



ROYAL CANADIAN ARMY CADETS

GREEN STAR

INSTRUCTIONAL GUIDE



SECTION 7

EO C122.01 – PRACTICE NAVIGATION AS A MEMBER OF A TEAM

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-701/PG-001, *Green 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

Nil.

APPROACH

A practical activity was chosen for this lesson as it is an interactive way to allow the cadets to experience navigation in a safe and controlled environment. This activity contributes to the development of navigational skills in a fun and challenging setting.

INTRODUCTION

REVIEW

The pertinent review for this lesson will include:

- a. A review of EO M122.01 (Section 1), Identify Types of Maps.
 - Q1. What are some common types of maps used?
 - Q2. What can we use to write on maps?
- b. A review of EO M122.02 (Section 2), Identify Marginal Information and Conventional Signs.
 - Q1. What is the purpose of marginal information?
 - Q2. What is the purpose of conventional signs?

ANTICIPATED ANSWERS

- a. Review of EO M122.01 (Section 1)
 - A1. Topographical, orienteering, street and road, relief, political, outline, and air photo.
 - A2. Pencil (If protected with plastic, grease pencil or erasable marker).
- b. Review of EO M122.02 (Section 2)
 - A1. Marginal information gives information important to the understanding and use of the map.
 - A2. A symbol used to indicate an object or item of detail that cannot be shown either by outline or by a line symbol.

OBJECTIVES

By the end of this lesson the cadet shall be expected to be better prepared to participate in a short navigation exercise under the supervision of a senior cadet.

IMPORTANCE

The experience of practicing the skills learned in previous lessons will help to enhance the cadets' navigation skills. Map reading is a skill, which must be learned by practice on the ground. This practice is essential to building up experience, and developing a "feel" for maps, which will allow map reading to become instinctive.

BACKGROUND KNOWLEDGE

ACTIVITY 1 – NAVIGATION USING A STREET MAP

The EO's covering the information required to conduct this exercise are EO M122.01 (Section 1), Identify Types of Maps, EO M122.02 (Section 2), Identify Marginal Information and Conventional Signs, and EO M122.05 (Section 5), Determine a Grid Reference. Refer to the specified Instructional Guides for further information.

ACTIVITY 2 – NAVIGATION SCAVENGER HUNT

The EO's covering the information required to conduct this exercise are EO M122.01 (Section 1), Identify Types of Maps, EO M122.02 (Section 2), Identify Marginal Information and Conventional Signs, and EO M122.04 (Section 4), Orient a Map by Inspection. Refer to the specified Instructional Guides for further information.

ACTIVITY 3 – PHOTO NAVIGATION HUNT

The EO's covering the information required to conduct this exercise are EO M122.01 (Section 1), Identify Types of Maps, EO M122.02 (Section 2), Identify Marginal information and Conventional Signs, and EO M122.04 (Section 4), Orient a Map by Inspection. Refer to the specified Instructional Guides for further information.

ACTIVITY 4 – TRAIL MAP NAVIGATION

The EO's covering the information required to conduct this exercise are EO M122.01 (Section 1), Identify Types of Maps, EO M122.03 (Section 3), Interpret Contour Lines, and EO M122.05 (Section 5), Determine a Grid Reference. Refer to the specified Instructional Guides for further information.

ACTIVITY 1 – NAVIGATION USING A STREET MAP

Time: 90 min

OBJECTIVE

By the end of this activity the cadet shall be expected to be able to navigate using a street map.

RESOURCES

- Localized street maps for an optimal group size of four to six cadets.
- Detailed task placard for each checkpoint.
- Compass.

ACTIVITY LAYOUT

Using a street map, groups of four to six cadets will navigate within a 2 km radius of the corps location. Predetermined checkpoints set out on prominent objects, located 150 to 250 m apart, will have detailed navigation tasks at each point (e.g. fold a map, identify conventional signs, identify landform, relief type indicated, ect.), allowing cadets to practice skills taught. This activity shall be conducted in three 30 minute periods, allowing for a 15 minute debrief session.

SAFETY

Some rules are to be put in place to ensure the safety of cadets in populated areas with vehicle traffic, as this exercise will be conducted during evening hours. They shall include; but not be limited to:

- have set boundaries determined so cadets do not get lost;
- cadets shall obey all local laws and respect personal property;
- a staff member shall be present at each checkpoint; and
- have a set end time to return for debrief.

INSTRUCTOR GUIDELINES



At this point the instructor shall brief the cadets on any safety rules or any other guidelines pertaining to the activity.

- The instructor, with the assistance from senior cadets, shall supervise the cadets.
- A staff member shall be present at each checkpoint.
- Roaming advisor(s) shall move along the route to allow cadets to seek assistance if required.

ACTIVITY 2 – NAVIGATION SCAVENGER HUNT

Time: 90 min

OBJECTIVE

By the end of this activity the cadet should be more comfortable with navigating with a topographical map.

RESOURCES

- Topographical map.
- Compass.

ACTIVITY LAYOUT

Using a topographic map, groups of three to four cadets shall navigate to identified points on the map, and have the task of collecting items/information from these points (e.g. a napkin from a fast food location (with store's permission), river rock, phone number from a sign, etc.). Cadets are assigned points based on what items/information they are able to obtain. This activity shall be conducted in three 30 minute periods, allowing for a 15 minute debrief session.

SAFETY

Some rules are to be put in place to ensure the safety of cadets in populated areas with vehicle traffic, as this exercise will be conducted during evening hours. They shall include but not be limited to:

- have set boundaries determined so cadets do not get lost;
- cadets shall obey all local laws and respect personal property;
- a staff member shall be present at each checkpoint; and
- have a set end time to return for debrief.

INSTRUCTOR GUIDELINES



At this point the instructor shall brief the cadets on any safety rules or any other guidelines pertaining to the activity.

- The instructor, with the assistance from senior cadets, shall supervise the cadets.
- A staff member shall be present at each checkpoint.
- Roaming advisor(s) shall move along the route to allow cadets to seek assistance if required.

ACTIVITY 3 – PHOTO NAVIGATION HUNT

Time: 90 min

OBJECTIVE

By the end of this activity the cadet should be more comfortable navigating with a topographical map.

RESOURCES

- Topographical map.
- Compass.
- Romer.

ACTIVITY LAYOUT

Using a topographic map, groups of three to four cadets are given a handout showing a series of photos (e.g. sign, door, bridge, unique tree) taken in the local area. Cadets search out the location of the object in the photo, and record the six-figure grid reference of that location. Points are assigned based on difficulty of finding the object. This activity shall be conducted in three 30 minute periods, allowing for a 15 minute debrief session.

SAFETY

Some rules are to be put in place to ensure the safety of cadets in populated areas with vehicle traffic, as this exercise will be conducted during evening hours. They shall include but not be limited to:

- have set boundaries determined so cadets do not get lost;
- cadets shall obey all local laws and respect personal property;
- a staff member shall be present at each checkpoint; and
- have a set end time to return for debrief.

INSTRUCTOR GUIDELINES



At this point the instructor shall brief the cadets on any safety rules or any other guidelines pertaining to the activity.

- The instructor, with the assistance from senior cadets, shall supervise the cadets.
- A staff member shall be present at each checkpoint.
- Roaming advisor(s) shall move along the route to allow cadets to seek assistance if required.

ACTIVITY 4 – TRAIL MAP NAVIGATION

Time: 90 min

OBJECTIVE

By the end of this activity the cadet shall be expected to understand the layout and use of trail maps.

RESOURCES

- Localized map showing an organized trail system.
- Compass.

ACTIVITY LAYOUT

Using a trail section of a map, groups of three to six cadets follow a route along an organized trail system. This activity shall be conducted in three 30 minute periods, allowing for a 15 minute debrief session.

SAFETY

Some rules are to be put in place to ensure the safety of cadets if in areas with hiking and cycling traffic, as this exercise may be conducted during evening hours. They shall include but not be limited to:

- have set boundaries determined so cadets do not get lost;
- have a set safety bearing;
- cadets shall obey all local laws and respect personal property;
- a staff member shall be present at each checkpoint; and
- have a set end time to return for debrief.

INSTRUCTOR GUIDELINES



At this point the instructor shall brief the cadets on any safety rules or any other guidelines pertaining to the activity.

- The instructor, with the assistance from senior cadets, shall supervise the cadets.
- A staff member shall be present at each checkpoint.
- Roaming advisor(s) shall move along the route to allow cadets to seek assistance if required.

REFLECTION

Time: 15 min

GROUP DISCUSSION



Instructors shall ensure that all lesson objectives are drawn out towards the end of the reflection stage.

DISCUSSION QUESTIONS



TIPS FOR ANSWERING/FACILITATING DISCUSSION

- Ask questions that help facilitate discussion; in other words, avoid questions with yes or no answers.
- Prepare questions ahead of time.
- Be flexible (you are not bound to only the prepared questions).
- Encourage cadets to participate by using praise such as “great idea” or “excellent response, can anyone add to that?”
- Try to involve everyone by directing questions to non-participants.

SUGGESTED QUESTIONS

- Q1. What did this activity teach you about navigation?
- Q2. What did you enjoy most about this activity?
- Q3. What skills did you feel most comfortable using?
- Q4. What skills do you feel you require more practice with?



Other questions and answers will develop throughout the reflection stage. The discussion should not be limited to only those suggested. Cadets should be given sufficient time to tell stories of their adventures, and ask questions about any navigation issues that came up during the activity.

CONCLUSION

REVIEW

Upon completion of the group discussion, the instructor will conclude by summarizing to ensure that all points have been covered. The instructor must also take this opportunity to explain how the cadet will apply this knowledge and/or skill in the future.

MAIN TEACHING POINTS

Nil.

HOMEWORK/READING/PRACTICE

Nil.

METHOD OF EVALUATION

Nil.

CLOSING STATEMENT

Map reading is a skill, and true proficiency will only be achieved by practice on the ground. The skills you have learned during this PO can be used in situations outside of the Cadet Program as well. Practice makes perfect!

INSTRUCTOR NOTES/REMARKS

This complementary activity can be conducted more than once, in various forms over supported complementary days, or over sessions.

REFERENCES

A2-004 B-GL-382-005-FP-001 Canadian Forces. (1976). *Maps, Fields, Sketching, and Compasses* (Vol. 8). Ottawa, ON: National Defence.