches.

- A3. The range group, under the direction of the chief of range, is responsible for all matters related to the range, to include:
- range layout and configuration;
 - manning and operating the range and penalty loop(s);
 - range grooming (winter biathlon only);
 - target painting, adjustment and operation;
 - range markings, numbering and signage;
 - rifle repair (emergency only), exchange of rifles and replacing lost/defective ammunition;
 - control and supervision of competitors on the range and the penalty loop;
 - range scoring and recording;
 - penalty loop recording;
 - conducting zeroing and training on the range (as required); and
 - safety on the range.

Teaching Point 2

Explain the Role of a Range Assistant During a Summer Biathlon Activity

Time: 15 min

Method: Interactive Lecture



A range assistant position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.



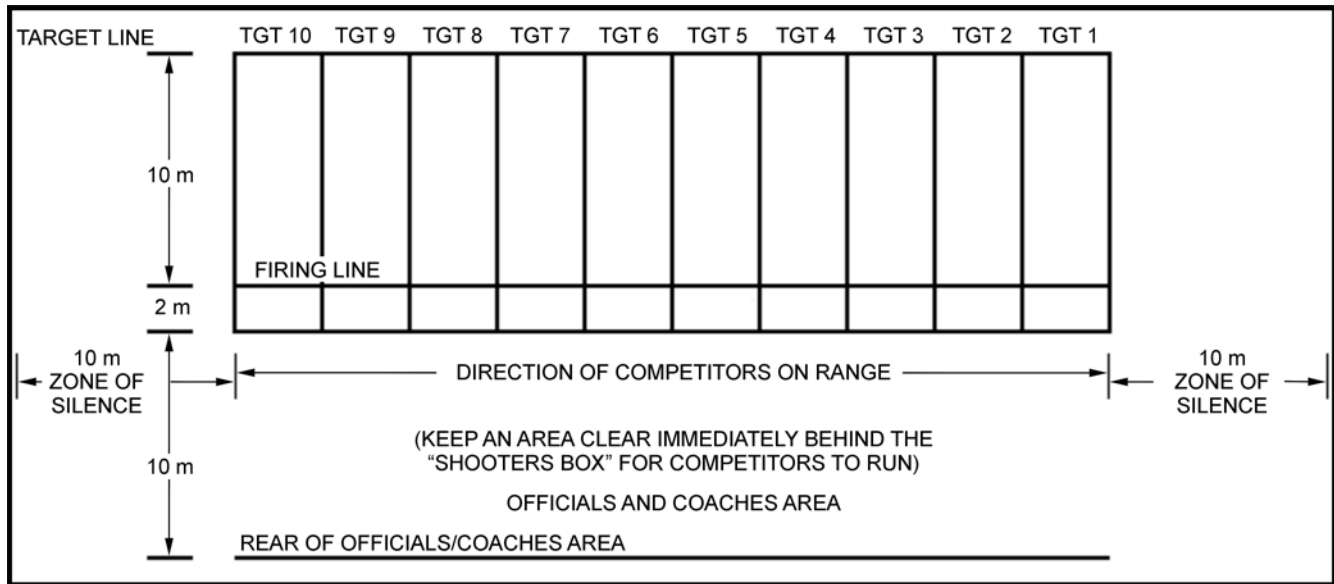
Distribute the Summer Biathlon Official Aide-Memoire located at [Annex B](#) to each cadet.

RANGE ASSISTANT

During cadet activities the range assistant, under the supervision of a Range Safety Officer (RSO), performs range-related tasks to assist during the summer biathlon. The range assistant is responsible for:

Setting Up the Range Area of the Summer Biathlon Venue

A biathlon range is constructed in much the same manner as a standard air rifle range with the main difference being the target system used. If firing points are numbered, they start from the right with Lane 1 and increase to the left (opposite from a standard air rifle range). In addition to differences at the backstop, a summer biathlon range contains a larger area behind the firing point, known as the ramp, for competitors to enter and exit. The ramp may contain rifle racks or other storage areas for coaches to leave team equipment. It must be 10 m wide and as level as possible. Signs must be placed to indicate the zone of silence that extends 10 m from the right side of Lane 1 and from the left side of the last lane. Within the zone of silence, coaches are prohibited from communicating with their competitors.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6-4-1 Ramp Layout

The Biathlon Air Rifle Target (BART). The BART has the following characteristics:

- five 35-mm diameter drop plate targets,
- pop-up paddles for visual confirmation, and
- manual reset with a 10-m pull cord.

This target has five black circular targets on white backgrounds. When a target is hit, a white paddle pops up, covering the circle. Once a bout of firing is complete and the lane scorekeeper has recorded the score, the cord is pulled and the target is reset.



"Biathlon Style Airgun Target". Devin Manufacturing Incorporated, Copyright 2005 by Devin Mfg., Inc. Retrieved February 15, 2007, from <http://www.devinmfg.com/targets1.html>

Figure 6-4-2 Biathlon Air Rifle Target

Controlling and Issuing Pellets

During the summer biathlon activity, the range assistant controls and issues pellets to competitors. Depending on the specific requirements of the summer biathlon activity, the range assistant places the required amount of pellets at each firing lane prior to the competitor's arrival. Once the firing bout is complete, the range assistant ensures the pellet container is refilled with the required amount of pellets for the next competitor in that lane. At the completion of the activity, the range assistant ensures any used pellets are collected from the backstop area and given to the Range Safety Officer (RSO) for disposal.

Monitoring Competitors for Safety Infractions

When the range is open for firing or competition a range assistant monitors for safety infractions. The Canadian Cadet Movement Biathlon Championship Series (CCMBCS) outlines the safety violations a range assistant will monitor. Safety violations carry a penalty and are passed to the lane scorekeeper for notation on the range scoresheet. In addition, the range assistant observes the downrange area and is ready to use the ceasefire command if hazards occur.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What is the area behind the firing point of a summer biathlon range called?
- Q2. How far does the zone of silence extend from either side of the summer biathlon range?
- Q3. What are the consequences of safety violations during a summer biathlon?

ANTICIPATED ANSWERS

- A1. The ramp.

A2. 10 m.

A3. Safety violations carry a penalty and are passed to the lane scorekeeper for notation on the range scoresheet.

Teaching Point 3**Explain the Role of a Competition Secretary**

Time: 15 min

Method: Interactive Lecture



A competition secretary position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

COMPETITION SECRETARY

During summer biathlon activities, a competition secretary sets up a competition office and coordinates the compilation of results. The competition secretary is responsible for:

Setting Up a Competition Office

The competition secretary establishes an area near the biathlon venue to use as a workspace. It should be indoors or covered; however, a folding table and chair will suffice. A notice board is set up at the competition office so start lists, notices and results can be posted.

Ensuring Forms Are Available to Other Officials

The competition secretary is responsible for ensuring range scoresheets, penalty loop control sheets, course control sheets and finish sheets are available to the officials prior to the summer biathlon activity. If bibs are used, the competition secretary issues them to coaches or competitors.

Generating a Start List

Once the participant list is verified, a random draw occurs to establish the order competitors will start the competition. This is known as the start list. This draw should occur during the coaches meeting; however, for simplified biathlon activities the list is generated by the competition secretary at any time prior to the race. Once a start list is generated and bib numbers are assigned, the competition secretary distributes bibs (if used). The start list is distributed to coaches and officials.

Ensuring Synchronized Stopwatches Are Available to Other Officials

The competition secretary synchronizes stopwatches for officials to use during the race and distributes them. One stopwatch is left with the competition secretary to compare other stopwatches with after the race to ensure they are still synchronized.

Tabulating Results as Range Scoresheets, Penalty Loop Control Sheets, Course Control Sheets and Finish Sheets Arrive

Once competitors have finished, the competition secretary tabulates the final results by:

1. subtracting the competitor's start time from their finish time to establish the run time;
2. calculating any shooting penalties and adding them to the run time; and
3. subtracting any stop times from the run time to produce the final time.

Posting the Results Once the Competition Is Finished

Once the results are calculated, the competition secretary posts them on the notice board for viewing by coaches and competitors.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What are the requirements for the location of a competition office?
- Q2. What is the start list?
- Q3. How are the final times calculated?

ANTICIPATED ANSWERS

- A1. The competition office should be indoors or covered; however, a folding table and chair will suffice.
- A2. Once the participant list is verified, a random draw occurs to establish the order competitors will start the competition. This is known as the start list.
- A3. Once competitors have finished, the competition secretary tabulates the final results by:
1. subtracting the competitor's start time from their finish time to establish the run time;
 2. calculating any shooting penalties and adding them to the run time; and
 3. subtracting any stop times from the run time to produce the final time.

Teaching Point 4

Explain the Role of a Lane Scorekeeper

Time: 5 min

Method: Interactive Lecture



A lane scorekeeper position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

LANE SCOREKEEPER

During summer biathlon activities, a lane scorekeeper observes and records competitors' misses during each firing bout. The lane scorekeeper is responsible for:

Observing the Competitors' Course of Fire

A lane scorekeeper is assigned to observe 1–4 firing lanes on the biathlon range. As competitors enter the range, the lane scorekeeper records on the range scoresheet each competitor's start number, lane number, marksmanship position (eg, prone or standing) and time of arrival.

Recording the Number of Misses on a Range Scoresheet

As the competitor fires each shot, the lane scorekeeper listens to confirm each shot has been fired. Once a shot is heard, the lane scorekeeper observes whether a diagram on the BART has been hit and records its location (eg, Diagram E, Diagram B). Both the confirmation of the shot being fired and the result of the shot are

recorded on the range scoresheet. Any irregularities noticed by the lane scorekeeper or penalties are recorded on the range scoresheet.

Recording Any Stop Times That May Occur

During cadet summer biathlon competitions, each lane is usually assigned to one team of three competitors. If a competitor arrives at the range to complete a firing bout and finds the lane is occupied by their teammate, a stop time occurs. A stop time refers to the amount of time a competitor waits on the ramp to proceed to the firing lane. The stop time starts when the incoming competitor reaches a point on the ramp directly behind their firing lane. The stop time ends when the outgoing competitor has left the firing lane. The length of the stop time is recorded by the lane scorekeeper on the range scoresheet.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

- Q1. What is the purpose of a lane scorekeeper during a summer biathlon?
- Q2. What information does the lane scorekeeper record when the competitor arrives on the range?
- Q3. What is a stop time?

ANTICIPATED ANSWERS

- A1. During summer biathlon activities, a lane scorekeeper observes and records competitors' misses during each firing bout.
- A2. As competitors enter the range, the lane scorekeeper records on the range scoresheet each competitor's start number, lane number, marksmanship position (eg, prone or standing) and time of arrival.
- A3. A stop time refers to the amount of time a competitor waits on the ramp to proceed to the firing lane.

Teaching Point 5

Explain the Role of a Penalty Loop Controller

Time: 5 min

Method: Interactive Lecture



A penalty loop controller position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

PENALTY LOOP CONTROLLER

During summer biathlon activities, a penalty loop controller sets up the penalty loop and monitors the penalty loop. The penalty loop controller is responsible for:

Setting Up the Penalty Loop

During summer biathlon activities, shooting penalties are imposed with either a time penalty or as penalty loops. The penalty loop for summer biathlon activities is 50 m in length. It must be located so that competitors can exit the range, clear the 10-m zone of silence and enter the penalty loop. The penalty loop must exit back onto the course so that competitors can continue the race.

Recording the Bib Numbers of Competitors Each Time They Run a Penalty Loop

Once the summer biathlon activity has begun, the penalty loop controller(s) takes up position inside the penalty loop. A penalty loop controller observes the bib number of each competitor as they pass. Each time a competitor passes the penalty loop controller, it is recorded on the penalty loop control sheet. This information tracks whether each competitor has completed the required number of penalty loops based on the number of missed diagrams on the previous bout of firing. This information is reconciled with the range scoresheets by the competition secretary to ensure accuracy.

CONFIRMATION OF TEACHING POINT 5

QUESTIONS

- Q1. How long is the penalty loop for a summer biathlon activity?
- Q2. What information does a penalty loop controller record?
- Q3. Where is the penalty loop located?

ANTICIPATED ANSWERS

- A1. The penalty loop for summer biathlon activities is 50 m in length.
- A2. A penalty loop controller observes the bib number of each competitor as they pass. Each time a competitor passes the penalty loop controller, it is recorded on the penalty loop control sheet.
- A3. The penalty loop must be located so that competitors can exit the range, clear the 10-m zone of silence and enter the penalty loop.

Teaching Point 6

Explain the Role of a Course Controller

Time: 5 min

Method: Interactive Lecture



A course controller position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

COURSE CONTROLLER

During summer biathlon activities a course controller sets up and monitors the course. The course controller is responsible for:

Identifying the Course With Control Markers

During a summer biathlon activity, a course needs to be marked for competitors to run. It may consist of a single loop or several loops of varying length. If multiple loops are used, they must be distinctly marked with varying colours. For most summer biathlon activities, a single loop is used. Any unused trails must be clearly identified to ensure competitors do not run the wrong trail during the activity.

Recording the Bib Numbers of Competitors as They Run the Course

Once the summer biathlon activity has begun, the course controller(s) takes up position to view competitors as they run the course. If multiple loops are used, one course controller per loop should be used. For a single loop course several course controllers may be dispersed along the course. A course controller observes the bib

number of each competitor as they pass. Each time a competitor passes the course controller it is recorded on the course control sheet. This information tracks whether each competitor has completed the required number of loops. It can also be used to keep track of any competitors who have not passed in some time and may be injured on the course.

CONFIRMATION OF TEACHING POINT 6

QUESTIONS

- Q1. How is the course section of a summer biathlon marked when multiple loops are used?
- Q2. What information will a course controller record?
- Q3. How many loops are used for most summer biathlon activities?

ANTICIPATED ANSWERS

- A1. If multiple loops are used they must be distinctly marked with varying colours.
- A2. A course controller observes the bib number of each competitor as they pass. Each time a competitor passes the course controller it is recorded on the course control sheet.
- A3. For most summer biathlon activities, a single loop is used.

Teaching Point 7

Explain the Role of a Start/Finish Controller

Time: 10 min

Method: Interactive Lecture



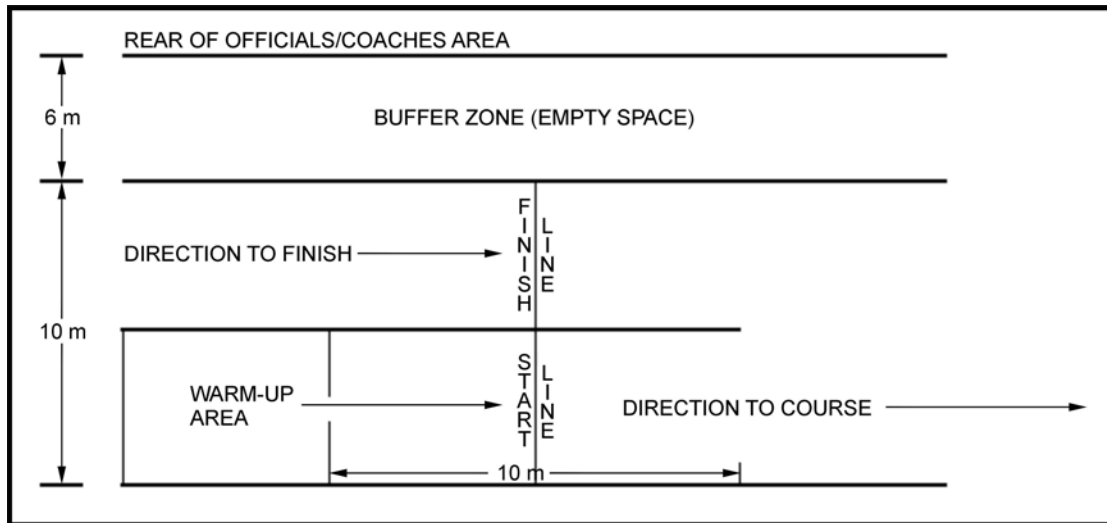
A start/finish controller position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

START/FINISH CONTROLLER

During summer biathlon activities, a start/finish controller sets up and monitors the start and finish area. The start/finish controller is responsible for:

Setting Up the Start/Finish

The start/finish controller sets up the start and finish area of the biathlon venue. The start and finish are located in the same area, behind the summer biathlon range. The start and finish line must be aligned with the middle lane(s) of the summer biathlon range. A buffer zone of 6 m is left between the rear of the ramp and the start/finish area. The start/finish line extends from the buffer zone outward 16 m. The finish comprises the first 8 m while the start line comprises the outside 8 m. A warm-up area is established 10 m behind the start line where competitors assemble prior to their start time. The start/finish area is clearly marked so competitors can identify the start line, finish line, warm-up area and which direction to run.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6-4-3 Summer Biathlon Start/Finish Area Layout

Obtaining a Synchronized Stopwatch From the Competition Office

The competition secretary is responsible for synchronizing stopwatches that will be used by various officials during the summer biathlon competition. The start/finish controller ensures they have a synchronized stopwatch prior to the start of the summer biathlon competition.

Obtaining a Start List

The competition secretary is responsible for producing a start list. This list identifies the competitor's name, bib number, and start time. The start/finish controller ensures they have a copy of the start list prior to the start of the summer biathlon competition.

Ensuring the Competitors Start at the Correct Time

The start/finish controller arrives at the start line prior to the first competitor's start time. As the first competitor's start time approaches, they will approach the start line. The start/finish controller confirms the competitor's bib number and start time, and holds an arm across the start line, but does not touch the competitor. The start/finish controller notifies the competitor when there is 10 seconds remaining until their start time. At five seconds remaining, the start/finish controller counts aloud 'five, four, three, two, one, GO' and drops their arm. The start/finish controller then records that the competitor has started. The next competitor then approaches the start line and the process is repeated until all competitors have started. If the last start time close to or after the approximated time of the first competitor's finish, a second start/finish controller is required to monitor the finish line.

Recording Each Competitor's Finish Time

The start/finish controller monitors the finish area as competitors approach the finish line. They record the bib number of the competitor and the time they cross the finish line on the finish sheet. The start/finish controller needs to remain alert as several competitors may finish close to the same time. After the final competitor has finished, the finish sheets are given to the competition secretary.

CONFIRMATION OF TEACHING POINT 7

QUESTIONS

- Q1. Where is the start and finish located at a summer biathlon venue?
- Q2. What is the process to starting a competitor?
- Q3. What does the start/finish controller record on the finish sheet?

ANTICIPATED ANSWERS

- A1. The start and finish are located in the same area, behind the summer biathlon range.
- A2. The start/finish controller notifies the competitor when there is 10 seconds remaining until their start time. At five seconds remaining, the start/finish controller counts aloud 'five, four, three, two, one, GO' and drops their arm.
- A3. The start/finish controller records the bib number of the competitor and the time they cross the finish line on the finish sheet.

Teaching Point 8**Explain the Role of a Runner**

Time: 5 min

Method: Interactive Lecture



A runner position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

RUNNER

During summer biathlon activities a runner is used to transfer information from one area of the summer biathlon venue to another. If hand-held radio communications are available, a runner is not required. If a runner is used, they are responsible for:

- collecting range scoresheets from the lane scorekeeper(s);
- collecting penalty loop control sheets from the penalty loop controller(s);
- collecting the course control sheets from the course controller(s);
- collecting the finish sheets from the start/finish controller(s); and
- delivering the sheets to the competition secretary.

A runner may also be used to pass information between the various officials during the summer biathlon activity. For example, the course controller may want to pass on to the start/finish controller that a cadet has been injured and will not finish.

CONFIRMATION OF TEACHING POINT 8

QUESTIONS

- Q1. What device can be used in place of a runner during a summer biathlon activity?

Q2. What are the responsibilities of a runner?

Q3. What is a runner also used for?

ANTICIPATED ANSWERS

A1. A hand-held radio communications device can be used in place of a runner during a summer biathlon activity.

A2. If a runner is used, they are responsible for:

- collecting range score sheets from the lane scorekeeper(s);
- collecting penalty loop control sheets from the penalty loop controller(s);
- collecting the course control sheets from the course controller(s);
- collecting the finish sheets from the start/finish controller(s); and
- delivering the sheets to the competition secretary.

A3. A runner may also be used to pass information between the various officials during the summer biathlon activity.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What are the stadium group's responsibilities during an IBU/Biathlon Canada event?

Q2. What are the characteristics of the BART?

Q3. How long is the start line of a summer biathlon event?

ANTICIPATED ANSWERS

A1. The stadium group, under the direction of the chief of stadium, is responsible for all support functions related to the competition, primarily in the stadium area, to include:

- stadium layout and configuration;
- manning and operating all support functions;
- stadium grooming;
- stadium marking and signage;
- preparation and updating of all information boards (temperatures, start times, etc);
- preparation, care and cleanliness of all stadium facilities (waxing huts, toilets, etc);
- organizer's equipment storage and issue;
- access control (traffic, personnel, etc);
- public announcing and operating of the electronic information board (if applicable); and
- medical evacuations.

- A2. The BART has the following characteristics:
- five 35-mm diameter drop plate targets,
 - pop-up paddles for visual confirmation, and
 - manual reset with a 10-m pull cord.
- A3. The start line of a summer biathlon event is 8 m.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5 (S345 PC).

CLOSING STATEMENT

As Air Rifle Marksmanship Instructors, you will be asked to perform the duties of a summer biathlon official during training at your corps/squadron or CSTC. You must be familiar with each official's duties and responsibilities to perform in each area of a summer biathlon activity. By being able to effectively officiate a summer biathlon competition, you will enhance the experience of the competitors and provide a fair sporting environment.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lesson related to EO S345.05 (Participate in Summer Biathlon Activities, [Section 5](#)).

REFERENCES

C0-084 Biathlon Canada. (2006). *Biathlon Canada Handbook*. Ottawa, ON: Biathlon Canada.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 5

EO S345.05 – PARTICIPATE IN SUMMER BIATHLON ACTIVITIES

Total Time:	880 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Select the activity to be conducted. Other activities may be conducted, as time permits.

During the 11 occurrences of this EO, conduct at least one recreational summer biathlon activity and one competitive summer biathlon activity. In addition, the Simulated Stage 2: Zone Championship Activity must be completed at least once during the Air Rifle Marksmanship Instructor Course.

Depending on the type of summer biathlon activity conducted, occurrences may be combined to form a four-period occurrence, allowing sufficient time for the activity

Assign cadets to be officials and other cadets to be coaches for each occurrence of this activity (as applicable).

Photocopy the Summer Biathlon Activity sheets located at [Annexes C to J](#) for each instructor.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A practical activity was chosen for this lesson as it allows the cadets to participate in summer biathlon activities in a safe and controlled environment. This activity contributes to the development of summer biathlon skills and promotes physical fitness.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have participated in recreational and competitive summer biathlon activities.

IMPORTANCE

It is important for cadets to participate in summer biathlon activities as it promotes both physical fitness and air rifle marksmanship. By participating, cadets experience the sport of summer biathlon, leading to increased interest and improve marksmanship skills as participants.

Teaching Point 1

Conduct Summer Biathlon Activities Where the Cadets Will Act as Officials and Coaches, and be Given the Opportunity to Improve Their Marksmanship Skills as Participants

Time: 70 min

Method: Practical Activity

BACKGROUND KNOWLEDGE

RECREATIONAL BIATHLON ACTIVITIES

Red Rover Biathlon Activity

This activity (located at [Annex C](#)) gives the cadets 30 minutes to combine summer biathlon with a game of Red Rover. If a team succeeds in breaking the opposing team's line, they gain an opportunity to fire a five-round bout on the summer biathlon range.

Leap Frog Biathlon Activity

This activity (located at [Annex D](#)) gives the cadets 15 minutes to combine summer biathlon with Leap Frog. When the team travels a distance of 50 m, they gain an opportunity to fire a five-round bout on the summer biathlon range.

Sports Tabloid Biathlon Activity

This activity (located at [Annex E](#)) gives the cadets 30 minutes to combine summer biathlon with tabloid sports as a team. Four stations consist of tabloid sports and two stations consist of a five-round firing bout on the summer biathlon range.

Lane-Run Biathlon Activity

This activity (located at [Annex F](#)) requires the cadets to run from a mark 25 m behind the firing point toward the firing line and hit one diagram, repeated five times.

COMPETITIVE BIATHLON ACTIVITIES

Group Biathlon Activity

This activity (located at [Annex G](#)) gives the cadets an opportunity to participate in a group biathlon activity with two teammates. The group completes a 1.5-km course and four bouts of firing.

Relay Biathlon Activity

This activity (located at [Annex H](#)) gives the cadets an opportunity to participate in a relay biathlon activity with three teammates. Each cadet completes a 1.5-km course and two bouts of firing.

Simulated Stage 2: Zone Championship Activity

This activity (located at [Annex I](#)) gives the cadets an opportunity to participate in a simulated Stage 2: Zone Championship of the Canadian Cadet Movement Biathlon Championship Series (CCMBCS).

Pursuit Biathlon Activity

This activity (located at [Annex J](#)) gives the cadets an opportunity to participate in a pursuit race. In a pursuit biathlon activity, cadets start in the order they finished in a previous individual race. Each competitor starts behind the other. The ability to make up time against an opponent and pass them, thereby moving up the standings is the aspect of the pursuit.

ACTIVITY

Time: 70 min

OBJECTIVE

The objective of this activity is to have the cadets participate in a summer biathlon activity.

RESOURCES

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- Summer biathlon official's equipment (as required), and
- Selected Summer Biathlon Activity (located at [Annexes C to J](#)).

ACTIVITY LAYOUT

Set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8.

The summer biathlon range must be set up adjacent to an area large enough to accommodate the physical fitness portion of each summer biathlon activity.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they set up the summer biathlon venue for the chosen activity.
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity.
4. Lead the cadets in a warm-up session.
5. Have the RSO:
 - a. open the summer biathlon range for firing; and
 - b. supervise assigned coaches and participants on the range during the activity.
6. Supervise assigned coaches and participants during the activity.

7. Have the RSO close the summer biathlon range for firing.
8. Record the results.
9. Lead the cadets in a cool-down session.
10. Supervise the cadets as they dismantle the summer biathlon venue.
11. Announce the results to the cadets.

SAFETY

Range activities will be conducted IAW A-CR-CCP-177/PT-001.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the summer biathlon activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5 (S345 PC).

CLOSING STATEMENT

This lesson provides an opportunity to participate in summer biathlon activities. This experience is helpful when assisting with summer biathlon activities at the home corps/squadron or the CSTC, which is a duty of an Air Rifle Marksmanship Instructor. It also builds on personal biathlon skills.

INSTRUCTOR NOTES/REMARKS

There are 11 occurrences of this EO to provide the cadet experience in the conduct of a summer biathlon activity.

Depending on the type of summer biathlon activity conducted, occurrences may be combined to form a four-period occurrence, allowing sufficient time for the activity.

REFERENCES

A0-027	A-CR-CCP-177/PT-001 Director Cadets 3. (2005). <i>Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual</i> . Ottawa, ON: Department of National Defence.
A0-032	Cadets Canada. (2002). <i>Biathlon Competition Rules and IBU/Cadet Disciplinary Rules</i> . Ottawa, ON: Department of National Defence.
A0-036	A-CR-CCP-178/PT-001 Director Cadets 3. (2009). <i>Canadian Cadet Movement: Cadet Biathlon Program Reference Manual</i> . Ottawa, ON: Department of National Defence.

- C0-084 Biathlon Canada. (2006). *Biathlon Canada Handbook*. Ottawa, ON: Biathlon Canada.
- C0-149 Biathlon Canada, Coaching Association of Canada. (2007). *Biathlon Bears: Community Coaching* (Version 3.0) [Computer software]. Ottawa, ON: Biathlon Canada.

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HOW TO LEAD A WARM-UP AND COOL-DOWN – AIDE-MEMOIRE

Purpose of a Warm-Up	6A-2
Purpose of a Cool-Down	6A-2
Warm-Up/Cool-Down Instructions	6A-3
Examples of Warm-Up/Cool-Down Activities	6A-4
Guidelines for Stretching	6A-9
Stretching Instructions	6A-9
Group Formations for Stretching	6A-9
Examples of Stretches	6A-10
References	6A-21

PURPOSE OF A WARM-UP

A warm-up session is composed of stretches and light cardiovascular exercises designed to:

- stretch the muscles;
- gradually increase respiratory action and heart rate;
- expand the muscles' capillaries to accommodate the increase in blood circulation which occurs during physical activity; and
- raise the muscle temperature to facilitate reactions in muscle tissue.

PURPOSE OF A COOL-DOWN

A cool-down is composed of stretches and light cardiovascular exercises designed to:

- allow the body time to slowly recover from physical activity and to help prevent injury;
- prepare the respiratory system to return to its normal state; and
- stretch the muscles to help relax and restore them to their resting length.

WARM-UP/COOL-DOWN INSTRUCTIONS

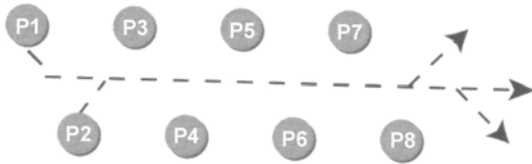
Stage 1: Warm-Up

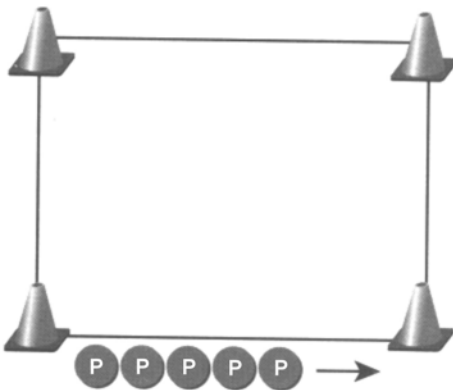
1. Prepare a warm-up activity by:
 - a. identifying the warm-up requirements (areas of the body to be warmed);
 - b. determining the level of required physical activity that will provide a suitable cardiovascular warm-up; and
 - c. choosing a suitable warm-up activity.
2. Using the determined activity, conduct a warm-up by:
 - a. introducing the activity;
 - b. identifying the number of cadets required or defining the group breakdown;
 - c. describing the set-up and key objectives of the activity; and
 - d. describing how to play the activity.
3. Conduct the warm-up.

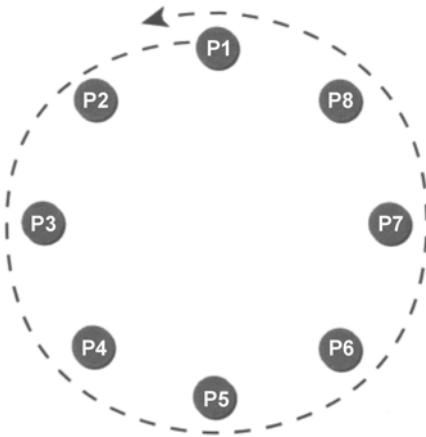
Stage 2: Cool-Down

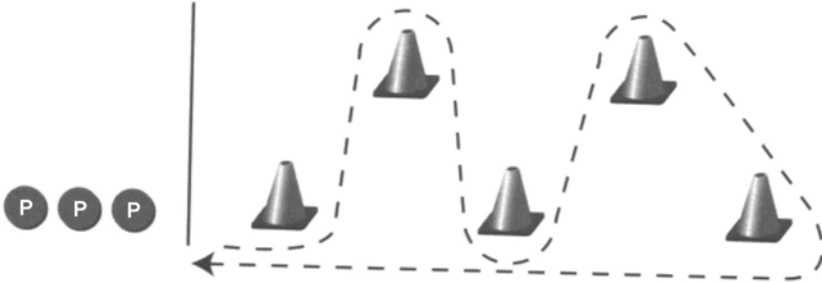
1. Prepare for a cool-down activity (ensure it is a suitable activity that will gradually slow down the body, bringing the heart rate back to normal and the body back to its normal temperature and resting state) by:
 - a. identifying the cool-down requirements (transition the body from an active state to a resting state);
 - b. determining level of required physical activity that will provide a suitable cardiovascular cool-down; and
 - c. choosing a suitable cool-down activity.
2. Using the determined activity, conduct a cool-down activity by:
 - a. introducing the activity;
 - b. identifying the number of cadets required or defining the group breakdown;
 - c. describing the set-up and key objectives of the activity; and
 - d. describing how to play the activity.
3. Conduct the cool-down activity.

EXAMPLES OF WARM-UP/COOL-DOWN ACTIVITIES

HIGH FIVES	
Number of Cadets	Playing Area
5–35	Any flat surface.
Equipment	
N/A.	
Set-Up	
- Cadets are in two lines facing each other in a staggered formation. - Cadets are two to four paces apart.	
Diagram	
 <i>J. Byl, 101 Fun Warm-Up and Cool-Down Games, Human Kinetics (p. 14)</i> Figure 6A-1 High Five Layout	
Key Objective	
For cadets to warm-up by high-fiving each other for a set time or distance.	
How to Play	
- Player 1 (P1) runs between the two rows of cadets, high-fiving each player. - When P1 reaches the end of the rows, the cadet stands two to four paces past P7. - When P1 passes P2, P2 follows P1, and when P2 reaches the end of the rows, the cadet stands two to four paces past P8. - P3 follows P2, P4 follows P3 and so on. - The team can high-five for one or two minutes or for a set distance (once around the soccer field).	
Instructional Tips	
- This game is a fun, quick, organized activity. - If many cadets are involved, have them stand close together. With fewer cadets, have them stand further apart. - With an even number of cadets, the cadets stay on the same side of the line. With an odd number of cadets, the cadets change sides each time they do their run.	

FRONT OF THE CLASS	
Number of Cadets	Playing Area
5–8	Open surface.
Equipment	
Pylons.	
Set-Up	
Define an area with four pylons or use an existing court (eg, volleyball court, outdoor soccer goal crease) and position cadets standing behind each other in a single file line.	
Diagram	
 <i>J. Byl, 101 Fun Warm-Up and Cool-Down Games, Human Kinetics (p. 14)</i> Figure 6A-2 Front of the Class	
Key Objective	
Cadets jog past each other, on the team's right when moving counter-clockwise, to the front of the line until all the cadets are back in their original positions.	
How to Play	
1. The group starts a slow jog around the court. The player in the back of the line runs on the outside of the group to the front of the line. 2. When that player makes it to the front, the player who is now the last player runs to the front of the line. 3. They continue until all are back in their original positions.	
Instructional Tips	
The group should not run so quickly that the back player cannot make it to the front of the line, nor should they run so slowly that the cadets do not warm-up/cool-down.	

CIRCLE RELAY	
Number of Cadets	Playing Area
Teams of 5–8	Any flat surface.
Equipment	
N/A.	
Set-Up	
- Divide cadets into equal groups. - Cadets stand at an equal distance apart in a circle formation with a diameter of at least eight paces.	
Diagram	
 The diagram illustrates the setup for the Circle Relay game. Eight players, labeled P1 through P8, are positioned at equal intervals around a dashed circle. P1 is at the top, and the others follow clockwise. A dashed arrow at the top of the circle points counter-clockwise, indicating the direction of the relay run. <i>J. Byl, 101 Fun Warm-Up and Cool-Down Games, Human Kinetics (p. 38)</i> Figure 6A-3 Circle Relay	
Key Objective	
To complete the relay as quickly as possible.	
How to Play	
- Player 1 (P1) runs completely around the outside of the circle and then tags P2. - P1 takes P2's spot in the circle and P2 runs around and tags P3. - When all the cadets in the circle complete their run the game is over. - Time the cadets to see how quickly they can complete the relay, or have them compete against other circles to see which team finishes first.	
Instructional Tips	
N/A.	

SHUFFLE RUN	
Number of Cadets	Playing Area
Teams of 3.	Any flat surface.
Equipment	
Two items to mark a starting line.	
Set-Up	
- Position the cadets behind a starting line. - Each team lines up behind a start/finish line and has an obstacle course in front of them (each team has a similar course marked out).	
Diagram	
 <i>J. Byl., 101 Fun Warm-Up and Cool-Down Games, Human Kinetics (p. 43)</i>	
Figure 6A-4 Shuffle Run	
Key Objective	
To complete the course as quickly as possible.	
How to Play	
- All three cadets stand behind the start/finish line. - At the leader's signal to begin, the first player shuffles through the obstacle course. - When the shuffler returns to the start line, the next player goes. - Then the third player has a turn. The teams go through the course twice.	
Instructional Tips	
This game is too active to use as a cool-down activity.	

SNAKESKIN	
Number of Cadets	Playing Area
Teams of 3–13.	Any flat surface.
Equipment	
N/A.	
Set-Up	
Cadets stand two paces apart in a long line facing each others' backs.	
Diagram	
 <i>J. Byl, 101 Fun Warm-Up and Cool-Down Games, Human Kinetics (p. 55)</i> Figure 6A-5 Snakeskin	
Key Objective	
To skin the snake a set number of times.	
How to Play	
- The first player in the line lies down straight with arms pointed forward. - Player 2 (P2) runs over (with feet beside the player) P1 and lies down in front of the first cadet's hands. - P3 runs immediately behind P2, over P1 and then over P2. - P3 then lies down in front of P2. - The cadets continue until everyone has run over P1. The leader can have each team repeat the sequence a specified number of times.	
Instructional Tips	
- This game works well as a cool-down activity if the leader uses a longer line. - Cadets need to be aware of where they are in relation to the cadets lying down to ensure they safely go over them.	

GUIDELINES FOR STRETCHING

The following guidelines should be followed while stretching to prepare for a summer biathlon activity and to help prevent injury:

- Stretch all major muscle groups, including the back, chest, legs, and shoulders.
- Never bounce while stretching.
- Hold each stretch for 10–30 seconds to let the muscles release fully.
- Repeat each stretch two to three times.
- When holding a stretch, support the limb at the joint.
- Static stretching, which is stretching a muscle and holding it in position without discomfort for 10–30 seconds, is considered the safest method.

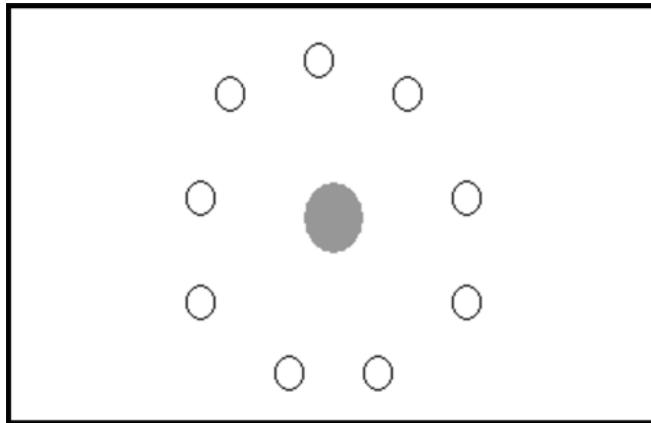
STRETCHING INSTRUCTIONS

1. Select suitable stretches that sufficiently prepare the cadet's body for the fitness and sports activities. Stretching leaders will have to:
 - a. identify the fitness and sport activity to be conducted in order to prepare appropriate stretches;
 - b. identify the major muscle groups that will be used during the activity; and
 - c. determine the number of stretches that will provide limber muscles and tendons.
2. Using the selected stretches, demonstrate how to conduct stretching by:
 - a. introducing the muscles to be stretched;
 - b. choosing stretches for the muscles that will be/were used during the physical activity;
 - c. demonstrating the stretch before having the cadets attempt the stretch; and
 - d. having the cadets perform the stretch.

GROUP FORMATIONS FOR STRETCHING

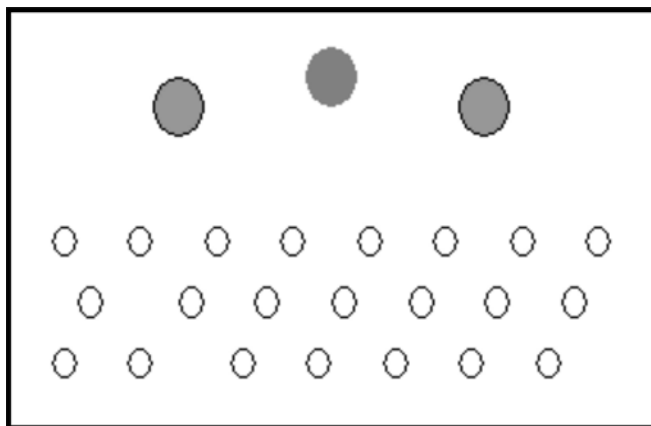
When preparing to conduct stretches, cadets should be positioned in a formation that will allow cadets to move freely in position while following directions on how to perform the stretch.

The formation in which cadets shall be positioned will depend on the group size. The cadets shall be spaced with at least two arm lengths between each other. The leader should be able to see all cadets when giving instruction. If a group is too large for one instructor to effectively supervise, additional instructors should assist. Cadets can be arranged in one of two set-up styles. Cadets may be arranged in either the warm-up circle or in rows (as illustrated in [Figures 6A-6](#) and [6A-7](#)).



Director Cadets 3, 2006, Ottawa, ON: Department of National Defence

Figure 6A-6 Warm-Up Circle (Instructor in the Centre)

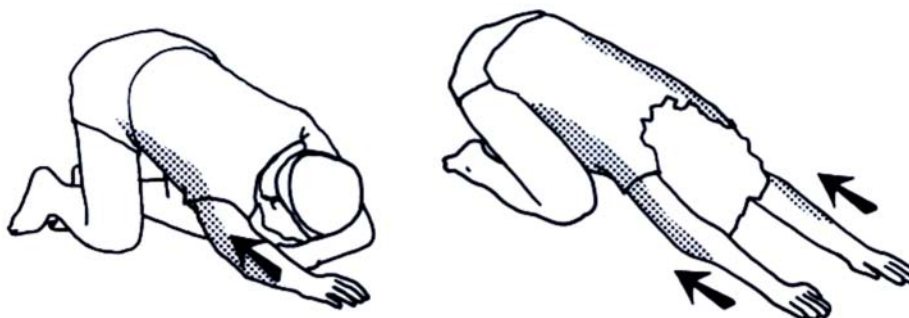


Director Cadets 3, 2006, Ottawa, ON: Department of National Defence

Figure 6A-7 Rows (Instructor at the Front With Two Assistant Instructors)

EXAMPLES OF STRETCHES

SHOULDERS



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 42)

Figure 6A-8 Shoulder Stretch A

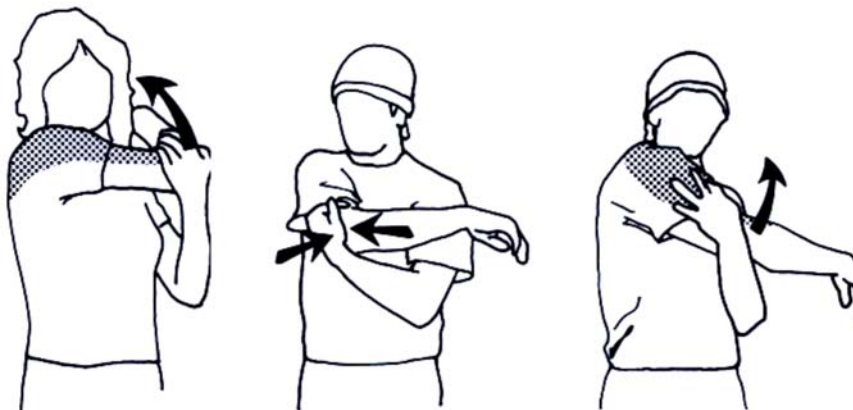
Shoulder Stretch A. This stretch should be felt in the shoulders, arms, lats or sides, upper back and the lower back. The stretch can be completed with one arm or both arms at the same time, however pulling with just one arm provides more control and isolates the stretch on either side.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 43)

Figure 6A-9 Shoulder Stretch B

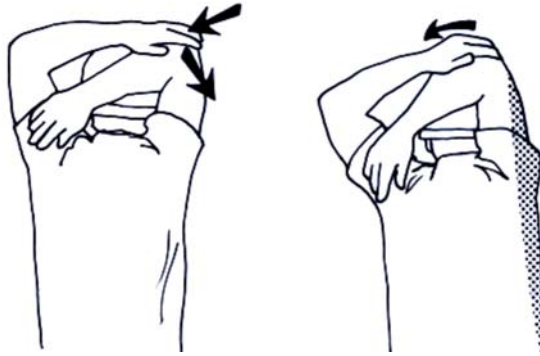
Shoulder Stretch B. This is a great stretch for the muscles of the outer portions of the arms, shoulders and ribs. With arms extended overhead and palms together (as illustrated in [Figure 6A-9](#)) stretch arms upward and slightly backward. Breathe in while stretching upwards. Hold for 5–8 seconds, while breathing easily.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 43)

Figure 6A-10 Shoulder Stretch C

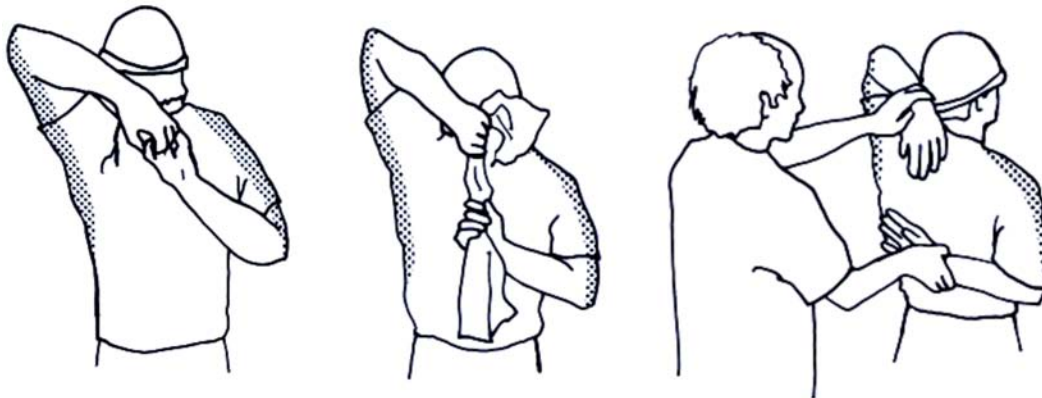
Shoulder Stretch C. This movement stretches the shoulder and the middle of the upper back. Gently pull the elbow across the chest toward the opposite shoulder. Hold for 10 seconds.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 44)

Figure 6A-11 Shoulder Stretch D

Shoulder Stretch D. This movement stretches the top of the shoulder and the triceps. With arms overhead, hold the elbow of one arm with the hand of the other arm. Gently pull the elbow behind the head. Do it slowly. Hold for 15 seconds. Do not hold breath.



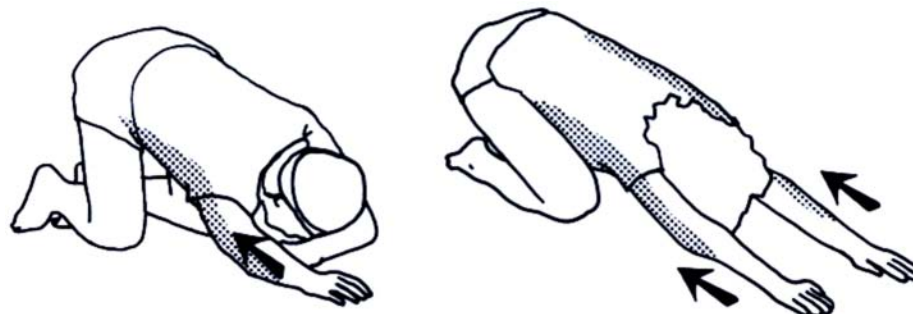
B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 45)

Figure 6A-12 Shoulder Stretch E

Shoulder Stretch E. This movement stretches the shoulders and triceps. Reach behind the head and down as far as you can with the left hand and, if able, grab the right hand coming up, palm out. Grab the fingers and hold for 5–10 seconds. If the hand does not meet, try one of the following:

- Have someone pull the hands slowly toward each other until an easy stretch is felt and hold it. Do not stretch too far.
- Drop a towel behind the head. With the upper arm bent, reach up with the other arm to hold onto the end of the towel. Gradually move the hand up on the towel, pulling the arm downwards.

ARMS



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 42)

Figure 6A-13 Arm Stretch A

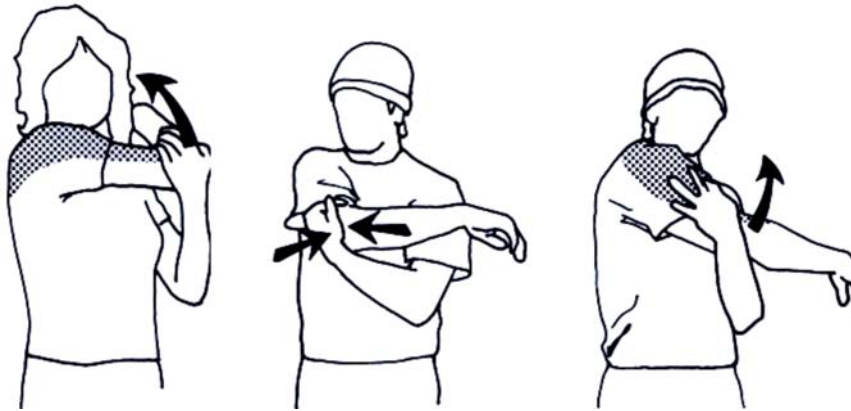
Arm Stretch A. This movement stretches the shoulders, arms, lats or sides, upper back and even the lower back. This stretch can be completed with one arm or both at the same time, however, pulling with just one arm provides more control and isolates the stretch on either side.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 43)

Figure 6A-14 Arm Stretch B

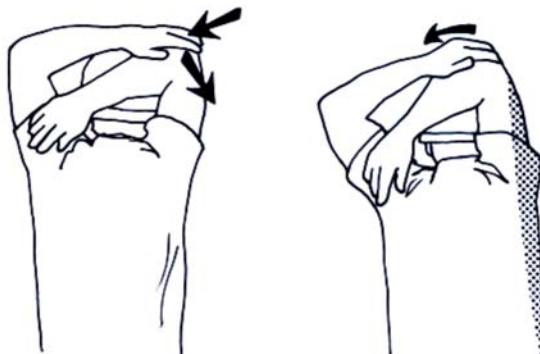
Arm Stretch B. This movement stretches muscles of the outer portions of the arms, shoulders, and ribs. With arms extended overhead and palms together, stretch arms upward and slightly backward. Breathe in while stretching upwards. Hold for 5–8 seconds, while breathing easily.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 43)

Figure 6A-15 Arm Stretch C

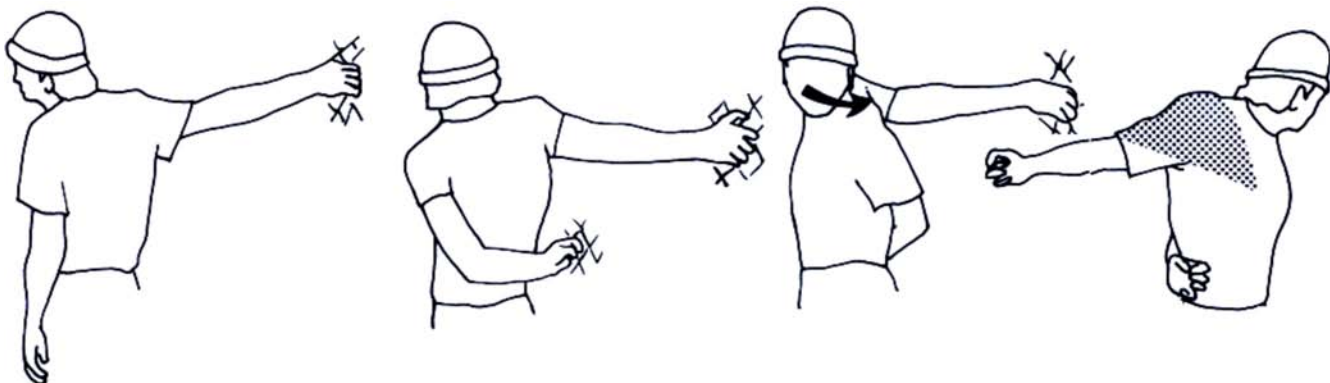
Arm Stretch C. This movement stretches the shoulder and the middle of the upper back. Gently pull the elbow across the chest toward the opposite shoulder. Hold for 10 seconds.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 44)

Figure 6A-16 Arm Stretch D

Arm Stretch D. This movement stretches the top of the shoulder and the triceps. With arms overhead, hold the elbow of one arm with the hand of the other arm. Gently pull the elbow behind the head. Do it slowly. Hold for 15 seconds. Do not hold breath.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 44)

Figure 6A-17 Arm Stretch E

Arm Stretch E. This movement stretches the front of the shoulders and arms. A chain link fence, doorway or wall is required.

Face the wall and press against it with the right hand at shoulder level. Next bring the other arm around the back and grab the wall. Look over the left shoulder in the direction of the right hand. Keep the shoulder close to the wall while slowly turning the head. Looking at the right hand behind oneself gives a stretch in front of the shoulders.

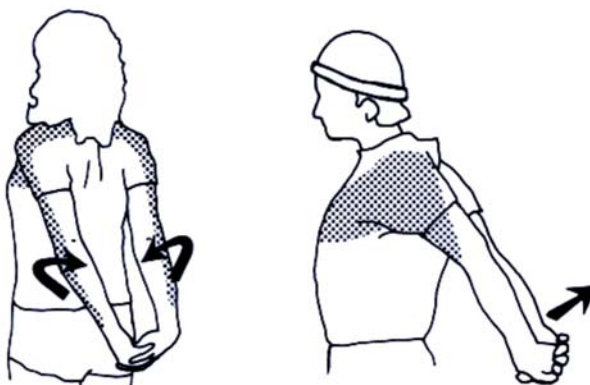
CHEST



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 47)

Figure 6A-18 Chest Stretch A

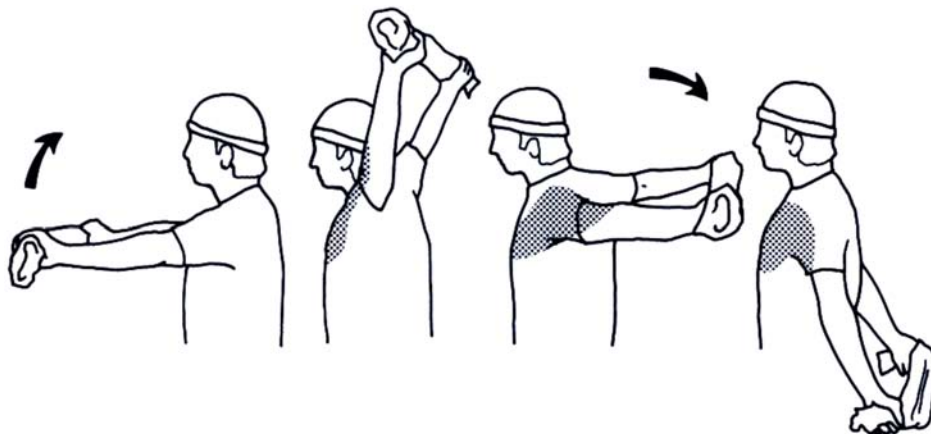
Chest Stretch A. This movement stretches the arms and chest. Stand in a doorway and place hands at shoulder-height on either side of the doorway. Move your upper body forward until you feel a comfortable stretch in the arms and chest. Keep the chest and head up and knees slightly bent while doing this stretch. Hold for 15 seconds.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 47)

Figure 6A-19 Chest Stretch B

Chest Stretch B. This movement stretches the shoulder, arms, and chest. For the first stretch slowly turn the elbows inward while straightening the arms. Hold for 5–10 seconds. If this stretch is fairly easy, then lift the arms up behind oneself until a stretch is felt.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 86)

Figure 6A-20 Chest Stretch C

Chest Stretch C. This movement stretches the chest, arms and shoulders. A towel or elastic cord can aid in stretching. Hold the towel near both ends so that one can move it, with straight arms, over the head and behind the back. Do not strain or force it. The hands should be far enough apart to allow for relatively free movement over the head and behind the back. Breathe slowly, do not hold breath.

BACK



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 86)

Figure 6A-21 Back Stretch A

Back Stretch A. This movement stretches the muscles along the spine. Do not do this stretch on a hard surface, use a mat or rug.

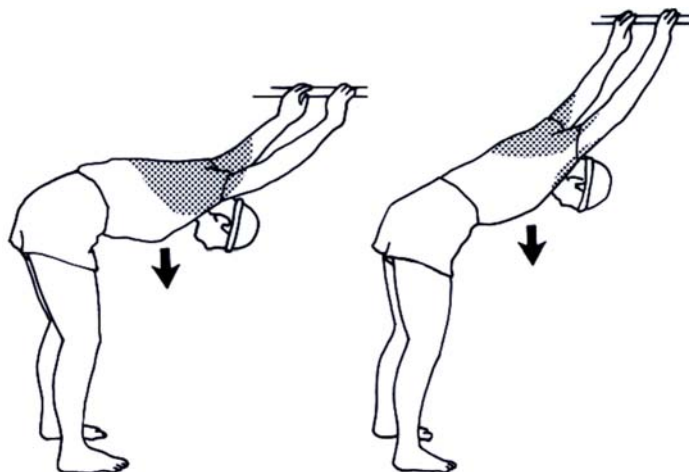
For a spinal roll position, sit holding the knees with the hands and pull them toward the chest. Gently roll up and down the spine, keeping the chin down toward the chest. This will further stretch the muscles along the spine. Try to roll evenly and with control. Roll back and forth four to eight times or until the back starts feel limber. Do not rush.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (pp. 65-66)

Figure 6A-22 Back Stretch B

Back Stretch B. This movement stretches the knees, back, ankles, achilles tendon areas, and deep groin. From a standing position, squat down with feet flat and toes pointed out at approximately 15 degree angles. The heels should be 10–30 cm (4–12 inches) apart, depending on how limber the cadet is. Keep the knees to the outside of the shoulders, directly above the big toes. Hold comfortably for 10–15 seconds. If a person has difficulty maintaining this position they can use something to hold onto for balance (eg, fence pole).



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 65-66)

Figure 6A-23 Back Stretch C

Back Stretch C. This movement stretches the back and upper body. Place both hands shoulder width apart on a fence or ledge and let the upper body drop down while keeping the knees slightly bent. The knees should be directly above the feet; breathe normally. Bend the knees more to feel the stretch change. Place the hands at different heights to change the area of the stretch.

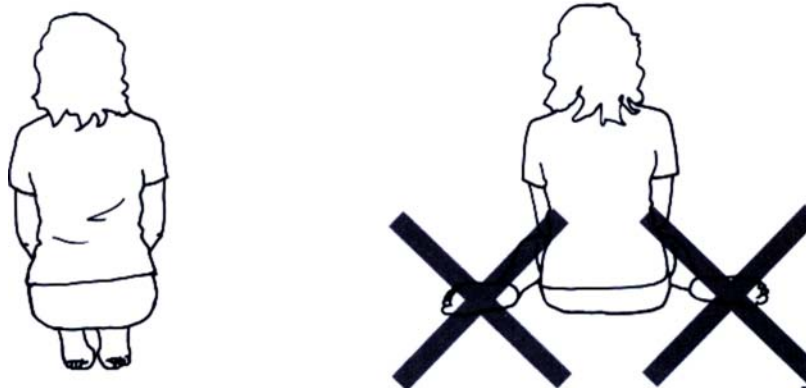


B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 43)

Figure 6A-24 Back Stretch D

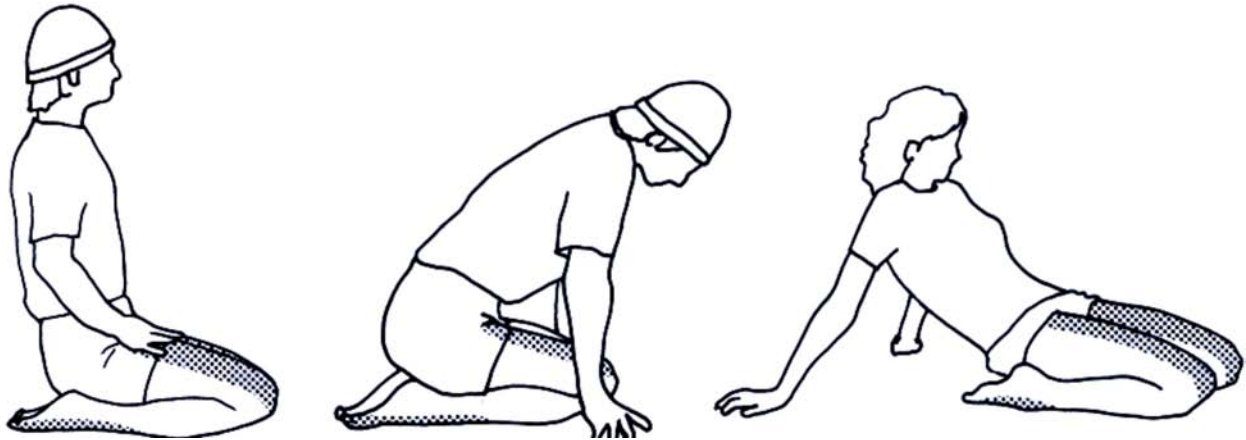
Back Stretch D. This movement stretches the middle of the upper back and shoulder. Gently pull the elbow across the chest toward the opposite shoulder. Hold for 10 seconds.

LEGS



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 43)

Figure 6A-25 Proper Position Leg Stretch A

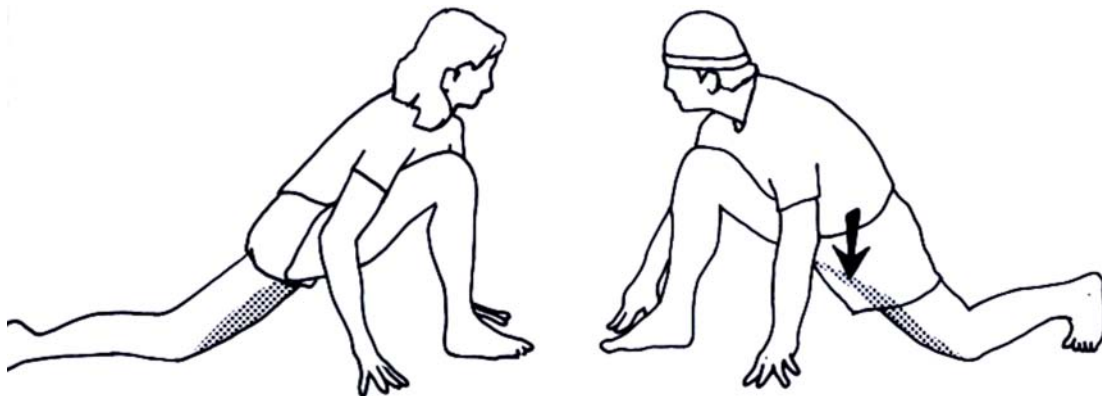


B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 49)

Figure 6A-26 Leg Stretch A

Leg Stretch A. This movement stretches the knees, ankles and quadriceps. Pointing the toes will help relax the calves so they may be stretched more easily. Do not let the feet flare out to the sides. This may cause overstretching of the inside ligaments of the knee.

To stretch kneel down sitting on the feet. Feet shall be parallel to the ground with lower legs. Slowly lean back and feel the stretch in the quadriceps and ankles. Continue to lean back to increase the stretch.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 51)

Figure 6A-27 Leg Stretch B

Leg Stretch B. This movement stretches the muscles in front of the hip. Move one leg forward until the knee is directly over the ankle. The other knee should be resting on the floor. Without changing the position of the knee on the floor or the forward foot, lower the front of the hip to create an easy stretch. Hold for 15–20 seconds. The stretch should be felt in the front of the hip and in the hamstrings and groin.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 37)

Figure 6A-28 Leg Stretch C

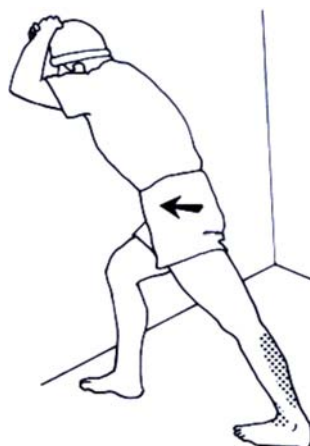
Leg Stretch C. This movement stretches the quadriceps. Sit with the right leg bent and the right heel just outside the right hip. The left leg is bent and the sole of the left foot is next to the inside of the upper right leg. This stretch can also be done with the left leg straight out in front.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p. 37)

Figure 6A-29 Leg Stretch D

Leg Stretch D. To stretch the back of the lower leg, use a towel around the ball of the foot to pull the toes towards the knee or if the person is more flexible use their hand to pull their toes toward the knee. This can also be accomplished by pulling the foot toward the knee without using the hand; hold and lean slightly forward to stretch the calf, hold for 10–20 seconds.



B. Anderson, Stretching 20th Anniversary, Revised Edition, Shelter Publications (p.71)

Figure 6A-30 Leg Stretch E

Leg Stretch E. This movement stretches the calf. Stand in front of a solid support and lean on it with the forearms, head resting on hands. Bend one leg and place the foot on the ground in front of the body, with the other leg straight behind. Slowly move the hips forward, keeping the lower back flat. Be sure to keep the heel of the straight leg on the ground, with toes pointed straight ahead for 10–15 seconds. Do not bounce. Stretch the other leg.

A calf stretch can also be completed by standing tall with heels shoulder width apart. Slowly bend over and reach for one's toes. Continue until a stretch is felt in the calf muscles. Hold for 5–10 seconds.

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SUMMER BIATHLON OFFICIAL AIDE-MEMOIRE

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DUTIES OF A RANGE ASSISTANT

RANGE ASSISTANT

During cadet activities the range assistant, under the supervision of a Range Safety Officer (RSO), performs range-related tasks to assist during the summer biathlon. The range assistant is responsible for:

Setting Up the Range Area of the Summer Biathlon Venue

A biathlon range is constructed in much the same manner as a standard air rifle range with the main difference being the target system used. If firing points are numbered, they start from the right with Lane 1 and increase to the left (opposite from a standard air rifle range). In addition to differences at the backstop, a summer biathlon range contains a larger area behind the firing point, known as the ramp, for competitors to enter and exit. The ramp may contain rifle racks or other storage areas for coaches to leave team equipment. It must be 10 m wide and as level as possible. Signs must be placed to indicate the zone of silence that extends 10 m from the right side of Lane 1 and from the left side of the last lane. Within the zone of silence, coaches are prohibited from communicating with their competitors.

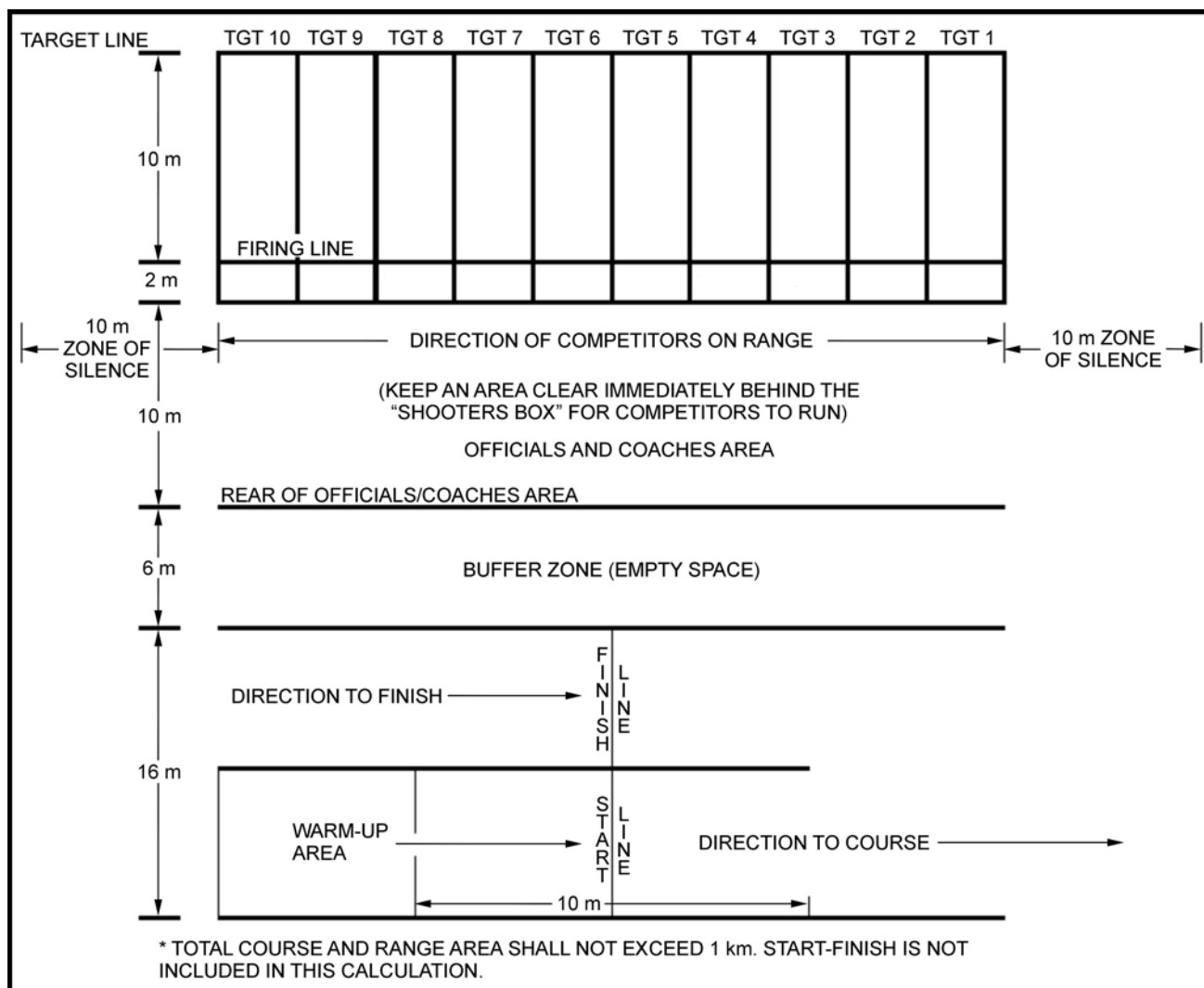
Controlling and Issuing Pellets

During the summer biathlon activity, the range assistant controls and issues pellets to competitors. Depending on the specific requirements of the summer biathlon activity, the range assistant places the required amount of pellets at each firing lane prior to the competitor's arrival. Once the firing bout is complete, the range assistant ensures the pellet container is refilled with the required amount of pellets for the next competitor in that lane. At the completion of the activity, the range assistant ensures any used pellets are collected from the backstop area and given to the Range Safety Officer (RSO) for disposal.

Monitoring Competitors for Safety Infractions

When the range is open for firing or competition a range assistant monitors for safety infractions. The Canadian Cadet Movement Biathlon Championship Series (CCMBCS) outlines the safety violations a range assistant will monitor. Safety violations carry a penalty and are passed to the lane scorekeeper for notation on the range scoresheet. In addition, the range assistant observes the downrange area and is ready to use the ceasefire command if hazards occur.

SUMMER BIATHLON RANGE LAYOUT



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6B-1 Summer Biathlon Range Layout

DUTIES OF A COMPETITION SECRETARY

COMPETITION SECRETARY

During summer biathlon activities, a competition secretary sets up a competition office and coordinates the compilation of results. The competition secretary is responsible for:

Setting Up a Competition Office

The competition secretary establishes an area near the biathlon venue to use as a workspace. It should be indoors or covered; however, a folding table and chair will suffice. A notice board is set up at the competition office so start lists, notices and results can be posted.

Ensuring Forms Are Available to Other Officials

The competition secretary is responsible for ensuring range scoresheets, penalty loop control sheets, course control sheets and finish sheets are available to the officials prior to the summer biathlon activity. If bibs are used, the competition secretary issues them to coaches or competitors.

Generating a Start List

Once the participant list is verified, a random draw occurs to establish the order competitors will start the competition. This is known as the start list. This draw should occur during the coaches meeting; however, for simplified biathlon activities the list is generated by the competition secretary at any time prior to the race. Once a start list is generated and bib numbers are assigned, the competition secretary distributes bibs (if used). The start list is distributed to coaches and officials.

Ensuring Synchronized Stopwatches Are Available to Other Officials

The competition secretary synchronizes stopwatches for officials to use during the race and distributes them. One stopwatch is left with the competition secretary to compare other stopwatches with after the race to ensure they are still synchronized.

Tabulating Results as Range Scoresheets, Penalty Loop Control Sheets, Course Control Sheets and Finish Sheets Arrive

Once competitors have finished, the competition secretary tabulates the final results by:

1. subtracting the competitor's start time from their finish time to establish the run time;
2. calculating any shooting penalties and adding them to the run time; and
3. subtracting any stop times from the run time to produce the final time.

Posting the Results Once the Competition Is Finished

Once the results are calculated, the competition secretary posts them on the notice board for viewing by coaches and competitors.

START LIST

Start/Finish Controller's Name: _____

[illegible]

Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6B-2 Start List

RESULTS SHEET

Competition Secretary's Name: _____

Cadet Name	Bib Number	Start Time Hr Min Sec	Finish Time Hr Min Sec	Run Time Hr Min Sec	Misses		Penalties Hr Min Sec	Credits Hr Min Sec	Final Time Hr Min Sec	Place
					Bout 1	Bout 2				

DUTIES OF A LANE SCOREKEEPER

LANE SCOREKEEPER

During summer biathlon activities, a lane scorekeeper observes and records competitors' misses during each firing bout. The lane scorekeeper is responsible for:

Observing the Competitors' Course of Fire

A lane scorekeeper is assigned to observe 1–4 firing lanes on the biathlon range. As competitors enter the range, the lane scorekeeper records on the range scoresheet each competitor's start number, lane number, marksmanship position (eg, prone or standing) and time of arrival.

Recording the Number of Misses on a Range Scoresheet

As the competitor fires each shot, the lane scorekeeper listens to confirm each shot has been fired. Once a shot is heard, the lane scorekeeper observes whether a diagram on the BART has been hit and records its location (eg, Diagram E, Diagram B). Both the confirmation of the shot being fired and the result of the shot are recorded on the range scoresheet. Any irregularities noticed by the lane scorekeeper or penalties are recorded on the range scoresheet.

Recording Any Stop Times That May Occur

During cadet summer biathlon competitions, each lane is usually assigned to one team of three competitors. If a competitor arrives at the range to complete a firing bout and finds the lane is occupied by their teammate, a stop time occurs. A stop time refers to the amount of time a competitor waits on the ramp to proceed to the firing lane. The stop time starts when the incoming competitor reaches a point on the ramp directly behind their firing lane. The stop time ends when the outgoing competitor has left the firing lane. The length of the stop time is recorded by the lane scorekeeper on the range scoresheet.

RANGE SCORESHEET

Scorekeeper's Name: _____

Bib Number	Lane	Shots Fired			X = Miss			Misses	Comments/Penalties
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							
Bib Number	Lane	Shots Fired			X = Miss			Misses	
		3 Spare							

Figure 6B-4 Range Scoresheet

DUTIES OF A PENALTY LOOP CONTROLLER

PENALTY LOOP CONTROLLER

During summer biathlon activities, a penalty loop controller sets up the penalty loop and monitors the penalty loop. The penalty loop controller is responsible for:

Setting Up the Penalty Loop

During summer biathlon activities, shooting penalties are imposed with either a time penalty or as penalty loops. The penalty loop for summer biathlon activities is 50 m in length. It must be located so that competitors can exit the range, clear the 10-m zone of silence and enter the penalty loop. The penalty loop must exit back onto the course so that competitors can continue the race.

Recording the Bib Numbers of Competitors Each Time They Run a Penalty Loop

Once the summer biathlon activity has begun, the penalty loop controller(s) takes up position inside the penalty loop. A penalty loop controller observes the bib number of each competitor as they pass. Each time a competitor passes the penalty loop controller, it is recorded on the penalty loop control sheet. This information tracks whether each competitor has completed the required number of penalty loops based on the number of missed diagrams on the previous bout of firing. This information is reconciled with the range scoresheets by the competition secretary to ensure accuracy.

PENALTY LOOP CONTROL SHEET

Penalty Loop Controller's Name: _____

[illegible]

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Figure 6B-5 Penalty Loop Control Sheet

DUTIES OF A COURSE CONTROLLER

COURSE CONTROLLER

During summer biathlon activities a course controller sets up and monitors the course. The course controller is responsible for:

Identifying the Course With Control Markers

During a summer biathlon activity, a course needs to be marked for competitors to run. It may consist of a single loop or several loops of varying length. If multiple loops are used, they must be distinctly marked with varying colours. For most summer biathlon activities, a single loop is used. Any unused trails must be clearly identified to ensure competitors do not run the wrong trail during the activity.

Recording the Bib Numbers of Competitors as They Run the Course

Once the summer biathlon activity has begun, the course controller(s) takes up position to view competitors as they run the course. If multiple loops are used, one course controller per loop should be used. For a single loop course several course controllers may be dispersed along the course. A course controller observes the bib number of each competitor as they pass. Each time a competitor passes the course controller it is recorded on the course control sheet. This information tracks whether each competitor has completed the required number of loops. It can also be used to keep track of any competitors who have not passed in some time and may be injured on the course.

COURSE CONTROL SHEET

Course Controller's Name: _____

[illegible]

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Figure 6B-6 Course Control Sheet

DUTIES OF A START/FINISH CONTROLLER

START/FINISH CONTROLLER

During summer biathlon activities, a start/finish controller sets up and monitors the start and finish area. The start/finish controller is responsible for:

Setting Up the Start/Finish

The start/finish controller sets up the start and finish area of the biathlon venue. The start and finish are located in the same area, behind the summer biathlon range. The start and finish line must be aligned with the middle lane(s) of the summer biathlon range. A buffer zone of 6 m is left between the rear of the ramp and the start/finish area. The start/finish line extends from the buffer zone outward 16 m. The finish comprises the first 8 m while the start line comprises the outside 8 m. A warm-up area is established 10 m behind the start line where competitors assemble prior to their start time. The start/finish area is clearly marked so competitors can identify the start line, finish line, warm-up area and which direction to run.

Obtaining a Synchronized Stopwatch From the Competition Office

The competition secretary is responsible for synchronizing stopwatches that will be used by various officials during the summer biathlon competition. The start/finish controller ensures they have a synchronized stopwatch prior to the start of the summer biathlon competition.

Obtaining a Start List

The competition secretary is responsible for producing a start list. This list identifies the competitor's name, bib number, and start time. The start/finish controller ensures they have a copy of the start list prior to the start of the summer biathlon competition.

Ensuring the Competitors Start at the Correct Time

The start/finish controller arrives at the start line prior to the first competitor's start time. As the first competitor's start time approaches, they will approach the start line. The start/finish controller confirms the competitor's bib number and start time, and holds an arm across the start line, but does not touch the competitor. The start/finish controller notifies the competitor when there is 10 seconds remaining until their start time. At five seconds remaining, the start/finish controller counts aloud 'five, four, three, two, one, GO' and drops their arm. The start/finish controller then records that the competitor has started. The next competitor then approaches the start line and the process is repeated until all competitors have started. If the last start time close to or after the approximated time of the first competitor's finish, a second start/finish controller is required to monitor the finish line.

Recording Each Competitor's Finish Time

The start/finish controller monitors the finish area as competitors approach the finish line. They record the bib number of the competitor and the time they cross the finish line on the finish sheet. The start/finish controller needs to remain alert as several competitors may finish close to the same time. After the final competitor has finished, the finish sheets are given to the competition secretary.

SAMPLE START LIST

Start/Finish Controller's Name: Lt (N) Boggins

Cadet Name	Bib Number	Start Time	Started (√)	Remarks
		Hr Min Sec		
Mike Green	1	09 00 30	(√)	
Ryan Jones	2	09 01 00	(√)	
Roger Smith	3	09 01 30	(√)	
Adam White	4	09 02 00	(√)	
Kelly Leblanc	5	09 02 30	(√)	
Mike Wells	6	09 03 00	(√)	
Kara Sheppard	7	09 03 30	(√)	
Shayne Savage	8	09 04 00	(√)	
Angus McIssac	9	09 04 30	(√)	
Rob Davis	10	09 05 00	(√)	

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Figure 6B-7 Sample Start List

FINISH SHEET

Start/Finish Controller's Name: _____

[illegible]

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Figure 6B-8 Finish Sheet

DUTIES OF A RUNNER

RUNNER

During summer biathlon activities a runner is used to transfer information from one area of the summer biathlon venue to another. If hand-held radio communications are available, a runner is not required. If a runner is used, they are responsible for:

- collecting range scoresheets from the lane scorekeeper(s);
- collecting penalty loop control sheets from the penalty loop controller(s);
- collecting the course control sheets from the course controller(s);
- collecting the finish sheets from the start/finish controller(s); and
- delivering the sheets to the competition secretary.

A runner may also be used to pass information between the various officials during the summer biathlon activity. For example, the course controller may want to pass on to the start/finish controller that a cadet has been injured and will not finish.

RED ROVER BIATHLON ACTIVITY

OBJECTIVE

This activity gives the cadets 30 minutes to combine summer biathlon with a game of Red Rover.

SCORING

During each firing opportunity, a cadet can score one point for each diagram hit for a maximum of five points. After 30 minutes the scores of each team's members will be totalled. The team with the highest score is the winner.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatch,
- Clipboards,
- Paper,
- Pens/pencils, and
- Four pylons.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8; and
 - b. mark two lines 20 m apart in an area behind the summer biathlon range.
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:
 - a. the objective,
 - b. scoring,
 - c. activity layout,
 - d. how to participate in the activity, and
 - e. the time allotted.
4. Lead the cadets in a warm-up session.
5. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
6. Appoint several cadets as lane scorekeepers to record the results of the firing bouts.
7. Divide cadets into two equal teams, lined up and facing each other.
8. Have each team hold hands.
9. The first team calls the name of an opposing team's player by saying, "Red Rover, Red Rover, Send (*cadet's name*) on over".

10. The cadet whose name was called runs from their team's line toward the opposing team and attempts to break through the arms of the opposing team.
 - a. If the cadet is unsuccessful they become a member of the opposing team.
 - b. If the cadet is successful they will run to the summer biathlon range and commence firing a five-round bout. At the summer biathlon range:
 - (1) have the lane scorekeeper record the cadet's score; and
 - (2) have the cadet return to their team's line when firing has been completed.
11. Continue having each team alternate calling the name of an opposing team's player. Continue while successful cadets are firing. If a cadet is successful and no firing point is available, have them wait for one of their teammates to finish before they commence firing.
12. After 30 minutes, stop the activity.
13. Have the RSO close the summer biathlon range.
14. Have the lane scorekeepers total the results.
15. Lead the cadets in a cool-down session.
16. Supervise the cadets as they dismantle the summer biathlon venue.
17. Conduct a debriefing of the activity and announce the results.

LEAP FROG BIATHLON ACTIVITY

OBJECTIVE

This activity gives the cadets 30 minutes to combine summer biathlon with Leap Frog.

SCORING

During each firing opportunity, a cadet can score one point for each diagram hit for a maximum of five points. After 15 minutes the scores of each team's members will be totalled. The team with the highest score is the winner.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatch,
- Clipboards,
- Pens/pencils, and
- Four pylons.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8; and
 - b. mark two lines 50 m apart in an area behind the summer biathlon range.
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:
 - a. the objective,
 - b. scoring,
 - c. activity layout,
 - d. how to participate in the activity, and
 - e. the time allotted.
4. Lead the cadets in a warm-up session.
5. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
6. Appoint several cadets as lane scorekeepers to record the results of the firing bouts.
7. Divide the cadets into four equal teams, lined up single file behind the starting mark.
8. Have the teams kneel down with the exception of the last player.
9. When directed, the last player leap frogs over their teammates toward the front of their team's line. When they arrive at the front of the line, they will kneel down.
10. The last person in the newly formed line repeats the process.

11. When the team has travelled 50 m, the cadet who leap frogs over the mark runs to the summer biathlon range and commences firing a five-round bout. At the summer biathlon range:
 - a. have the lane scorekeeper record the cadets score; and
 - b. have the cadet return to the back of their team's line when firing has been completed.
12. Play continues for the teams after they cross the 50-m line as they turn and leap frog back toward the starting line. As each team travels the 50 m distance, they gain the opportunity to accumulate points.
13. After 15 minutes, stop the activity.
14. Have the RSO close the summer biathlon range.
15. Have the lane scorekeepers total the results.
16. Lead the cadets in a cool-down session.
17. Supervise the cadets as they dismantle the summer biathlon venue.
18. Conduct a debriefing of the activity and announce the results.

SPORTS TABLOID BIATHLON ACTIVITY

OBJECTIVE

This activity gives the cadets 30 minutes to combine summer biathlon with tabloid sports as a team.

SCORING

During each firing opportunity, a cadet can score one point for each diagram hit for a maximum of five points. During each tabloid sports station, cadets will be scored based on the rules of that station. The team with the highest total score is the winner.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatch,
- Clipboards,
- Paper,
- Pens/Pencils,
- Six chairs,
- Signs numbered 1, 2, 3, 4, 5 and 6,
- Tape,
- Baseball bat,
- Hula-hoop,
- Basketball,
- Soccer ball, and
- Six pylons.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8;
 - b. set up the Dizzy Dash station by:
 - (1) identifying the station by taping the Number 1 to the back of a chair;
 - (2) placing two pylons 10 m apart; and
 - (3) placing a baseball bat at one pylon;
 - c. set up the Hula Hoop Pass station by:
 - (1) identifying the station by taping the Number 2 to the back of a chair; and
 - (2) placing a hula hoop on the ground;
 - d. set up the first range station by:
 - (1) identifying the station by taping the Number 3 to the back of a chair; and
 - (2) allocating four lanes for the station;

- e. set up the Over Under Pass station by:
 - (1) identifying the station by taping the Number 4 to the back of a chair; and
 - (2) placing a basketball on the ground;
- f. set up the Soccer Slalom station by:
 - (1) identifying the station by taping the Number 5 to the back of a chair;
 - (2) placing four pylons equally spaced in a line extending from the chair 10 m; and
 - (3) placing a soccer ball at the first pylon; and
- g. set up the second range station by:
 - (1) identifying the station by taping the Number 6 to the back of a chair; and
 - (2) allocating four lanes for the station.
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:
 - a. the objective,
 - b. scoring,
 - c. activity layout,
 - d. how to participate in the activity, and
 - e. the time allotted.
4. Lead the cadets in a warm-up session.
5. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
6. Appoint two cadets to serve as lane scorekeepers to record the results range stations. Appoint four cadets to record the results of the tabloid sports stations.
7. Divide the remaining cadets into equal teams (4–6 cadets per team).
8. Assign each team a station at which to start the activity.
9. Direct the cadets to complete the activity at each station for five minutes, as follows:
 - a. Dizzy Dash station:
 - (1) cadets line up single file;
 - (2) the first cadet picks up the baseball bat, places one end on the ground and the other against their forehead;
 - (3) spin themselves around five times;
 - (4) run 10 m to the second pylon and back;
 - (5) when the first cadet arrives back, the second cadet repeats the process;
 - (6) continue to cycle through cadets until the time expires; and
 - (7) the score will be equal to the number of cadets who complete the activity;
 - b. Hula Hoop Pass station:
 - (1) one cadet places the hula hoop over their shoulder;
 - (2) the cadets form a circle holding hands;
 - (3) cadets attempt to pass the hula hoop around the circle without letting go of each other's hands;

- (4) for each circuit the hula hoop makes, the team scores one point; and
 - (5) continue to pass the hula hoop until the time expires;
 - c. First Range station:
 - (1) cadets adopt the prone position;
 - (2) cadets fire an unlimited number of pellets to activate diagrams on the BART;
 - (3) each diagram hit is scored as one point; and
 - (4) targets must be reset as required by the lane scorekeeper;
 - d. Over Under Pass station:
 - (1) cadets line up single file;
 - (2) the first cadet picks up the basketball;
 - (3) the first cadet passes the basketball over their head to the cadet behind them;
 - (4) the next cadet passes the basketball between their legs to the cadet behind them;
 - (5) continue to pass the basketball until it reaches the last cadet in the line;
 - (6) the last cadet runs to the front and begins the cycle again; and
 - (7) for each cycle the team scores one point;
 - e. Soccer Slalom station:
 - (1) cadets line up single file behind the first pylon;
 - (2) the first cadet dribbles the soccer ball in slalom motion through the pylons;
 - (3) when the cadet reaches the last pylon they turn around and dribble the soccer ball back through the pylons in a slalom motion;
 - (4) when the first cadet reaches the start, the second cadet repeats the process; and
 - (5) the team scores one point for each cadet who completes the course; and
 - f. Second Range station:
 - (1) cadets adopt the prone position;
 - (2) cadets fire an unlimited number of pellets to activate diagrams on the BART;
 - (3) each diagram hit is scored as one point; and
 - (4) targets must be reset as required by the lane scorekeeper.
10. After five minutes, collect the scores from each station.
11. Rotate the teams to the next station and begin.
12. Repeat until all teams have completed all stations.
13. Tabulate the results.
14. Have the RSO close the summer biathlon range.
15. Lead the cadets in a cool-down session.
16. Supervise the cadets as they dismantle the summer biathlon venue.
17. Conduct a debriefing of the activity and announce the results.

SPORTS TABLOID BIATHLON MASTER SCORESHEET

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10
Station 1										
Station 2										
Station 3										
Station 4										
Station 5										
Station 6										
Total										

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Figure 6E-1 Sports Tabloid Biathlon Master Scoresheet

LANE-RUN BIATHLON ACTIVITY

OBJECTIVE

This activity requires the cadets to run from a mark 25 m behind the firing point toward the firing line and hit one diagram, repeated five times.

SCORING

The cadet's run time will be their stop time minus their start time. The cadet with the lowest final time wins.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatch,
- Clipboard,
- Paper,
- Pen/pencil, and
- Two pylons.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8; and
 - b. mark a line 25 m behind the firing line of the summer biathlon range.
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:
 - a. the objective,
 - b. scoring,
 - c. activity layout,
 - d. how to participate in activity, and
 - e. the time allotted.
4. Lead the cadets in a warm-up session.
5. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
6. Divide cadets into groups equal to the number of firing lanes on the summer biathlon range being used.
7. Generate a start list providing every cadet in the first group with a start time.
8. Have cadets cover off behind their firing point and begin the stopwatch.
9. Have the cadets adopt the prone position.
10. Have the cadets fire an unlimited number of pellets to activate one diagram on the BART.

11. Have cadets make safe, stand, run back 25 m, run back to the firing point and attempt to activate one diagram again.
12. Have cadets continue this process for a total of five cycles.
13. When the cadet crosses the 25-m line the final time, record their finish time.
14. When the final cadet of the first group finishes, repeat the activity for the remaining groups.
15. Have the RSO close the summer biathlon range for firing.
16. Lead the cadets in a cool-down session.
17. Supervise the cadets as they dismantle the summer biathlon venue.
18. Calculate the results.
19. Conduct a debriefing of the activity and announce the results.

GROUP BIATHLON ACTIVITY

OBJECTIVE

This activity gives the cadets an opportunity to participate in a group biathlon activity with two teammates.

SCORING

Each bout of firing will consist of two of the three cadets attempting to activate 10 diagrams on two BARTs in adjacent lanes while the third observes. During each of the bouts, cadets will be given 20 pellets. If one cadet activates all five of their diagrams, they may assist their teammate by cross firing onto the adjacent BART, provided the teammate stops firing and makes safe. For every diagram not activated after 20 pellets have been fired, one member of the group must run a penalty loop of 50 m before proceeding to the course. The group must remain together during the running of the course. The next two bouts of firing proceed in the same manner with cadets running a penalty loop for each missed diagram. Each cadet must attempt a firing bout at least once. After the final bout of firing a 40-second time penalty will be added to the group's run time for each diagram not activated as opposed to running a 50-m penalty loop.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatches,
- Clipboard,
- Paper,
- Pen/pencil,
- Trail tape,
- Numbered bibs,
- Calculator,
- Start list,
- Course control sheets,
- Range scoresheets,
- Penalty loop sheets,
- Finish sheets, and
- Results sheets.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8; and
 - b. set up a competition office;
 - c. mark a course of 500 m in length in the area around the summer biathlon range; and
 - d. mark a penalty loop of 50 m in length accessible from the exit of the ramp and providing access back to the course.

2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:
 - a. the objective,
 - b. scoring,
 - c. activity layout,
 - d. how to play the activity, and
 - e. the time allotted.
4. Assign cadets to perform the duties of biathlon officials.
5. Assign cadets to act as group coaches.
6. Divide the remaining cadets into groups of three.
7. Lead the competitors in a warm-up session.
8. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
9. Have groups assemble on the ramp to begin the competition.
10. Start a stopwatch and instruct the groups to commence firing their first bout of firing.
11. Supervise the coaches and officials while the competitors complete the activity.
12. As each group finishes their final bout of firing, have the start/finish official record the finish time and any penalties they have incurred.
13. Have the RSO close the summer biathlon range.
14. Lead the participants in a cool-down session.
15. Supervise the cadets as they dismantle the summer biathlon venue.
16. Calculate the results.
17. Conduct a debriefing of the activity and announce the results.

RELAY BIATHLON ACTIVITY

OBJECTIVE

This activity gives the cadets an opportunity to participate in a relay biathlon activity with three teammates.

SCORING

Each cadet will complete a 500-m loop, a bout of firing in the prone position, a second 500-m loop, a bout of firing in the standing position, a third 500-m loop, and tag a teammate to finish their leg of the race. For each bout of firing the cadet will have eight pellets to activate five diagrams on the BART. For every diagram not activated, the cadet will run one 50-m penalty loop before continuing onto the course. The team with the lowest combined final time is the winner.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatches,
- Clipboard,
- Paper,
- Pen/pencil,
- Trail tape,
- Numbered bibs,
- Calculator,
- Start list,
- Course control sheets,
- Range scoresheets,
- Penalty loop sheets,
- Finish sheets, and
- Results sheets.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8;
 - b. set up a competition office;
 - c. set up a start/finish area;
 - d. mark a course of 500 m in length in the area around the summer biathlon range; and
 - e. mark a penalty loop of 50 m in length accessible from the exit of the ramp and providing access back to the course.
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:

- a. the objective,
 - b. scoring,
 - c. activity layout,
 - d. how to play the activity, and
 - e. the time allotted.
4. Assign cadets to perform the duties of biathlon officials.
5. Assign cadets to act as team coaches.
6. Divide the remaining cadets into groups of four.
7. Lead the competitors in a warm-up session.
8. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
9. Have the first competitor of each team assemble at the start line to begin the competition simultaneously.
10. Start the competition.
11. Supervise the coaches and officials while the competitors complete the activity.
12. Have the RSO close the summer biathlon range when the final competitor has left the range.
13. Lead the participants in a cool-down session.
14. Supervise the cadets as they dismantle the summer biathlon venue.
15. Calculate the results.
16. Conduct a debriefing of the activity and announce the results.

SIMULATED STAGE 2: ZONE CHAMPIONSHIP BIATHLON ACTIVITY

OBJECTIVE

This activity simulates participation in Stage 2: Zone Championship of the Canadian Cadet Movement Biathlon Championship Series.

SCORING

Each cadet will complete three 1-km loops and two bouts of firing in the prone position. An individual start with 30-second intervals will be used. During each bout of firing, the cadets will be given five pellets to activate the five diagrams on the BART. For each missed diagram a 40-second time penalty will be added to the cadet's run time. The cadet with the lowest final time is the winner.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatches,
- Clipboard,
- Paper,
- Pen/pencil,
- Trail tape,
- Numbered bibs,
- Calculator,
- Start list,
- Course control sheets,
- Range scoresheets,
- Penalty loop sheets,
- Finish sheets, and
- Results sheets.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8;
 - b. set up a competition office;
 - c. set up a start/finish area; and
 - d. mark a course of 1 km in length in the area around the summer biathlon range,
2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:
 - a. the objective,
 - b. scoring,

- c. activity layout,
 - d. how to play the activity, and
 - e. the time allotted.
4. Assign cadets to perform the duties of biathlon officials.
5. Assign cadets to act as coaches.
6. Lead the competitors in a warm-up session.
7. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
8. Have the competitors assemble in the warm up area to begin the competition.
9. Start each competitor according to their start times.
10. Supervise the coaches and officials while the competitors complete the activity.
11. Have the RSO close the summer biathlon range when the final competitor has left the range.
12. Lead the participants in a cool-down session.
13. Supervise the cadets as they dismantle the summer biathlon venue.
14. Calculate the results.
15. Conduct a debriefing of the activity and announce the results.

PURSUIT BIATHLON ACTIVITY

OBJECTIVE

This activity gives the cadets an opportunity to participate in a pursuit race. The ability to make up time against an opponent and pass them, thereby moving up the standings is the aspect of the pursuit which stimulates interest in the cadets.

SCORING

Each cadet's start time will be established by the time they finished behind the winner of a previous individual race. Cadets will complete a 750-m loop, a bout of firing in the prone position, a second 750-m loop, a second bout of firing in the prone position, a third 750-m loop, a third bout of firing in the standing position, a fourth 750-m loop, a final bout of firing in the standing position and a final 750-m loop. During each bout of firing cadets must complete one 50-m penalty loop for each diagram not activated on the BART. The cadet who finishes first wins.

EQUIPMENT REQUIRED

- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range equipment,
- Biathlon Air Rifle Target (BART),
- 100-m open reel measuring tape,
- Stopwatches,
- Clipboard,
- Paper,
- Pen/pencil,
- Trail tape,
- Numbered bibs,
- Calculator,
- Start list,
- Course control sheets,
- Range scoresheets,
- Penalty loop sheets,
- Finish sheets, and
- Results sheets.

ACTIVITY INSTRUCTIONS

1. Supervise the cadets as they:
 - a. set up an air rifle range IAW A-CR-CCP-177/PT-001, Part 1, Section 8;
 - b. set up a competition office;
 - c. set up a start/finish area;
 - d. mark a course of 750 m in length in the area around the summer biathlon range; and
 - e. mark a penalty loop of 50 m in length accessible from the exit of the ramp and providing access back to the course.

2. Have the Range Safety Officer (RSO) brief the cadets on safety rules or any other safety guidelines pertaining to the activity.
3. Introduce and explain the activity, to include:
 - a. the objective,
 - b. scoring,
 - c. activity layout,
 - d. how to play the activity, and
 - e. the time allotted.
4. Assign cadets to perform the duties of biathlon officials.
5. Assign cadets to act as coaches.
6. Lead the competitors in a warm-up session.
7. Have the RSO open the summer biathlon range for firing and supervise assigned coaches and participants on the range during the activity.
8. Have the competitor assemble in the warm-up area to begin the competition.
9. Start each competitor according to their start times which is determined by:
 - a. retrieving the results of a previous individual race;
 - b. checking the time behind the winner each competitor placed in the previous race;
 - c. starting the competitor who won the previous race first; and
 - d. starting each successive competitor behind the leader a period of time equal to the time behind the winner they placed in the previous race.
10. Supervise the coaches and officials while the competitors complete the activity.
11. Have the RSO close the summer biathlon range when the final competitor has left the range.
12. Lead the participants in a cool-down session.
13. Supervise the cadets as they dismantle the summer biathlon venue.
14. Calculate the results.
15. Conduct a debriefing of the activity and announce the results.

CHAPTER 7

PO S346 – INSTRUCT A 20-MINUTE AIR RIFLE MARKSMANSHIP LESSON



COMMON TRAINING

AIR RIFLE MARKSMANSHIP INSTRUCTOR

INSTRUCTIONAL GUIDE



SECTION 1

EO S346.01 – PLAN A 20-MINUTE AIR RIFLE MARKSMANSHIP LESSON

Total Time:	80 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy S346 PC Assessment Checklist (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6) for each cadet.

Photocopy the Lesson Specification and Instructional Guide handout located at [Annex A](#) and the Lesson Plan Format located at [Annex B](#) for each cadet.

Photocopy the Enabling Objective, Lesson Specification and Instructional Guide located at [Annexes D to N](#) applicable to the air rifle marksmanship instructional assignment of each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1–3 to orient the cadets to planning for an air rifle marksmanship lesson and to generate interest.

A group discussion was chosen for TP 4 as it allows the cadets to interact with their peers and share their knowledge, opinions and feelings about the lesson plan format.

An in-class activity was chosen for TPs 5 and 6 as it is an interactive way to provoke thought and stimulate interest in assessment of and preparation for an air rifle marksmanship lesson.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to plan a 20-minute air rifle marksmanship lesson.

IMPORTANCE

It is important for the cadets to research lesson content and plan a lesson because these are critical steps for the success of the period of instruction. A well-developed lesson plan provides structure, organization and guides the instructor through each stage of the lesson, ensuring that all essential steps are delivered.

Teaching Point 1

Review the Principles of Instruction

Time: 5 min

Method: Interactive Lecture



This material was previously delivered to all cadets in EO M309.01 (Explain the Principles of Instruction) at the corps/squadron.

THE PRINCIPLES OF INSTRUCTION



Principle. A fundamental truth or law as the basis of reasoning or action.

In order to create an environment that promotes participation and learning, an instructor follows a set of guidelines or principles to plan and instruct a lesson. The following are the fundamental guidelines known as the principles of instruction:

- **Interest.** Cadets are more receptive to learning when they are curious and have an emotional connection to a topic. The instructor must arouse, create and maintain the interest of the cadets. Without interest, the cadets will be less inclined to listen and will not learn.
- **Comprehension.** Comprehension or understanding relates to the cadet's ability to understand the material taught. The cadets' readiness to learn new material is influenced by what has previously been taught; new content should not exceed the knowledge of the cadets. If the cadets do not understand, they are unable to learn.
- **Emphasis.** During a period of instruction, there will be some information that may be of particular importance. The instructor can emphasize this important information through the use of voice control, training aids and in-class activities.
- **Participation.** Cadets are more likely to retain information if they are both mentally and physically involved in learning. The instructor should conduct activities that contain action, activity and excitement. Cadets learn by doing.
- **Accomplishment.** The lesson must impart a sense of accomplishment to each cadet. The cadets should leave the class with the satisfaction that they were able to accomplish something in the lesson.
- **Confirmation.** Confirmation is an essential part of learning and instructing. It gives both the instructor and the cadet the opportunity to see how well the information is understood.



The acronym ICEPAC is useful for remembering the principles of instruction.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. List the principles of instruction?
- Q2. What will not occur if a lesson lacks interest?
- Q3. What is the acronym that can be used to remember the principles of instruction?

ANTICIPATED ANSWERS

- A1. The principles of instruction are:
- interest,
 - comprehension,
 - emphasis,
 - participation,
 - accomplishment, and
 - confirmation.
- A2. Without interest the cadets will be less inclined to listen and will not learn.
- A3. The acronym that can be used to remember the principles of instruction is ICEPAC.

Teaching Point 2

Describe Teachable Moments

Time: 5 min

Method: Interactive Lecture

TEACHABLE MOMENTS



Though the cadets may not be familiar with the term teachable moments, these moments occur frequently in cadet training.

Defining Teachable Moments

Teachable moments are lessons taught spontaneously, stimulated by a specific situation or event. These moments will occur throughout air rifle marksmanship activities and are unpredictable.

Teachable moments will most commonly occur when groups have unknown experiences. During this time, leaders have the opportunity to relay information and reinforce skills related to the situation. These moments will often heighten the interest level of the group. For example, when scoring a competition target the cadet incorrectly assigns a value to a diagram. The instructor/leader should use the opportunity to explain why it is the wrong value and how this mistake could be avoided in the future.

Teachable moments will also occur when previously taught information has not been followed or is not observed. For example, a cadet coach does not follow the correct firing point sequence during a relay. The instructor/leader could take the opportunity to bring the group together after the relay and discuss the consequence of not following instruction, while reinforcing the firing point sequence.

There may also be times when some cadets have acquired the knowledge, but others have not. In these teachable moments, the cadet familiar with the subject could lead the discussion. For example, if a cadet is not adopting the prone position correctly, a cadet familiar with adopting the prone position may make verbal and physical corrections.



Teachable moments do not need to have all group members together to occur.

Connecting Teachable Moments to Air Rifle Marksmanship Activities

Since teachable moments are stimulated by a specific situation or event, they may occur during air rifle marksmanship activities. When learning involves knowledge and skills from direct experiences, teachable moments occur. The knowledge and skills learned throughout cadet training are applied in new situations and experiences.



Air Rifle Marksmanship Instructor course cadets will be expected to use teachable moments while acting as a team leader/range assistant/coach during EO S342.02 (Participate in a Classification Air Rifle Marksmanship Activity, Chapter 3, [Section 2](#)), EO S342.03 (Participate in a Competitive Air Rifle Marksmanship Activity, Chapter 3, [Section 3](#)), EO S342.04 (Participate in a Standing Position Familiarization Air Rifle Marksmanship Activity, Chapter 3, [Section 4](#)), EO S342.05 (Participate in a Fun Air Rifle Marksmanship Activity, Chapter 3, [Section 5](#)), EO S342.06 (Participate in a Timed Air Rifle Marksmanship Activity, Chapter 3, [Section 6](#)), and EO S345.05 (Participate in Summer Biathlon Activities, Chapter 6, [Section 5](#)).

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What are teachable moments?
- Q2. When will teachable moments most commonly occur?
- Q3. How are teachable moments and air rifle marksmanship activities connected?

ANTICIPATED ANSWERS

- A1. Teachable moments are a lesson taught spontaneously, stimulated by a specific situation or event. These moments will occur throughout air rifle marksmanship activities.
- A2. Teachable moments most commonly occur when groups have unknown experiences.
- A3. Since teachable moments are usually stimulated by a specific situation or event, they may occur frequently during air rifle marksmanship activities. When learning involves knowledge and skills from direct experiences, teachable moments occur.

Teaching Point 3**Review How to Research Lesson Content**

Time: 5 min

Method: Interactive Lecture



This material was previously delivered to all cadets in EO M309.06 (Plan a Lesson) at the corps/squadron.



Some common abbreviations and terms used by training officers and instructors:

- **QSP.** Qualification and Standard Plan.
- **EO.** Enabling Objective.
- **TP.** Teaching Point.
- **EC.** Enabling Check.
- **PC.** Performance Check.
- **IG.** Instructional Guide.

RESEARCHING LESSON CONTENT

In order to plan for a lesson the cadets will need to research lesson content, become familiar with the conditions, standard, teaching points, lesson content and the time allocated for the EO/TPs.

The Canadian Forces employs an acronym that is used to provide a framework for the instructor to gather and organize the reference material into an efficient and practical lesson plan. The acronym is known as CCSAM.

- Collect,
- Consider,
- Select,
- Arrange, and
- Master.

Collect. The instructor first researches the material to be covered in the period of instruction using course documents such as the lesson specification, instructional guide and listed references. In situations where no course documents exist, the instructor will research the material to be taught using whatever references exist.

Consider. Next the instructor will sift through all of the material found in the collection phase and will determine what is relevant, current and appropriate to the period of instruction.

Select. The instructor now selects the material that is appropriate to the lesson. It is also during this phase that the instructor selects the method of instruction to be used.

Arrange. Instructor then arranges the material into stages that allow for a logical flow of the information to be presented.

Master. At this step the instructor is ready to write the lesson plan.



Distribute the Lesson Specification and Instructional Guide handout located at [Annex A](#) to each cadet.

ENABLING OBJECTIVE AND LESSON SPECIFICATION



Lesson specifications are found in the Qualification Standard and Plan (QSP), Chapter 4.

Enabling Objective

The two sections of a lesson specification are the enabling objective and the lesson specification. The enabling objective consists of Paragraphs 1. to 3. (as illustrated in [Figure 7-1-1](#)). The information in these paragraphs will answer three questions:

1. What will the cadet be expected to do?
2. What materials, supervision and assistance will be available to the cadet?
3. How well or to what standard will the cadet be expected to perform?

EO M205.01 – PARTICIPATE IN ORGANIZED RECREATIONAL TEAM SPORTS

1. **Performance.** Participate in Organized Recreational Team Sports. ← DO WHAT?
2. **Conditions**

- a. Given:
 - (1) Sports equipment,
 - (2) Safety equipment,
 - (3) Supervision, and
 - (4) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Appropriate sporting venue.

← WITH WHAT?
3. **Standard.** In accordance with specified references, the cadet shall: ← HOW WELL?

- a. follow the rules and regulations of the specific sport;
 - b. participate in a warm-up;
 - c. participate in the given sport; and
 - d. participate in a cool-down.

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Figure 7-1-1 Enabling Objective

Lesson Specification

Paragraphs 4. to 11. are known as the lesson specification. The lesson specification will provide information about the content to be taught, teaching methods, time, references, training aids, learning aids, test details and remarks.

In Paragraph 4., the TPs are described in a table where information is provided on what content will be covered in each TP, the suggested teaching method, the time for each TP and references (as illustrated in [Figure 7-1-2](#)).

4. **Teaching Points**

TP	Description	Method	Time	Ref
TP1	Introduce cadets to a specific sport's rules and regulations, to include: a. an overview of how to play the sport; and b. rules and regulations of the sport.	Interactive Lecture	10 min	C0-001
TP2	Conduct a warm-up session, composed of light cardiovascular exercises, meant to: a. stretch the muscles; b. gradually increase respiratory action and heart rate; c. expand the muscles' capillaries to accommodate the increase in blood circulation; and d. raise muscle temperature to facilitate reactions in muscle tissue.	Practical Activity	10 min	C0-002 (pp. 109 to 113) C0-089
TP3	Supervise the cadets' participation in a given sports activity.	Practical Activity	50 min	

CONTENT TO BE TAUGHT

LENGTH OF TP

REFERENCE NUMBER

SUGGESTED TEACHING METHOD

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Figure 7-1-2 Teaching Points

Paragraph 5. outlines how much time is spent on the introduction/conclusion and the different teaching methods. Paragraph 6. offers substantiation or reasons why certain teaching methods were recommended for each TP. Paragraph 7. provides a list of references used to compile the content in Paragraph 4. and the information contained in the IG (as illustrated in [Figure 7-1-3](#)).

5. Time

a.	Introduction/Conclusion:	10 min
b.	Interactive Lecture:	10 min
c.	Practical Activity:	70 min
d.	Subtotal:	90 min
e.	Total (three sessions):	270 min

6. Substantiation

- a. An interactive lecture was chosen for TP1 to illustrate the application of rules, principles, or concepts of the specific sport to be played.
- b. A practical activity was chosen for TP2–4 as it allows cadets to participate in sports activities in a safe and controlled environment. This activity contributes to the development of sports skills in a fun and challenging setting.

7. References

- a. C0-001 (ISBN 0-88011-807-5) Hanlon, T. (1998). *The Sports Rules Book: Essential Rules for 54 Sports*. USA: Human Kinetics Publishers, Inc.
- b. C0-002 (ISBN 0-88962-630-8) LeBlanc, J., and Dickson, L. (1997). *Straight Talk About Children and Sport: Advice for Parents, Coaches, And teachers*. Oakville, ON and Buffalo, NY: Mosaic Press.

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Figure 7-1-3 Paragraphs 5 to 7

Paragraphs 8. and 9. provide information about what training aids and learning aids will be required for the lesson. Training aids are the materials that will be required by the instructor to instruct the lesson and learning aids are the materials that will be required by the cadet to participate in the lesson (as illustrated in [Figure 7-1-4](#)).

8. Training Aids

- a. Sports/safety equipment appropriate for the activity,
- b. First aid kit,
- c. Whistles, and
- d. Stopwatch.

9. Learning Aids. Sports equipment.

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Figure 7-1-4 Training Aids and Learning Aids

Paragraph 10. provides test details, information about the evaluation to be conducted. Paragraph 11. is remarks, which describe any other information that may be useful to the training officer or instructor (as illustrated in [Figure 7-1-5](#)).

- | |
|--|
| <p>10. Test Details. N/A.</p> <p>11. Remarks</p> <ul style="list-style-type: none"> a. The CCO list of approved sports is located at A-CR-CCP-903/PF-001, Chapter 3, Annex A. b. Recreational sports can be carried out as nine periods during a supported day or over three sessions of three periods each. |
|--|

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Figure 7-1-5 Test Details and Remarks



Test details will be described in one of the following ways:

- **N/A.** No evaluation for this EO.
- **This EO is Assessed IAW Chapter 3, Annex B (M209 EC 01).** An EC is conducted at the end of an EO.
- **This EO is Assessed IAW Chapter 3, Annex B (209 PC).** A PC is conducted as part of the last EO in a PO.

INSTRUCTIONAL GUIDE

IGs are documents that are separate from the QSP. IGs do not replace lesson plans but offer recommendations on how to instruct a lesson. The following are the six sections of an IG:

1. preparation,
2. introduction,
3. body,
4. conclusion,
5. references, and
6. attachments.

Preparation

The preparation section provides information about where to find the lesson specification and any instructions to the instructor such as reviewing lesson content, photocopying handouts, pre-lesson assignments and substantiation or reasons why certain teaching methods were recommended for each TP.

Introduction

The introduction section provides information to the instructor about any review that may be necessary, what the cadet will be expected to do by the end of the lesson and why the knowledge/skills are important.

Body

The body of the IG contains all of the TPs and content as listed in Paragraph 4. of the lesson specification. The body provides suggested teaching methods, note boxes for special instructions or information (as illustrated in [Figure 7-1-6](#)), lesson content, figures, activities and confirmation questions.

Note Boxes:	
	Special note to the instructor.
	Key information to pass along to the candidates.
	Refer to the following CF regulations and policies.
	Points of interest or special instructions the Instructor should pass along to the candidates.

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Figure 7-1-6 Note Boxes

Conclusion

The conclusion section provides information to the instructor, any homework/reading/practice that may be required of the cadet and the method of evaluation as stated in the lesson specification. The conclusion section also provides a closing statement to be spoken aloud to the cadets and any additional instructor notes/remarks for the instructor.

References

The reference section lists the references used to create the lesson specification/instructional guide. While reviewing lesson content, the instructor may have questions with regards to where some of the information in an instructional guide was found. The instructor should use the references given in the lesson specification or instructional guide to answer any questions as they arise.

Annexes

The annex section contains information that may range from pre-made training aids, learning aids such as handouts and additional information for activities.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. Where are lesson specifications found?
- Q2. What information can be found in the preparation section of an instructional guide?
- Q3. What should an instructor do when they have a question about the information in an instructional guide?

ANTICIPATED ANSWERS

- A1. In the Qualification Standard and Plan (QSP), Chapter 4.
- A2. The preparation section provides information about where to find the lesson specification and any instructions to the instructor such as reviewing lesson content, photocopying handouts, pre-lesson assignments and substantiation or reasons why certain teaching methods were recommended for each TP.
- A3. The instructor should use the references given in the lesson specification or instructional guide to answer any questions as they arise.

Teaching Point 4

Conduct a Group Discussion on Lesson Plan Format

Time: 5 min

Method: Group Discussion



This material was previously taught to all cadets in EO M309.06 (Plan a Lesson) at the corps/squadron.



Distribute the Lesson Plan Format handout located at [Annex B](#) to each cadet.

BACKGROUND KNOWLEDGE



The purpose of the group discussion is to draw the following information from the group using the tips for answering/facilitating discussion and the suggested questions provided.

LESSON PLAN FORMAT

The lesson plan is a way for the instructor to organize the lesson and summarize the information included in the lesson specification, the IG and input their personal ideas. Lesson plans provide detailed directions for delivering one or more periods of instruction.

The lesson plan is arranged in this specific order.

Part	Purpose
1. Introduction	Builds the cadets' interest and motivation.
2. Body	Presents and explains each TP.
3. End of Lesson Confirmation	Confirms the cadets' comprehension of the lesson.
4. Conclusion	Summarizes key points and identifies future lessons.

Introduction

The introduction is the instructor's first verbal interaction with the cadets. It should capture the cadets' interest. The following should be included in the introduction of a lesson plan.

- **What.** A description of what the cadets will be expected to accomplish by the end of the lesson.
- **Where.** A description of how and where the lesson fits into the Cadet Program.
- **Why.** A description of why it is important for the cadets to achieve the objectives.

Body

The body of the lesson plan is where the content is presented, explained and supported. The Teaching Points (TPs) direct the instructor and the cadets.

Each TP in the lesson includes:

- **Introduction.** Briefly introduce the content to be taught during the TP.
- **Teaching Method.** Identify which teaching method has been chosen for the TP.
- **Lesson Content.** Present the content of the TP in a clear and logical order, from easy to difficult, known to unknown and simple to complex.
- **Confirmation.** May be oral questions, games, role-play, in-class activities or practical activities. IGs offer suggestions on how to confirm TPs. Instructors may choose to use those confirmation suggestions or develop their own.

End of Lesson Confirmation

The lesson plan outlines how to confirm the learning of the TP. End of lesson confirmations are carried out to ensure that the cadets have understood the whole lesson and that any weaknesses in performance are identified.

Confirmation activities are based on the lesson objectives. The end of lesson confirmation may be oral questions, games, role-play, in-class activities or practical activities. IGs offer suggestions for how to conduct end of lesson confirmations. Instructors may choose to use those confirmation suggestions or develop their own.

Conclusion

The conclusion of a lesson summarizes the key points and links them to the coming lessons and their practical use. The conclusion includes:

- **A Summary of Important Points and Weak Areas.** The summary reviews the main TPs. The depth of the summary will be determined by the lesson objectives and the results of the cadets' end of lesson confirmation. If the cadets achieved the objectives successfully, the summary may be brief. If they

experienced some difficulties, the instructor should identify them here and indicate how the issue will be addressed.

- **Re-Motivation Statement.** The re-motivation statement restates the importance of the lesson (the “why”) and re-motivates the cadets. The instructor should also take this time to address any precautions the cadets should be aware of when applying the knowledge in a practical setting and give an overview of the next lesson.

GROUP DISCUSSION



TIPS FOR ANSWERING/FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer. Cadets must also have the option to pass if they wish.
- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

- Q1. What are the four sections of a lesson plan?
- Q2. What three questions are answered in the introduction?
- Q3. What are the four sections of a teaching point?



Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.



Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 5

Conduct an Activity Where the Cadets Will Become Familiar With S346 PC (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6)

Time: 5 min

Method: In-Class Activity

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets become familiar with S346 PC (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6).

RESOURCES

S346 PC Assessment Checklist (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute S346 PC (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6) to each cadet.
2. Have cadets familiarize themselves with the assesement.
3. Ask cadets if they have any questions about the assessment.
4. Answer questions about the assessment.



It is advisable for cadets to use S346 PC (Instruct a 20-Minute Air Rifle Marksmanship Lesson, A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6) as a self-assessment tool. Self-assessment is an excellent way to improve instructional skills.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 5

The cadets' participation in the activity will serve as the confirmation of this TP.

Teaching Point 6**Have the Cadets Plan an Air Rifle Marksmanship Lesson**

Time: 45 min

Method: In-Class Activity

OBJECTIVE

The objective of this activity is to have the cadets plan an air rifle marksmanship lesson.

RESOURCES

- Lesson Specification and Instructional Guide handout located at [Annex A](#),
- The Lesson Plan Format handout located at located at [Annex B](#), and
- Enabling Objective, Lesson Specification and Instructional Guide located at [Annex D](#) through [Annex N](#).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Provide each cadet with an air rifle marksmanship instructional assignment.
2. Distribute the Enabling Objective, Lesson Specification and Instructional Guide associated with the instructional assignment.
3. Distribute the Lesson Plan Format handout to each cadet.
4. Supervise and provide assistance while cadets plan their skill lesson using the lesson plan format handout.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 6

The cadets' creation of an air rifle marksmanship lesson plan will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in planning an air rifle marksmanship lesson will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

If Air Rifle Marksmanship Instructor course cadets do not complete this activity in the time allotted, they must complete their preparations before EO S346.02 (Instruct a 20-minute Air Rifle Marksmanship Lesson, [Section 2](#)).

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6 (S346 PC).

CLOSING STATEMENT

Before instruction takes place, the Air Rifle Marksmanship Instructor must plan the lesson. Researching lesson content and planning a lesson are critical steps in preparing a period of instruction. A well-developed lesson plan provides structure and organization, guides the instructor through each stage of the lesson and helps ensure that all essential information is delivered.

INSTRUCTOR NOTES/REMARKS

To ensure the cadets are familiar with the content of the EOs and TPs of the air rifle marksmanship instructional assignment it is recommended that EO S346.01 (Plan a 20-Minute Air Rifle Marksmanship Lesson) be scheduled after cadets have participated in the associated lessons from the EOs which form the air rifle marksmanship instructional assignment list.

It is recommended that EO S346.02 (Instruct a 20-Minute Air Rifle Marksmanship Lesson, [Section 2](#)) be scheduled a minimum two days following EO S346.01 (Plan a 20-Minute Air Rifle Marksmanship Lesson).

REFERENCES

- A0-055 A-P9-050-000/PT-006 Canadian Forces Individual Training and Education System. (1997). *Conduct of Instructional Programmes* (Volume 6). Ottawa, ON: Department of National Defence.
- C2-153 (ISBN 0-7360-5731-5) Martin, B., Cashel, C., Wagstaff, M., & Breunig, M. (2006). *Outdoor Leadership: Theory and Practice*. Windsor, ON: Human Kinetics.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 2

EO S346.02 – INSTRUCT A 20-MINUTE AIR RIFLE MARKSMANSHIP LESSON

Total Time:	280 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy S346 PC Assessment Checklist (Instruct a 20-Minute Air Rifle Marksmanship Lesson) located at A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6, for each cadet.

Ensure that all resources requested by the cadets (eg, cadet air rifle, flip chart, targets) are available.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A practical activity was chosen for this lesson as it is an interactive way to allow the cadets to instruct an air rifle marksmanship lesson. This activity contributes to the development of air rifle marksmanship instructional skills and promotes the development of the principles of marksmanship.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have instructed a 20-minute air rifle marksmanship lesson using a lesson plan, an appropriate method of instruction and appropriate instructional aids.

IMPORTANCE

It is important for cadets to instruct a 20-minute air rifle marksmanship lesson as it gives them the opportunity to practice instructional techniques in a peer setting and to receive feedback to further develop their confidence.

Teaching Point 1**Have the Cadets Instruct a 20-Minute Air Rifle Marksmanship Lesson**

Time: 280 min

Method: Practical Activity

ACTIVITY

Time: 20 min

OBJECTIVE

The objective of this activity is to have the cadets instruct a 20-minute air rifle marksmanship lesson in a peer setting using a lesson plan, an appropriate method of instruction and appropriate instructional aids.

RESOURCES

- Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for the classroom/training area, and
- S346 PC Assessment Checklist (A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6).

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have the cadets provide a copy of their lesson plan to the assessor.
2. Determine the order in which cadets will instruct their lessons.
3. Have one cadet prepare the classroom/training area for their lesson.
4. Have one cadet instruct a 20-minute air rifle marksmanship lesson using a written lesson plan, an appropriate method of instruction and appropriate instructional aids (as prepared in EO S346.01 [Plan a 20-Minute Air Rifle Marksmanship Lesson, [Section 1](#)]).
5. Assess the cadet's lesson using S346 PC Assessment Checklist (A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6).
6. Upon completion of the lesson, provide feedback to the cadet on their performance.
7. Repeat Steps 3. to 6. until all cadets have instructed a lesson.
8. Debrief the cadets by providing feedback, focusing on:
 - a. best practices,
 - b. general trends and key areas for improvement, and
 - c. re-motivation, highlighting the effort and accomplishments of the group.



If the group of cadets is large, divide them up into smaller groups and assign other instructors to aid with assessment and feedback.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' instructing a 20-minute air rifle marksmanship lesson will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 6 (S346 PC).

CLOSING STATEMENT

Practicing instructional skills in a peer setting allows for the development of skills necessary to become a competent instructor while further developing confidence and a sense of accomplishment.

INSTRUCTOR NOTES/REMARKS

It is recommended that EO S346.02 (Instruct a 20-Minute Air Rifle Marksmanship Lesson) be scheduled at a minimum 2 days following EO S346.01 (Plan a 20-Minute Air Rifle Marksmanship Lesson, [Section 1](#)).

REFERENCES

- A0-055 A-P9-050-000/PT-006 Canadian Forces Individual Training and Education System. (1997). *Conduct of Instructional Programmes* (Volume 6). Ottawa, ON: Department of National Defence.
- C2-153 ISBN (0-7360-5731-5) Martin, B., Cashel, C., Wagstaff, M., & Breunig, M. (2006). *Outdoor Leadership: Theory and Practice*. Windsor, ON: Human Kinetics.

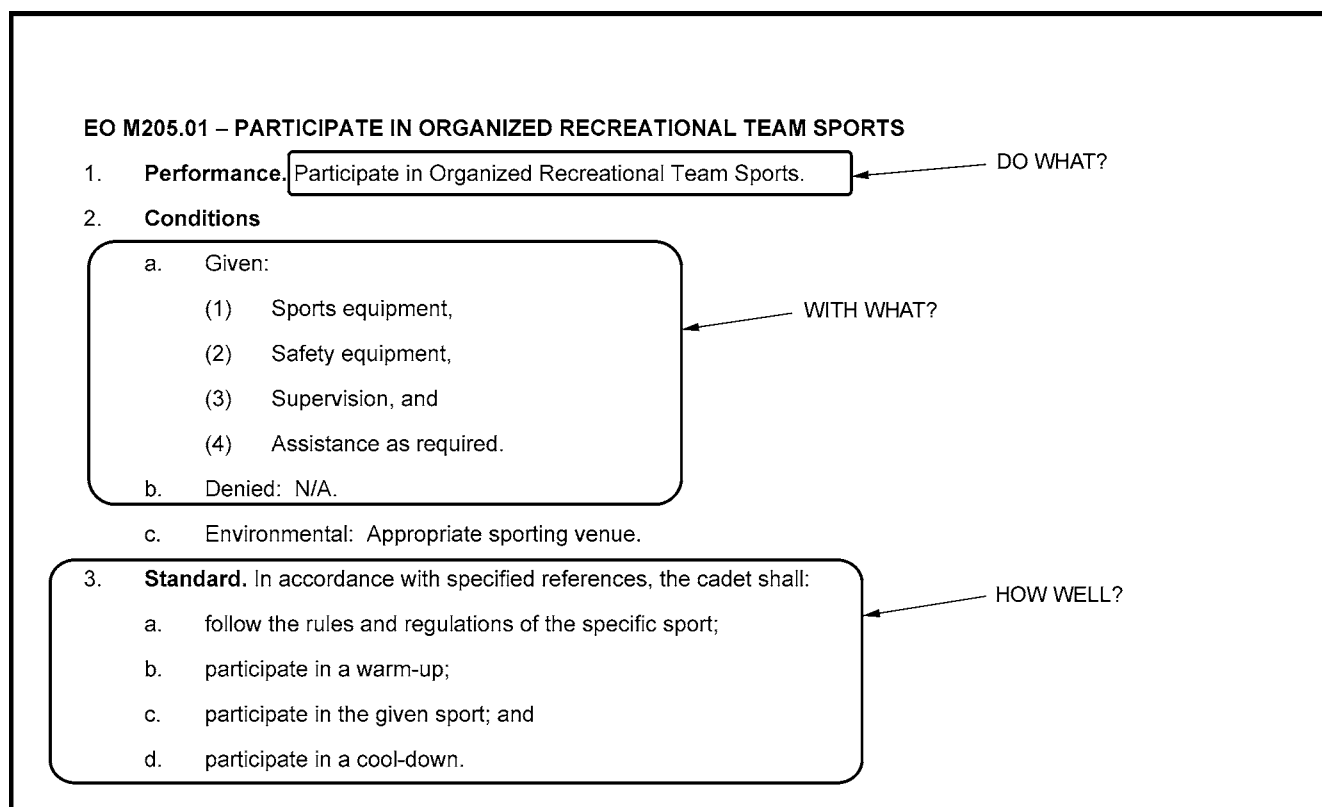
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LESSON SPECIFICATION AND INSTRUCTIONAL GUIDE HANDOUT

Enabling Objective

The two sections of a lesson specification are the enabling objective and the lesson specification. The enabling objective consists of Paragraphs 1. to 3. (as illustrated in [Figure 7A-1](#)). The information in these paragraphs will answer three questions:

1. What will the cadet be expected to do?
2. What materials, supervision and assistance will be available to the cadet?
3. How well or to what standard will the cadet be expected to perform?



Director Cadets 3, 2008, Ottawa, ON: Department of National Defence

Figure 7A-1 Enabling Objective

Lesson Specification

Paragraphs 4. to 11. are known as the lesson specification. The lesson specification will provide information about the content to be taught, teaching methods, time, references, training aids, learning aids, test details and remarks.

In Paragraph 4., the TPs are described in a table where information is provided on what content will be covered in each TP, the suggested teaching method, the time for each TP and references (as illustrated in [Figure 7A-2](#)).

4. **Teaching Points**

TP	Description	Method	Time	Ref
TP1	Introduce cadets to a specific sport's rules and regulations, to include: a. an overview of how to play the sport; and b. rules and regulations of the sport.	Interactive Lecture	10 min	C0-001
TP2	Conduct a warm-up session, composed of light cardiovascular exercises, meant to: a. stretch the muscles; b. gradually increase respiratory action and heart rate; c. expand the muscles' capillaries to accommodate the increase in blood circulation; and d. raise muscle temperature to facilitate reactions in muscle tissue.	Practical Activity	10 min	C0-002 (pp. 109 to 113) C0-089
TP3	Supervise the cadets' participation in a given sports activity.	Practical Activity	50 min	

Director Cadets 3, 2008, Ottawa, ON: Department of National Defence

Figure 7A-2 Teaching Points

Paragraph 5. outlines how much time is spent on the introduction/conclusion and the different teaching methods. Paragraph 6. offers substantiation or reasons why certain teaching methods were recommended for each TP. Paragraph 7. provides a list of references used to compile the content in Paragraph 4. and the information contained in the IG (as illustrated in Figure 7A-3).

5. **Time**
 - a. Introduction/Conclusion: 10 min
 - b. Interactive Lecture: 10 min
 - c. Practical Activity: 70 min
 - d. Subtotal: 90 min
 - e. Total (three sessions): 270 min
6. **Substantiation**
 - a. An interactive lecture was chosen for TP1 to illustrate the application of rules, principles, or concepts of the specific sport to be played.
 - b. A practical activity was chosen for TP2–4 as it allows cadets to participate in sports activities in a safe and controlled environment. This activity contributes to the development of sports skills in a fun and challenging setting.
7. **References**
 - a. C0-001 (ISBN 0-88011-807-5) Hanlon, T. (1998). *The Sports Rules Book: Essential Rules for 54 Sports*. USA: Human Kinetics Publishers, Inc.
 - b. C0-002 (ISBN 0-88962-630-8) LeBlanc, J., and Dickson, L. (1997). *Straight Talk About Children and Sport: Advice for Parents, Coaches, And teachers*. Oakville, ON and Buffalo, NY: Mosaic Press.

Director Cadets 3, 2008, Ottawa, ON: Department of National Defence

Figure 7A-3 Paragraphs 5 to 7

Paragraphs 8. and 9. provide information about what training aids and learning aids will be required for the lesson. Training aids are the materials that will be required by the instructor to instruct the lesson and learning aids are the materials that will be required by the cadet to participate in the lesson (as illustrated in [Figure 7A-4](#)).

8. **Training Aids**
 - a. Sports/safety equipment appropriate for the activity,
 - b. First aid kit,
 - c. Whistles, and
 - d. Stopwatch.
9. **Learning Aids.** Sports equipment.

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Figure 7A-4 Training Aids and Learning Aids

Paragraph 10. provides test details, information about the evaluation to be conducted. Paragraph 11. is remarks, which describe any other information that may be useful to the training officer or instructor (as illustrated in [Figure 7A-5](#)).

- | |
|--|
| <p>10. Test Details. N/A.</p> <p>11. Remarks</p> <ul style="list-style-type: none">a. The CCO list of approved sports is located at A-CR-CCP-902/PF-001, Chapter 3.b. Recreational sports can be carried out as nine periods during a supported day or over three sessions of three periods each. |
|--|

Director Cadets 3, 2008, Ottawa, ON: Department of National Defence

Figure 7A-5 Test Details and Remarks

INSTRUCTIONAL GUIDE

IGs are documents that are separate from the QSP. IGs do not replace lesson plans but offer recommendations on how to instruct a lesson. The following are the six sections of an IG:

1. preparation,
2. introduction,
3. body,
4. conclusion,
5. references, and
6. annexes.

Preparation

The preparation section provides information about where to find the lesson specification and any instructions to the instructor such as reviewing lesson content, photocopying handouts, pre-lesson assignments and substantiation or reasons why certain teaching methods were recommended for each TP.

Introduction

The introduction section provides information to the instructor about any review that may be necessary, what the cadet will be expected to do by the end of the lesson and why the knowledge/skills are important.

Body

The body of the IG contains all of the TPs and content as listed in Paragraph 4. of the lesson specification. The body provides suggested teaching methods, note boxes for special instructions or information (as illustrated in [Figure 7A-6](#)), lesson content, figures, activities and confirmation questions.

Note Boxes:



Special note to the instructor.



Key information to pass along to the candidates.



Refer to the following CF regulations and policies.



Points of interest or special instructions the Instructor should pass along to the candidates.

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Figure 7A-6 Note Boxes

Conclusion

The conclusion section provides information to the instructor, any homework/reading/practice that may be required of the cadet and the method of evaluation as stated in the lesson specification. The conclusion section also provides a closing statement to be spoken aloud to the cadets and any additional instructor notes/remarks for the instructor.

References

The reference section lists the references used to create the lesson specification/instructional guide. While reviewing lesson content, the instructor may have questions with regards to where some of the information in an instructional guide was found. The instructor should use the references given in the lesson specification or instructional guide to answer any questions as they arise.

Annexes

The annex section contains information that may range from pre-made training aids, learning aids such as handouts and additional information for activities.

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LESSON PLAN FORMAT

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	Teaching Method: TP 2: TP 2 Confirmation:	
TIME	END OF LESSON CONFIRMATION	NOTES
TIME	CONCLUSION	NOTES
	Summary: In this lesson you have learned Re-Motivation: Your next lesson will be	

LIST OF AIR RIFLE MARKSMANSHIP 20-MINUTE INSTRUCTIONAL ASSIGNMENTS

TP 2 of S340.02 (Identify Air Rifle Marksmanship Training and Competition Opportunities, A-CR-CCP-903/PG-001, Chapter 4, Section 3 and A-CR-CCP-903/PF-001, Chapter 1, [Section 2](#)), located at [Annex D](#).

TP 3 of S340.03 (Identify Biathlon Training and Competition Opportunities, A-CR-CCP-903/PG-001, Chapter 4, Section 3 and A-CR-CCP-903/PF-001, Chapter 1, [Section 3](#)), located at [Annex E](#).

TP 1 of S341.02 (Wear Air Rifle Marksmanship Equipment, A-CR-CCP-903/PG-001, Chapter 4, Section 4 and A-CR-CCP-903/PF-001, Chapter 2, [Section 2](#)), located at [Annex F](#).

TP 2 of S341.04 (Apply Aiming and Breathing Techniques, A-CR-CCP-903/PG-001, Chapter 4, Section 4 and A-CR-CCP-903/PF-001, Chapter 2, [Section 4](#)), located at [Annex G](#).

TP 1 of S343.01 (Set Up and Dismantle an Air Rifle Range, A-CR-CCP-903/PG-001, Chapter 4, Section 6 and A-CR-CCP-903/PF-001, Chapter 4, [Section 1](#)), located at [Annex H](#).

TP 4 of S343.01 (Set Up and Dismantle an Air Rifle Range, A-CR-CCP-903/PG-001, Chapter 4, Section 6 and A-CR-CCP-903/PF-001, Chapter 4, [Section 1](#)), located at [Annex I](#).

TP 2 of S343.03 (Score Air Rifle Marksmanship Targets, A-CR-CCP-903/PG-001, Chapter 4, Section 6 and A-CR-CCP-903/PF-001, Chapter 4, [Section 3](#)), located at [Annex J](#).

TP 2 of S344.01 (Provide Feedback to Cadets, A-CR-CCP-903/PG-001, Chapter 4, Section 7 and A-CR-CCP-903/PF-001, Chapter 5, [Section 1](#)), located at [Annex K](#).

TP 1 of S345.01 (Prepare for a Summer Biathlon Activity, A-CR-CCP-903/PG-001, Chapter 4, Section 8 and A-CR-CCP-903/PF-001, Chapter 6, [Section 1](#)), located at [Annex L](#).

TP 2 of S345.04 (Perform the Role of a Summer Biathlon Official, A-CR-CCP-903/PG-001, Chapter 4, Section 8 and A-CR-CCP-903/PF-001, Chapter 6, [Section 4](#)), located at [Annex M](#).

TP 3 of S345.04 (Perform the Role of a Summer Biathlon Official, A-CR-CCP-903/PG-001, Chapter 4, Section 8 and A-CR-CCP-903/PF-001, Chapter 6, [Section 4](#)), located at [Annex M](#).

Note: The TPs in this list were selected because they best fit into the 20-minute format. The selected EOs are a variety of knowledge and skill-based lessons. Other lessons may be used provided they fit the 20-minute format.

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MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 2 OF EO S340.02

A-CR-CCP-903/PG-001

EO S340.02 – IDENTIFY AIR RIFLE MARKSMANSHIP TRAINING AND COMPETITION OPPORTUNITIES

1. **Performance.** Identify Air Rifle Marksmanship Training and Competition Opportunities.
2. **Conditions**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard.** The cadet shall identify:
 - a. types of air rifle marksmanship activities, to include:
 - (1) classification,
 - (2) competitive,
 - (3) fun, and
 - (4) timed;
 - b. the Canadian Cadet Movement (CCM) Marksmanship Championship Series, and
 - c. civilian marksmanship organizations, to include:
 - (1) national,
 - (2) provincial, and
 - (3) local.

4. Teaching Points

TP	Description	Method	Time	Ref
TP2	Explain the four stages of the CCM Marksmanship Championship Series, to include: a. Stage 1: Corp/Squadron Championship, b. Stage 2: Zone Championship, c. Stage 3: Provincial/Territorial Championship, and d. Stage 4: National Championship.	Interactive Lecture	15 min	A0-027 (pp. 4-1-1 to 4-2-4)

5. Time

a.	Introduction/Conclusion:	5 min
b.	Interactive Lecture:	15 min
c.	Total:	20 min

6. **Substantiation.** An interactive lecture was chosen for this lesson to introduce the cadets to air rifle marksmanship training and competition opportunities and generate interest.
7. **References**
 - a. A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
 - b. A0-119 Shooting Federation of Canada. (2009). *Provincial Affiliates*. Retrieved March 17, 2009, from <http://www.sfc-ftc.ca/document.cfm?sectionID=39>.
 - c. C2-086 Dominion of Canada Rifle Association. (2007). *Canadian and International Organizations*. Retrieved March 17, 2009, from <http://www.dkra.ca/welcome.htm>.
8. **Training Aids.** Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for the classroom/training area.
9. **Learning Aids.** N/A.
10. **Test Details.** N/A.
11. **Remarks.** N/A.

A-CR-CCP-903/PF-001



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INSTRUCTIONAL GUIDE



SECTION 2

EO S340.02 – IDENTIFY AIR RIFLE MARKSMANSHIP TRAINING AND COMPETITION OPPORTUNITIES

Total Time: 20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to air rifle marksmanship training and competition opportunities and generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have identified air rifle marksmanship training and competition opportunities.

IMPORTANCE

It is important for cadets to discuss opportunities available to them after completing the Air Rifle Marksmanship Instructor course in order to identify how the course material will assist them at the corps/squadron level and to inform them of future training opportunities. Interest will be enhanced with an understanding of how this training can advance their marksmanship skills through practical application.

A-CR-CCP-903/PF-001

Teaching Point 2

**Explain the Four Stages of the CCM Marksmanship
Championship Series**

Time: 15 min

Method: Interactive Lecture

THE AIMS

The CCMMCS is a competition that is open to all three elements of cadets and is designed to ensure all cadet corps/squadrons have the opportunity to participate on an equal level. The CCMMCS has the following aims:

- to enhance the mandatory marksmanship training at the unit;
- to improve the cadet's marksmanship skills;
- to encourage participation in marksmanship; and
- to identify cadets for further marksmanship and coaching training.

THE FOUR STAGES

There are four stages to the CCMMCS.

Stage 1: Corps/Squadron Championship. Designed to conduct a unit level competition to select a team to compete in Stage 2. Any cadet in a unit may compete.



Unit teams must consist of five competitors, at least two of whom must be juniors (a cadet who has not reached their 15th birthday on or before 15 May of the competition year). Cadet corps/squadrons that cannot field a team may enter individual competitors (maximum of three per corps/squadron).

Stage 2: Zone Championship. Designed to conduct a competition for units in the same geographical area (zone). Those corps/squadrons that cannot participate in a Zone Championship (possibly due to their remote location), can conduct a Mail-In Competition. Selection for Stage 3 will be based on the highest scoring unit teams and highest scoring individuals (who will form a composite team).



Mail-In Competition. Targets fired by individual competitors or teams, duly signed and witnessed, that are then mailed to an assigned location where they are scored and the results are published.



Composite Team. A team made up of high scoring individuals from different units who are not on a winning unit team.

Stage 3: Provincial/Territorial Championship. Designed to conduct a competition for the highest scoring units and individuals from each Zone Championship. This competition is used to select the highest scoring unit teams and individuals (who will form a composite team) to advance to Stage 4.

Stage 4: National Championship. Designed to conduct a national competition for the highest scoring unit teams and individuals from each Provincial/Territorial Championship. At the National Championship, composite teams must consist of five competitors, at least two of whom must be juniors.

A-CR-CCP-903/PF-001

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What are the aims of the CCMMCS?
- Q2. What are the four stages of the CCMMCS?
- Q3. What stage levels of competition will be simulated during this course?

ANTICIPATED ANSWERS

- A1. The aims of the CCMMCS are:
- to enhance the mandatory marksmanship training at the unit;
 - to improve the cadet's marksmanship skills;
 - to encourage participation in marksmanship; and
 - to identify cadets for further marksmanship and coaching training.
- A2. The four stages of the CCMMCS are:
1. Stage 1: Corps/Squadron Championship,
 2. Stage 2: Zone Championship,
 3. Stage 3: Provincial/Territorial Championship, and
 4. Stage 4: National Championship.
- A3. Stage 1 and Stage 2 competitions will be simulated during this course.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. At what level of the CCMMCS will local units compete against each other?
- Q2. How many competitors make up a unit team?

ANTICIPATED ANSWERS

- A1. Local units compete against each other during Stage 2: Zone Championship of the CCMMCS.
- A2. Unit teams must consist of five competitors, at least two of whom must be juniors (a cadet who has not reached their 15th birthday on or before 15 May of the competition year).

CONCLUSION

HOMEWORK/READING/PRACTICE

Encourage the cadets to identify the national, provincial and local civilian marksmanship organizations applicable to where they live.

A-CR-CCP-903/PF-001

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

You will gain interest in marksmanship activities when you can see practical applications for the training that you have received. Understanding the application of the training and where it can be used, will enhance other cadets' sense of accomplishment and allow them to choose opportunities which they would like to participate in, in the future.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-119 Shooting Federation of Canada. (2009). *Provincial Affiliates*. Retrieved March 17, 2009, from <http://www.sfc-ftc.ca/document.cfm?sectionID=39>.
- C2-086 Dominion of Canada Rifle Association. (2009). *Canadian and International Organizations*. Retrieved March 17, 2009, from <http://www.dkra.ca/welcome.htm>.

MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 3 OF EO S340.03

A-CR-CCP-903/PG-001

EO S340.03 – IDENTIFY BIATHLON TRAINING AND COMPETITION OPPORTUNITIES

1. **Performance.** Identify Biathlon Training and Competition Opportunities.
2. **Conditions**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard.** The cadet shall identify:
 - a. types of summer biathlon activities,
 - b. the Canadian Cadet Movement (CCM) Biathlon Championship Series, and
 - c. civilian biathlon opportunities, to include:
 - (1) national,
 - (2) provincial, and
 - (3) local.

4. Teaching Points

TP	Description	Method	Time	Ref
TP3	Identify civilian biathlon organizations, to include: a. national, b. provincial, and c. local.	Interactive Lecture	15 min	C0-149

5. Time

- a. Introduction/Conclusion: 5 min
- b. Interactive Lecture: 15 min
- c. Total: 20 min

6. **Substantiation.** An interactive lecture was chosen for this lesson to introduce the cadets to the biathlon training and competition opportunities and generate interest.

7. References

- a. A0-036 A-CR-CCP-178/PT-001 Director Cadets 3. (2009). *Canadian Cadet Movement: Cadet Biathlon Program Reference Manual*. Ottawa, ON: Department of National Defence.

- b. C0-149 Biathlon Canada Coaching Association of Canada. (2007). *Biathlon Bears: Community Coaching* (Version 3.0) [Computer software]. Ottawa, ON: Biathlon Canada.
- c. C0-430 Biathlon Canada. (2009). *Biathlon: Combining Cross Country Skiing and Rifle Marksmanship*. Retrieved March 19, 2009, from <http://www.biathloncanada.ca/main.php>.
- 8. **Training Aids.** Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for the classroom/training area.
- 9. **Learning Aids.** N/A.
- 10. **Test Details.** N/A.
- 11. **Remarks.** N/A.

A-CR-CCP-903/PF-001



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 3

EO S340.03 – IDENTIFY BIATHLON TRAINING AND COMPETITION OPPORTUNITIES

Total Time: 20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to the biathlon training and competition opportunities and generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have identified biathlon training and competition opportunities that are available at the national, provincial and local level.

IMPORTANCE

It is important for cadets to discuss biathlon opportunities available to them after completing the Air Rifle Marksmanship Instructor course to identify how the course material will assist cadets at the corps/squadron and to inform them of future training opportunities. Interest will be enhanced with an understanding of how this training can advance their biathlon skills and when they can apply this material.

A-CR-CCP-903/PF-001

Teaching Point 3

Identify Civilian Biathlon Organizations

Time: 15 min

Method: Interactive Lecture

NATIONAL BIATHLON ORGANIZATIONS

Biathlon Canada, which was incorporated in 1985 and is headquartered in Gloucester, Ont., is the national sport organization and governing body for biathlon in Canada. The association has jurisdiction over the Canadian Championships, Eastern and Western Canadian Championships, and Canada Cups. Each province and territory has a division of Biathlon Canada.

Biathlon Canada organizes many events, competitions and programs, to include:

- coaching development,
- officials development,
- national competition series,
- talent identification camps, and
- summer and air rifle biathlons.

Biathlon Canada works with the CCO by providing coaching and officials training to CIC officers.

Included in Biathlon Canada is the Biathlon Bears Program, which is a community recreational program, offered across Canada. The Biathlon Bears Program is open to novices and the training is tailored to the athlete's skill level. This program offers training to develop both skiing and marksmanship skills. As skills are learned and mastered, the biathlete progresses to the next Biathlon Bear level.

PROVINCIAL/TERRITORIAL BIATHLON ORGANIZATIONS

Divisions of Biathlon Canada are located within most of the Canadian provinces/territories. These division offices run training and offer support to the local resorts/clubs. These divisions include:

- Biathlon British Columbia,
- Biathlon Alberta,
- Biathlon Saskatchewan,
- Biathlon Manitoba,
- Biathlon Ontario,
- Biathlon Quebec,
- Biathlon New Brunswick,
- Biathlon Nova Scotia,
- Biathlon Prince Edward Island (PEI),
- Biathlon Newfoundland and Labrador,
- Biathlon Yukon, and
- Northwest Territories Biathlon (including Nunavut).

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Contact Biathlon Canada for information on the individual provincial division that applies to the cadets' home province/territory.

LOCAL BIATHLON ORGANIZATIONS

Local recreational biathlon organizations exist in many areas across Canada. These organizations can include the municipal or regional biathlon associations or cross-country ski clubs. These organizations usually have a small calibre rifle range available for their members' use. To find local recreational biathlon organizations in a particular city, check the local listings or contact the provincial division of Biathlon Canada for information on the local organization(s).

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What is the governing body for biathlon in Canada?
- Q2. How does Biathlon Canada work with the CCO?
- Q3. What is role of the provincial divisions?

ANTICIPATED ANSWERS

- A1. The governing body for biathlon in Canada is Biathlon Canada.
- A2. Biathlon Canada works with the CCO by providing coaching and officials training to CIC officers.
- A3. To run training and offer support to the local resorts/clubs.

END OF LESSON CONFIRMATION

The cadets' participation in TP 2 will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

Encourage the cadets to identify the provincial and local civilian biathlon organizations applicable to where they live.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Understanding the application of biathlon training and where it can be used will allow you to choose biathlon opportunities to participate in, in the future.

INSTRUCTOR NOTES/REMARKS

N/A.

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REFERENCES

- A0-036 A-CR-CCP-178/PT-001 Director Cadets 3. (2009). *Canadian Cadet Movement: Cadet Biathlon Program Reference Manual*. Ottawa, ON: Department of National Defence.
- C0-149 Biathlon Canada, Coaching Association of Canada. (2007). *Biathlon Bears: Community Coaching* (Version 3.0) [Computer software]. Ottawa, ON: Biathlon Canada.
- C0-430 Biathlon Canada. (2009). *Biathlon: Combining Cross Country Skiing and Rifle Marksmanship*. Retrieved March 19, 2009, from <http://www.biathloncanada.ca/main.php>.

MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 1 OF EO S341.02

A-CR-CCP-903/PG-001

EO S341.02 – WEAR AIR RIFLE MARKSMANSHIP EQUIPMENT

1. **Performance.** Wear Air Rifle Marksmanship Equipment.
2. **Conditions**
 - a. Given:
 - (1) Air rifle marksmanship equipment, to include:
 - (a) marksmanship jacket,
 - (b) marksmanship hat,
 - (c) cadet air rifle sling, and
 - (d) marksmanship glove,
 - (2) Supervision, and
 - (3) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Classroom or an air rifle range constructed IAW A-CR-CCP-177/PT-001, Chapter 1, Section 8.
3. **Standard.** The cadet shall wear air rifle marksmanship equipment, to include:
 - a. a marksmanship jacket,
 - b. a marksmanship hat,
 - c. cadet air rifle sling, and
 - d. a marksmanship glove.

4. Teaching Points

TP	Description	Method	Time	Ref
TP1	Describe air rifle marksmanship equipment and purpose, to include: a. a marksmanship jacket, b. a marksmanship hat, c. cadet air rifle sling, and d. a marksmanship glove.	Interactive Lecture	15 min	A0-027 (pp. 2–15) C0-085 (p. 7, p. 8) C0-099 (pp. 63–71)

5. **Time**
 - a. Introduction/Conclusion: 5 min
 - b. Interactive Lecture: 15 min
 - c. Total: 20 min
6. **Substantiation.** An interactive lecture was chosen for this lesson to introduce marksmanship equipment to the cadet.

7. **References**

- a. A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- b. C0-085 Daisy Outdoor Products. (2006). *AVANTI Competition Pellet Rifle: Operation Manual: AVANTI Legend Model 853*. Rogers, AR: Daisy Outdoor Products.
- c. C2-099 (ISBN 0-9539091-0-7) Fordham, C. (2000). *Prone to Win the Art of Smallbore Target Shooting*. Pentworth, West Sussex: Brookwood Publishing Ltd.

8. **Training Aids**

- a. Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for classroom/training area, and
- b. Air rifle marksmanship equipment.

9. **Learning Aids.** Air rifle marksmanship equipment.

10. **Test Details.** This EO is assessed IAW Chapter 3, [Annex B](#), [Appendix 1](#) (S341 PC).

11. **Remarks.** N/A.

A-CR-CCP-903/PF-001



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 2

EO S341.02 – WEAR AIR RIFLE MARKSMANSHIP EQUIPMENT

Total Time: 20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Instructors shall prepare the marksmanship equipment prior to this lesson. The equipment is to be laid out in order of the TPs to simplify the issue of the equipment following the demonstration by the instructor.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce marksmanship equipment to the cadet.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to properly wear air rifle marksmanship equipment.

IMPORTANCE

It is important for the cadets to know how to correctly wear the various items of marksmanship equipment as it will enhance the cadet's marksmanship skills through added stability while in the firing position.

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Teaching Point 1

Describe Air Rifle Marksmanship Equipment and Purpose

Time: 15 min

Method: Interactive Lecture



Due to the many different makes, models and manufacturers of marksmanship equipment in use by the CCO, the following information is presented to provide general guidance and may have to be adapted based on the specific equipment used.



Arrange the cadets so they can see the items of marksmanship equipment as they are discussed.

An assistant instructor may be employed to hold up the items of marksmanship equipment to ensure all the cadets see the various features as discussed.

Note: The order information is presented and follows the typical order in which a marksman will put on their marksmanship equipment:

1. marksmanship jacket,
2. marksmanship hat,
3. marksmanship sling, and
4. marksmanship glove.

MARKSMANSHIP EQUIPMENT

Marksmanship performance can be improved with the use of specially designed clothing and equipment. It is possible to participate in air rifle marksmanship activities without the use of this equipment. However, the added stability and comfort marksmanship equipment provides will drastically increase marksmanship skills.

MARKSMANSHIP JACKET

Purpose of a Marksmanship Jacket

The purpose of a marksmanship jacket is to help stabilize the body and add support/comfort to the firing position. This is achieved by restricting body movement and padding points of contact with the ground/other equipment. This adds cushioning to increase comfort and prevent slipping.



For the CCM Marksmanship Championship Series, the jacket must be made of single ply cotton twill and must remain flexible under normal conditions.

Parts of a Marksmanship Jacket

As illustrated in [Figure 2-2-1](#), a marksmanship jacket is made up of the following parts:

Shoulder Pad. Sewn to the jacket on either the right or left shoulder (depending on the dominant hand); the shoulder pad is designed to reduce the effects of recoil and to help prevent the butt from slipping from the shoulder while firing. Shoulder pads (like all pads on the jacket) are usually made out of a slip resistant

A-CR-CCP-903/PF-001

material such as rubber or leather (suede) and are often textured for additional friction. Older or less expensive marksmanship jackets may only have multiple layers of material to form the shoulder pad.

Sling Pad or Hook. Most modern marksmanship jackets have either a sling pad (also know as a pulse pad) or a sling hook. A sling pad is a slip resistant pad sewn to the jacket on the upper arm above the bicep. The sling pad is designed to prevent the sling from slipping and to cushion the sling from biting into the arm and helps to eliminate pulse transfer. A sling hook is either a solid hook or strap that is sewn or attached to the upper part of the jacket arm in which the sling is run through. This helps to hold the sling in place on the arm.

Body Pad. Sewn on to the jacket around the chest or belly; the body pad is made out of slip resistant material and designed to help prevent the marksman from sliding on the shooting mat or firing point. For the cadet firing in a standing position, this body pad may be used to stabilize the supporting arm holding the rifle.

Elbow Pads. Sewn on to the elbows of the jacket; the elbow pads are made out of slip resistant material to cushion the marksman's elbows and help prevent the elbows from sliding while firing.

Front Closures. Depending on make, model and manufacturer; the main types of front closures used include: nylon or metal buckles (either snap or threaded type), buttons, or zippers. For use in the CCM Marksmanship Championship Series, closures on the marksmanship jacket must be non-adjustable. If the front closures are equipped with straps or other adjustment methods, they must be taped in place after initial fitting.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-2-1 Marksmanship Jacket

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MARKSMANSHIP HAT

Purpose of a Marksmanship Hat

The purpose of a marksmanship hat is to block out unwanted light and distractions allowing the marksman to concentrate on firing.

Parts of a Marksmanship Hat

As illustrated in [Figure 2-2-2](#), the marksmanship hat is made up of three main parts:

Cap. Comprising the main body of the marksmanship hat; the cap is either fitted or is adjustable like a baseball cap. Some caps have a mesh back or ventilation holes to allow for air flow.

Peak. Similar to a baseball cap but much longer; the peak blocks out unwanted light from above the marksman.

Side Flaps. Hanging from the peak; the side flaps are used to block out light and movement from the sides of the marksman decreasing distractions. The side flaps can be held out of the way by Velcro, magnets or snaps if not required by the marksman.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-2-2 Marksmanship Hat

CADET AIR RIFLE SLING

Purpose of the Cadet Air Rifle Sling

The purpose of the cadet air rifle sling is to provide maximum support for the cadet air rifle while minimizing the amount of physical effort from the marksman.

Parts of the Cadet Air Rifle Sling

As illustrated in [Figure 2-2-3](#), the cadet air rifle sling is made up of the following parts:

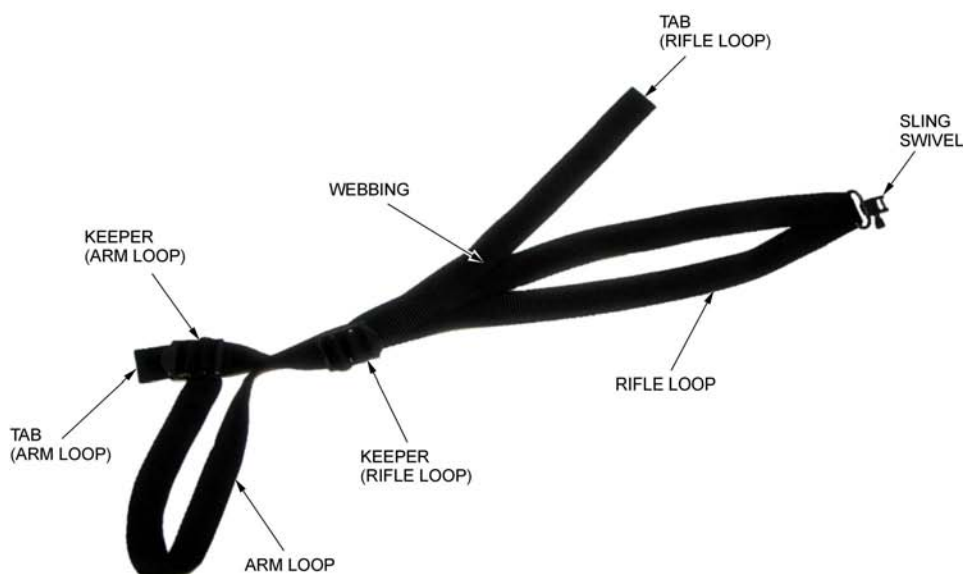
A-CR-CCP-903/PF-001

Webbing. Constructed from nylon; the nylon webbing of the cadet air rifle sling is a strong, lightweight, synthetic material.

Arm Loop. The smaller of the two loops in the sling (opposite the rifle loop); the arm loop is worn around the marksman's upper arm above the bicep. The arm loop is formed by threading the tab through the keeper.

Rifle Loop. The larger of the two loops in the sling (opposite the arm loop); the rifle loop is used to connect the sling to the sling swivel and creates the tension the sling exerts on the rifle. The rifle loop is formed by threading the tab through the keeper.

Sling Swivel. Used to attach the sling to the cadet air rifle; the sling swivel rides on the rifle loop and clips onto the hand-stop of the cadet air rifle.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-2-3 Cadet Air Rifle Sling

MARKSMANSHIP GLOVE

Purpose of a Marksmanship Glove

The purpose of a marksmanship glove is to protect the marksman's hand from the pressure created by the sling, sling swivel and the hand-stop. The marksmanship glove also reduces the effects of pulse by cushioning the hand from the rifle. A marksmanship glove is worn on the hand of the support arm in the same manner as a normal glove. Large bracelet jewellery and wrist watches should be removed to allow the glove to fit properly and to avoid unnecessary pressure to the wrist. The cadet in [Figure 2-2-8](#) is shown with a properly fitted marksmanship glove.

Parts of a Marksmanship Glove

As illustrated in [Figure 2-2-4](#), a marksmanship glove is made up of the following parts:

Glove. Either full-fingered, half-fingered, a mitt or a combination; the glove can be made from leather, canvas or heavily padded wool, nylon or cotton.

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Finger Pads, Palm Pad and Rear Pad. Made out of slip resistant materials and textured for added friction; the pads help cushion the hand against the pressure created by the rifle, sling, sling swivel and hand-stop. The pads also help prevent the hand from sliding out of place on the fore end of the cadet air rifle.

Ventilation Holes. Allow air to circulate within the glove to increase comfort.



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Figure 2-2-4 Marksmanship Glove

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What is the purpose of wearing a marksmanship jacket?
- Q2. Name three things that the sling pads help prevent when attached to a marksmanship jacket?
- Q3. Name the main types of front closures used on marksmanship jackets?

ANTICIPATED ANSWERS

- A1. The purpose of a marksmanship jacket is to help stabilize the body and add support/comfort to the firing position.
- A2. Three things that the sling pads prevent when attached to a marksmanship jacket, include:
- To prevent the sling from slipping on the sling pad.
 - To cushion the sling from biting into the arm muscle.
 - To eliminate pulse transfer through the sling to the rifle.

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A3. The types of front closures used on marksmanship jackets include:

- nylon or metal buckles (either snap or threaded type),
- buttons, or
- zippers.

END OF LESSON CONFIRMATION

The cadets' sizing, wearing and adjusting of marksmanship equipment will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Marksmanship equipment is designed to assist the marksman in maintaining a steady firing position. When properly sized and worn this equipment will help to ensure an improved shot and a higher score.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- C0-085 Daisy Outdoor Products. (2006). *AVANTI Competition Pellet Rifle: Operation Manual: AVANTI Legend Model 853*. Rogers, AR: Daisy Outdoor Products.
- C2-099 (ISBN 0-9539091-0-7) Fordham, C. (2000). *Prone to Win the Art of Smallbore Target Shooting*. Pentworth, West Sussex: Brookwood Publishing Ltd.

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MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 2 OF EO S341.04

A-CR-CCP-903/PG-001

EO S341.04 – APPLY AIMING AND BREATHING TECHNIQUES

1. **Performance.** Apply Aiming and Breathing Techniques.
2. **Conditions**
 - a. Given:
 - (1) Air rifle marksmanship equipment,
 - (2) Cadet air rifle,
 - (3) Cadet air rifle safety rod,
 - (4) Blinder,
 - (5) Rifle rest,
 - (6) Target,
 - (7) Supervision, and
 - (8) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Air rifle range constructed IAW A-CR-CCP-177/PT-001, Chapter 1, Section 8.
3. **Standard.** The cadet shall apply aiming and breathing techniques by:
 - a. using a blinder;
 - b. avoiding fixed vision;
 - c. aligning the front and rear sight;
 - d. acquiring a sight picture;
 - e. starting the marksmanship breathing cycle by:
 - (1) normal breathing;
 - (2) taking a deep breath;
 - (3) exhaling deeply;
 - (4) taking another deep breath;
 - (5) exhaling deeply;
 - (6) taking in a shallow breath; and
 - (7) holding the breath no longer than seven seconds while:
 - (a) steadying the sight picture;
 - (b) simulating firing the shot;
 - (c) simulating applying follow-through;

- f. exhaling remaining air; and
- g. continuing to breathe normally.

4. **Teaching Points**

TP	Description	Method	Time	Ref
TP2	Describe sight alignment, to include: a. front sight of the cadet air rifle; b. rear aperture sight of the cadet air rifle, to include: (1) peep sight, (2) micrometre elevation knob, and (3) micrometre windage knob; c. natural head position; d. eye relief; e. effects of sight misalignment; and f. adjusting the position to achieve sight alignment.	Interactive Lecture	15 min	A0-027 (pp. 1-5-5 to 1-5-7)

5. **Time**

- a. Introduction/Conclusion: 5 min
- b. Interactive Lecture: 15 min
- c. Total: 20 min

6. **Substantiation.** An interactive lecture was chosen for this lesson to present basic knowledge on air rifle marksmanship aiming.

7. **References**

- a. A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- b. C2-098 Constantine, R. (1998). *Modern Highpower Competition: From Beginner to Master*. Manchester, CT: Precision Shooting Inc.
- c. C2-107 (ISBN 0-9691359-5-5) Koterlitzov, N., & Ball, A. (2000). *The Shooting Cookbook: Shooting Drills for Precision Shooting, Sequence Shooting, Biathlon and Summer Biathlon*. Vancouver, BC: Able Software Inc.
- d. C2-116 Encyclopaedia Britannica (n.d.) Online. *Human Respiration (Physiology)*. Retrieved April 21, 2009, from <http://www.britannica.com/EBchecked/topic/499530/human-respiration>.
- e. C2-117 (ISBN 0-7710-8250-9) Merry, W. (1997). *The Official Wilderness First Aid Guide*. Toronto, ON: McClelland & Stewart Inc.
- f. C2-206 (ISBN 3-98-097461-8) Bühlmann, G., Reinkemeir, H., & Eckhart, M. (2005). *Ways of the Rifle*. (B. Murray, Trans.). Dortmund, Germany: MEC (original work published 2002).

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8. Training Aids

- a. Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for classroom/training area,
- b. Cadet air rifle,
- c. Cadet air rifle safety rod,
- d. Blinder,
- e. Target, and
- f. Rifle rest.

9. Learning Aids

- a. Cadet air rifle,
- b. Cadet air rifle safety rod,
- c. Blinder,
- d. Target, and
- e. Rifle rest.

10. **Test Details.** This EO is assessed IAW Chapter 3, [Annex B, Appendix 1](#) (S341 PC).

11. **Remarks.** N/A.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 4

EO S341.04 – APPLY AIMING AND BREATHING TECHNIQUES

Total Time:	20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to present basic knowledge on air rifle marksmanship aiming and breathing techniques.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to apply aiming and breathing techniques.

IMPORTANCE

It is important for cadets to learn how to aim the cadet air rifle by applying aiming and breathing techniques as it is a fundamental principle of air rifle marksmanship. Individual marksmanship proficiency should improve by applying aiming and breathing techniques.

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Teaching Point 2

Time: 15 min

Describe Sight Alignment

Method: Interactive Lecture

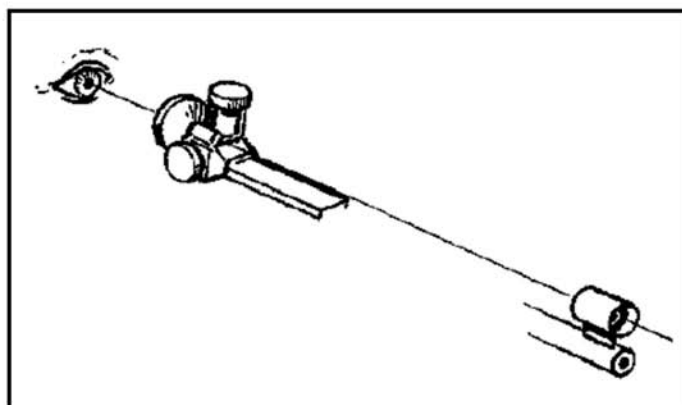
SIGHT ALIGNMENT

Sight alignment is the alignment of the eye, the rear aperture sight, and the front sight. When the eye is 5–15 cm from the peep sight, the aperture in the peep sight is large enough to look through and see all of the front sight. Correct sight alignment consists of centring the front sight hood in the rear aperture (as illustrated in [Figure 2-4-2](#)).

Before the cadet air rifle can be aimed with accuracy, aspects of aiming must first be identified. To do this, the cadets must understand that the sight system of the cadet air rifle, natural head position, and eye relief all work together.



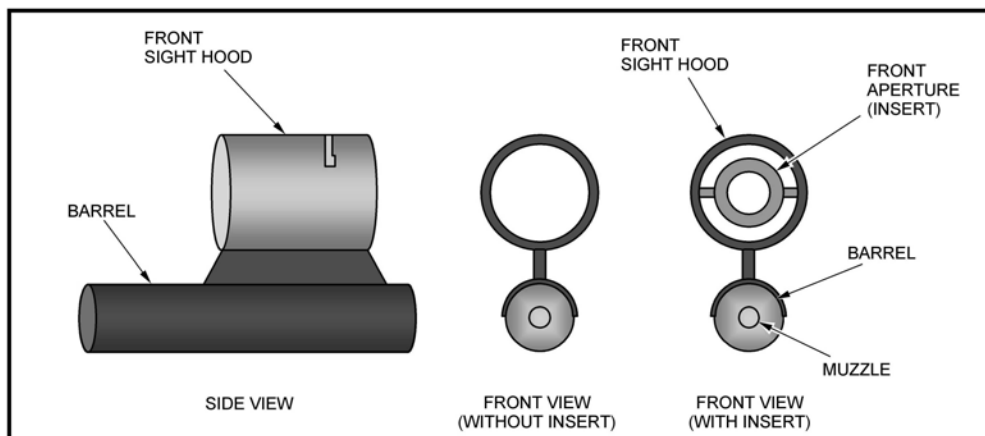
The front sight and rear aperture sight of the cadet air rifle must be used together for correct sight alignment.



A-CR-CCP-177/PT-001 (p. 1-5-6)

Figure 2-4-2 Sight Alignment

Front Sight of the Cadet Air Rifle. The global front sight of the cadet air rifle is made of a short tube, which is called the hood. The hood houses the front aperture (insert) and also shields the aperture from overhead and side light. The aperture is inserted through a slit on the top of the hood.

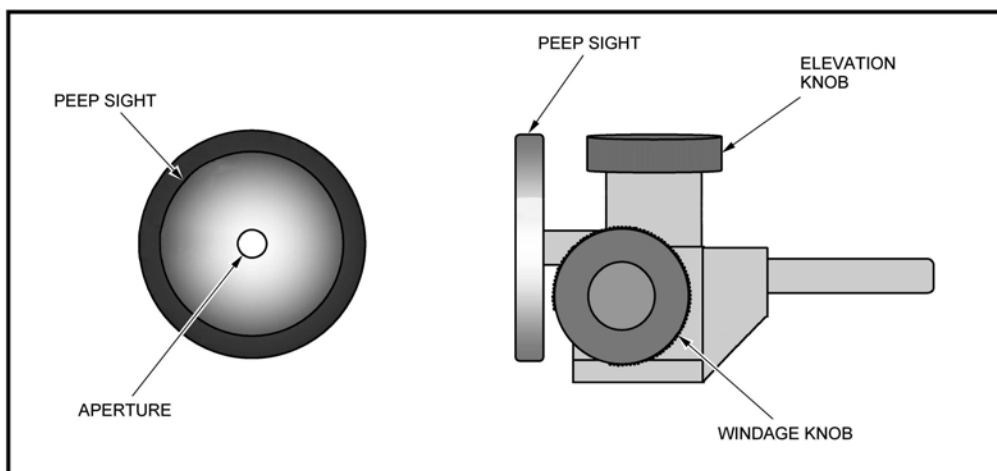


Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-3 Front Sight

Rear Aperture Sight of the Cadet Air Rifle. The rear aperture sight of the cadet air rifle is adjustable and has three main parts: peep sight, elevation knob, and windage knob.

- **Peep Sight.** The peep sight is the penny-sized, dish-shaped part at the rear of the sight. It has a small hole in the centre (the aperture) to look through.
- **Micrometre Elevation Knob.** The elevation knob is on the top of the sight and moves the point of impact on the target up or down.
- **Micrometre Windage Knob.** The windage knob is on the side of the sight and moves the point of impact on the target left or right.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-4 Rear Aperture Sight

A-CR-CCP-903/PF-001

Natural Head Position. The head should be kept as close as possible to a natural position, allowing the eyes to look straight ahead. It is normal to tilt the head forward slightly, but the cadets must resist allowing it to tilt to the left or right as this may affect their sense of balance. [Figure 2-4-5](#) illustrates the position of the head on the butt stock.



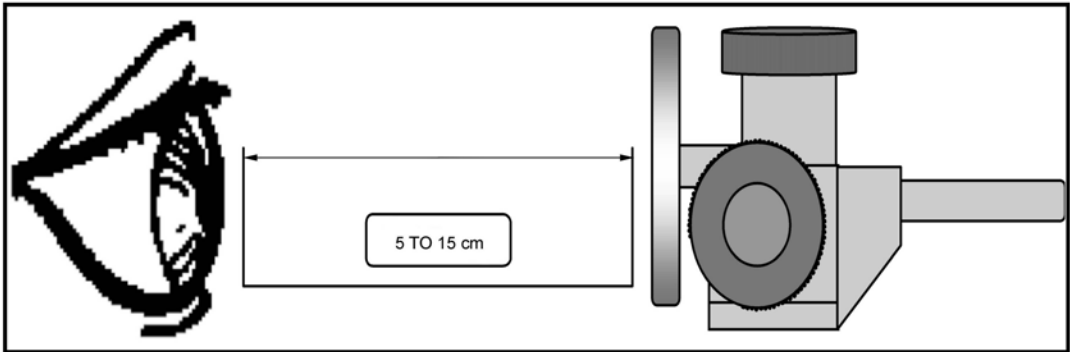
Director Cadets 3, 2005, Ottawa, ON: Department of National Defence

Figure 2-4-5 Head Position on the Butt Stock

Eye Relief. Eye relief is the distance between the eye and the peep sight on the rear aperture sight (as illustrated in [Figure 2-4-6](#)). Depending on an individual's build and position, the distance is usually 5–15 cm. Eye relief should be comfortable, natural and allow the head to be as erect as possible during the firing process. It is important to maintain the same eye relief from shot to shot and to find an eye relief that allows a circle of light (line-of-white) between the rear aperture and the front sight (as illustrated in [Figure 2-4-7](#)). If the eye relief is less than 5 cm, the line-of-white around the front sight becomes larger, making the sight picture more difficult to keep aligned (as illustrated in [Figure 2-4-8](#)); if the eye relief starts to become greater than 15 cm the line-of-white will disappear (as illustrated in [Figure 2-4-9](#)), making accurate centring more difficult. The ideal line of white is illustrated in [Figure 2-4-10](#).

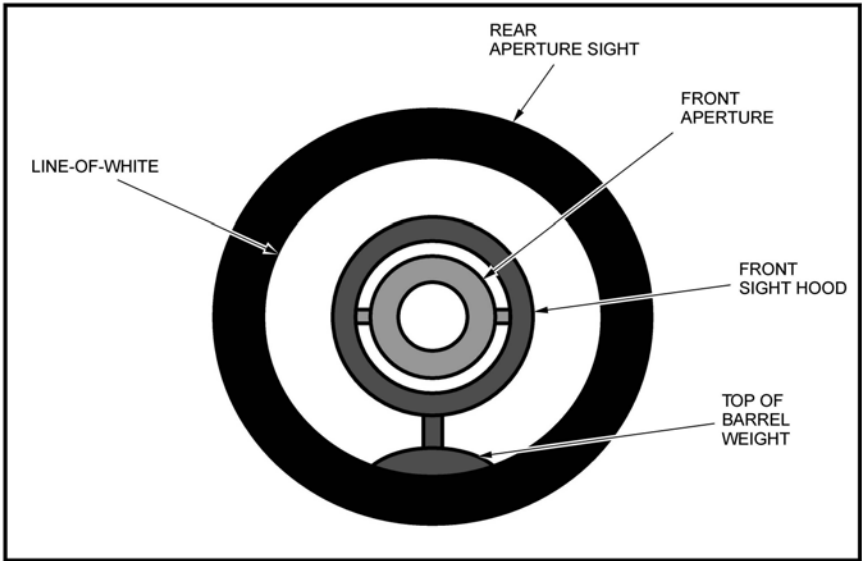


Eye relief is hard to adjust on some rifles due to the limited range of movement of the rear sight along the rail. Therefore, head position may have to be adjusted or butt spacers added or removed for a large adjustment of eye relief.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

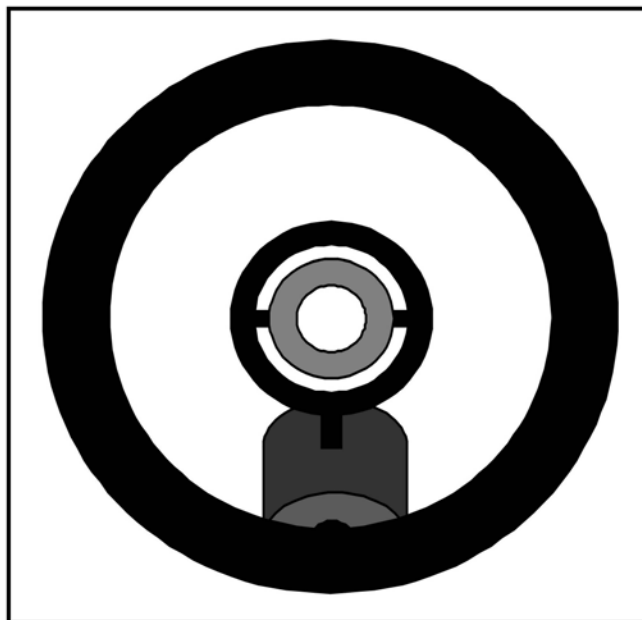
Figure 2-4-6 Eye Relief



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

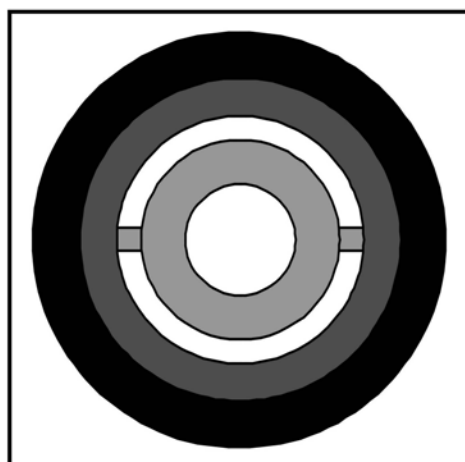
Figure 2-4-7 Line-of-White

A-CR-CCP-903/PF-001



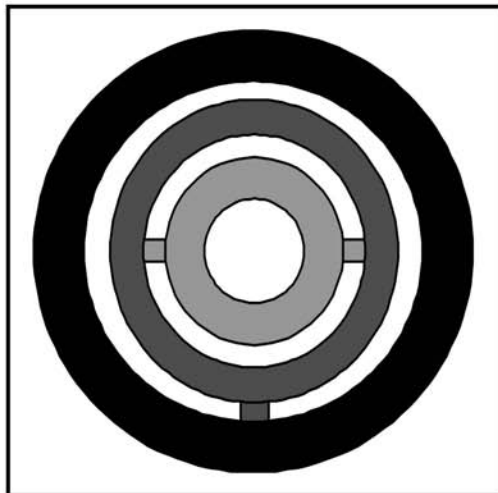
Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-8 Eye Relief Is Too Close



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-9 Eye Relief Is Too Far



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

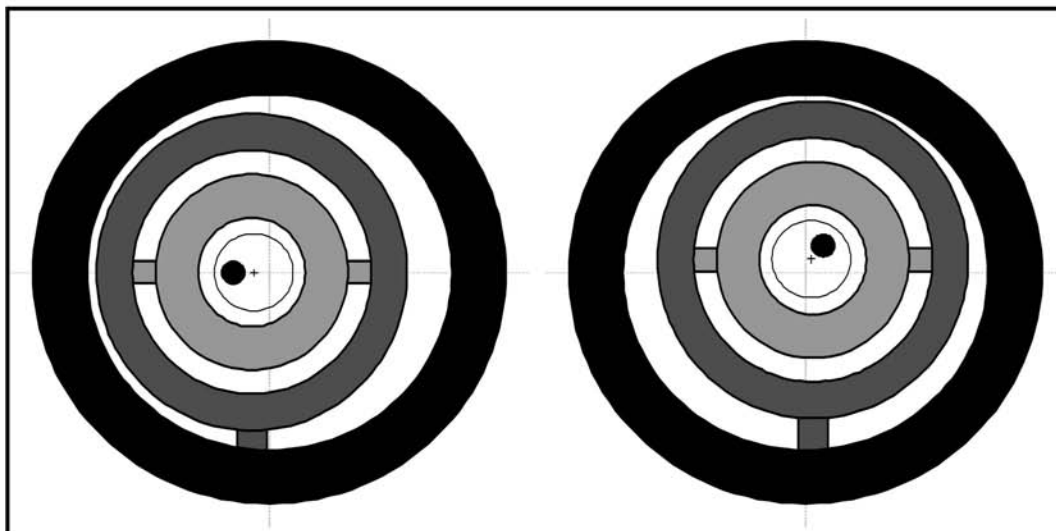
Figure 2-4-10 Eye Relief Is Good

Effects of Sight Misalignment. The front and rear sight of the cadet air rifle must be aligned with the aiming mark in order for the Mean Point of Impact (MPI) to be centred on the aiming mark. When the MPI is not centred on the aiming mark, adjustments to the rear sight have to be made to move the MPI in the desired direction. Misalignment will not be evident until firing has started and pellets start to form a group or pattern on the target. As illustrated in [Figure 2-4-11](#), the front sight is misaligned and the MPI is not centred on the aiming mark.



Centring the MPI is very important when firing at a competition target. Firing at the sighting diagrams on a competition target to check the MPI is advisable.

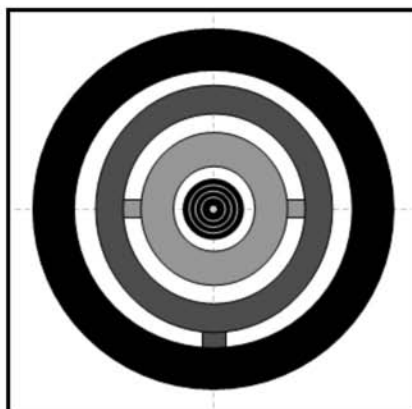
A-CR-CCP-903/PF-001



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-11 Effects of Sight Misalignment

The development of a sight picture begins once correct sight alignment has been achieved. Sight picture can be simply explained as sight alignment with the addition of the aiming mark. The correct sight picture to achieve is to centre the aiming mark within the aperture sight (as illustrated in [Figure 2-4-12](#)). Maintaining this correct sight picture while aiming and firing is a skill that must be mastered.



Director Cadets 3, 2007, Ottawa, ON: Department of National Defence

Figure 2-4-12 Correct Sight Picture

Adjusting the Position to Achieve Sight Alignment. When aiming at the target in the prone position, achieve correct sight alignment by:

1. moving the body by pivoting around the elbows of the arms; this will change the point of aim; and
2. starting the breathing cycle and aiming process.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What is sight picture?
- Q2. What is the correct sight picture when using aperture sights?
- Q3. If the shots are not hitting the centre of the aiming mark, what can be done to move the shots to the centre of the aiming mark?

ANTICIPATED ANSWERS

- A1. Aligning the aiming mark within the front aperture and rear aperture sights.
- A2. The aiming black mark must be centred within the front aperture.
- A3. Adjust the rear sight by moving the elevation knob or the windage knob or both.

END OF LESSON CONFIRMATION

The cadets' participation in the aiming and breathing activity in TP 5 will serve as confirmation for this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

It is important to apply aiming and breathing techniques when firing the cadet air rifle, as it aids in achieving a stable prone position and sight picture. This will help to ensure an accurate shot and a higher score.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- C2-098 Constantine, R. (1998). *Modern Highpower Competition: From Beginner to Master*. Manchester, CT: Precision Shooting Inc.

A-CR-CCP-903/PF-001

- C2-107 (ISBN 0-9691359-5-5) Koterlitzov, N., & Ball, A. (2000). *The Shooting Cookbook: Shooting Drills for Precision Shooting, Sequence Shooting, Biathlon and Summer Biathlon*. Vancouver, BC: Able Software Inc.
- C2-116 Encyclopaedia Britannica (n.d.) Online. *Human Respiration (Physiology)*. Retrieved April 21, 2009, from <http://www.britannica.com/EBchecked/topic/499530/human-respiration>.
- C2-117 (ISBN 0-7710-8250-9) Merry, W. (1997). *The Official Wilderness First Aid Guide*. Toronto, ON: McClelland & Stewart Inc.
- C2-206 (ISBN 3-98-097461-8) Bühlmann, G., Reinkemeir, H., & Eckhart, M. (2005). *Ways of the Rifle*. (B. Murray, Trans.). Dortmund, Germany: MEC (original work published 2002).

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MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 1 OF EO S343.01

A-CR-CCP-903/PG-001

EO S343.01 – SET UP AND DISMANTLE AN AIR RIFLE RANGE

1. **Performance.** Set Up and Dismantle an Air Rifle Range.
2. **Conditions**
 - a. Given:
 - (1) Air rifle range equipment, to include:
 - (a) safety glasses/goggles,
 - (b) target frame,
 - (c) target,
 - (d) shooting mat,
 - (e) spotting scope,
 - (f) air rifle pellets,
 - (g) folding table,
 - (h) first aid kit and stretcher,
 - (i) handwashing facility, and
 - (j) warning signals (red and green);
 - (2) Cadet air rifle,
 - (3) Cadet air rifle safety rod,
 - (4) Cadet air rifle usage log,
 - (5) Supervision, and
 - (6) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8.
3. **Standard.** The cadet shall set up and dismantle an air rifle range by:
 - a. identifying air rifle range equipment;
 - b. inspecting the cadet air rifle;
 - c. setting up air rifle range equipment IAW the air rifle range layout template; and
 - d. dismantling the air rifle range.

4. **Teaching Points**

TP	Description	Method	Time	Ref
TP1	Identify equipment required for an air rifle range activity, to include: a. cadet air rifle, b. cadet air rifle safety rod, c. safety glasses/goggles, d. target frame, e. target, f. shooting mat, g. spotting scope, h. air rifle pellets, i. folding table, j. first aid kit and stretcher, k. handwashing facility, and l. warning signals (red and green).	Interactive Lecture	15 min	A0-027 (pp. 1-8-1 to 1-8-3, pp. 4-4-14 to 4-4-16)

5. **Time**

a.	Introduction/Conclusion:	5 min
b.	Interactive Lecture:	15 min
c.	Total:	20 min

6. **Substantiation.** An interactive lecture was chosen for this lesson to orient the cadets to equipment used during air rifle marksmanship activities.

7. **References**

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-041 CATO 14-41 Director Cadets 4. (2009). *Authorized Rifle Training*. Ottawa, ON: Department of National Defence.

8. **Training Aids**

- Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for classroom/training area,
- Air rifle range equipment,
- Cadet air rifle,
- Cadet air rifle safety rod,
- Air rifle range layout handout, and
- Cadet air rifle usage log.

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9. **Learning Aids**

- a. Air rifle range equipment,
- b. Cadet air rifle,
- c. Cadet air rifle safety rod,
- d. Air rifle range layout handout, and
- e. Cadet air rifle usage log.

10. **Test Details.** This EO is assessed IAW Chapter 3, [Annex B, Appendix 3](#) (S343 PC).

11. **Remarks.** N/A.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 1

EO S343.01 – SET UP AND DISMANTLE AN AIR RIFLE RANGE

Total Time: 20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to equipment used during air rifle marksmanship activities.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to set up and dismantle an air rifle range.

IMPORTANCE

It is important for an Air Rifle Marksmanship Instructor to know how to properly set up and dismantle an air rifle range as it is part of their duties when assisting the Range Safety Officer (RSO).

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Teaching Point 1**Identify Equipment Required for an Air Rifle Range Activity**

Time: 15 min

Method: Interactive Lecture

AIR RIFLE RANGE EQUIPMENT

When setting up an air rifle range, the required equipment must be collected and inspected for serviceability. Broken and malfunctioning equipment must not be used for an air rifle range activity. It should be tagged and returned to supply for a replacement.



For the purposes of the Air Rifle Marksmanship Instructor course, the term air rifle marksmanship equipment will be used to denote the list of equipment required to set up a basic air rifle range. This is not inclusive of any further equipment that may be required for each cadet (eg, shooting jacket, hat) or any equipment required for a specific type of air rifle marksmanship activity (eg, classification, standing position familiarization air rifle marksmanship activity).

Cadet Air Rifle

The cadet air rifle is the .177 calibre, Daisy, model 853C. One cadet air rifle for each firing point is required on the air rifle range and spare cadet air rifles are required to replace malfunctioning ones.



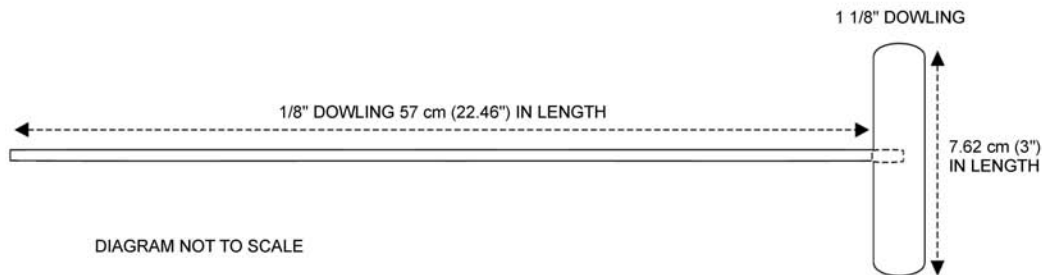
"Model 853C Legend EX", Daisy Outdoor Products. Retrieved March 24, 2009, from <http://www.daisy.com/shopping/customer/product.php?productid=16205&cat=253&page=1>

Figure 4-1-1 Cadet Air Rifle

Cadet Air Rifle Safety Rod

To ensure air rifles are not moved to and from the firing point or stored with a pellet in the chamber or barrel, a cadet air rifle safety rod is inserted in the barrel from the muzzle end. It consists of two sections of wooden dowelling joined together in a "T" shape (it can also be made of other materials). The tip of the cadet air rifle safety rod is coloured red. One cadet air rifle safety rod is required for each cadet air rifle on the air rifle range.

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A-CR-CCP-177/PT-001 (p. 1-3-1)
Figure 4-1-2 Cadet Air Rifle Safety Rod

Safety Glasses/Goggles

The wearing of safety glasses or shatterproof eyeglasses is mandatory when firing cadet air rifles except during biathlon training/competition. The wearing of specialized glasses (eg, shatterproof eyeglasses) is permitted only if the lenses completely cover the eyes. All firers, coaches and range staff must wear safety glasses during the course of fire. Safety glasses/goggles that are broken or scratched will not be used.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4-1-3 Safety Glasses

Target Frame

Target frames are the pieces of equipment where the pellets impact after they are fired. There may be differences in the appearance of target frames depending on the type of range being set up. The standard portable target frame is used at the majority of cadet units. It is constructed from plywood attached at a 45-degree angle to the face of the target frame. The plywood forms the backstop of the target frame, which acts as a non-penetrable surface to stop pellets not caught by the pellet trap. It allows for the insertion of cardboard or light cellular plastics to provide the target holder a surface on which to affix the target. A pellet trap, a non-penetrable material capable of withstanding a pellet impact, is hung from the target frame to add a second layer of protection and contain the pellets once they impact. One target frame is required for each firing point. The target frame must not have broken or missing components (eg, missing straps, torn pellet trap) as this would affect its ability to properly stop pellets.



During competitive air rifle marksmanship activities the target frames must be numbered.
The far left firing lane is denoted Lane 1.

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Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

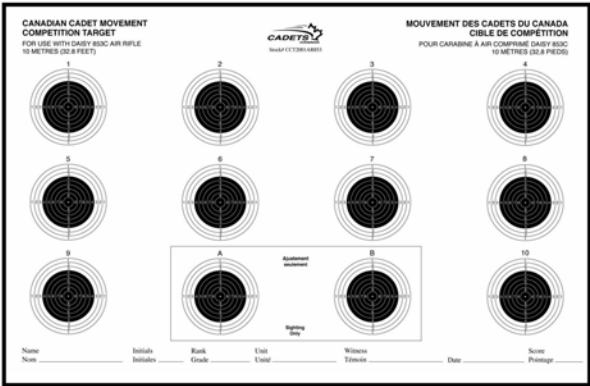
Figure 4-1-4 Target Frame

Target

There are two official targets used for air rifle marksmanship activities: the CCM Competition Target (CCT2001AR853) and the CCM Air Rifle Grouping Target (CCT2000GRTD). The CCM Competition Target consists of 10 scoring diagrams and two sighting diagrams. The CCM Air Rifle Grouping Target consists of two black diagrams with a 3-cm diameter. Different quantities of each target are required depending on the type of air rifle marksmanship activity being conducted and the number of participants.

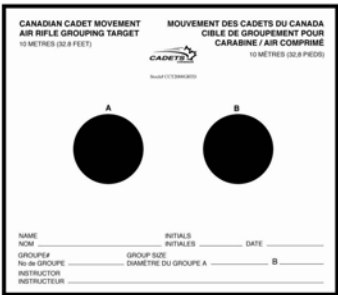


There are various other types of fun targets available that can be reproduced locally for use during fun and timed air rifle marksmanship activities.



Director Cadets 4, 2001, Ottawa, ON: Department of National Defence

Figure 4-1-5 The CCM Competition Target (CCT2001AR853)



Director Cadets 4, 2000, Ottawa, ON: Department of National Defence

Figure 4-1-6 The CCM Air Rifle Grouping Target (CCT2000GRTD)

Shooting Mat

Shooting mats are provided at each firing point to allow cadets a soft, stable surface on which to adopt the prone position. There are many types that can be used, including standard gym mats and specialized shooting mats. During competitions, the thickness of the mat is not to exceed 50 mm uncompressed and 10 mm compressed. During recreational activities, any suitable mat may be used.

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"Center the Group" by P. Bawden. Retrieved March 18, 2009, from <http://www.centerthegroup.com/trifold08.htm>

Figure 4-1-7 Shooting Mat

Spotting Scope

A spotting scope is permitted for use by firers and coaches on the firing point during air rifle marksmanship activities except during a classification air rifle marksmanship activity. Ideally, one spotting scope is provided for each set of cadets on the firing point and for the range staff. Currently there are no standards for or restrictions on the magnification power or type of spotting scope.



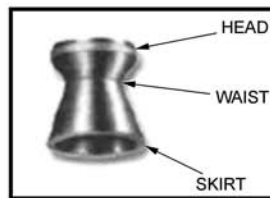
"Night Vision Planet". Retrieved March 18, 2009, from <http://www.nightvisionplanet.com/v/vspfiles/photos/Bushnell-781545-2T.jpg>

Figure 4-1-8 Spotting Scope

Air Rifle Pellets

The most popular pellet design is the hourglass-shaped air rifle pellet, commonly referred to as the diabolo. The "waisted" design of the pellet minimizes the friction between the pellet and the rifling. The thin hollow base (or skirt) expands during its travel down the bore to grip the rifling grooves and to establish an effective air seal. In a well designed diabolo pellet, most of the pellet weight is forward of the skirt in the head of the pellet. This gives the pellet maximum stability in flight – similar in concept to a badminton shuttle.

For marksmanship and competition training, the wadcutter pellet is used. This flat-headed pellet is designed for cutting neat, clean holes in paper, which allows for accurate, precise scoring of the target. Only diabolo-design wadcutter pellets supplied by the Canadian Forces (CF) are authorized for use in cadet air rifles. The quantity of pellets required will vary from activity to activity and with the number of participants.



*Air Gun Shooting Sports Safety Guide, by Education & Training and Competitive Shooting Divisions.
Fairfax, VA: National Rifle Association of America. Copyright 2006 by National Rifle Association of America*

Figure 4-1-9 Diabolo-Design Wadcutter Pellet

Folding Table

A folding table is required to organize targets, pellets and other small materials used by the range staff during air rifle marksmanship activities. The number and size of folding tables will be determined by specific needs of local air rifle ranges.

First Aid Kit and Stretcher

As with all cadet activities, safety is the number one concern. During air rifle marksmanship activities, a first aid point shall be established on the range and its location clearly identified to all participants. A stretcher is also required.

Handwashing Facility

Each time someone handles pellets, a small trace of lead is left on their hands and can be transferred to other parts of their body or to food. Over a period of time, this contact could increase lead levels in the body. Hands must be washed thoroughly following contact with pellets.

Warning Signals (Red and Green)

All air rifle ranges must be constructed with limited access. As such, warning signals shall be posted at all entrances advising that live firing is in progress. These signals should be red. A green signal indicates there are personnel on the range and no firing is in progress. The number and type of warning signals will vary from range to range but will always be present. Some examples of warning signals are:

- range flags located at the firing point and backstop of a permanent outdoor range;
- range flags supported by movable flag poles on a temporary outdoor range;
- range lights located outside the entrance to a permanent indoor range;

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- signs posted to indicate firing in progress on secured entrances to a temporary indoor range; and
- sentries posted to indicate firing in progress on unsecured entrances to a temporary indoor range.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What is the purpose of a cadet air rifle safety rod?
- Q2. What are the two official targets used by the CCM?
- Q3. What type of air rifle pellet is issued for all cadet air rifle marksmanship activities?

ANTICIPATED ANSWERS

- A1. The purpose of the cadet air rifle safety rod is to ensure cadet air rifles are not moved to and from the firing point or stored with a pellet in the chamber or barrel.
- A2. The two official targets are the CCT2001AR853 Competition Target and the CCT2000GRTD Air Rifle Grouping Target.
- A3. Diabolo-design wadcutter pellets are issued for all cadet air rifle marksmanship activities.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. Are shatterproof eyeglasses permitted to be worn in place of safety glasses/goggles during an air rifle marksmanship activity?

ANTICIPATED ANSWERS

- A1. Yes, the wearing of specialized glasses (eg, shatterproof eyeglasses) is permitted only if the lenses completely cover the eyes.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3 (S343 PC).

CLOSING STATEMENT

The ability to set up and dismantle an air rifle range is critical to air rifle marksmanship activities. Knowing the equipment required and how to properly lay out an air rifle range will enable cadets to take a leadership role in the conduct of any air rifle marksmanship activity.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.

A0-041 CATO 14-41 Director Cadets 4. (2009). *Authorized Rifle Training*. Ottawa, ON: Department of National Defence.

MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 4 OF EO S343.01

A-CR-CCP-903/PG-001

EO S343.01 – SET UP AND DISMANTLE AN AIR RIFLE RANGE

1. **Performance.** Set Up and Dismantle an Air Rifle Range.
2. **Conditions**
 - a. Given:
 - (1) Air rifle range equipment, to include:
 - (a) safety glasses/goggles,
 - (b) target frame,
 - (c) target,
 - (d) shooting mat,
 - (e) spotting scope,
 - (f) air rifle pellets,
 - (g) folding table,
 - (h) first aid kit and stretcher,
 - (i) handwashing facility, and
 - (j) warning signals (red and green);
 - (2) Cadet air rifle,
 - (3) Cadet air rifle safety rod,
 - (4) Cadet air rifle usage log,
 - (5) Supervision, and
 - (6) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8.
3. **Standard.** The cadet shall set up and dismantle an air rifle range by:
 - a. identifying air rifle range equipment;
 - b. inspecting the cadet air rifle;
 - c. setting up air rifle range equipment IAW the air rifle range layout template; and
 - d. dismantling the air rifle range.

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4. Teaching Points

TP	Description	Method	Time	Ref
TP4	Explain and demonstrate how to set up an air rifle range, to include: a. posting warning signals; b. setting up equipment at the backstop; c. indicating firing lanes; d. placing equipment at the firing point; e. placing equipment behind the firing point; and f. placing the cadet air rifle at the firing point.	Demonstration	15 min	A0-027 (pp. 4-4-14 to 4-4-16)

5. Time

- a. Introduction/Conclusion: 5 min
- b. Demonstration: 15 min
- c. Total: 20 min

6. **Substantiation.** A demonstration was chosen for this lesson as it allows the instructor to explain and demonstrate setting up an air rifle range in a safe and controlled environment.

7. References

- a. A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- b. A0-041 CATO 14-41 Director Cadets 4. (2009). *Authorized Rifle Training*. Ottawa, ON: Department of National Defence.

8. Training Aids

- a. Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for classroom/training area,
- b. Air rifle range equipment,
- c. Cadet air rifle,
- d. Cadet air rifle safety rod,
- e. Air rifle range layout handout, and
- f. Cadet air rifle usage log.

9. Learning Aids

- a. Air rifle range equipment,
- b. Cadet air rifle,
- c. Cadet air rifle safety rod,

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- d. Air rifle range layout handout, and
 - e. Cadet air rifle usage log.
10. **Test Details.** This EO is assessed IAW Chapter 3, [Annex B](#), [Appendix 3](#) (S343 PC).
11. **Remarks.** N/A.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 1

EO S343.01 – SET UP AND DISMANTLE AN AIR RIFLE RANGE

Total Time:	20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Collect cadet air rifles, cadet air rifle safety rods and air rifle range equipment to set up a temporary indoor range.

Photocopy the Air Rifle Range Layout handout located at [Annex A](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A demonstration was chosen for this lesson as it allows the instructor to explain and demonstrate setting up an air rifle range in a safe and controlled environment.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to set up and dismantle an air rifle range.

IMPORTANCE

It is important for an Air Rifle Marksmanship Instructor to know how to properly set up and dismantle an air rifle range as it is part of their duties when assisting the Range Safety Officer (RSO).

A-CR-CCP-903/PF-001

Teaching Point 4

Explain and Demonstrate How to Set Up an Air Rifle Range

Time: 15 min

Method: Demonstration



The following procedure applies to an indoor temporary air rifle range. The following procedure has been developed as a suggested format for setting up a temporary indoor air rifle range. These steps may be adjusted as local needs require.



Distribute the Air Rifle Range Layout handout located at [Annex A](#) to each cadet. Have assistant instructors demonstrate the procedure as it is explained to the cadets.

PROCEDURE FOR SETTING UP AN AIR RIFLE RANGE

Once the required air rifle range equipment has been collected and the cadet air rifles have been inspected, the equipment can be set up. The specific details of an air rifle range layout may vary depending on the type of air rifle range; however, the dimensions and location of the equipment will remain the same. The air rifle range will be set up by:

1. **Posting Warning Signals.** A sentry should be posted at access points if they cannot be permanently blocked (eg, a door to a gymnasium that does not have a lock).
2. **Setting Up Equipment at the Backstop.** At one end of the room, the target frames will be set up in front of a wall. Care should be taken to avoid using a wall with windows or other items (eg, light switch, fire alarm, smoke detector) that would be damaged by a stray pellet. If this is unavoidable, a plywood covering should be placed over those items. The front of the target frame must be perpendicular to the floor and aligned with the front of other target frames along a target line. Additional lighting may be required for the target during some competition activities to satisfy competition rules. Lighting will not interfere with the cadets' view of the target frame.
3. **Indicating Firing Lanes.** Target frames will be centred in a lane at least 1.25 m wide and extend away from the target line toward the firing point a distance of 10 m. 10 m from the target line, another line will be marked on the floor. This is the firing line and no person will move forward of it without permission from the RSO.
4. **Placing Equipment at the Firing Point.** Behind the firing line is the firing box, an area at least 1.25 m wide by 2.5 m deep. A firing box will be allocated for each firer. A shooting mat will be placed within the firing box aligned with the firing line (during standing position firing no mat is required). Safety glasses/goggles and a spotting scope will be placed on every shooting mat. An area behind the firing box will be allocated for range staff.
5. **Placing Equipment Behind the Firing point.** The area behind the firing point contains the table(s) required to set up a pellet distribution point, scoring area or other workspace as required for the specific air rifle marksmanship activity being conducted. The first aid point with stretcher is located in this area and must be clearly identified. The handwashing facility may be located on the range behind the firing point or in a washroom within the building.
6. **Placing the Cadet Air Rifle at the Firing Point.** A cadet air rifle with cadet air rifle safety rod will be the last item placed on the air rifle range. When removing the cadet air rifle from the case, control the muzzle

by carrying the cadet air rifle in a vertical position with a cadet air rifle safety rod inserted into the barrel. Once the cadet air rifle is placed on the firing point, the cadet air rifle safety rod may be removed.

CONFIRMATION OF TEACHING POINT 4

QUESTIONS

- Q1. What are some items that may be damaged by pellets at the backstop?
- Q2. What are the dimensions of a firing lane?
- Q3. What will be the last piece of equipment placed on the air rifle range?

ANTICIPATED ANSWERS

- A1. Windows, switches, fire alarms, and smoke detectors.
- A2. A firing lane is 10 m long and at least 1.25 m wide.
- A3. The cadet air rifle will be the last piece of equipment placed on the air rifle range.

END OF LESSON CONFIRMATION

The cadets' viewing of the demonstration will serve as the confirmation of this TP.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3 (S343 PC).

CLOSING STATEMENT

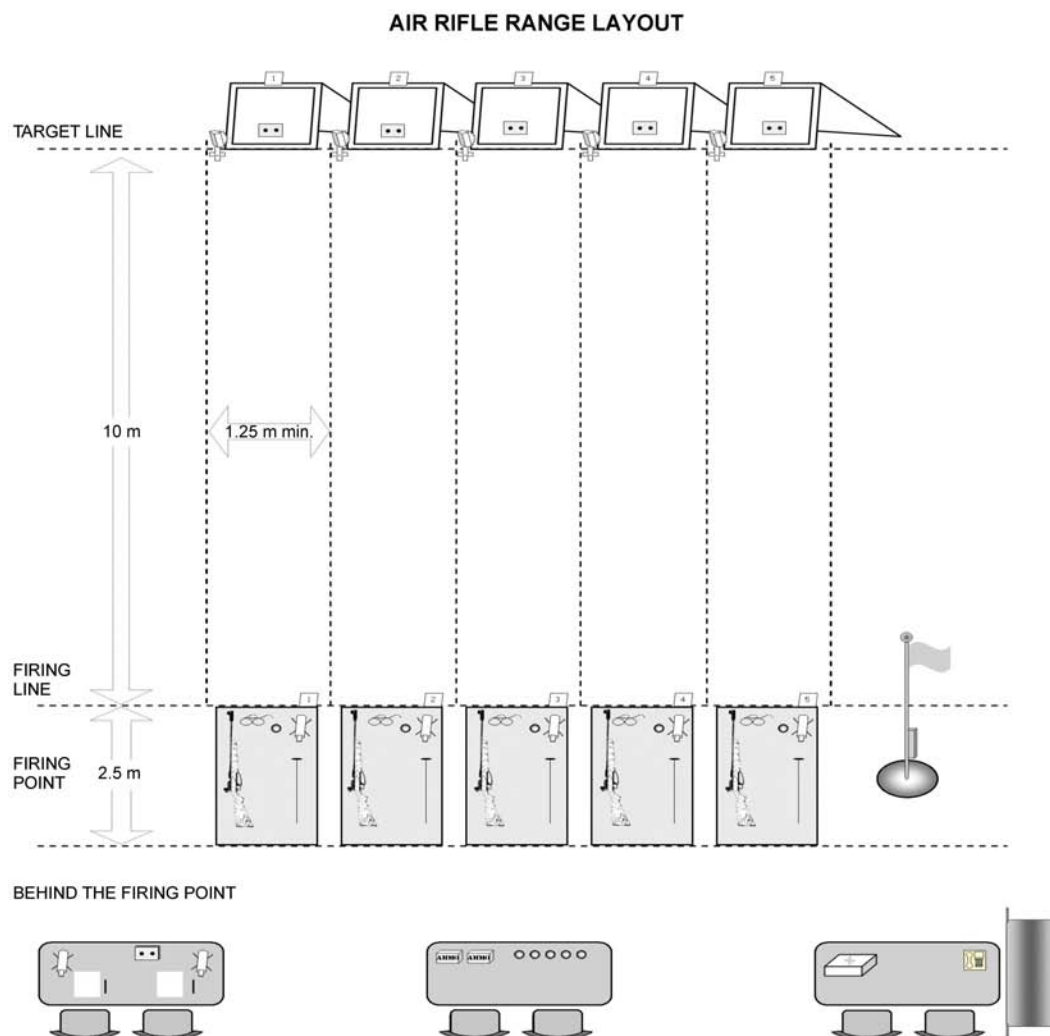
The ability to set up and dismantle an air rifle range is critical to air rifle marksmanship activities. Knowing the equipment required and how to properly lay out an air rifle range will enable cadets to take a leadership role in the conduct of any air rifle marksmanship activity.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-041 CATO 14-41 Director Cadets 4. (2009). *Authorized Rifle Training*. Ottawa, ON: Department of National Defence.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4A-1 Air Rifle Range Layout

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Chapter 4, Annex A

SET UP OF AN AIR RIFLE RANGE

1. **Posting Warning Signals.** A sentry should be posted at access points if they cannot be permanently blocked (eg, a door to a gymnasium that does not have a lock).
2. **Setting Up Equipment at the Backstop.** At one end of the room, the target frames will be set up in front of a wall. Care should be taken to avoid using a wall with windows or other items (eg, light switch, fire alarm, smoke detector) that would be damaged by a stray pellet. If this is unavoidable, a plywood covering should be placed over those items. The front of the target frame must be perpendicular to the floor and aligned with the front of other target frames along a target line. Additional lighting may be required for the target during some competition activities to satisfy competition rules. Lighting will not interfere with the cadets' view of the target frame.
3. **Indicating Firing Lanes.** Target frames will be centred in a lane at least 1.25 m wide and extend away from the target line toward the firing point a distance of 10 m. 10 m from the target line, another line will be marked on the floor. This is the firing line and no person will move forward of it without permission from the RSO.
4. **Placing Equipment at the Firing Point.** Behind the firing line is the firing box, an area at least 1.25 m wide by 2.5 m deep. A firing box will be allocated for each firer. A shooting mat will be placed within the firing box aligned with the firing line (during standing position firing no mat is required). Safety glasses / goggles and a spotting scope will be placed on every shooting mat. An area behind the firing box will be allocated for range staff.
5. **Placing Equipment Behind the Firing Point.** The area behind the firing point contains the table(s) required to set up a pellet distribution point, scoring area or other workspace as required for the specific air rifle marksmanship activity being conducted. The first aid point with stretcher is located in this area and must be clearly identified. The handwashing facility may be located on the range behind the firing point or in a washroom within the building.
6. **Placing the Cadet Air Rifle at the Firing Point.** A cadet air rifle with cadet air rifle safety rod will be the last item placed on the air rifle range. When removing the cadet air rifle from the case, control the muzzle by carrying the cadet air rifle in a vertical position with a cadet air rifle safety rod inserted into the barrel. Once the cadet air rifle is placed on the firing point, the cadet air rifle safety rod may be removed.

DISMANTLING AN AIR RIFLE RANGE

1. **Storing the Cadet Air Rifle.** After an air rifle marksmanship activity, the cadet air rifle is the first piece of range equipment secured. A cadet air rifle safety rod is inserted into the barrel before the cadet air rifle is moved from the firing point. Cadet air rifles are securely stored at the unit according to current policy guidelines.
2. **Storing the Equipment Behind the Firing Point.** Equipment used behind the firing point is stored next. Equipment must be cleaned (if required) and stored to prevent damage. If the first aid kit has been used, it may require refilling.
3. **Storing the Equipment at the Firing Point.** Equipment used at the firing point is stored next. Equipment must be cleaned (if required) and stored to prevent damage. Care should be taken to minimize scratching of safety glasses / goggles. Shooting mats are folded or rolled properly to minimize rips or tears. Spotting scopes are stored in their cases (if applicable).
4. **Cleaning the Backstop Area.** Once the firing point equipment has been secured, the target frames are thoroughly emptied of spent pellets. The target holder is cleaned of any material (eg, targets, thumbtacks, staples) and the target frame is folded and stored.

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5. **Cleaning the Firing Lanes.** Since lead dust in the air is a minor hazard to safety, a method of sweeping / mopping that reduces the amount of dust produced should be used. One set of cleaning gear is used after air rifle marksmanship activities to limit cross-contamination of other areas of the building.
6. **Removing the Warning Signals.** Once all other air rifle marksmanship equipment has been secured, the range warning signals are removed. This will indicate that the room in which the temporary indoor range was set up is now cleaned and ready for general use.

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MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 2 OF EO S343.03

A-CR-CCP-903/PG-001

EO S343.03 – SCORE AIR RIFLE MARKSMANSHIP TARGETS

1. **Performance.** Score Air Rifle Marksmanship Targets.
2. **Conditions**
 - a. Given:
 - (1) Exercise targets,
 - (2) Air rifle Grouping Template,
 - (3) .177-/.22-scoring magnifier,
 - (4) Scoring plug,
 - (5) Scoring Template,
 - (6) Supervision, and
 - (7) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard.** The cadet shall score air rifle marksmanship targets, to include:
 - a. the CCM Air Rifle Grouping Target, and
 - b. the CCM Competition Target.
4. **Teaching Points**

TP	Description	Method	Time	Ref
TP2	Explain, demonstrate and have the cadets score the CCM Air Rifle Grouping Target by: a. determining there are five shots in the grouping; b. aligning the Air Rifle Grouping Template over the five-shot grouping so that all shots are within a scoring ring; c. determining if the grouping will fit within the next smallest ring without touching the scoring ring; d. repeating as required until the grouping will not fit within the next smallest scoring ring without touching the scoring ring; e. recording the grouping size on the target; f. repeating for the second grouping; and g. determining the classification category.	Demonstration and Performance	15 min	A0-027 (pp. 1-9-1 and 1-9-2) A0-148 (pp. A-2/5 and A-3/5)

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5. **Time**

a.	Introduction/Conclusion:	5 min
b.	Demonstration and Performance:	15 min
c.	Total:	20 min

6. **Substantiation.** A demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate scoring grouping targets while providing an opportunity for the cadets to practice under supervision.

7. **References**

- a. A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- b. A0-148 CATO 14-43 Director Cadets 4. (2009). *Marksmanship Program*. Ottawa, ON: Department of National Defence.

8. **Training Aids**

- a. Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for classroom/training area,
- b. Exercise targets,
- c. Sample Grouping Target Handout,
- d. Sample Competition Target Handout,
- e. Air rifle grouping template,
- f. .177-/ .22-scoring magnifier,
- g. Scoring plug, and
- h. Scoring Template.

9. **Learning Aids**

- a. Exercise targets,
- b. Sample Grouping Target Handout,
- c. Sample Competition Target Handout,
- d. Air rifle grouping template,
- e. .177-/ .22-scoring magnifier,
- f. Scoring plug,
- g. Scoring Template, and
- h. Pencil.

10. **Test Details.** This EO is assessed IAW Chapter 3, [Annex B](#), [Appendix 3](#) (S343 PC).

11. **Remarks.** N/A.

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COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 3

EO S343.03 – SCORE AIR RIFLE MARKSMANSHIP TARGETS

Total Time:	20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Sample Grouping Target Handout located at [Annex G](#) for each cadet.

Prepare slides of the Air Rifle Grouping Template at [Annex H](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

A demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate scoring grouping targets while providing an opportunity for the cadets to practice under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to score the CCM Air Rifle Grouping Target and the CCM Competition Target.

IMPORTANCE

It is important for cadets to score air rifle marksmanship targets as it provides a skill that will be used when they assist a Range Safety Officer (RSO). Being able to determine the score on a target will allow the cadet to monitor their progress as they improve in applying the principles of marksmanship.

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Teaching Point 2

**Explain, Demonstrate and Have the Cadets Score the CCM
Air Rifle Grouping Target**

Time: 15 min

Method: Demonstration and Performance



For this TP it is recommended that the instructor explain and demonstrate each step required to complete the skill then monitor the cadets as they imitate each step.

Note: Assistant instructors may be employed to monitor the cadets' performance.



Provide each cadet with the Sample Grouping Target Handouts located at [Annex G](#) and an Air Rifle Grouping Template located at [Annex H](#).

Air Rifle Grouping Template. The Air Rifle Grouping Template is a series of grouping circles engraved or printed on transparent material. It is used to confirm the diameter of a grouping fired during familiarization or classification firing. The Air Rifle Grouping Template consists of a series of grouping circle outlines, with diameters from 1–6 cm inclusive. It is very important to correctly and consistently measure grouping targets with the grouping template.

SCORING THE CCM AIR RIFLE GROUPING TARGET

Score the CCM Air Rifle Grouping Target using the following procedure:

1. **Determine There Are Five Shots in the Grouping.** Before scoring any grouping, the number of shots on the target is determined. If a cadet has not hit the target at least five times for each grouping the score will not count. It is difficult at times to determine when several pellet holes overlap. Observe the outline of the hole for the distinct outline of an arc of a clean pellet hole. This indicates the number of pellets that may have caused the larger hole. The skill level of cadets is also a good indication of how many shots are in a grouping. If a cadet is shooting a larger grouping size, the possibility for two pellets fired exactly through one hole is slim.



Each diagram on the Sample Grouping Target Handout contains five shots.

2. **Align the Air Rifle Grouping Template Over the Five-Shot Grouping so That All Shots Are Within a Scoring Ring.** Once the grouping has been confirmed as being made up of five shots, the Air Rifle Grouping Template is placed over the target. The Air Rifle Grouping Template should be aligned so that all the shots fit easily within a grouping circle without touching it.



A grouping size of 4.0 cm will be large enough to serve as a starting point for each diagram on the Sample Grouping Target Handout.

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3. **Determine if the Grouping Will Fit Within the Next Smallest Ring Without Touching the Scoring Ring.** Choose the next smallest grouping circle and determine if the group fits within it. The entire group must fit within the grouping circle without touching the inside edge.
4. **Repeat as Required Until the Grouping Will Not Fit Within the Next Smallest Scoring Ring Without Touching the Scoring Ring.**



The correct grouping size for each diagram is:

- Target 1, Diagram A–3.5 cm,
- Target 1, Diagram B–2.7 cm,
- Target 2, Diagram A–1.8 cm, and
- Target 2, Diagram B–2.5 cm.

5. **Record the Grouping Size on the Target.** The grouping size recorded on the target is the corresponding grouping circle diameter.
6. **Repeat for the Second Grouping.**
7. **Determine the Classification Category.** In order to qualify for a specific category, a cadet shall meet the prescribed standard on two different targets within a year. Groupings do not have to be fired during the same relay. There are four categories of marksmanship classification:
 - **Marksman:** Each grouping must be within a circle of 3 cm in diameter.
 - **First Class Marksman:** Each grouping must be with a circle of 2.5 cm in diameter.
 - **Expert Marksman:** Each grouping must be within a circle of 2 cm in diameter.
 - **Distinguished Marksman:** Each grouping must be within a circle of 1.5 cm in diameter.

Classification obtained during the training year will be valid for the duration of the training year, including the summer period. Classification obtained at a CSTC will be valid for the duration of the subsequent training year, including the next summer period. Proficiency badges may be worn on the uniform. Cadets can wear the badge representing the highest category they have achieved to date, even though their classification may have expired.



Target 1 does not meet the requirements for a marksmanship classification category.
Target 2 meets the requirements for a First Class Marksman classification category.



Refer to CATO 14-43, *Marksmanship Program*, Annex A, for detailed instructions about the marksmanship classification program.

CONFIRMATION OF TEACHING POINT 2

The cadets' scoring of the Sample Grouping Target Handout will serve as the confirmation of this TP.

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END OF LESSON CONFIRMATION

QUESTIONS

Q1. What size must each grouping be to award a Distinguished Marksman classification category?

ANTICIPATED ANSWERS

A1. Each grouping must be within a circle of 1.5 cm in diameter.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 3 (S343 PC).

CLOSING STATEMENT

You must be able to score air rifle marksmanship targets to perform your duties when assisting the RSO. Being able to score air rifle marksmanship targets will also allow you to assess your own performance and the performance of others. These skills will allow you to better perform the duties of an Air Rifle Marksmanship Instructor.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

- A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*. Ottawa, ON: Department of National Defence.
- A0-148 CATO 14-43 Director Cadets 4. (2009). *Marksmanship Program*. Ottawa, ON: Department of National Defence.

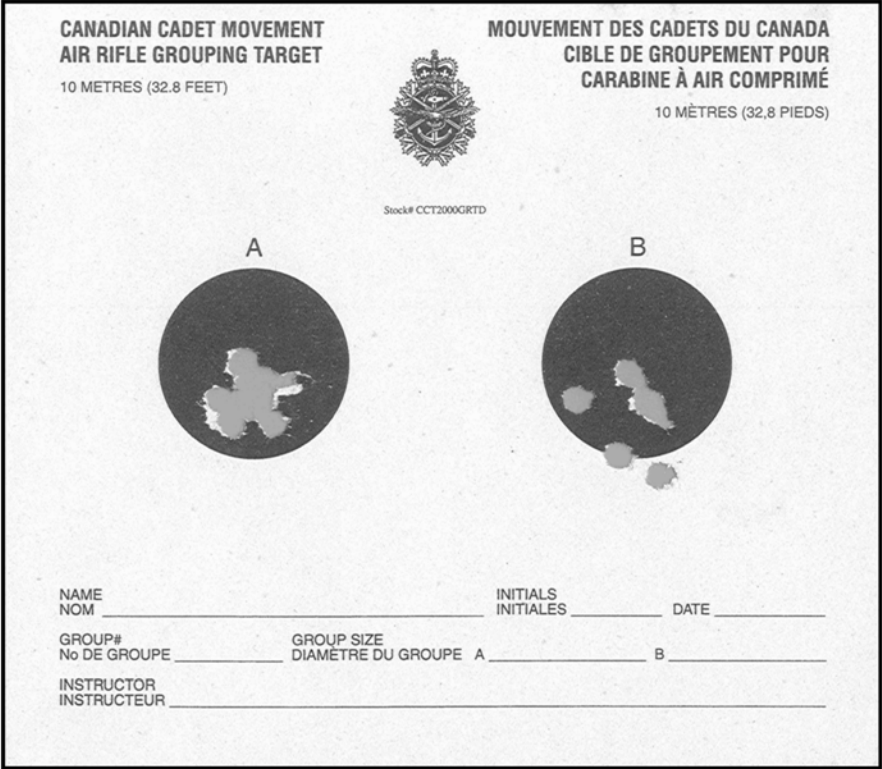
SAMPLE GROUPING TARGET HANDOUT

CANADIAN CADET MOVEMENT AIR RIFLE GROUPING TARGET 10 METRES (32.8 FEET)	 Stock# CCT20000RTD	MOUVEMENT DES CADETS DU CANADA CIBLE DE GROUPEMENT POUR CARABINE À AIR COMPRIMÉ 10 MÈTRES (32,8 PIEDS)
A  B 		
NAME NOM _____ INITIALS INITIALES _____ DATE _____ GROUP# No DE GROUPE _____ GROUP SIZE DIAMÈTRE DU GROUPE A _____ B _____ INSTRUCTOR INSTRUCTEUR _____		

Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4G-1 Target 1

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Chapter 4, Annex G

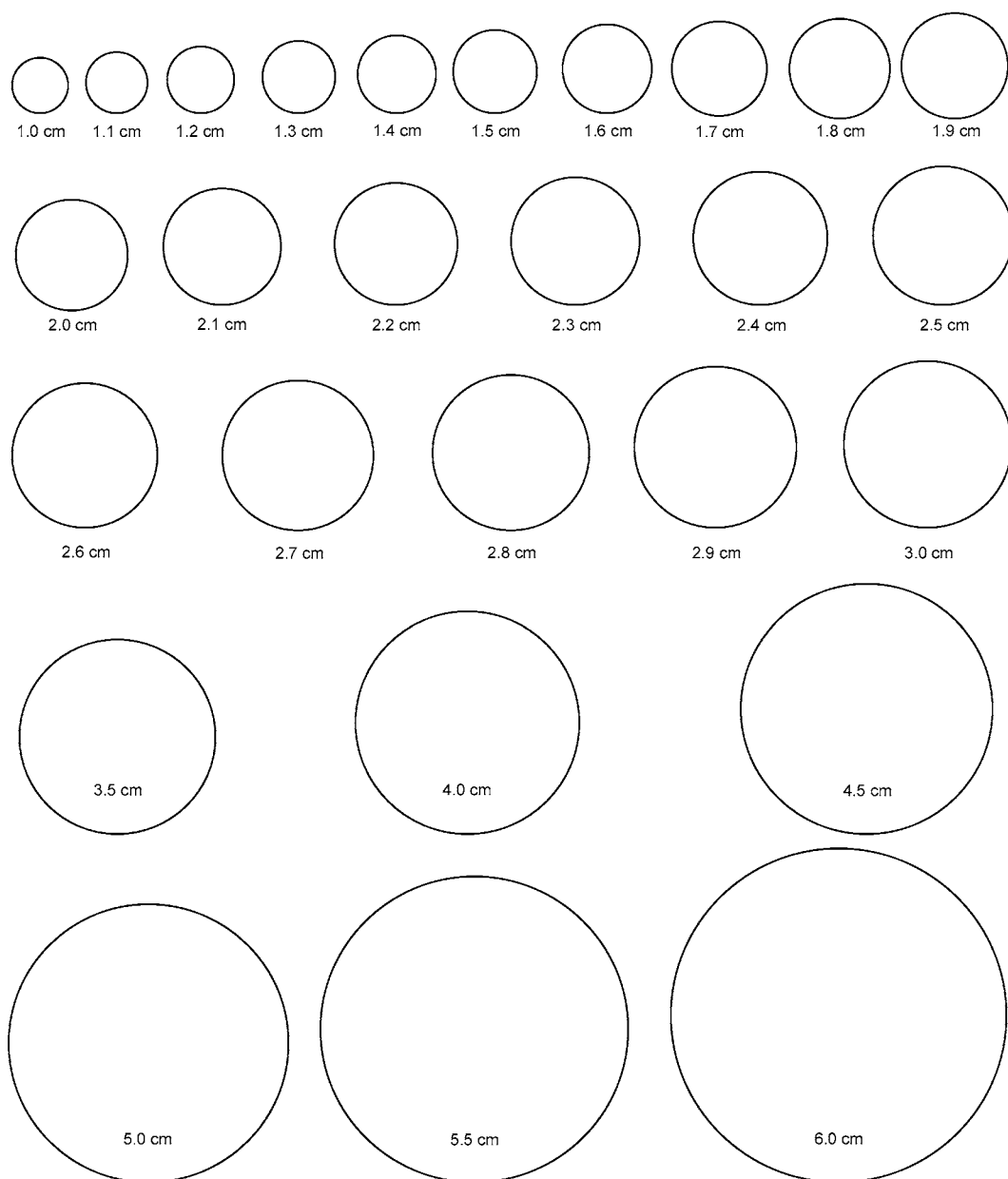


Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4G-2 Target 2

A-CR-CCP-903/PF-001
Chapter 4, Annex H

AIR RIFLE GROUPING TEMPLATE



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 4H-1 Air Rifle Grouping Template

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MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 2 OF EO S344.01

A-CR-CCP-903/PG-001

EO S344.01 – PROVIDE FEEDBACK TO CADETS

1. **Performance.** Provide Feedback to Cadets.
2. **Conditions**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard.** The cadet shall:
 - a. recognize when feedback must be provided; and
 - b. provide feedback.
4. **Teaching Points**

TP	Description	Method	Time	Ref
TP2	Explain the ground rules for providing feedback, to include: a. focusing on what is observed; b. focusing on the behaviour; c. keeping it neutral; d. using it to inform; e. making it supportive; and f. keeping it simple.	Interactive Lecture	15 min	C0-403 (pp. 11–15, pp. 111–116)

5. **Time**
 - a. Introduction/Conclusion: 5 min
 - b. Interactive Lecture: 15 min
 - c. Total: 20 min
6. **Substantiation.** An interactive lecture was chosen for this lesson to orient the cadets to providing feedback to cadets.
7. **References**
 - a. C0-403 Peeling, G. (2000). *Feedback Techniques: 7 Things to Know About Giving Feedback: Trainers Guide*. Cambridgeshire, England: Fenman Limited.
 - b. C0-404 Mochal, T. (2006). *Follow These Six Steps When Providing Constructive Performance Feedback*. Retrieved February 5, 2009, from http://articles.techrepublic.com.com/5100-10878_11-6102736.html.
 - c. C0-412 (ISBN 978-0-87425-495-2) Tulgan, B. (1999). *Fast Feedback (2nd Ed)*. Amherst, MA: HRD Press, Inc.

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8. **Training Aids.** Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for the classroom/training area.
9. **Learning Aids.** Effective Feedback handout.
10. **Test Details.** N/A.
11. **Remarks.** N/A.

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COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 1

EO S344.01 – PROVIDE FEEDBACK TO CADETS

Total Time:	20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the Effective Feedback handout located at [Annex A](#) for each cadet.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to providing feedback to cadets.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall provide feedback to cadets.

IMPORTANCE

It is important for cadets to provide feedback because it is an essential skill for a team leader. Feedback is given to help team members improve. Providing feedback correctly to team members gives the team members regular guidance to complete their tasks.

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Teaching Point 2**Explain the Ground Rules for Providing Feedback**

Time: 15 min

Method: Interactive Lecture

GROUND RULES FOR PROVIDING FEEDBACK

The following ground rules for providing feedback may enable the team leader to give helpful, constructive feedback, without creating conflict or confrontational behaviour with team members.

Focusing on What Is Observed

Team leaders should give feedback based on what they see because it is factual. What team leaders believe is based on supposition and inference; it is an interpretation of what they have seen. When team leaders give feedback based on interpretation rather than fact, the interpretation may be wrong.

For example:

A team member is looking at their boots as the team leader speaks to him. The team leader says "Pay attention." This is incorrect because the team leader is inferring that the team member is not paying attention. The team leader should say "You should not be looking at your feet." This statement focuses on what the team leader saw.

Focusing on Behaviour

Team leaders should give feedback based on the behaviour of team members, not on the person or personality of a team member.

For example:

A team leader observes a team member slouching against a wall. The team leader says "Don't be lazy." This is incorrect because the team leader is making judgment on the team member's personality. The team leader should say "Stand up straight." This statement does not make any judgment but focuses directly on the behaviour required by the team member.

Keeping it Neutral

Team leaders should give feedback that is unbiased and does not make judgments. When a team leader is objective when giving feedback, the team members can determine for themselves the effect of their behaviour. This presents a more meaningful learning opportunity for team members.

For example:

The team leader observes a team member arriving late again. The team leader says "You are late a lot." This is incorrect because the team leader has made a judgment on how many times the team member has been late. The team leader should say "You have been late three times in the past two months." This is a statement of fact.

Using it to Inform

Team leaders should give feedback that is enlightening and does not advise. When the team leader gives feedback, it leaves the team members free to draw their own conclusions. This freedom allows the team members to decide what actions are necessary to change their behaviour.

For example:

A team leader does an inspection and observes that a team member's boots are not up to standard. The team leader says "Everyone needs to work on their boots." The team leader should say "Our team's boots are not meeting inspection standard." This statement allows team members to decide what should be done.

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If the team members cannot generate an idea, the team leader may have to explain what behaviour is required.

Making it Supportive

Team leaders should give feedback that is reassuring and not threatening. When the team leader gives feedback that is supportive, it does not sound like a put-down. The choice of language and tone must be carefully considered. Even the friendliest and best intentioned feedback can sound intimidating.

For example:

A team leader observes a team member leading a team-building activity. The team leader says "I want to talk to you about that activity." This may be perceived as frightful and ominous. The team leader should say "I thought your activity went well, but let's have a chat about making it even better." This statement starts with something positive and then offers an opportunity to discuss ways of improving.

Keeping it Simple

Team leaders should give feedback that is uncomplicated. Team members can usually only process one or two pieces of information at any one time. If team leaders overload team members with too much feedback, there is a possibility that the information will not be received. Feedback on one or two major points is more useful than feedback on six or seven minor points.

For example:

A team leader supervises as a team member conducts an inspection. The team leader notices that the team member's uniform and boots are not up to inspection standard. The team member starts the inspection at the cadet's back and continues to make errors. The team leader says "Very few things went correctly during that inspection – you look bad, you started with their backs and your comments made no sense." This is incorrect because the team leader is focusing on too many issues at once. The team leader should have said "Very few things went correctly during that inspection and we will start with your uniform." This allows the team member to focus on one behaviour at a time.

ACTIVITY

Time: 5 min

OBJECTIVE

The objective of this activity is to have the cadets identify the ground rules for providing feedback.

RESOURCES

N/A.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Have the cadets find a partner.
2. Have the cadet with the earliest birthday recite one ground rule for providing feedback to their partner.

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3. Have the cadet with the latest birthday recite another ground rule for providing feedback to their partner.
4. Have the cadets take turns reciting the ground rules for providing feedback until all the ground rules have been recited.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 2

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. When making feedback supportive, does the choice of language and tone have an impact on the participant?

ANTICIPATED ANSWERS

- A1. Yes, the choice of language and tone may have a negative impact. Language and tone should be spoken in a positive and reassuring manner.
-

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. When making feedback supportive, does the choice of language and tone have an impact on the participant?

ANTICIPATED ANSWERS

- A1. Yes, the choice of language and tone may have a negative impact. Language and tone should be spoken in a positive and reassuring manner.
-

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Providing feedback is an essential skill for a team leader. Feedback is given to help team members improve. Providing feedback correctly to team members gives the team members regular guidance to complete their tasks.

INSTRUCTOR NOTES/REMARKS

N/A.

A-CR-CCP-903/PF-001

REFERENCES

- C0-403 Peeling, G. (2000). *Feedback Techniques: 7 Things to Know About Giving Feedback: Trainers Guide*. Cambridgeshire, England: Fenman Limited.
- C0-404 Mochal, T. (2006). *Follow These Six Steps When Providing Constructive Performance Feedback*. Retrieved February 5, 2009, from http://articles.techrepublic.com.com/5100-10878_11-6102736.html.
- C0-412 (ISBN 978-0-87425-495-2) Tulgan, B. (1999). *Fast Feedback (2nd Ed)*. Amherst, MA: HRD Press, Inc.

EFFECTIVE FEEDBACK

GROUND RULES FOR PROVIDING FEEDBACK

The following ground rules for providing feedback may enable the team leader to give helpful, constructive feedback, without creating conflict or confrontational behaviour with team members.

Focusing on What Is Observed

Team leaders should give feedback based on what they see because it is factual. What team leaders believe is based on supposition and inference; it is an interpretation of what they have seen. When team leaders give feedback based on interpretation rather than fact, the interpretation may be wrong.

Focusing on Behaviour

Team leaders should give feedback based on the behaviour of team members, not on the person or personality of a team member.

Keeping it Neutral

Team leaders should give feedback that is unbiased and does not make judgments. When a team leader is objective when giving feedback, the team members can determine for themselves the effect of their behaviour. This presents a more meaningful learning opportunity for team members.

Using it to Inform

Team leaders should give feedback that is enlightening and does not advise. When the team leader gives feedback, it leaves the team members free to draw their own conclusions. This freedom allows the team members to decide what actions are necessary to change their behaviour.

Making it Supportive

Team leaders should give feedback that is reassuring and not threatening. When the team leader gives feedback that is supportive, it does not sound like a put-down. The choice of language and tone must be carefully considered. Even the friendliest and best intentioned feedback can sound intimidating.

Keeping it Simple

Team leaders should give feedback that is uncomplicated. Team members can usually only process one or two pieces of information at any one time. If team leaders overload team members with too much feedback, there is a possibility that the information will not be received. Feedback on one or two major points is more useful than feedback on six or seven minor points.

MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 1 OF EO S345.01

A-CR-CCP-903/PG-001

EO S345.01 – PREPARE FOR A SUMMER BIATHLON ACTIVITY

1. **Performance.** Prepare for a Summer Biathlon Activity.
2. **Conditions**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: N/A.
 - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard.** The cadet shall prepare for a summer biathlon activity by:
 - a. selecting nutritious food;
 - b. determining personal hydration requirements;
 - c. selecting types of athletic clothing; and
 - d. applying hygiene practices for physical activity.

4. Teaching Points

TP	Description	Method	Time	Ref
TP1	Describe nutrition requirements for a summer biathlon activity, to include: a. pre-activity, to include: (1) time between the meal and the activity, and (2) foods to choose; b. during the activity, to include: (1) what to eat, and (2) what to drink, and c. post-activity.	Interactive Lecture	15 min	A0-111 (pp. 10–13, pp. 36–42) C0-166 (pp. 89–136) C0-175 (pp. 19–39) C0-320 C0-321 C0-348

5. **Time**
 - a. Introduction/Conclusion: 5 min
 - b. Interactive Lecture: 15 min
 - c. Total: 20 min
6. **Substantiation.** An interactive lecture was chosen for this lesson to introduce the cadets to nutrition requirements for summer biathlon activity.

7. References

- a. A0-051 Wenger, H. (n.d.). *The Fundamentals of Physical Training Handbook*. Ottawa, ON: Department of National Defence.
- b. A0-111 A-MD-007-006/PW-001 Department of National Defence. (2005). *Top Fuel for Top Performance*. Ottawa, ON: Department of National Defence.
- c. A0-146 CF H Svcs Gp Instruction 4440-10 D FHP-OEH. (2006). *Heat Stress – Prevention*. Ottawa, ON: Department of National Defence.
- d. C0-026 athealth.com. (2006). *Fitness Fundamentals*. Retrieved October 9, 2007, from <http://www.athealth.com/Consumer/disorders/FitnessFundamentals.html>.
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- f. C0-157 Barton Anderson and Sports Injury Info. (2007). Choosing Athletic Shoes. *Sports Injury Info: Keeping You Off the Sidelines*. Retrieved November 8, 2007, from <http://www.sports-injury-info.com/athletic-shoes.html>.
- g. C0-158 Football Kit Designer. (2007). *Wicking Fabric*. Retrieved September 26, 2007, from http://www.footballkitdesigner.co.uk/wicking-fabric_article.html.
- h. C0-159 Peso, M. (2007). Dry Fit Clothing Technology: How Clothes Magically Wick Away Moisture. *Cram Science – Everyday Science*. Retrieved October 8, 2007, from <http://www.cramscience.ca/es.php?a=114>.
- i. C0-166 (ISBN 978-0-7360-4602-2) Clark, N. (2003). *Sports Nutrition Guide Book* (3rd ed.). Windsor, ON: Human Kinetics.
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8. **Training Aids**

- a. Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for classroom/training area,
- b. Different types of athletic footwear (including cadet issued), and
- c. Different types of athletic clothing (including cadet issued).

9. **Learning Aids.** N/A.

10. **Test Details.** N/A.

11. **Remarks.** N/A.



COMMON TRAINING
AIR RIFLE MARKSMANSHIP INSTRUCTOR
INSTRUCTIONAL GUIDE



SECTION 1

EO S345.01 – PREPARE FOR A SUMMER BIATHLON ACTIVITY

Total Time:	20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce cadets to the nutrition requirements for a summer biathlon activity.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to prepare for a summer biathlon activity by selecting nutritious food, determining personal hydration requirements, choosing athletic clothing and applying hygiene practices.

IMPORTANCE

It is important for the cadets to know how to prepare for a summer biathlon activity to remain safe and healthy.

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Teaching Point 1**Describe Nutrition Requirements for a Summer Biathlon Activity**

Time: 15 min

Method: Interactive Lecture

Healthy eating provides the body with essential nutrients and energy. Everyday eating should include at least three meals and healthy snacking. An individual will perform more efficiently if the body's energy levels are consistently maintained.

Glucose is produced when carbohydrate foods are broken down by the digestive track and the liver. Glucose is the body's preferred fuel when performing hard physical work or exercising intensely. As well, the brain, nervous system and red blood cells depend completely on glucose for their fuel.

Carbohydrates are found in foods from all food groups. Fruit and root vegetables provide more than leafy vegetables and legumes (beans, peas, lentils), grain products supply a large amount while seeds and nuts have some.

Carbohydrates and fat provide energy. Carbohydrates are stored in the body in the form of glycogen (a large molecule made up of glucose and water) and fat is stored in the body as fat. During high intensity exercise (eg, sprinting), glucose is the primary source of energy because fat cannot be used when oxygen is in short supply. During low-intensity exercise (eg, walking), cells use glucose and fat for energy since oxygen is available and make it possible for fat to be used. A well-conditioned individual has better oxygen delivery and can therefore use more fat than an individual with a lower fitness level.

Glycogen is used when necessary. The body can store only a small amount of glycogen. Glycogen is stored in the liver and the muscles. When the blood glucose level gets low, glycogen from the liver is converted to glucose and moved to the blood stream. Glycogen stored in the muscles is for muscle use only.

PRE-ACTIVITY NUTRITION

Since carbohydrates are the fuel for high intensity workouts it is important to consume them prior to exercising. When there are too few carbohydrates, the body changes protein into glucose to provide energy, and prevents the proteins from doing their job (supply amino acids to build muscles, hormones, enzymes and other chemicals).

Time to Allow Between Meal and Activity

The length of time between a meal and a summer biathlon activity determines how much and what you should eat. Ideally, there should be:

- a 3- to 4-hour period to digest a large meal containing carbohydrates, protein and some fat;
- a 2- to 3-hour period to digest a small meal; or
- a 1- to 2-hour period for a carbohydrate snack or liquid meal.

Foods to Choose

Use the following guidelines when choosing food prior to a summer biathlon activity:

- Drink fluids, such as water, fruit juice, milk or soup.
- Select foods high in carbohydrates, such as grain products, vegetables and fruit juice, low-fat milk or yogurt. Beans, peas and lentils are sources of slowly released carbohydrate, but unless they are eaten regularly these high fibre foods might cause discomfort.

- Select foods that are easy to digest. Since proteins and fats are digested slowly, it is better to limit them, particularly fat, especially if exercising intensely soon after eating.
- Select familiar foods in order not to upset the stomach.
- Avoid spicy or high in fibre foods unless they can be tolerated.

DURING ACTIVITY



Water is essential during a summer biathlon activity. Even a small amount of dehydration (1 percent of body weight) can increase cardiovascular strain as indicated by a disproportionate elevation of heart rate during exercise and limit the ability of the body to transfer heat from contracting muscles to the skin's surface where heat can be dissipated to the environment.

What to Eat

When an individual trains several times a day, there are opportunities to consume solid snacks between workouts. Those snacks should consist of foods that are easy to digest (low in fibre and in fat – less than 3 g of fat per 30-g serving). To maintain energy levels, the intake of carbohydrates during a summer biathlon activity should be between 30 g and 60 g per hour. It is also important to drink water to maintain the 4- to 8-percent carbohydrate concentration.

What to Drink

For a summer biathlon activity of less than one hour, water is all that is needed to hydrate. Sports drinks are designed so fluid and some carbohydrates enter your blood stream quickly. They have no other nutrients.

Urine volume and colour are simple indicators of hydration status. Ample quantities of lemon juice-coloured urine mean an individual is well hydrated while dark coloured, small volume and infrequent urination mean dehydration.

POST-ACTIVITY

When an individual has been sweating heavily during a summer biathlon activity, fluid replacement is the concern. Eating carbohydrates within 15 minutes of the end of the activity is the quickest way to refill muscle glycogen stores. Fat will slow the rate of absorption. Directly after a summer biathlon activity, look for low fat foods, high in carbohydrates with little protein.



Recent research has shown that chocolate milk is as effective as commercial products designed for recovery from a rigorous workout. In addition to helping replace lost fluids, the amount of carbohydrates and proteins in chocolate milk is ideal for exhausted muscles.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

- Q1. What fluid should be consumed during a summer biathlon?
- Q2. What is the recommended food to eat after a summer biathlon activity?
- Q3. What is the concern after a summer biathlon activity?

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ANTICIPATED ANSWERS

- A1. Water is to be consumed during a summer biathlon activity.
- A2. Low fat foods, high in carbohydrates with little protein.
- A3. When an individual has been sweating heavily during a summer biathlon activity, fluid replacement is the concern.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What is the recommended intake of carbohydrates during a summer biathlon activity?

ANTICIPATED ANSWERS

- A1. To maintain energy levels, the intake of carbohydrates during a summer biathlon activity should be between 30 g and 60 g per hour.

CONCLUSION

HOMEWORK/READING/PRACTICE

The cadets will apply hygiene practices and choose suitable athletic clothing each time they participate in a summer biathlon activity.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Meeting energy requirements is an important part of performing well and staying healthy while being active. Eating healthy foods will help the body grow strong, prevent illnesses and maintain energy during a summer biathlon activity. Applying hygiene practices and choosing suitable athletic clothing will also help to prevent illnesses and injuries during a summer biathlon activity.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

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MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 2 OF EO S345.04

A-CR-CCP-903/PG-001

EO S345.04 – PERFORM THE ROLE OF A SUMMER BIATHLON OFFICIAL

1. **Performance.** Perform the Role of a Summer Biathlon Official.

2. **Conditions**

a. Given:

- (1) Range assistant equipment, to include:
 - (a) air rifle range equipment,
 - (b) air rifle pellets,
 - (c) biathlon air rifle targets (BARTs),
 - (d) trail tape, and
 - (e) 100-m open reel measuring tape;
- (2) Competition secretary equipment, to include:
 - (a) notice board,
 - (b) start list,
 - (c) numbered bibs,
 - (d) stopwatch,
 - (e) calculator,
 - (f) results sheets,
 - (g) clipboard, and
 - (h) pen/pencil;
- (3) Lane scorekeeper equipment, to include:
 - (a) range scoresheets,
 - (b) stopwatch,
 - (c) clipboard, and
 - (d) pen/pencil;
- (4) Penalty loop controller equipment, to include:
 - (a) trail tape,
 - (b) 100-m open reel measuring tape,
 - (c) stopwatch,
 - (d) penalty loop control sheets,
 - (e) clipboard, and
 - (f) pen/pencil;

- (5) Course controller equipment, to include:
 - (a) trail tape,
 - (b) 100-m open reel measuring tape,
 - (c) stopwatch,
 - (d) course control sheets,
 - (e) clipboard, and
 - (f) pen/pencil;
- (6) Start/finish controller equipment, to include:
 - (a) trail tape,
 - (b) 100-m open reel measuring tape,
 - (c) stopwatch,
 - (d) start list,
 - (e) finish sheets,
 - (f) clipboard, and
 - (g) pen/pencil;
- (7) Supervision, and
- (8) Assistance as required.
- b. Denied: N/A.
- c. Environmental:
 - (1) Air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8; and
 - (2) Sports field, gymnasium, or training area large enough to accommodate the entire group.
- 3. **Standard.** The cadet shall perform the role of a summer biathlon official, to include:
 - a. range assistant,
 - b. competition secretary,
 - c. lane scorekeeper
 - d. penalty loop controller,
 - e. course controller,
 - f. start/finish controller, or
 - g. runner.

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4. Teaching Points

TP	Description	Method	Time	Ref
TP2	Explain the role of a range assistant during a summer biathlon activity, to include: a. setting up the range area of the summer biathlon venue; b. controlling and issuing pellets; and c. monitoring competitors for safety infractions.	Interactive Lecture	15 min	

5. Time

- a. Introduction/Conclusion: 5 min
- b. Interactive Lecture: 15 min
- c. Total: 20 min

6. **Substantiation.** An interactive lecture was chosen for this lesson to introduce the cadets to the role of summer biathlon officials and to generate interest.

7. **References.** C0-084 Biathlon Canada. (2006). *Biathlon Canada Handbook*. Ottawa, ON: Biathlon Canada.

8. Training Aids

- a. Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for the classroom/training area,
- b. Air rifle range equipment,
- c. Air rifle pellets,
- d. BARTs,
- e. Trail tape,
- f. 100-m open reel measuring tape,
- g. Range scoresheets,
- h. Penalty loop control sheets,
- i. Course control sheets,
- j. Finish sheets,
- k. Results sheets,
- l. Stopwatch,
- m. Clipboard,
- n. Notice board,
- o. Calculator,

- p. Start list,
 - q. Numbered bibs, and
 - r. Pen/Pencil.
9. **Learning Aids**
- a. Air rifle range equipment,
 - b. Air rifle pellets,
 - c. BARTs,
 - d. Trail tape,
 - e. 100-m open reel measuring tape,
 - f. Range scoresheets,
 - g. Penalty loop control sheets,
 - h. Course control sheets,
 - i. Finish sheets,
 - j. Results sheets,
 - k. Stopwatch,
 - l. Clipboard,
 - m. Notice board,
 - n. Calculator,
 - o. Start list,
 - p. Numbered bibs, and
 - q. Pen/Pencil.
10. **Test Details.** This EO is assessed IAW Chapter 3, [Annex B](#), [Appendix 5](#) (S345 PC).
11. **Remarks.** The application of this skill occurs during the lesson related to EO S345.05 (Participate in Summer Biathlon Activities).

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AIR RIFLE MARKSMANSHIP INSTRUCTOR
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SECTION 4

EO S345.04 – PERFORM THE ROLE OF A SUMMER BIATHLON OFFICIAL

Total Time: 20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to the role of summer biathlon officials and to generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to perform the role of a summer biathlon official.

IMPORTANCE

It is important for cadets to understand the role of a summer biathlon official so they can carry out their duties as an Air Rifle Marksmanship Instructor.

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Teaching Point 2

Explain the Role of a Range Assistant During a Summer Biathlon Activity

Time: 15 min

Method: Interactive Lecture



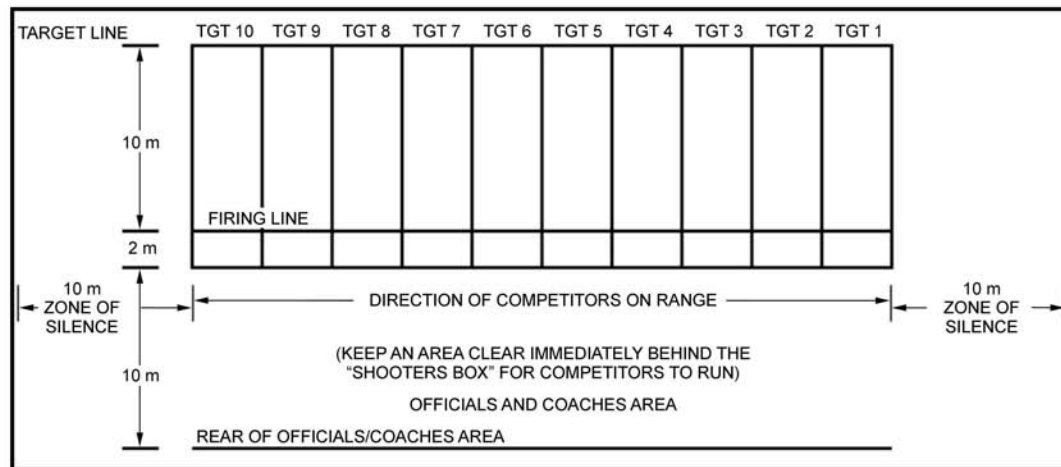
A range assistant position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

RANGE ASSISTANT

During cadet activities the range assistant, under the supervision of a Range Safety Officer (RSO), performs range-related tasks to assist during the summer biathlon. The range assistant is responsible for:

Setting Up the Range Area of the Summer Biathlon Venue

A biathlon range is constructed in much the same manner as a standard air rifle range with the main difference being the target system used. If firing points are numbered, they start from the right with Lane 1 and increase to the left (opposite from a standard air rifle range). In addition to differences at the backstop, a summer biathlon range contains a larger area behind the firing point, known as the ramp, for competitors to enter and exit. The ramp may contain rifle racks or other storage areas for coaches to leave team equipment. It must be 10 m wide and as level as possible. Signs must be placed to indicate the zone of silence that extends 10 m from the right side of Lane 1 and from the left side of the last lane. Within the zone of silence, coaches are prohibited from communicating with their competitors.



Director Cadets 3, 2009, Ottawa, ON: Department of National Defence

Figure 6-4-1 Ramp Layout

The Biathlon Air Rifle Target (BART). The BART has the following characteristics:

- five 35-mm diameter drop plate targets,

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- pop-up paddles for visual confirmation, and
- manual reset with a 10-m pull cord.

This target has five black circular targets on white backgrounds. When a target is hit, a white paddle pops up, covering the circle. Once a bout of firing is complete and the lane scorekeeper has recorded the score, the cord is pulled and the target is reset.



"Biathlon Style Airgun Target". 2005, Devin Manufacturing Incorporated, Copyright 2005 by Devin Mfg., Inc. Retrieved February 15, 2007, from <http://www.devinmfg.com/targets1.html>

Figure 6-4-2 Biathlon Air Rifle Target

Controlling and Issuing Pellets

During the summer biathlon activity, the range assistant controls and issues pellets to competitors. Depending on the specific requirements of the summer biathlon activity, the range assistant places the required amount of pellets at each firing lane prior to the competitor's arrival. Once the firing bout is complete, the range assistant ensures the pellet container is refilled with the required amount of pellets for the next competitor in that lane. At the completion of the activity, the range assistant ensures any used pellets are collected from the backstop area and given to the Range Safety Officer (RSO) for disposal.

Monitoring Competitors for Safety Infractions

When the range is open for firing or competition a range assistant monitors for safety infractions. The Canadian Cadet Movement Biathlon Championship Series (CCMBCS) outlines the safety violations a range assistant will monitor. Safety violations carry a penalty and are passed to the lane scorekeeper for notation on the range scoresheet. In addition, the range assistant observes the downrange area and is ready to use the ceasefire command if hazards occur.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

- Q1. What is the area behind the firing point of a summer biathlon range called?

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Q2. How far does the zone of silence extend from either side of the summer biathlon range?

Q3. What are the consequences of safety violations during a summer biathlon?

ANTICIPATED ANSWERS

A1. The ramp.

A2. 10 m.

A3. Safety violations carry a penalty and are passed to the lane scorekeeper for notation on the range scoresheet.

END OF LESSON CONFIRMATION

QUESTIONS

Q1. What are the characteristics of the BART?

ANTICIPATED ANSWERS

A1. The BART has the following characteristics:

- five 35-mm diameter drop plate targets,
- pop-up paddles for visual confirmation, and
- manual reset with a 10-m pull cord.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5 (S345 PC).

CLOSING STATEMENT

As Air Rifle Marksmanship Instructors, you will be asked to perform the duties of a summer biathlon official during training at your corps/squadron or CSTC. You must be familiar with each official's duties and responsibilities to perform in each area of a summer biathlon activity. By being able to effectively officiate a summer biathlon competition, you will enhance the experience of the competitors and provide a fair sporting environment.

INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lesson related to EO S345.05 (Participate in Summer Biathlon Activities, [Section 5](#)).

REFERENCES

C0-084 Biathlon Canada. (2006). *Biathlon Canada Handbook*. Ottawa, ON: Biathlon Canada.

MODIFIED LESSON INSTRUCTIONS AND INSTRUCTIONAL GUIDES – TP 3 OF EO S345.04

A-CR-CCP-903/PG-001

EO S345.04 – PERFORM THE ROLE OF A SUMMER BIATHLON OFFICIAL

1. **Performance.** Perform the Role of a Summer Biathlon Official.

2. **Conditions**

a. Given:

- (1) Range assistant equipment, to include:
 - (a) air rifle range equipment,
 - (b) air rifle pellets,
 - (c) biathlon air rifle targets (BARTs),
 - (d) trail tape, and
 - (e) 100-m open reel measuring tape;
- (2) Competition secretary equipment, to include:
 - (a) notice board,
 - (b) start list,
 - (c) numbered bibs,
 - (d) stopwatch,
 - (e) calculator,
 - (f) results sheets,
 - (g) clipboard, and
 - (h) pen/pencil;
- (3) Lane scorekeeper equipment, to include:
 - (a) range scoresheets,
 - (b) stopwatch,
 - (c) clipboard, and
 - (d) pen/pencil;
- (4) Penalty loop controller equipment, to include:
 - (a) trail tape,
 - (b) 100-m open reel measuring tape,
 - (c) stopwatch,
 - (d) penalty loop control sheets,
 - (e) clipboard, and
 - (f) pen/pencil;

- (5) Course controller equipment, to include:
 - (a) trail tape,
 - (b) 100-m open reel measuring tape,
 - (c) stopwatch,
 - (d) course control sheets,
 - (e) clipboard, and
 - (f) pen/pencil;
- (6) Start/finish controller equipment, to include:
 - (a) trail tape,
 - (b) 100-m open reel measuring tape,
 - (c) stopwatch,
 - (d) start list,
 - (e) finish sheets,
 - (f) clipboard, and
 - (g) pen/pencil;
- (7) Supervision, and
- (8) Assistance as required.
- b. Denied: N/A.
- c. Environmental:
 - (1) Air rifle range constructed IAW A-CR-CCP-177/PT-001, Part 1, Section 8, and
 - (2) Sports field, gymnasium, or training area large enough to accommodate the entire group.
- 3. **Standard.** The cadet shall perform the role of a summer biathlon official, to include:
 - a. range assistant,
 - b. competition secretary,
 - c. lane scorekeeper,
 - d. penalty loop controller,
 - e. course controller,
 - f. start/finish controller, or
 - g. runner.

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4. Teaching Points

TP	Description	Method	Time	Ref
TP3	Explain the role of a competition secretary, to include: a. setting up a competition office; b. ensuring forms are available to other officials; c. generating a start list; d. ensuring synchronized stopwatches are available to other officials; e. tabulating results during the competition as range scoresheets, penalty loop control sheets, course control sheets and finish sheets arrive; and f. posting the results once the competition is finished.	Interactive Lecture	15 min	

5. Time

- a. Introduction/Conclusion: 5 min
- b. Interactive Lecture: 15 min
- c. Total: 20 min

6. **Substantiation.** An interactive lecture was chosen for this lesson to introduce the cadets to the role of summer biathlon officials and to generate interest.

7. **References.** C0-084 Biathlon Canada. (2006). *Biathlon Canada Handbook*. Ottawa, ON: Biathlon Canada.

8. Training Aids

- a. Presentation aids (eg, whiteboard/flip chart/OHP) appropriate for the classroom/training area,
- b. Air rifle range equipment,
- c. Air rifle pellets,
- d. BARTs,
- e. Trail tape,
- f. 100-m open reel measuring tape,
- g. Range scoresheets,
- h. Penalty loop control sheets,
- i. Course control sheets,
- j. Finish sheets,
- k. Results sheets,

- l. Stopwatch,
 - m. Clipboard,
 - n. Notice board,
 - o. Calculator,
 - p. Start list,
 - q. Numbered bibs, and
 - r. Pen/Pencil.
9. **Learning Aids**
- a. Air rifle range equipment,
 - b. Air rifle pellets,
 - c. BARTs,
 - d. Trail tape,
 - e. 100-m open reel measuring tape,
 - f. Range scoresheets,
 - g. Penalty loop control sheets,
 - h. Course control sheets,
 - i. Finish sheets,
 - j. Results sheets,
 - k. Stopwatch,
 - l. Clipboard,
 - m. Notice board,
 - n. Calculator,
 - o. Start list,
 - p. Numbered bibs, and
 - q. Pen/Pencil.
10. **Test Details.** This EO is assessed IAW Chapter 3, [Annex B](#), [Appendix 5](#) (S345 PC).
11. **Remarks.** The application of this skill occurs during the lesson related to EO S345.05 (Participate in Summer Biathlon Activities).

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SECTION 4

EO S345.04 – PERFORM THE ROLE OF A SUMMER BIATHLON OFFICIAL

Total Time: 20 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-903/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for this lesson to introduce the cadets to the role of summer biathlon officials and to generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to perform the role of a summer biathlon official.

IMPORTANCE

It is important for cadets to understand the role of a summer biathlon official so they can carry out their duties as an Air Rifle Marksmanship Instructor.

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Teaching Point 3**Explain the Role of a Competition Secretary**

Time: 15 min

Method: Interactive Lecture



A competition secretary position may or may not be applicable for all summer biathlon activities. For the purposes of the programmed activities of the Air Rifle Marksmanship Instructor Course, this position is assigned the duties outlined in this TP.

COMPETITION SECRETARY

During summer biathlon activities, a competition secretary sets up a competition office and coordinates the compilation of results. The competition secretary is responsible for:

Setting Up a Competition Office

The competition secretary establishes an area near the biathlon venue to use as a workspace. It should be indoors or covered; however, a folding table and chair will suffice. A notice board is set up at the competition office so start lists, notices and results can be posted.

Ensuring Forms Are Available to Other Officials

The competition secretary is responsible for ensuring range scoresheets, penalty loop control sheets, course control sheets and finish sheets are available to the officials prior to the summer biathlon activity. If bibs are used, the competition secretary issues them to coaches or competitors.

Generating a Start List

Once the participant list is verified, a random draw occurs to establish the order competitors will start the competition. This is known as the start list. This draw should occur during the coaches meeting; however, for simplified biathlon activities the list is generated by the competition secretary at any time prior to the race. Once a start list is generated and bib numbers are assigned, the competition secretary distributes bibs (if used). The start list is distributed to coaches and officials.

Ensuring Synchronized Stopwatches Are Available to Other Officials

The competition secretary synchronizes stopwatches for officials to use during the race and distributes them. One stopwatch is left with the competition secretary to compare other stopwatches with after the race to ensure they are still synchronized.

Tabulating Results as Range Scoresheets, Penalty Loop Control Sheets, Course Control Sheets and Finish Sheets Arrive

Once competitors have finished, the competition secretary tabulates the final results by:

1. subtracting the competitor's start time from their finish time to establish the run time;
2. calculating any shooting penalties and adding them to the run time; and
3. subtracting any stop times from the run time to produce the final time.

Posting the Results Once the Competition Is Finished

Once the results are calculated, the competition secretary posts them on the notice board for viewing by coaches and competitors.

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CONFIRMATION OF TEACHING POINT 3

QUESTIONS

- Q1. What are the requirements for the location of a competition office?
- Q2. What is the start list?
- Q3. How are the final times calculated?

ANTICIPATED ANSWERS

- A1. The competition office should be indoors or covered; however, a folding table and chair will suffice.
- A2. Once the participant list is verified, a random draw occurs to establish the order competitors will start the competition. This is known as the start list.
- A3. Once competitors have finished, the competition secretary tabulates the final results by:
1. subtracting the competitor's start time from their finish time to establish the run time;
 2. calculating any shooting penalties and adding them to the run time; and
 3. subtracting any stop times from the run time to produce the final time.

END OF LESSON CONFIRMATION

QUESTIONS

- Q1. What sheets will the competition secretary ensure are available at the competition office prior to the summer biathlon activity?

ANTICIPATED ANSWERS

- A1. The competition secretary is responsible for ensuring range scoresheets, penalty loop control sheets, course control sheets and finish sheets are available to the officials prior to the summer biathlon activity.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-903/PG-001, Chapter 3, Annex B, Appendix 5 (S345 PC).

CLOSING STATEMENT

As Air Rifle Marksmanship Instructors, you will be asked to perform the duties of a summer biathlon official during training at your corps/squadron or CSTC. You must be familiar with each official's duties and responsibilities to perform in each area of a summer biathlon activity. By being able to effectively officiate a summer biathlon competition, you will enhance the experience of the competitors and provide a fair sporting environment.

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INSTRUCTOR NOTES/REMARKS

The application of this skill occurs during the lesson related to EO S345.05 (Participate in Summer Biathlon Activities, Section 5).

REFERENCES

C0-084 Biathlon Canada. (2006). *Biathlon Canada Handbook*. Ottawa, ON: Biathlon Canada.

START LIST

Start/Finish Controller's Name: _____

Cadet Name	Bib Number	Start Time	Started (√)	Remarks
		Hr Min Sec		

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Figure 6B-2 Start List

RESULTS SHEET

Competition Secretary's Name: _____

[illegible]

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Figure 6B-2 Results Sheet

RANGE SCORESHEET

Scorekeeper's Name: _____

Bib Number	Lane	Shots Fired	X = Miss	Misses	Comments/Penalties
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		
Bib Number	Lane	Shots Fired	X = Miss	Misses	
		3 Spare			
			O O O O O		

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Figure 6B-4 Range Scoresheet

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Chapter 6, Annex B

PENALTY LOOP CONTROL SHEET

Penalty Loop Controller's Name: _____

Bib Number	Bib Number	Bib Number	Bib Number

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Figure 6B-5 Penalty Loop Control Sheet

COURSE CONTROL SHEET

Course Controller's Name: _____

[illegible]

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Figure 6B-6 Course Control Sheet

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FINISH SHEET

Start/Finish Controller's Name: _____

[illegible]

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Figure 6B-8 Finish Sheet