322 EC-01 – ASSESSMENT INSTRUCTIONS

PREPARATION

PRE-ASSESSMENT INSTRUCTIONS

Review the assessment plan, assessment instructions and 322 EC-01 Assessment Worksheet and the material prior to conducting the assessment.

Obtain all resources required for the assessment.

PRE-ASSESSMENT ASSIGNMENT

Have the cadet review the 322 EC-01 Assessment Worksheet, instructions and the material prior to participating in the assessment.

ASSESSMENT METHOD

Extended written response assessment was chosen to allow the instructor to assess the cadet's ability to calculate magnetic declination.

CONDUCT OF ASSESSMENT

PURPOSE

The purpose of this EC is to assess the cadet's ability to calculate magnetic declination from the information provided on a topographical map.

RESOURCES

- 322 EC-01 Worksheet A and B,
- Pencil, and
- Calculator (if required).

ASSESSMENT ACTIVITY LAYOUT

1. Set up desks with adequate space between each cadet.

2. The assessment will be conducted in a classroom or training area large enough to accommodate entire group.

3. Place a pencil and eraser on each desk.

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Verify against the official publication.

ASSESSMENT ACTIVITY INSTRUCTIONS



The assessment tool for 322 EC-01 is a written assessment that will be used to determine the cadet's ability to calculate magnetic declination. A worksheet will be used to assess the cadet's ability to calculate magnetic declination.

- **Incomplete.** The skill was not attempted or the skill was not completed even with assistance.
- **Completed With Difficulty.** The cadet correctly answered at least one question. The task was completed with some difficulty and/or required assistance from the assessor.
- **Completed Without Difficulty.** The cadet correctly answered both questions without major difficulty and/or required minimal assistance from the instructor.
- **Exceeded Standard.** The worksheet was completed with no difficulty and no assistance from the assessor.

Make notes of observations for the purpose of providing post-assessment descriptive feedback.

1. Have the cadet enter the assessment area and seat themselves at a desk.
2. Tell the cadets how long they will have to write the assessment.
3. Distribute a worksheet to each cadet.
4. Have the cadets write their personal information at the top of the assessment.
5. Have the cadets begin the assessment.
6. Move around the classroom to monitor the assessment and to answer the questions the cadets may have.
7. Upon completion, have the cadets hand in their assessment, remain seated and wait for everyone to finish.
8. Upon completion, use the provided answer key to mark the assessment.

POST ASSESSMENT INSTRUCTIONS

RECORDING ASSESSMENT RESULTS

1. Indicate the overall performance assessment on the Assessment Checklist as:
   a. **Incomplete.** The cadet has not attempted to complete the worksheet or did not answer one question correctly.
   b. **Completed With Difficulty.** Overall, the cadet correctly answered one of the two questions. The task was completed with some difficulty and/or required assistance from the assessor.
   c. **Completed Without Difficulty.** Overall, the cadet correctly answered two of the questions without major difficulty and/or required minimal assistance from the instructor.
   d. **Exceeded Standard.** Overall, the task was completed with no difficulty and no assistance from the assessor.
2. Record notes and observations in the assessor's feedback section of the Assessment Checklist.
3. Sign and date the Assessment Checklist.

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Verify against the official publication.

4. Ensure a copy of the Assessment Checklist is attached to the cadet's training file.

5. The overall result will be recorded on the Silver Star Qualification Record located at Annex C.

PROVIDING ASSESSMENT FEEDBACK

Discuss the performance results of the Assessment Worksheet with the cadet.

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322 EC-01

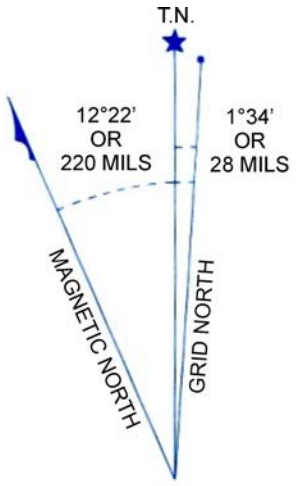
WORKSHEET A

Calculate Magnetic Declination

Name:	Mark:
Assessor:	Date (dd/mm/yy):
Assessor's signature:	

(1) Fill in the personal information in the area at the top of the page.
(2) Calculate the magnetic declination for both figures and place the answer in the space provided and indicate an east or west declination.
(3) Show your work in the space provided.
(4) Hand in the worksheet when completed.

1. What is the declination if the current year is 2009 for the map with a declination diagram as seen in , Figure B5-1?



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1988
FOR CENTRE OF MAP
Annual change increasing 10.0'

The Canada Centre for Mapping, SCUGOG Ontario
Topographical Map, Energy, Mines and Resources Canada

Figure B5-1 Declination Diagram

Answer:_____ East/West (circle one).

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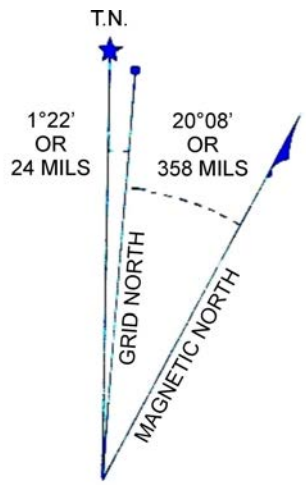
Verify against the official publication.

2. What is the declination if the current year is 2009 for the map with a declination diagram as seen in , Figure B5-2?



The Canada Centre for Mapping, CANMORE Alberta
Topographical Map, Energy, Mines and Resources Canada

Figure B5-2 Declination Diagram

Answer:_____ East/West (circle one).

322 EC-01 ASSESSMENT								
Overall (Check one)	**Incomplete**		**Completed With Difficulty**		**Completed Without Difficulty**		**Exceeded Standard**	
	The cadet has not attempted to complete the worksheet or did not answer one question correctly.		Overall, the cadet correctly answered one of the two questions. The task was completed with some difficulty and/or required assistance from the assessor.		Overall, the cadet correctly answered two of the questions without major difficulty and/or required minimal assistance from the instructor.		Overall, the task was completed with no difficulty and no assistance from the assessor.	

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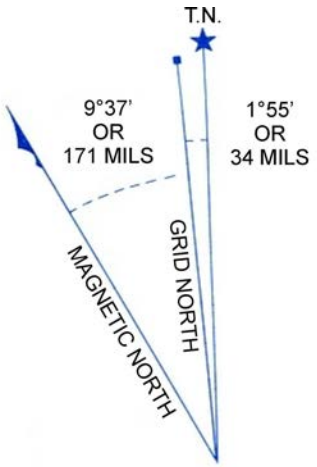
WORKSHEET B

Calculate Magnetic Declination

Name:	Mark:
Assessor:	Date (dd/mm/yy):
Assessor's signature:	

(1) Fill in the personal information in the area at the top of the page.
(2) Calculate the magnetic declination for both figures and place the answer in the space provided and indicate an east or west declination.
(3) Show your work in the space provided.
(4) Hand in the worksheet when completed.

1. What is the declination if the current year is 2009 for the map with a declination diagram as seen in , Figure B5-3?



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1990
FOR CENTRE OF MAP
Annual change increasing 4.1'

The Canada Centre for Mapping, TRENTON Ontario
Topographical Map, Energy, Mines and Resources Canada

Figure B5-3 Declination Diagram

Answer:_____ East/West (circle one).

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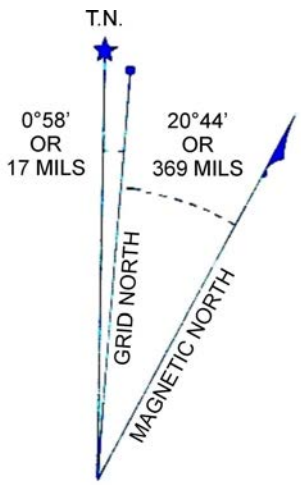
Verify against the official publication.

2. What is the declination if the current year is 2009 for the map with a declination diagram as seen in , Figure B5-4?



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1980
FOR CENTRE OF MAP
Annual change decreasing 10.6'

The Canada Centre for Mapping, BANFF Alberta
Topographical Map, Energy, Mines and Resources Canada

Answer:_____ East/West (circle one).

Figure B5-4 Declination Diagram

322 EC-01 ASSESSMENT								
Overall (Check one)	**Incomplete**		**Completed With Difficulty**		**Completed Without Difficulty**		**Exceeded Standard**	
	The cadet has not attempted to complete the worksheet or did not answer one question correctly.		Overall, the cadet correctly answered one of the two questions. The task was completed with some difficulty and/or required assistance from the assessor.		Overall, the cadet correctly answered two of the questions without major difficulty and/or required minimal assistance from the instructor.		Overall, the task was completed with no difficulty and no assistance from the assessor.	

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Verify against the official publication.

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WORKSHEET ANSWER KEY

Calculate Magnetic Declination

ANSWER KEY FOR WORKSHEETS A AND B

WORKSHEET A				
1. What is the declination if the current year is 2009 for the map with a declination diagram as seen in Figure 3B4-1? Answer: 15º52' W	2009 -1988 = 21	21 x10'(increasing) =3º30'	12º22' +3º30' =15º52'	15º52' W
2. What is the declination if the current year is 2009 for the map with a declination diagram as seen in Figure 3B4-2? Answer: 14º54.8' E (Rounded: 14º55' E)	2009 -1980 = 29	29 x10.8'(decreasing) =5º13.2'	20º8' -5º13.2' =14º54.8'	114º54.8' E
WORKSHEET B				
1. What is the declination if the current year is 2009 for the map with a declination diagram as seen in Figure 3B4-3? Answer: 10º54.9' W (Rounded: 10º55' W)	2009 -1990 = 19	19 x4.1'(increasing) =77.9' or 1º17.9'	9º37' +1º17.9 =10º54.9'	10º54.9' W
2. What is the declination if the current year is 2009 for the map with a declination diagram as seen in Figure 3B4-4? Answer: 15º36.6' E (Rounded: 15º37' E)	2009 -1980 = 29	29 x10.6'(decreasing) =307.4' or 5º7.4'	20º44' -5º36.6' =15º36.6'	15º36.6 E

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Verify against the official publication.