ROYAL CANADIAN AIR CADETS

PROFICIENCY LEVEL TWO

INSTRUCTIONAL GUIDE

SECTION 2

EO M290.02 – CONSTRUCT A LEAN-TO-STYLE SHELTER

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-802/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 TP1 to present basic material and give direction on procedures for constructing a lean-to-style shelter.

Demonstration was chosen for TP2 as it allows the instructor to explain and demonstrate the skill the cadet is expected to acquire.

Performance was chosen for TP3 as it provides an opportunity for the cadets to practice building a lean-to-style shelter under supervision.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall be expected to have constructed a lean-to-style shelter.

IMPORTANCE

It is important for cadets to know how to construct a lean-to-style shelter as it can protect them from weather, animals and insects in a survival situation. Shelters can also provide warmth, shade and comfort.

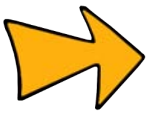
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Teaching point 1 **Explain the Importance of Site Selection**

Time: 20 min Method: Interactive Lecture

SELECTING A SITE FOR CONSTRUCTION OF A LEAN-TO-STYLE SHELTER

- The site selection should begin before darkness, if possible.
- The shelter should be built near materials to build the shelter (trees, boughs) and fuel for the fire.



Ensure cadets understand that although trees may offer protection, those with dead branches or on windswept fields may be dangerous. Check above and around the lean-to site for dead and standing trees or branches.

Land Considerations

- The area selected must be large enough to accommodate the planned shelter.
- The area selected should not be at the bottom of a hill.
- The area should be relatively flat with only a slight slope to allow for drainage.
- Dry river gullies, canyons and flood plains should be avoided.

Water Considerations

- The shelter should be built away from still water in order to avoid insects.
- The shelter should be built away from the source of drinking water.

Animal and Insect Considerations

- Avoid setting up a shelter where there are animal trails or water holes.
- Fast flowing streams will have fewer insects nearby than still water.
- Avoid areas infested with ants or bees.

Other Considerations

- There should be an area nearby to construct signals.
- The entrance of the shelter should face the sun to add warmth and increase morale.
- Very thick woods should be avoided as it will be hard to dry the shelter or fuel.
- Try to find a natural windbreak or a place that is away from strong wind currents.
- Avoid swampy terrain.
- A place for a fire should be located in front of the opening of the shelter.
- Be aware of the prevailing winds.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. Name three land considerations when building a shelter.

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Q2. Name three animal considerations when building a shelter.

Q3. Name three other considerations when building a shelter.

ANTICIPATED ANSWERS

A1. The area must be large enough for the planned shelter; the area should not be at the bottom of a hill; and it should be relatively flat with only a slight slope to allow for drainage.

A2. Avoid building shelters near animal trails or water holes; fast flowing streams will have fewer insects than still water; and areas infested with ants or bees should be avoided.

A3. There should be an area nearby to construct signals; the entrance should face the sun for warmth and morale; thick woods should be avoided as it will make drying difficult; look for a natural windbreak or place away from strong wind currents; avoid swampy terrain; and choose a place where a fire can be located in front of the opening of the shelter.

Teaching point 2 **Explain and Demonstrate the Procedure for Constructing a Lean-to-style Shelter**

Time: 20 min Method: Demonstration



While in the field you must adhere to the policies in CATO 11-08, *Environmental Protection and Stewardship*.



The lean-to-style shelter that was previously constructed is for demonstration purposes and is to be shown to the cadets while providing an explanation of its construction.

The procedure for constructing the lean-to-style shelter are to include:

1. obtaining the appropriate supplies to include:
   a. ground sheets,
   b. knife,
   c. shovel,
   d. pegs,
   e. rope/twine, and
   f. natural materials.
2. tying and lashing cross-pieces and the vertical supports between the trees and ground;
3. checking each ground sheet for fatigue and holes;
4. tying each end of the ground sheet to the cross-pieces and supports, ensuring they are to waist height of the tallest person;
5. substituting the ground sheet for the boughs illustrated in Figure 1;

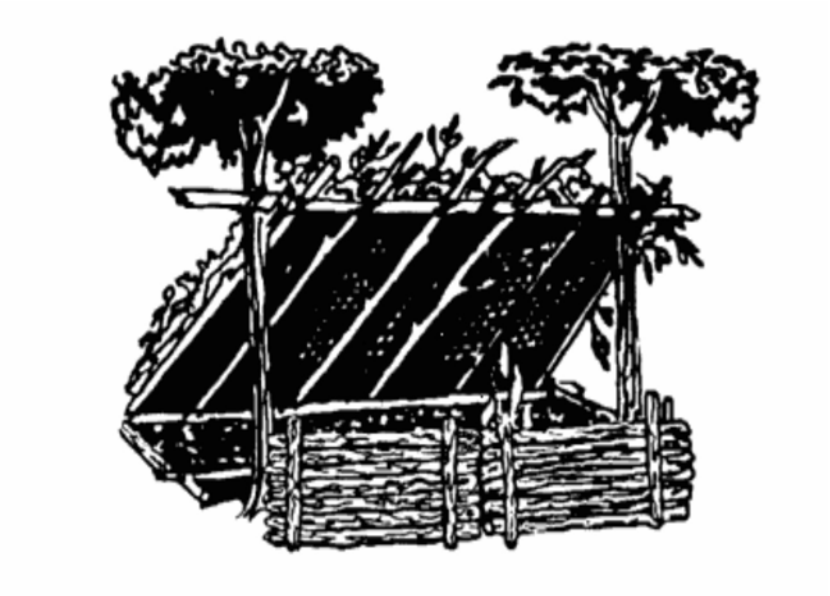
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6. ensuring the ground sheet is pulled tight between the cross-pieces and supports and along the sides;
7. pulling the bottom of the ground sheet out and pegging each grommet to the ground; and
8. digging small trenches around the shelter to allow for effective drainage.

SAFETY

Review safe handling of a knife to include:

- always cut away from the body;
- do not let others stand too close to you;
- do not leave a knife unattended on the ground;
- sheath a knife when not in use; and
- never throw a knife for any reason.



"Shelters", Wilderness Survival. Copyright 2007 Jalic Inc. Retrieved 9 March 2007, from http://www.wilderness-survival.net/shelters-s.php

Figure 1 Lean-to-style Shelter

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. What three items are required to build a shelter?

Q2. What is the purpose of digging small trenches around a shelter?

Q3. What is the purpose of the ground sheet and why is it pegged down?

ANTICIPATED ANSWERS

A1. Rope/twine, ground sheets, pegs, branches, sticks and leaves are required.

A2. The small trenches provide drainage.

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A3. The ground sheet will keep the occupant dry and the pegs are to secure the ground sheet to the ground.

Teaching point 3 **Construct a Lean-to-style Shelter**

Time: 40 min Method: Performance

ACTIVITY

OBJECTIVE

The objective of this activity is to have the cadets, in groups of no more than four, construct a lean-to-style shelter.

RESOURCES

- Ground sheets,
- Rope/twine,
- Shovel,
- Items found in a natural setting, and
- Pegs.

ACTIVITY LAYOUT

Select an area that is large enough to construct the lean-to-style shelters.

ACTIVITY INSTRUCTIONS

Working as a member of a group of no more than four, the cadets shall choose a location for the lean-to-style shelter and gather sticks and branches that will be required to build the shelter. Each group shall make sure they have the necessary resources to complete a shelter. Each group shall construct a lean-to-style shelter following these steps:

1. Tie a cross-piece between two trees so that it is to waist height of the tallest person.
2. Lash the support pieces to the cross-piece.
3. Pull the ground sheet tight and tie it to the crosspiece and supports.
4. Pull the bottom of the ground sheet out and peg each grommet to the ground.
5. Dig small trenches for drainage around the lean-to-style shelter.



The questions in the confirmation of TP3 should be asked of the groups as the instructor moves from one group to the next.

SAFETY

Adequate supervision will ensure the cadets do not misuse the equipment.

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CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. Why was that location chosen to build the shelter?

Q2. How are the supports anchored?

Q3. What challenges were encountered while building the shelter?

ANTICIPATED ANSWERS

A1. It was built on a flat area, with a little slope; away from animal trails or water holes; away from still water; away from areas infested with ants and bees; having a natural wind break and facing the sun.

A2. They are lashed together between the cross-pieces and the ground.

A3. Answers will vary. Encourage the cadets to elaborate their responses.

END OF LESSON CONFIRMATION

The cadets' construction of a lean-to-style shelter will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

N/A.

CLOSING STATEMENT

It is important for the cadets to know how to construct a lean-to-style shelter in a survival situation. A shelter will help protect a person from weather, animals and insects. Shelters can also provide warmth, shade and comfort. The lean-to-style shelter provides an effective shelter for squadron survival exercises.

INSTRUCTOR NOTES/REMARKS

If lean-to-style shelters cannot be constructed, another style shelter (e.g. a bivouac tent, or a tarpaulin between trees) may be substituted.

The directives found in CATO 11-08, *Environmental Protection and Stewardship*, are to be followed during this lesson.

REFERENCES

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C3-002 (ISBN 0-00-653140-7) Wiseman, J. (1999). *The SAS Survival Handbook.* Hammersmith, London: HarperCollins Publishers.

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C3-118 Wilderness Survival. (2007). *Shelters.* Retrieved 9 March 2007, from http://www.wilderness-survival.net/shelters-2.php.

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