



**COMMON TRAINING  
GOLD STAR  
INSTRUCTIONAL GUIDE**



**SECTION 1**

**EO M406.01 – PARTICIPATE IN A RECREATIONAL MARKSMANSHIP ACTIVITY**

Total Time:

90 min

**PREPARATION**

**PRE-LESSON INSTRUCTIONS**

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-704/PG-001, *Gold Star Qualification Standard and Plan*, 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, unit range standing orders, and become familiar with the material prior to delivering the lesson.

Photocopy the targets located at Attachments B–J as required.

Construct a range IAW A-CR-CCP-177/PT-001, *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*.

**PRE-LESSON ASSIGNMENT**

Nil.

**APPROACH**

A practical activity was chosen for this lesson as it is an interactive way to allow the cadet to experience recreational marksmanship 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**

The review for this lesson will be from EO M106.02 (Carry Out Safety Precautions on the Cadet Air Rifle).

**QUESTIONS:**

- Q1. Why do we follow safety regulations?
- Q2. How would you verify the safety catch is ON?
- Q3. What are the four “ACTS” of firearm safety?

**ANTICIPATED ANSWERS:**

- A1. We follow safety regulations to prevent accidents with the cadet air rifle.
- A2. When the safety is ON, no red can be seen.
- A3. The mnemonic “ACTS” stands for:
- Assume every firearm is loaded.
  - Control the muzzle direction at all times.
  - Trigger finger must be kept off the trigger and out of the trigger guard.
  - See that the firearm is unloaded (prove it safe).

**OBJECTIVES**

By the end of this lesson the cadet shall have participated in a recreational marksmanship activity.

**IMPORTANCE**

It is important for cadets to participate in a recreational marksmanship activity because it allows them to experience marksmanship in a fun, dynamic and safe setting.

**Teaching Point 1****Supervise the cadet's participation in a recreational marksmanship activity.**

Time: 80 min

Method: Practical Activity



A range briefing is conducted to pass on vital information and answer any questions the cadets may have prior to participating in a marksmanship activity. The range briefing is required to ensure the safe execution of a marksmanship activity.

**CONDUCT A RANGE BRIEFING**

1. Explain pertinent sections of the local range standing orders.
2. Review general rules observed on all ranges, to include:
  - a. proving that rifles are safe prior to being picked up, handed to or received from another person;
  - b. never pointing rifles at people;
  - c. inserting safety rods into the barrels of rifles when not in use on the range;
  - d. never horseplaying on a range;
  - e. always pointing rifles down range; and
  - f. following the Range Safety Officer's (RSO) directions and orders at all times.



Review range commands with an explanation and demonstration for each command.  
All loading / firing is to be simulated.

3. Review commands used on an air rifle range (as illustrated in Figure 1).

COMMAND	ACTION TO BE TAKEN
<b>Cover off your firing point</b>	Stand up, move behind the firing point and await further commands.
<b>Place your equipment down and stand back</b>	Lay the equipment down on the mat and stand back when finished.
<b>Adopt the prone position</b>	Adopt the prone position, pick up the rifle, ready the equipment and put on hearing and eye protection.
<b>Type of firing (GRIT)</b>	GRIT is the acronym for: <ol style="list-style-type: none"> <li>1. Group (relay),</li> <li>2. Range (distance),</li> <li>3. Indication (number of rounds), and</li> <li>4. Type (grouping, scored).</li> </ol>
<b>Relay, load</b>	<ol style="list-style-type: none"> <li>1. Pick up and hold the rifle with the dominant hand.</li> <li>2. Ensure the safety catch is in the "ON" position.</li> <li>3. Pump the rifle, observing a three-second pause.</li> <li>4. Load a pellet (flat end forward).</li> <li>5. Close the bolt.</li> </ol>
<b>Relay, fire</b>	<ol style="list-style-type: none"> <li>1. Place the safety catch in the "OFF" position.</li> <li>2. Aim the rifle at the target.</li> <li>3. Squeeze the trigger.</li> <li>4. Open the bolt.</li> <li>5. Repeat the following sequence for each shot: <ol style="list-style-type: none"> <li>(a) Pump the rifle, observing a three-second pause.</li> <li>(b) Load a pellet (flat end forward).</li> <li>(c) Close the bolt.</li> <li>(d) Aim the rifle at the target.</li> <li>(e) Squeeze the trigger.</li> <li>(f) Open the bolt.</li> </ol> </li> <li>6. Place the safety in the "ON" position.</li> <li>7. Partially open the pump lever.</li> <li>8. Lay down the rifle.</li> </ol>

Figure 1 Air Rifle Range Commands

*Note.* Created by Director Cadets 3, 2006, Ottawa, ON: Department of National Defence.

4. Describe the layout of the air rifle range.
5. Review hand-washing procedures on completion of firing. This is important because each time a person handles pellets, a small trace of lead is left on their hands. To decrease the risk of lead poisoning, it is important that all persons wash their hands thoroughly after handling pellets.

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## ACTIVITY

### OBJECTIVE

The objective of this activity is to have the cadets participate in a recreational marksmanship activity.

### RESOURCES

- Cadet air rifle (one per firing lane),
- Cadet air rifle sling (one per cadet),
- Air rifle pellets (as per activity chosen),
- Target frames (one per firing lane),
- Targets (as per activity chosen),
- Shooting mats (one per firing lane),
- Safety glasses / goggles (10 pairs),
- Stopwatch, and
- Pen / pencil.



Additional resources required for specific marksmanship activities may be found in the Attachments.

### ACTIVITY LAYOUT

Nil.

### ACTIVITY INSTRUCTIONS

1. Brief cadets on the safety rules or any other guidelines pertaining to the activity.
2. Divide the cadets into relays according to the number of firing lanes.
3. Conduct a recreational marksmanship activity, choosing from the following categories:
  - a. classification (located at Attachment A),
  - b. fun activities (located at Attachments B–E),
  - c. timed activities (located at Attachments F–H), or
  - d. competitive team / individual activities (located at Attachments I–J).



If EO C306.03 (Fire the Cadet Air Rifle From the Standing Position) has been taught prior to this marksmanship activity, this EO may be conducted in the standing position.

## **SAFETY**

Range activities will be conducted IAW A-CR-CCP-177/PT-001, *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*.

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## **CONFIRMATION OF TEACHING POINT 1**

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

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## **END OF LESSON CONFIRMATION**

The cadets' participation in the recreational marksmanship activity will serve as the confirmation of this lesson.

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## **CONCLUSION**

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## **HOMEWORK / READING / PRACTICE**

Nil.

## **METHOD OF EVALUATION**

Nil.

## **CLOSING STATEMENT**

Marksmanship is a fun and exciting activity that requires personal discipline and teamwork skills. This activity has also developed into highly competitive levels at the provincial, regional, and national levels.

## **INSTRUCTOR NOTES / REMARKS**

Hand-washing stations must be available for cleanup after the activity is completed.

Cadets may fire in the standing position if they have received the training associated with EO C306.03 (Fire the Cadet Air Rifle From the Standing Position).

Corps choosing to instruct EO C406.01 (Assist the Range Safety Officer) should allow cadets to fill these roles during air rifle marksmanship activities.

This activity provides opportunities for cadets to complete a leadership assignment as outlined in PO 403 (Act as a Team Leader).

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## **REFERENCES**

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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. (2007). *Marksmanship, rifles and ammunition*. Ottawa ON: Department of National Defence.

## CLASSIFICATION ACTIVITY

### CLASSIFICATION ACTIVITY

**Objective:** To provide cadets the opportunity to obtain marksmanship classifications.

**Scoring:** The standard for the classification levels are:

1. Marksman: Two five-round groupings within a circle of 3 cm in diameter.
2. First Class Marksman: Two five-round groupings within a circle of 2.5 cm in diameter.
3. Expert Marksman: Two five-round groupings within a circle of 2 cm in diameter.
4. Distinguished Marksman: Two five-round groupings within a circle of 1.5 cm in diameter.

### Equipment Required:

Mandatory:

- CCT200GRTD Canadian Cadet Movement Air Rifle Grouping Target (one per cadet), and
- Air Rifle Grouping Template from *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual* (p. B1-1).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

### Activity Instructions:

1. Distribute an Air Rifle Grouping Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Give the cadets five pellets to fire into the centre of the target.
4. Have the cadets fire, in relays, following the commands given by the RSO.
5. Give the cadets 15 minutes to complete firing.
6. Have the cadets retrieve their targets.
7. Score the targets using the Air Rifle Grouping Template.
8. Record the scores and allow the cadets to keep their targets.

The following are prohibited:

- Alterations made to the rifles,
- A pellet-loading clip,
- Supports used as a rest for the rifle or the forearm,

- A spotting scope,
- Use of sights not provided with the cadet air rifle, and
- Coaching.



## FUN ACTIVITIES

### PYRAMID

**Objective:** To fire pellets into each point on the pyramid.

**Scoring:** One point is awarded for each point on the pyramid that is hit by a pellet.

**Equipment Required:**

Mandatory: Pyramid Target (one per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

**Activity Instructions:**

1. Distribute one Pyramid Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Give the cadets three pellets to fire, one pellet into each corner of the pyramid.
4. Have the cadets fire, in relays, following the commands given by the RSO.
5. Give the cadets three minutes to complete firing.
6. Score the targets awarding one point for each corner hit on the pyramid.
7. Allow the cadets to review and keep their targets.

The following are prohibited:

- Alterations made to the rifles,
- A pellet-loading clip,
- 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.

## PYRAMID TARGET

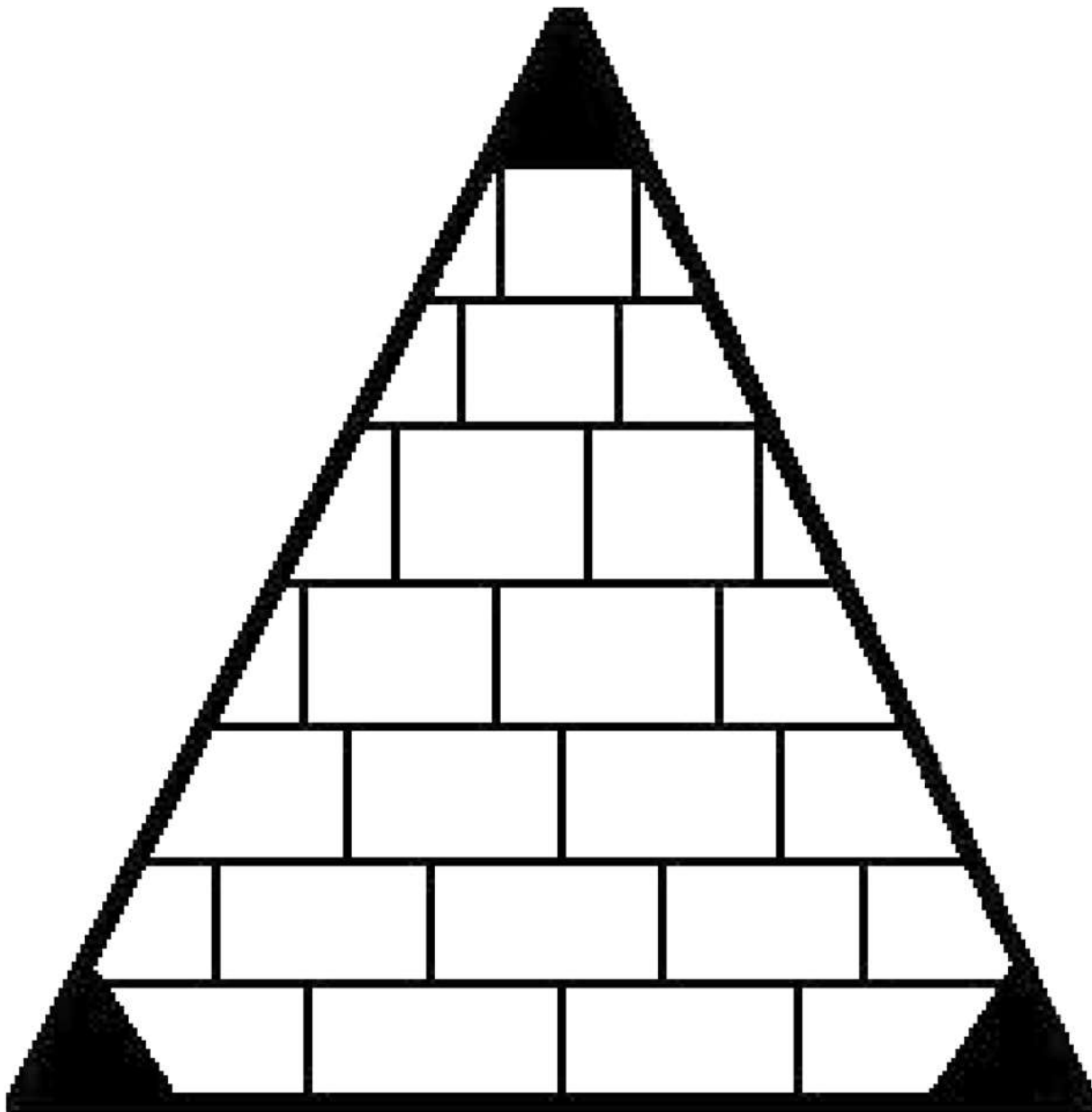


Figure B-1 Pyramid Target

*Note.* Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## FUN ACTIVITIES

### SHOOTING STAR

**Objective:** To fire a pellet into each point on the star.

**Scoring:** One point is awarded for each point on the star that is hit by a pellet.

**Equipment Required:**

Mandatory: Star Target (one per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

**Activity Instructions:**

1. Distribute one Star Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Give the cadets five pellets to fire, one pellet into each point on the star.
4. Have the cadets fire, in relays, following the commands given by the RSO.
5. Give the cadets five minutes to complete firing.
6. Score the targets awarding one point for a pellet hit within each point on the star.
7. Allow the cadets to review and keep their targets.

The following are prohibited:

- Alterations made to the rifles,
- A pellet-loading clip,
- 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.

## STAR TARGET



Figure C-1 Star Target

*Note.* Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## FUN ACTIVITIES

### BEACH BALL

**Objective:** To fire 10 pellets into the black circle on the beach ball.

**Scoring:** One point is awarded for each successful hit in the black circle.

#### **Equipment Required:**

Mandatory: Beach Ball Target (one per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

#### **Activity Instructions**

1. Distribute one Beach Ball Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Give the cadets 10 pellets to fire into the black circle of the beach ball.
4. Have the cadets fire, in relays, following the commands given by the RSO.
5. Give the cadets 10 minutes to complete firing.
6. Score the targets awarding one point for each pellet hit within the black circle.
7. Allow the cadets to review and keep their targets.

The following are prohibited:

- Alterations made to the rifles,
- A pellet-loading clip,
- 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.

## BEACH BALL TARGET



Figure D-1 Beach Ball Target

*Note.* Created by Director Cadets 3, 2006, Ottawa, ON: Department of National Defence.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## FUN ACTIVITIES

### BALLOONS

**Objective:** To fire pellets into balloons on the target.

**Scoring:** One point is awarded for each balloon hit by a pellet.

**Equipment Required:**

Mandatory: Balloon Target (one per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

**Activity Instructions:**

1. Distribute one Balloon Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Give the cadets five pellets to fire, one pellet into each balloon.
4. Have the cadets fire, in relays, following the commands given by the RSO.
5. Give the cadets five minutes to complete firing.
6. Score the targets awarding one point for each balloon hit.
7. Allow the cadets to review and keep their targets.

The following are prohibited:

- Alterations made to the rifles,
- A pellet-loading clip,
- 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.

Note: Actual balloons may be used in place of the paper targets.

## BALLOON TARGET

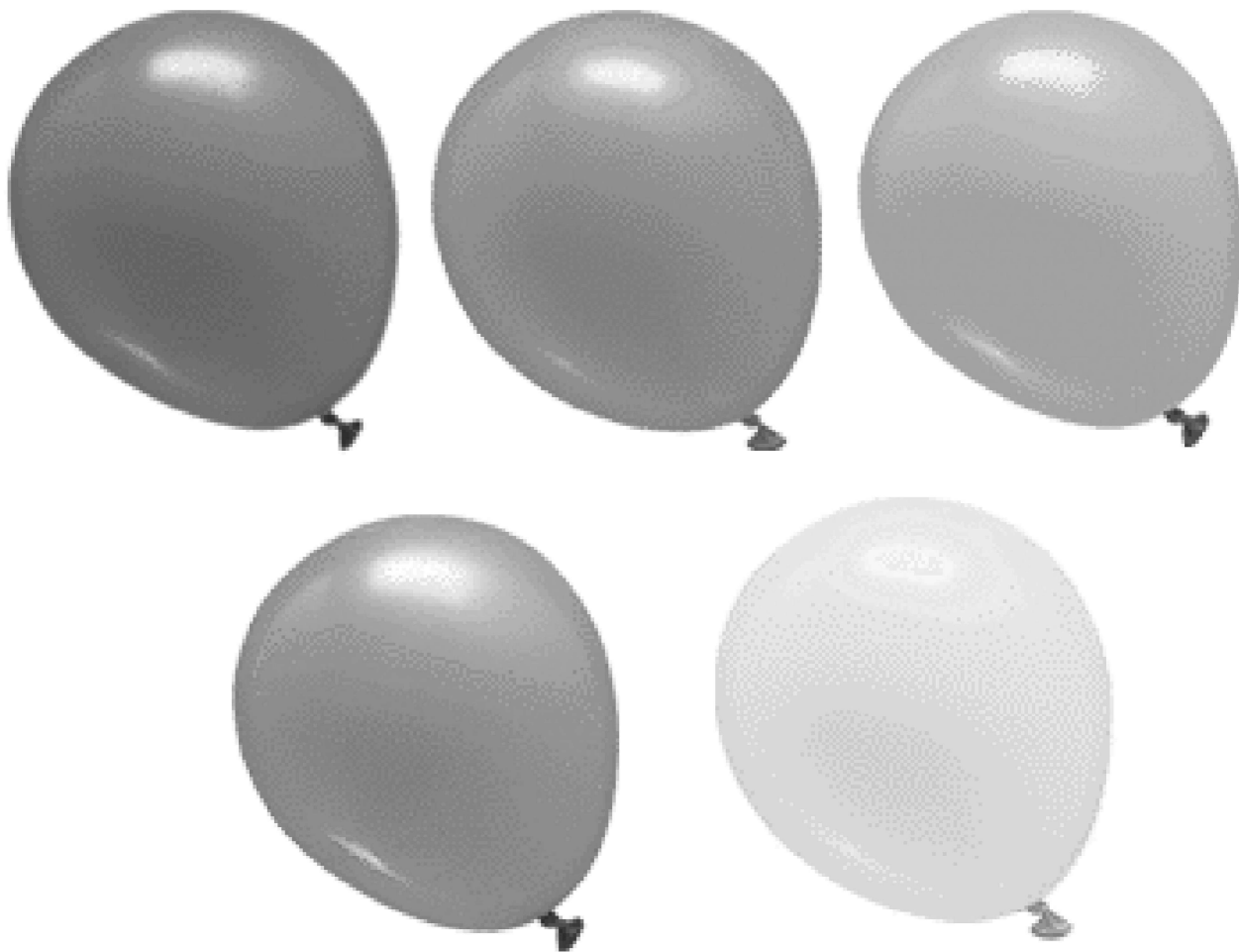


Figure E-1 Balloon Target

*Note.* Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Name: \_\_\_\_\_ Date: \_\_\_\_\_



## TIMED ACTIVITIES

### CHASE THE DOTS

**Objective:** To fire pellets into the dots on the target in a clockwise direction, within a time limit.

**Scoring:** One point is awarded for each black dot that is hit by a pellet within the time allotted.

**Equipment Required:**

Mandatory: Chase the Dots Target (one per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

**Activity Instructions:**

1. Distribute one Chase the Dots Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Give the cadets eight pellets to fire, one pellet into each black dot, in a clockwise direction.
4. Have the cadets fire, in relays, following the commands given by the RSO.
5. Give the cadets eight minutes to complete firing.
6. Score the targets awarding one point for each black dot hit.
7. Allow the cadets to review and keep their targets.

The following are prohibited:

- Alterations made to the rifles,
- A pellet-loading clip,
- Supports used as a rest for the rifle or the forearm,
- A spotting scope,
- Use of sights not provided with the cadet air rifle, and
- Coaching.

Note: To make this activity more challenging, shorten the time allowance.

## CHASE THE DOTS TARGET

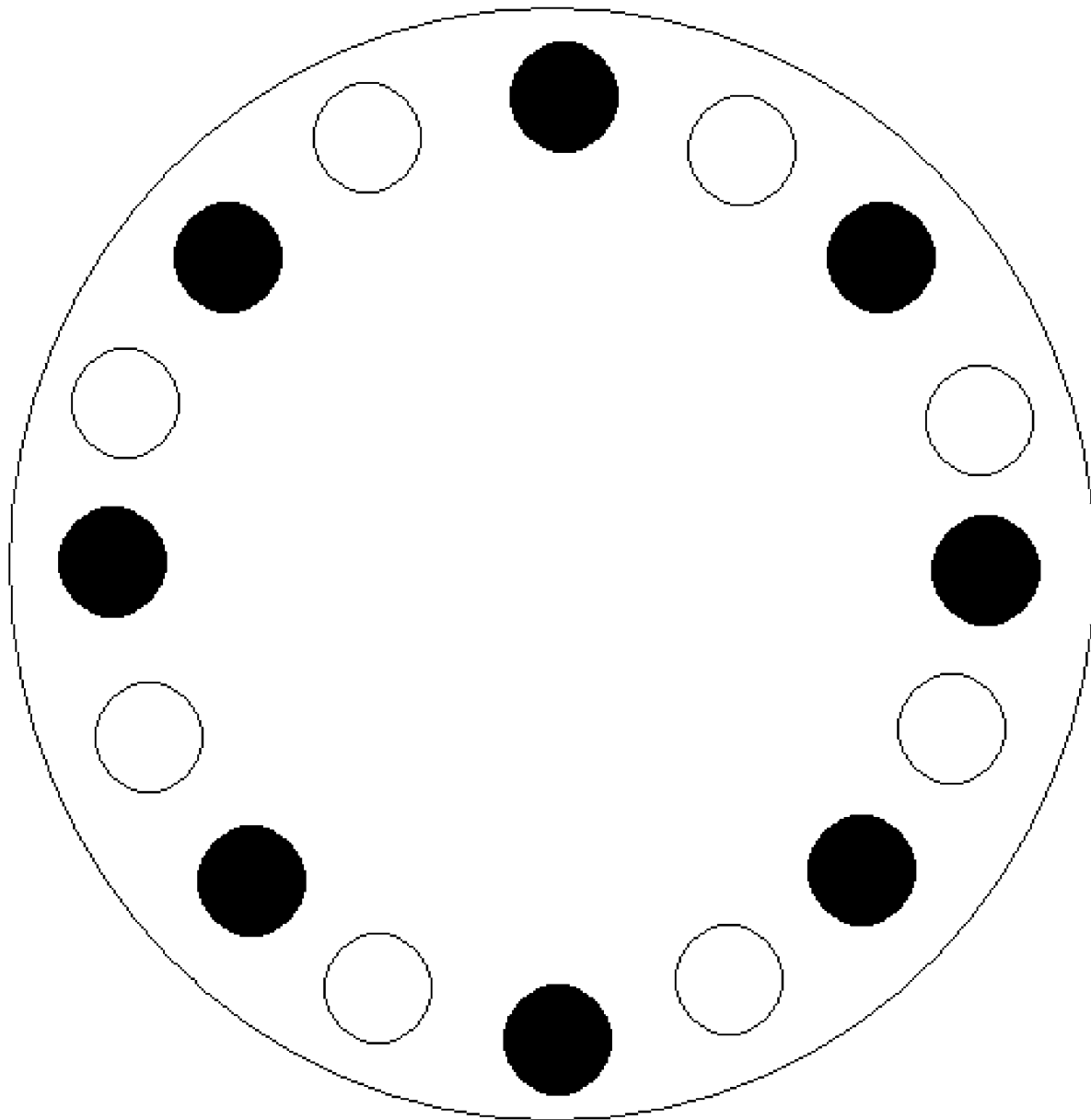


Figure F-1 Chase the Dots Target

*Note.* Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## TIMED ACTIVITIES

### SPEED GRID

**Objective:** To fire pellets into the circles on the target, within a time limit.

**Scoring:** One point is awarded for each circle that is hit by a pellet within the time allotted.

#### **Equipment Required:**

Mandatory:

- Cadet air rifle five-pellet clip (three per firing lane), and
- Speed Grid Target (one per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

#### **Activity Instructions:**

1. Distribute one Speed Grid Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Give the cadets 15 pellets, pre-loaded into three five-pellet clips.
4. Have the cadets fire one pellet into each circle on the target.
5. Have the cadets fire, in relays, following the commands given by the RSO.
6. Give the cadets 15 minutes to complete firing.
7. Score the targets awarding one point for each circle hit.
8. Allow the cadets to review and keep their targets.

The following are prohibited:

- 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, and
- Coaching.

**Note:** To make this activity more challenging, shorten the time allowance.

## SPEED GRID TARGET

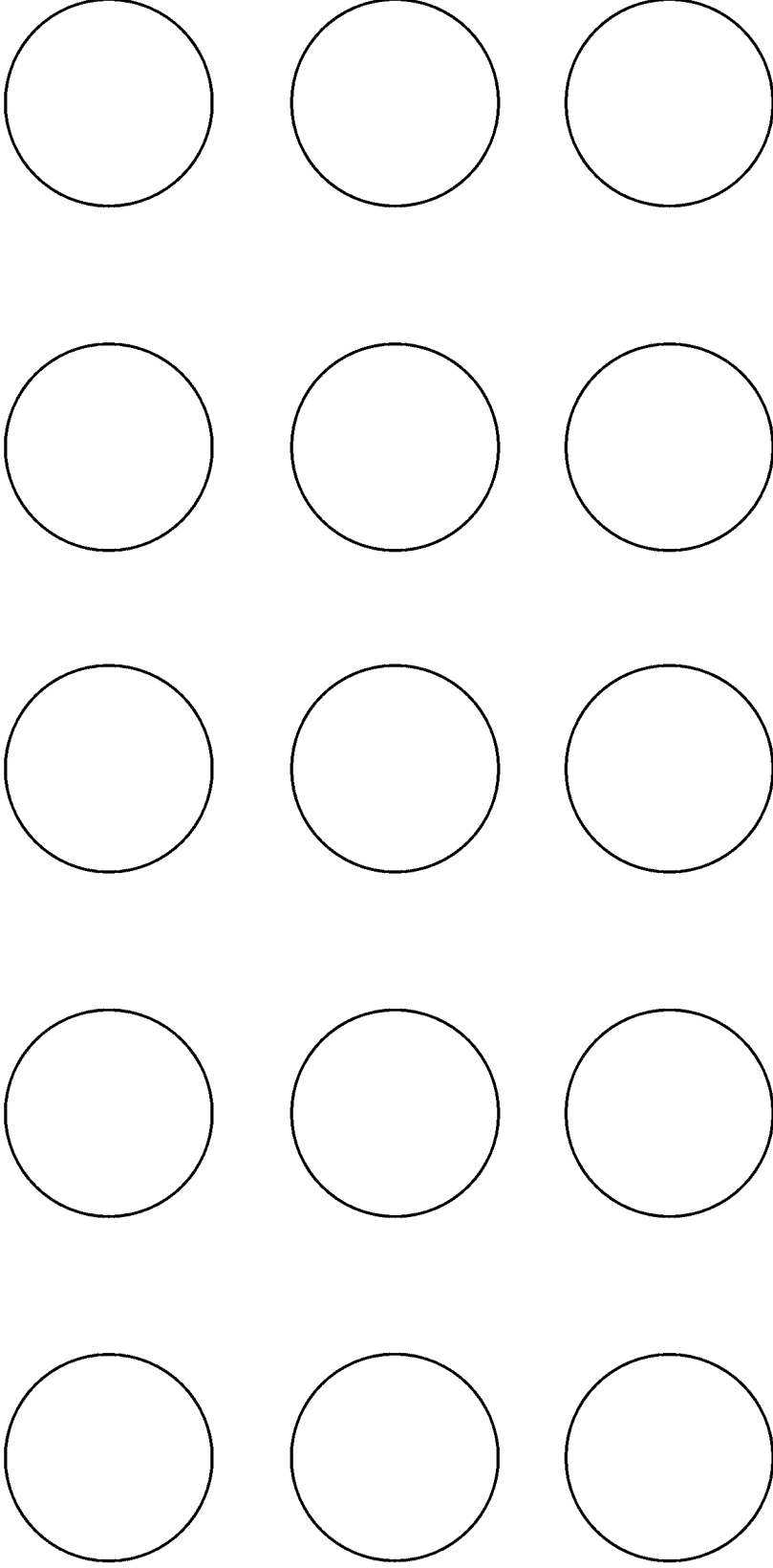


Figure G-1 Speed Grid Target

Note. Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## TIMED ACTIVITIES

### BEAT THE CLOCK

**Objective:** To fire pellets into the designated hours (numbers) within a time limit.

**Scoring:** One point is awarded for each correct hour (number) hit by a pellet within the time allotted.

#### **Equipment Required:**

Mandatory: Beat the Clock Target (one per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

#### **Activity Instructions:**

1. Distribute one Beat the Clock Target to each cadet.
2. Have the cadets write their name and date on the target and attach it to the target frame.
3. Have the cadets fire, in relays, following the commands given by the RSO.
4. Have the RSO using the clock, call out one number every 20 second for a total of six numbers.
5. Give the cadets six pellets to fire, one pellet at each hour (number) as it is called.
6. Score the targets awarding one point for each correct number hit on the target.
7. Allow the cadets to review and keep their targets.

The following are prohibited:

- 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, and
- Coaching.

**Note:** To make this activity more challenging, shorten the time allowance.

## BEAT THE CLOCK TARGET

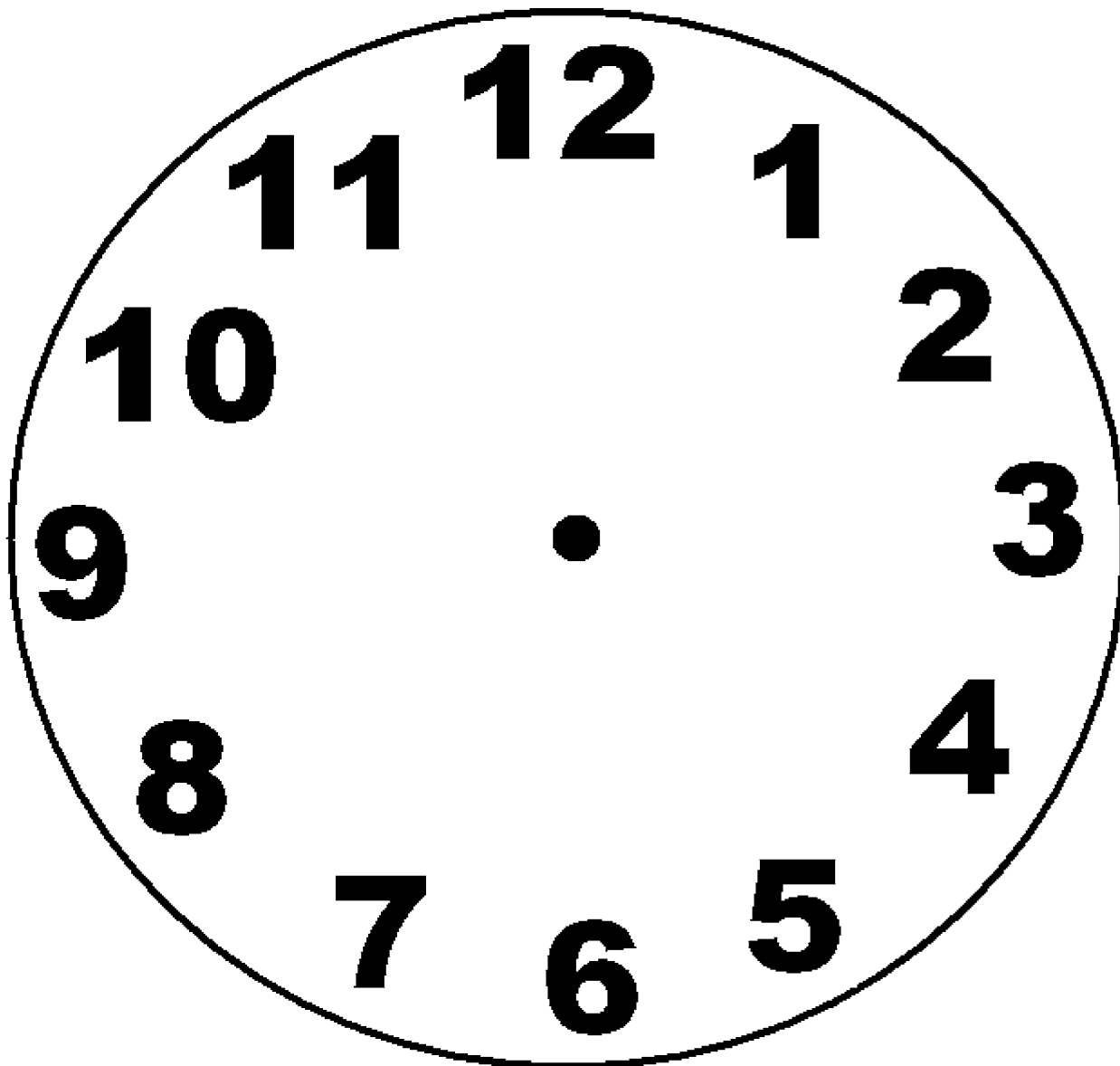


Figure H-1 Clock Target

*Note.* Created by Director Cadets 3, 2007, Ottawa, ON: Department of National Defence.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## COMPETITIVE ACTIVITIES

### CORPS MARKSMANSHIP COMPETITION

**Objective:** To provide cadets the opportunity to compete within the corps.

**Scoring:** Targets will be scored IAW A-CR-CCP-177/PT-001, *Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual*, to include:

- Each target has a highest possible score of 100 points (10 diagrams worth 10 points each).
- 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 more than the one pellet is fired on a target, the shots with the highest value will be discarded until one shot remains on the target. Also, a two-point penalty will be applied to each excess shot.
- If more than one shot is fired at a scoring diagram, only the prescribed number of shots may be fired at the remaining diagrams (eg, if two shots were fired at the first diagram, one diagram on the target would remain blank [free of shots]). If this occurs more than twice, a two-point penalty will be applied to each excess shot.
- This activity may be conducted as individuals or teams of four.

#### Equipment Required:

Mandatory: CCT2001AR853 CCM Competition Targets (two per cadet).

Optional aids to firing are limited to the following:

- Cadet air rifle sling,
- Marksmanship jacket,
- Shooting glove, and
- Hat.

#### Activity Instructions:

1. Distribute two CCT2001AR853 CCM Competition Targets to each cadet.
2. Have the cadets write their name and date on each target and attach them to the target frame.
3. Give the cadets 20 scoring pellets to fire, one pellet at each scoring diagram (additional zeroing pellets are permitted).
4. Have the cadets fire, in relays, following the commands given by the RSO.
5. Give the cadets 30 minutes to complete firing.
6. Have the RSO collect the targets, score as described above and record the results.
7. Allow the cadets to review and keep their targets.

The following are prohibited:

- Crossfiring,
- 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.



## COMPETITIVE ACTIVITIES

### LUNAR LAUNCH

**Objective:** To provide cadets the opportunity to compete within the corps.

**Scoring:** The average distance from the earth to the moon is 384 400 km. All targets from marksmanship activities conducted during marksmanship training will be added together to calculate a distance from Earth and achieve a position on the space shuttle crew. The four scoring levels / positions must meet the following standards:

- |    |                     |                      |                                       |
|----|---------------------|----------------------|---------------------------------------|
| 1. | Mission Commander:  | A score of 100 plus: | 384 400 km from earth, lunar landing! |
| 2. | Mission Specialist: | A score of 75 to 99: | 288 300 km from earth.                |
| 3. | Chief Engineer:     | A score of 50 to 74: | 192 200 km from earth.                |
| 4. | Science Officer:    | A score of 25 to 49: | 96 100 km from earth, lunar launch!   |

#### Equipment Required:

Mandatory: Scores for all targets used in marksmanship activities during the training year.

#### Activity Instructions:

1. Add the scores from the targets used by each cadet during the training year.
2. Use the scoring method described above to assign the cadets levels / positions on the space shuttle crew.

#### Notes:

1. A record must be kept of each cadet's scores from all marksmanship activities.
2. This activity may be conducted over multiple training years.
3. The certificate found at Attachment J may be awarded to cadets who achieve levels / positions in this activity.



This is to certify that

\_\_\_\_\_

has achieved the position of

\_\_\_\_\_

in the



## **Lunar Launch Marksmanship Activity**

\_\_\_\_\_

Date

\_\_\_\_\_

Range Safety Officer



**COMMON TRAINING**  
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**SECTION 2**

**EO C406.01 – ASSIST THE RANGE SAFETY OFFICER (RSO)**

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Total Time:	30 min
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**PREPARATION**

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**PRE-LESSON INSTRUCTIONS**

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-704/PG-001, *Gold Star Qualification Standard and Plan*, 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**

Photocopy, distribute and have each cadet read the Ways to Assist the RSO handout located at Attachment A a minimum of one week prior to delivering the lesson.

**APPROACH**

A group discussion was chosen for this lesson as it allows the cadets to interact with their peers and share their knowledge, experiences, opinions, and feelings about assisting the RSO. Sharing in the discussion encourages the cadet to examine their own thoughts and feelings and may prompt them to re-examine their previously held ideas. Participating in a group discussion improves the cadet's listening skills and team development.

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**INTRODUCTION**

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**REVIEW**

Nil.

**OBJECTIVES**

By the end of this lesson the cadet shall be expected to assist the RSO on an air rifle range.

**IMPORTANCE**

It is important for cadets to have knowledge of how to assist the Range Safety Officer (RSO) on the range. In order to assist the RSO, cadets must know how to set up and dismantle an air rifle range, control pellets, perform the duties of a range sentry, and score targets.

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**Teaching Point 1****Discuss ways to assist the RSO.**

Time: 25 min

Method: Group Discussion

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**BACKGROUND KNOWLEDGE**

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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.

**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 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.

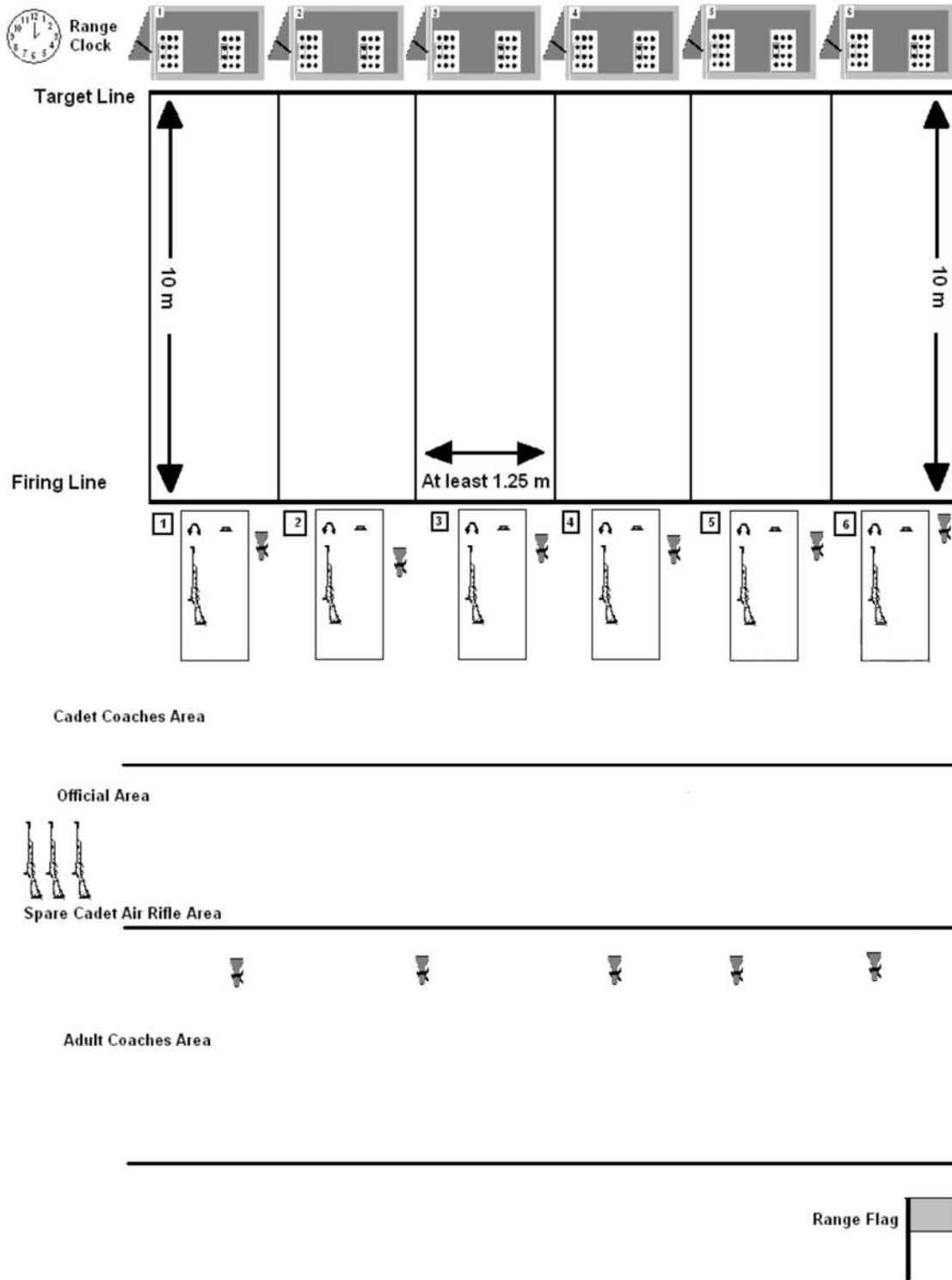


Figure 1 Cadet Air Rifle Range

Note. Created by D Cds 3, 2007, Ottawa, ON: Department of National Defence.

## 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.



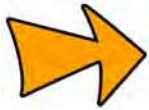
For detailed storage requirements for the cadet air rifle refer to NDSI 65, *Storage and Transportation of Rifles for Canadian Rangers, Cadets and Junior Canadian Rangers*.

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.

## PELLET CONTROLLER

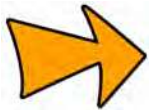
During an air rifle marksmanship activity, cadets may be appointed to assist the RSO by acting as a pellet controller. The duties of a pellet controller include:

- **Maintain 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.
- **Distribute 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.
- **Dispose 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.



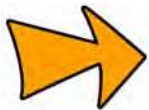
Since pellets are made of lead, a hazardous material, they must be disposed IAW local standing orders.

- **Record 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.

- **Record 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.

## RANGE SENTRY

A range sentry is responsible, during the course of firing, 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.

### Restrict Access to the Range During Firing

On most indoor temporary ranges, access points exist and must be secured during the course of firing. 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.

### Control 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.

### **Notify 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.

### **FIRING POINT ASSISTANT**

A firing point assistant is appointed by the RSO; usually to a specific number of firing points (eg, firing points 1–4). Their main responsibility is to ensure that the firers are carrying out the RSO's commands safely and correctly.

#### **Supervise Firers Responding to Range Commands**

As the RSO gives commands, the firing point assistant observes the firers to ensure they respond correctly. Each cadet should know exactly what to do when given a command on the range. When a cadet does not perform the given command, the firing point assistant will move to the cadet's firing point to ensure they are capable of firing on the range and assist where necessary. If safety is a concern, the RSO should be notified as soon as possible.

#### **Assist Firers as Necessary**

Some cadets may require assistance throughout the firing practice (eg, pumping the cadet air rifle, tightening their sling). The firing point assistant will look for opportunities where assistance is required, and help out the cadets as necessary.

#### **Correct Errors**

When errors are made, the firing point assistant will correct them immediately. To correct an error, the assistant will explain what was done wrong, demonstrate how to perform it correctly (if able to do so) and observe the cadet perform.

#### **Notify the RSO of Safety Concerns**

Any safety concerns observed on the range shall be brought to the attention of the RSO immediately.

### **TARGET SCORER**

The target scorer is responsible for scoring targets once they have been fired. Once a target has been scored, the score is recorded directly on the target. In some cases, an RSO may require the scores to be recorded on a spreadsheet or separate piece of paper.



The process for scoring targets is detailed in EO C406.02 (Score 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.



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## GROUP DISCUSSION

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### 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 some of the ways to assist an RSO?
- Q2. What are the dimensions of a firing lane?
- Q3. What will be the last piece of equipment placed on the air rifle range?
- Q4. What method of cleaning should be used to clean the firing lanes on an indoor temporary air rifle range?
- Q5. What are the five duties of a pellet controller?
- Q6. How must pellets be disposed?
- Q7. What is one benefit of tracking how many pellets were fired during an air rifle activity?
- Q8. What are the responsibilities of a range sentry?
- Q9. Why is it important to restrict access points to the air rifle range?
- Q10. What does a red warning signal indicate?
- Q11. What are the duties of a firing point assistant?
- Q12. What are some occasions on the range in which the firing point assistant can assist the firers?
- Q13. When a cadet is making an error, how should it be corrected?
- Q14. Once a target is scored, where is the value recorded?
- Q15. What are the two official targets used for air rifle marksmanship activities?



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.

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### **CONFIRMATION OF TEACHING POINT 1**

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

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### **END OF LESSON CONFIRMATION**

The cadets' participation in the group discussion will serve as the confirmation of this lesson.

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### **CONCLUSION**

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### **HOMEWORK / READING / PRACTICE**

Nil.

### **METHOD OF EVALUATION**

Nil.

### **CLOSING STATEMENT**

There will be many opportunities to assist the RSO when completing marksmanship activities. Knowing how to set up and dismantle an air rifle range, enforce safety, control pellets, assist on the firing point and score targets are critical duties that have to be completed whenever completing air rifle marksmanship activities. The ways to assist an RSO produce a variety of leadership opportunities.

### **INSTRUCTOR NOTES / REMARKS**

Cadets will assist the RSO during marksmanship activities, specifically EO M406.01 (Participate in a Recreational Marksmanship Activity) and EO C106.01 (Participate in a Recreational Marksmanship Activity).

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### **REFERENCES**

A0-027 A-CR-CCP-177/PT-001 Director Cadets 3. (2005). *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.

## WAYS TO ASSIST THE RSO

### SET 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 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.

### DISMANTLE 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.
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.

## 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:

- **Maintain 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.
- **Distribute 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.
- **Dispose 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.
- **Record 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.
- **Record 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.

## RANGE SENTRY

A range sentry is responsible, during the course of firing, 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.

### Restrict Access to the Range During Firing

On most indoor temporary ranges, access points exist and must be secured during the course of firing. 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.

### **Control 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.

### **Notify 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.

### **FIRING POINT ASSISTANT**

A firing point assistant is appointed by the RSO; usually to a specific number of firing points (eg, firing points 1–4). Their main responsibility is to ensure that the firers are carrying out the RSO's commands safely and correctly.

### **Supervise Firers Responding to Range Commands**

As the RSO gives commands, the firing point assistant observes the firers to ensure they respond correctly. Each cadet should know exactly what to do when given a command on the range. When a cadet does not perform the given command, the firing point assistant will move to the cadets firing point to ensure they are capable of firing on the range and assist where necessary. If safety is a concern, notify the RSO as soon as possible.

### **Assist Firers as Necessary**

Some cadets may require assistance throughout the firing practice (eg, pumping the cadet air rifle, tightening their sling). The firing point assistant will look for opportunities where assistance is required, and help out the cadets as necessary.

### **Correct Errors**

When errors are made, the firing point assistant will correct them immediately. To correct an error, explain what was done wrong, demonstrate how to perform it correctly (if able to do so) and observe the cadet perform.

### **Notify the RSO of Safety Concerns**

Any safety concerns observed on the range shall be brought to the attention of the RSO immediately.

### **TARGET SCORER**

The target scorer is responsible for scoring targets once they have been fired. Once a target has been scored, the score is recorded directly on the target. In some cases, an RSO may require the scores to be recorded on a spreadsheet or separate piece of paper.

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.



**COMMON TRAINING  
GOLD STAR  
INSTRUCTIONAL GUIDE**



**SECTION 3**

**EO C406.02 – SCORE AIR RIFLE MARKSMANSHIP TARGETS**

Total Time:

30 min

**PREPARATION**

**PRE-LESSON INSTRUCTIONS**

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-704/PG-001, *Gold Star Qualification Standard and Plan*, 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 Attachment A for each cadet.

Photocopy the Sample Competition Target handout located at Attachment C for each cadet.

Prepare slides of the Air Rifle Grouping Template and Scoring Template found at Attachments B and D for each cadet.

**PRE-LESSON ASSIGNMENT**

Nil.

**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.

**INTRODUCTION**

**REVIEW**

Nil.

**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.

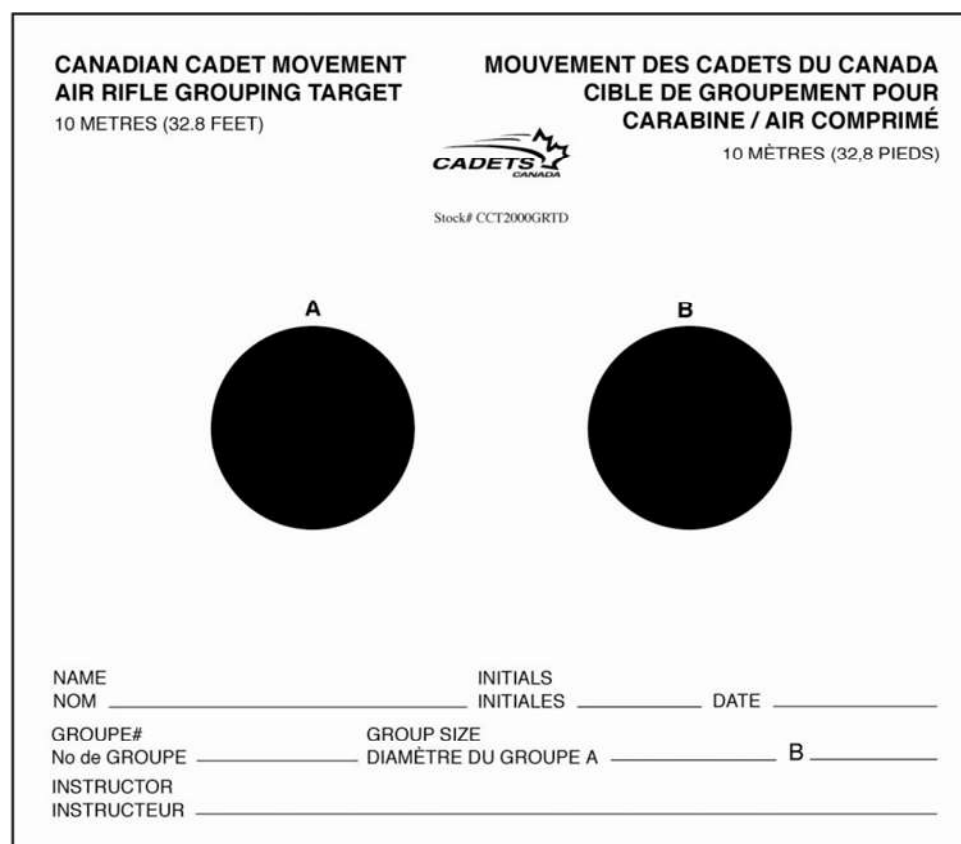


Figure 1 The CCM Air Rifle Grouping Target (CCT2000GRTD)

Note. Created by Director Cadets 4, 2000, Ottawa, ON: Department of National Defence.

**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.

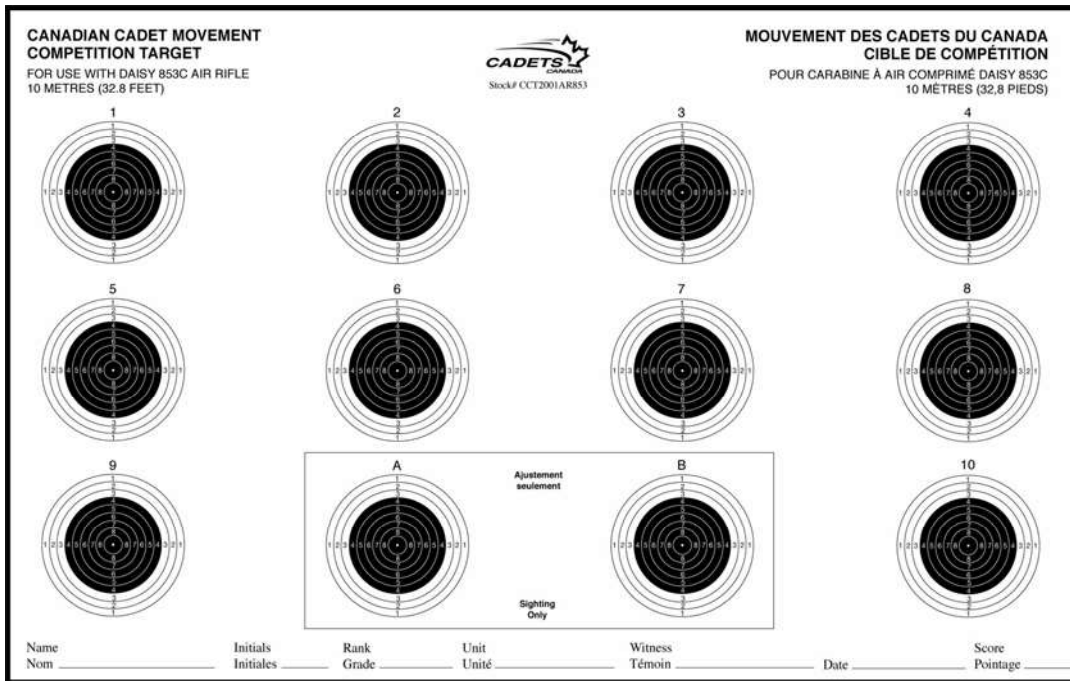


Figure 2 The CCM Competition Target (CCT2001AR853)

Note. Created by Director Cadets 4, 2001, Ottawa, ON: Department of National Defence.

### 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 M406.01 (Participate in a Recreational Marksmanship Activity). 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: 10 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 Attachment A and an Air Rifle Grouping Template located at Attachment B.

**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.



A grouping size of 4 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 from the Sample Grouping Target handout 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. **Determine the classification category.** Once two groupings have been scored on one grouping target, a determination is made as to the classification category obtained. 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.

Each marksmanship classification category has a corresponding badge that may be worn on the uniform. The marksmanship classification does not expire and any improvement in the classification category during subsequent classification air rifle activities is reflected with the awarding of the higher category.



From the Sample Grouping Target handout, 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 Annex A of CATO 14-43, *Marksmanship Program*, 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: 10 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 located at Attachment C to each cadet. Distribute a scoring magnifier, scoring plug and Scoring Template found at Attachment D to each group.

## 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-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.
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 Canadian Cadet Movement Marksmanship Championship Series (CCMMCS).

**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.

Figure 3 Scoring Penalties

*Note. From Canadian Cadet Movement: Cadet Marksmanship Program Reference Manual (p. 4-4-31), by Director Cadets 3, 2005, Ottawa, ON: Department of National Defence.*

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.

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### CONFIRMATION OF TEACHING POINT 3

The cadets' scoring of the Sample Competition Target handout will serve as the confirmation of this TP.

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### 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. When scoring targets, how is it determined when to score the higher ring value and when to score the lower ring value?

#### 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. If the pellet hole has broken or touched the higher scoring ring, then that higher value must be awarded. If even a small gap exists between the pellet hole and the scoring ring the lower value must be awarded.

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### CONCLUSION

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### HOMEWORK / READING / PRACTICE

Nil.

### METHOD OF EVALUATION

Nil.

**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**

Nil.

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**REFERENCES**

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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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## SAMPLE GROUPING TARGET

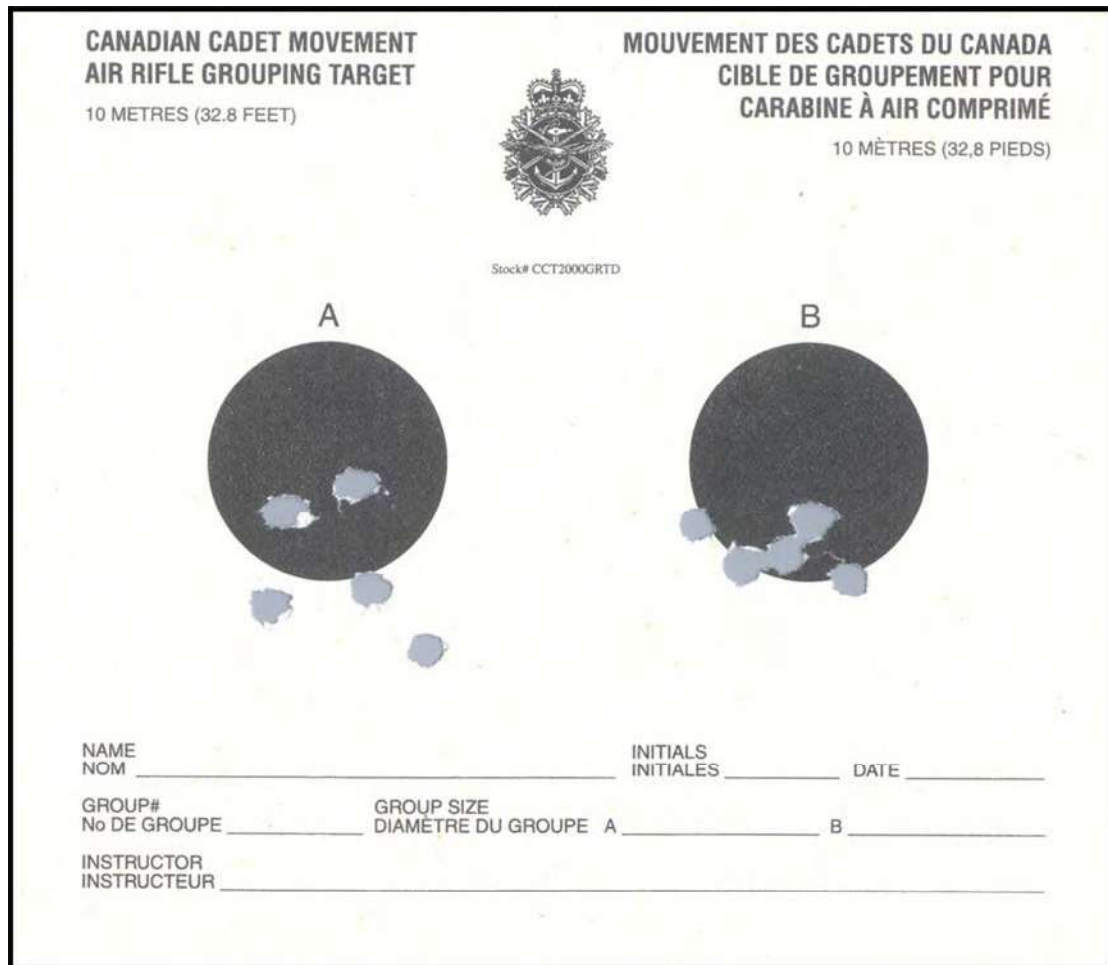


Figure A-1 Target 1

Note. Created by Director Cadets 3, 2009, Ottawa, ON: Department of National Defence.

## SAMPLE GROUPING TARGET

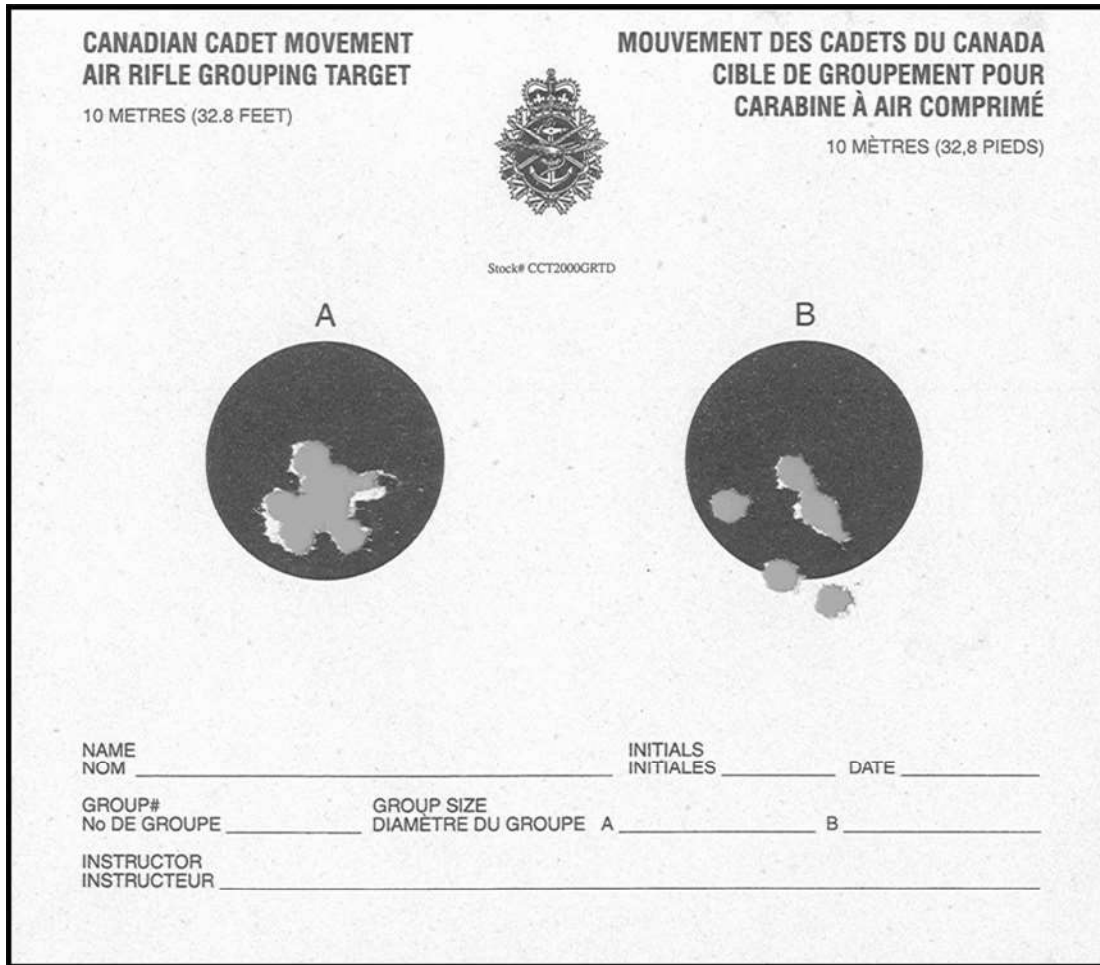


Figure A-2 Target 2

Note. Created by Director Cadets 3, 2009, Ottawa, ON: Department of National Defence.

## AIR RIFLE GROUPING TEMPLATE

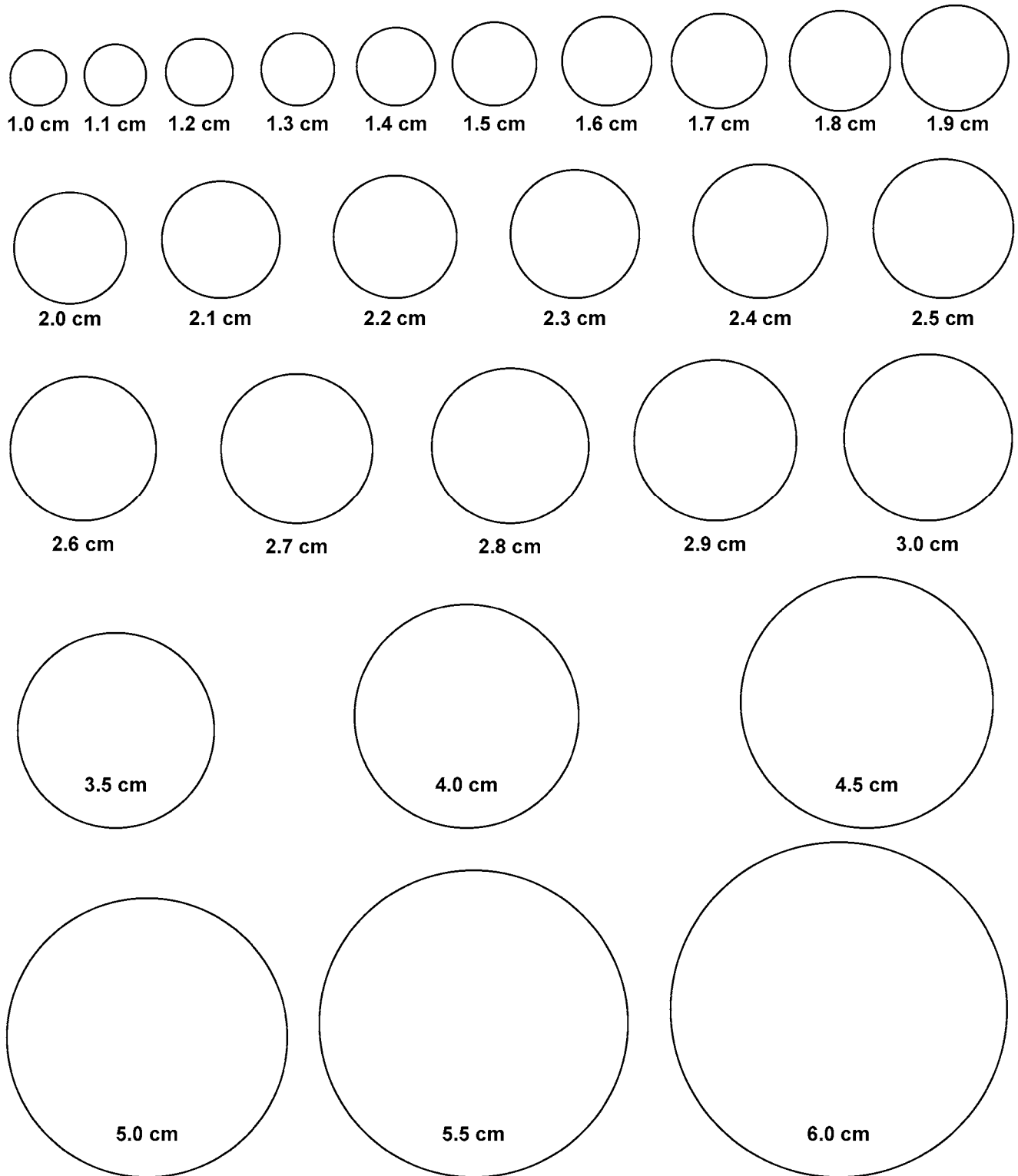


Figure B-1 Air Rifle Grouping Template

Note. Created by Director Cadets 3, 2009, Ottawa, ON: Department of National Defence.

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## SAMPLE COMPETITION TARGET

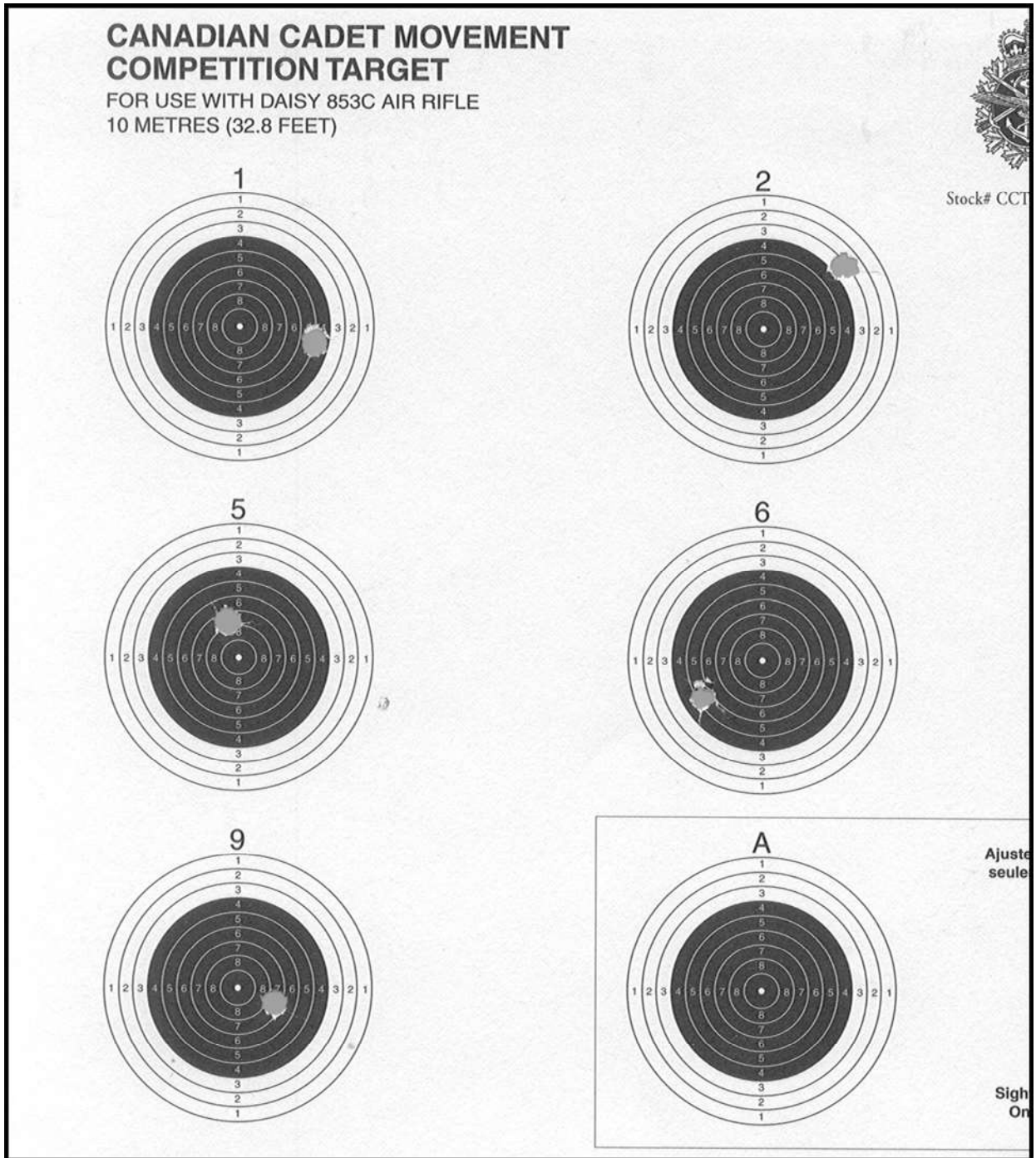


Figure C-1 Target 1 (Left Half)

Note. Created by Director Cadets 3, 2009, Ottawa, ON: Department of National Defence.

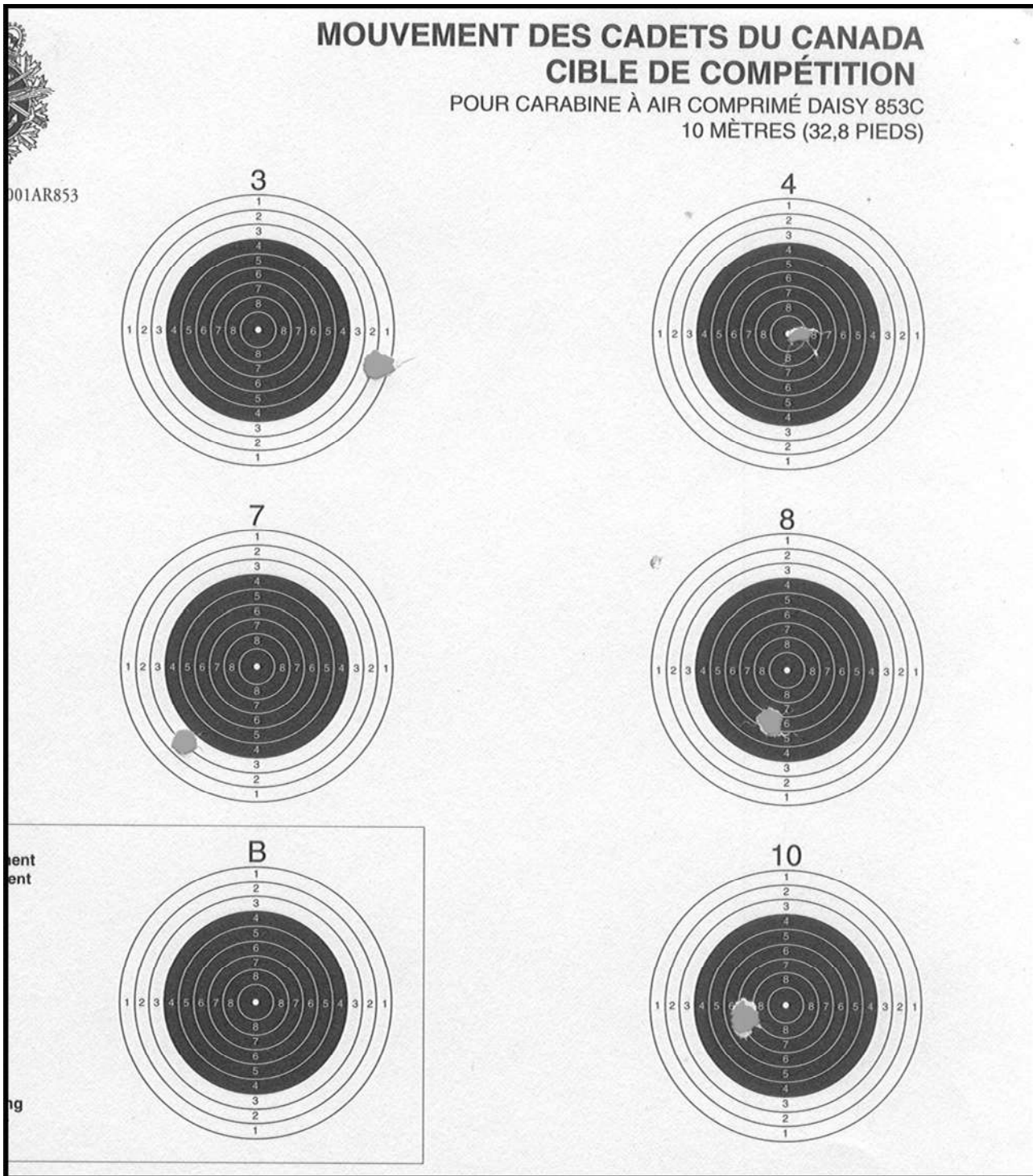


Figure C-2 Target 1 (Right Half)

Note. Created by Director Cadets 3, 2009, Ottawa, ON: Department of National Defence.

## SCORING TEMPLATE



Figure D-1 Scoring Template

*Note.* Created by Director Cadets 3, 2009, Ottawa, ON: Department of National Defence.

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