MODIFIED LESSON SPECIFICATIONS AND INSTRUCTIONAL GUIDES – TP 1 OF EO M222.02

A-CR-CCP-702/PG-001

EO M222.02 – DESCRIBE BEARINGS

1. **Performance.** Describe Bearings.

2. **Conditions**

   a. Given:

      (1) compass rose;

      (2) supervision; and

      (3) assistance as required.

   b. Denied: N/A.

   c. Environmental: Suitable classroom facility or training area large enough to accommodate the entire group.

3. **Standard.** In accordance with B-GL-382-005/PT-001, the cadet shall identifying true, grid, and magnetic north.

4. **Teaching Points**

TP	Description	Method	Time	Ref
TP1	Identify and explain the three norths, to include: a. true north; b. grid north; and c. magnetic north.	Interactive Lecture	10 min	A2-041 (pp. 50-51)

5. **Time**

   a. Introduction/Conclusion: 5 min

   b. Interactive Lecture: 10 min

   c. Total: 15 min

6. **Substantiation.** An interactive lecture was chosen for TP1 to present basic material, orient the cadets to bearings, and to generate interest.

7. **References.** A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

8. **Training Aids**

   a. Presentation aids (eg, whiteboard/flipchart/OHP) appropriate for classroom/training area;

   b. Topographical map; and

   c. Compass rose.

9. **Learning Aids**

   a. Pencil; and

   b. Compass rose.

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10. **Test Details.** N/A.

11. **Remarks.** N/A.

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A-CR-CCP-702/PF-001

ROYAL CANADIAN ARMY CADETS

RED STAR

INSTRUCTIONAL GUIDE

SECTION 2

EO M222.02 – DESCRIBE BEARINGS

Total Time: 15 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-702/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 material, orient the cadets to bearings, and to generate interest.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to identify true, grid, and magnetic north.

IMPORTANCE

It is important for cadets to identify and explain the three norths as this may assist them throughout navigation and expedition training.

Teaching Point 1 **Identify and Explain the Three Norths**

Time: 10 min Method: Interactive Lecture

In navigation there are three different norths that are used – true north, grid north and magnetic north. Each north varies a small amount from each other and must be known for use in navigation. A diagram representing the three norths can be found in the margin of the map being used.

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Draw Figure 12-2-1 on the board and draw the symbol for each north as it is explained to the cadets.

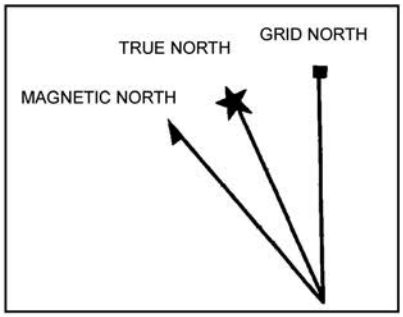

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Figure 12-2-1 Three Norths

True North. True north is located at the top of the earth where the geographic North Pole is found, and is where all lines of longitude meet. In the diagram on the map, true north is represented by a star (Polaris).

Grid North. Grid north is the north indicated by the grid lines (eastings) on a topographical map. The easting lines run parallel to each other and will never meet at the North Pole; because of this, grid north points off slightly from true north. In the diagram on the map, grid north is represented by a square (map grid).

Magnetic North. Magnetic north is the direction in which the compass needle points. This direction is to the magnetic pole which is located in the Canadian arctic and is slightly different from true north (North Pole). In the diagram on the map, magnetic north is represented by a needle (compass).

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What symbol is used to represent true north?

Q2. What symbol is used to represent grid north?

Q3. What symbol is used to represent magnetic north?

ANTICIPATED ANSWERS

A1. A star, as in Polaris.

A2. A square, as in a grid square.

A3. A needle, as in a compass.

END OF LESSON CONFIRMATION

The cadets identification of the three norths will serve as the confirmation of this lesson.

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CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

Being able to identify the three norths is an important aspect of navigation training, as it allows cadets to identify direction when travelling from one point to another.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

A2-041 B-GL-382-005/PT-001 Canadian Forces. (2006). *Maps, Field Sketching, Compasses and the Global Positioning System*. Ottawa, ON: Department of National Defence.

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