

SECTION 19**PO 190 – PARTICIPATE IN AN AIRCREW SURVIVAL EXERCISE**

1. **Performance:** Participate in an Aircrew Survival Exercise
2. **Conditions:**
 - a. Given:
 - (1) Personal equipment,
 - (2) Backpack,
 - (3) Sleeping bag,
 - (4) Other materials and equipment as required,
 - (5) Supervision, and
 - (6) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Field setting, during an outdoor overnight aircrew survival exercise.
3. **Standard:** The cadet will participate in an aircrew survival exercise, to include:
 - a. packing equipment for an aircrew survival exercise;
 - b. maintaining personal equipment and hygiene in the field;
 - c. observing site policies and procedures;
 - d. identifying elements of survival psychology;
 - e. identifying types of shelters;
 - f. lighting, maintaining and extinguishing a fire; and
 - g. erecting, tearing down and packing tents.
4. **Remarks:**
 - a. Proficiency Level One cadets are expected to take part in a minimum of one overnight aircrew survival exercise during the training year. Activities during the exercise shall be structured to be group-oriented.
 - b. EO M190.03 to EO M190.08 is to be conducted practically during the overnight aircrew survival exercise.
5. **Complementary Material:** Complementary material associated with PO 190 is designed to provide additional aircrew survival skills through a number of activities:
 - a. EO C190.01 (Participate in a Presentation Given by a Member of a Survival Organization / Search and Rescue (SAR) Community),
 - b. EO C190.02 (Tie Knots and Lashings),
 - c. EO C190.03 (Construct a Hootchie-Style Shelter),
 - d. EO C190.04 (Collect Drinking Water in the Field),

- e. EO C190.05 (Identify Environmental Injuries),
- f. EO C190.06 (Demonstrate Respect for the Environment During an Aircrew Survival Exercise), and
- g. EO C190.07 (Identify Habitats of Animals and Insects).

EO M190.01 – PACK PERSONAL EQUIPMENT FOR AN AIRCREW SURVIVAL EXERCISE

1. **Performance:** Pack Personal Equipment for an Aircrew Survival Exercise
2. **Conditions:**
 - a. Given:
 - (1) Personal clothing and equipment,
 - (2) Backpack / rucksack,
 - (3) Sleeping bag,
 - (4) Supervision, and
 - (5) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall:
 - a. select appropriate clothing for field training; and
 - b. pack personal equipment.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain how to select field clothing, to include: <ol style="list-style-type: none"> a. the layering principle, b. advantages and disadvantages of fabrics, c. footwear, and d. weather conditions. 	Interactive Lecture	30 min	C3-021 (pp. 22–25) C3-024 (p. 47)
TP2	Explain, demonstrate and have the cadets pack personal equipment for the field, to include: <ol style="list-style-type: none"> a. lining the backpack / rucksack with a large plastic bag before packing the kit; b. placing personal kit items into a separate bag with air removed to conserve space; c. placing items that are heavier and used least often at the bottom and back of the pack; d. placing lighter and often used items on the top and near the front of the pack; e. placing the tent at the top of the pack; and f. attaching the sleeping bag and sleeping pad firmly to the bottom of the pack. 	Demonstration and Performance	25 min	C3-021 (pp. 22–25) C3-024 (p. 47)

5. **Time:**

a. Introduction / Conclusion:	5 min
b. Interactive Lecture:	30 min
c. Demonstration and Performance:	25 min
d. Total:	60 min

6. **Substantiation:**

- a. An interactive lecture was chosen for TP 1 to orient the cadets on how to select field clothing and generate an interest in the subject.
- b. A demonstration and performance was chosen for TP 2 as it allows the instructor to explain and demonstrate packing personal equipment skills the cadet is expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.

7. **References:**

- a. C3-021 ISBN 0-7715-9035-0 McManners, H. (1994). *The complete wilderness survival manual*. Toronto, ON: McMillan Canada.
- b. C3-024 ISBN 0-7627-0476-4 Roberts, H. (1999). *Basic essentials backpacking*. Guildford, CT: The Globe Pequot Press.

8. **Training Aids:**

- a. Core layer clothing,
- b. Second layer clothing,
- c. Outer layer clothing,
- d. Pants suitable for field training,
- e. Wool clothing,
- f. Cotton clothing,
- g. Fleece clothing,
- h. Clothing made of synthetic fibres,
- i. Socks appropriate for field training,
- j. Footwear appropriate for field training,
- k. Backpack / rucksack,
- l. Hygiene items,
- m. Water bottle, and
- n. Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for the training area.

9. **Learning Aids:**
 - a. Backpack / rucksack,
 - b. Hygiene items, and
 - c. Various clothing items.
10. **Test Details:** Nil.
11. **Remarks:** This EO is to be delivered at the squadron on the training night prior to the weekend aircrew survival exercise.

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EO M190.02 – MAINTAIN PERSONAL EQUIPMENT AND HYGIENE IN THE FIELD

1. **Performance:** Maintain Personal Equipment and Hygiene in the Field
2. **Conditions:**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall maintain personal equipment and hygiene in the field, to include:
 - a. ensuring clothing is clean;
 - b. ensuring knife safety is adhered to; and
 - c. maintaining personal hygiene in the field by:
 - (1) washing;
 - (2) caring for teeth; and
 - (3) managing waste effectively.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain how to care for personal equipment.	Interactive Lecture	5 min	C3-003 (p. 6)
TP2	Explain knife safety in the field.	Interactive Lecture	10 min	C3-021 (pp. 32–33)
TP3	Explain how to maintain hygiene in the field, to include: <ol style="list-style-type: none"> a. identifying field hygiene requirements; b. washing in the field; c. dental care in the field; and d. disposing of waste. 	Interactive Lecture	10 min	C3-003 (p. 6)

5. **Time:**
 - a. Introduction / Conclusion: 5 min
 - b. Interactive Lecture: 25 min
 - c. Total: 30 min

6. **Substantiation:** An interactive lecture was chosen for this lesson to orient the cadets to maintaining personal equipment and personal hygiene and generate an interest in the subject.
7. **References:**
 - a. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.
 - b. C3-021 ISBN 0-7715-9035-0 McManners, H. (1994). *The complete wilderness survival manual*. Toronto, ON: McMillan Canada.
8. **Training Aids:**
 - a. Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for the training area; and
 - b. Knife.
9. **Learning Aids:** Nil.
10. **Test Details:** Nil.
11. **Remarks:** This EO is to be delivered at the squadron on the training night prior to the aircrew survival exercise.

EO M190.03 – OBSERVE SITE POLICIES AND PROCEDURES

1. **Performance:** Observe Site Policies and Procedures
2. **Conditions:**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadet shall observe site policies and procedures, to include:
 - a. safety,
 - b. fire regulations,
 - c. site layout, and
 - d. self-protection when encountering animals.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	<p>Describe safety issues related to field training, to include:</p> <ol style="list-style-type: none"> a. general safety procedures, to include: <ol style="list-style-type: none"> (1) acceptable behaviour, and (2) procedures specific to training site; b. medical procedures in case of emergency, to include: <ol style="list-style-type: none"> (1) locating the first aid area, (2) what to do in case of medical emergency, (3) muster point, (4) officer in charge of first aid, and (5) other information specific to the training area; and c. environmental procedures, to include: <ol style="list-style-type: none"> (1) garbage disposal, (2) grey water disposal, (3) cutting down live trees, (4) chemical spills, and (5) other information found in aircrew survival exercise operations order specific to the training area. 	Interactive Lecture	10 min	<p>Squadron Standing Orders</p> <p>Exercise Operations Order</p>

TP	Description	Method	Time	Refs
TP2	<p>Explain fire regulations in place at the training site, to include:</p> <ol style="list-style-type: none"> what to do in case of fire, where the muster point is located, and where the firefighting equipment is located. 	Interactive Lecture	10 min	<p>Squadron Standing Orders</p> <p>Exercise Operations Order</p>
TP3	<p>Give an overview of the layout of the site, to include:</p> <ol style="list-style-type: none"> command point, first aid area, sleeping areas, fire pit, latrines, petroleum, oil and lubricant (POL) point, water point, wet and dry garbage areas, and any other areas that relate to site layout. 	Interactive Lecture	15 min	<p>Squadron Standing Orders</p> <p>Exercise Operations Order</p>
TP4	<p>Discuss safety measures with regards to animals, to include:</p> <ol style="list-style-type: none"> potentially dangerous animals indigenous to local training areas, to include: <ol style="list-style-type: none"> bears, cougars, rattlesnakes, wolves, moose, elk, and bison; and self-protection regarding these animals (preventive measures and defensive actions). 	Interactive Lecture	15 min	<p>A3-010 (pp. 3-59–3-60)</p> <p>C3-003 (pp. 17–72, 731–734, 738, 739 and 741)</p> <p>C3-006 (pp. 72, 73, 77, 81–83)</p> <p>C3-007 (pp. 128, 129 and 131)</p>

5. **Time:**

- | | |
|-------------------------------|--------|
| a. Introduction / Conclusion: | 10 min |
| b. Interactive Lecture: | 50 min |
| c. Total: | 60 min |

6. **Substantiation:** An interactive lecture was chosen for this lesson to give direction on policies and procedures of an aircrew survival exercise site.
7. **References:**
 - a. A3-010 A-CR-CCP-121/PT-001 Cadets Canada. (2000). *Royal Canadian army cadet reference book*. Ottawa, ON: Cadets Canada.
 - b. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.
 - c. C3-006 ISBN 0-07-135437-9 Hall, A. (2001). *The essential backpacker: A guide for the foot traveller*. Blacklick, OH: Ragged Mountain Press.
 - d. C3-007 ISBN 0-684-85909-2 Harvey, M. (1999). *The national outdoor leadership school's wilderness guide*. New York, NY: Simon & Schuster.
8. **Training Aids:** Nil.
9. **Learning Aids:** Nil.
10. **Test Details:** Nil.
11. **Remarks:** The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

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EO M190.04 – DISCUSS SURVIVAL PSYCHOLOGY

1. **Performance:** Discuss Survival Psychology
2. **Conditions:**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadet shall identify elements of survival psychology, to include:
 - a. the role of fear and how to deal with it in a survival situation,
 - b. action to take when lost,
 - c. the survival pattern, and
 - d. the seven enemies of survival.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain the role of fear in a survival situation, to include: <ol style="list-style-type: none"> a. reactions to fear; and b. dealing with fear. 	Interactive Lecture	5 min	A3-016 (pp. 11–16)
TP2	Explain taking action when lost: stopping, thinking, observing and planning.	Interactive Lecture	10 min	C3-005 (pp. 133–144)
TP3	Explain the survival pattern and how to employ it in a survival situation, to include: <ol style="list-style-type: none"> a. first aid, b. fire, c. shelter, d. signals, and e. food and water. 	Interactive Lecture	15 min	A3-016 (pp. 11–16)

TP	Description	Method	Time	Refs
TP4	Explain the seven enemies of survival and how to combat them, to include: <ol style="list-style-type: none"> a. pain, b. cold, c. thirst, d. hunger, e. fatigue, f. boredom, and g. loneliness. 	Interactive Lecture	20 min	A3-016 (pp. 11–16)

5. **Time:**

- | | |
|-------------------------------|--------|
| a. Introduction / Conclusion: | 10 min |
| b. Interactive Lecture: | 50 min |
| c. Total: | 60 min |

6. **Substantiation:** An interactive lecture was chosen for this lesson to orient the cadets to survival psychology and to generate an interest in the subject.

7. **References:**

- a. A3-016 B-GG-217-001/PT-001 Director Air Operations and Training. (1978). *Down but not out*. Ottawa, ON: Department of National Defence.
- b. C3-005 ISBN 0-89886-814-9 Sierra Club San Diego Chapter. (1999). *Wilderness basics: The complete handbook for hikers & backpackers*. Portland, OR: The Mountaineers Books.

8. **Training Aids:** Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for the training area.

9. **Learning Aids:** Nil.

10. **Test Details:** Nil.

11. **Remarks:** The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

EO M190.05 – IDENTIFY TYPES OF SHELTERS

1. **Performance:** Identify Types of Shelters
2. **Conditions:**
 - a. Given:
 - (1) Arctic tent,
 - (2) Modular tent,
 - (3) Civilian-pattern tent,
 - (4) Supervision, and
 - (5) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadet shall identify types of shelters, to include:
 - a. factors affecting site selection,
 - b. types of natural shelters,
 - c. types of improvised shelters, and
 - d. types of tentage.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain the importance of site selection, to include: <ol style="list-style-type: none"> a. land considerations, b. water considerations, c. animal and insect considerations, and d. other considerations. 	Interactive Lecture	10 min	C3-002 (pp. 125–131) C3-003 (pp. 96–104) C3-004 (p. 46)
TP2	Describe natural shelters.	Interactive Lecture	5 min	C3-002 (pp. 244–245, 260–261)
TP3	Describe improvised shelters.	Interactive Lecture	5 min	C3-002 (pp. 247–250)
TP4	Describe tentage, to include: <ol style="list-style-type: none"> a. Arctic tents, b. modular tents, and c. civilian-pattern tents. 	Interactive Lecture	5 min	A3-012 (pp. 3-22–3-24) A3-009 (pp. 3–7)

5. **Time:**

- | | |
|-------------------------------|--------|
| a. Introduction / Conclusion: | 5 min |
| b. Interactive Lecture: | 25 min |
| c. Total: | 30 min |

6. **Substantiation:** An interactive lecture was chosen for this lesson to orient the cadets to types of shelters.

7. **References:**

- a. A3-009 A-CR-CCP-107/PT-002. Director Cadets 3 (1979). *Royal Canadian Army Cadet CTP winter adventure training manual*. Ottawa, ON: Department of National Defence.
- b. A3-012 B-GG-302-002/FP-001 DAD. (1982). *Basic cold weather training*. Ottawa, ON: Department of National Defence.
- c. C3-002 ISBN 0-00-653140-7 Wiseman, J. (1999). *The SAS survival handbook*. Hammersmith, London: HarperCollins Publishers.
- d. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.
- e. C3-004 ISBN 1-85227-866-8 Davies, B. (1999). *SAS encyclopedia of survival*. London, England: Virgin Publications.

8. **Training Aids:**

- a. Twine,
- b. Cave (if in the training site),
- c. Fallen tree that could be used as a shelter (if in the training site),
- d. A-frame shelter,
- e. Lean-to shelter,
- f. Modular tent,
- g. Arctic tent, and
- h. Civilian-pattern tents.

9. **Learning Aids:** Nil.

10. **Test Details:** Nil

11. **Remarks:**

- a. All shelters listed should be setup prior to the lesson being taught.
- b. The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

EO M190.06 – LIGHT, MAINTAIN AND EXTINGUISH A FIRE

1. **Performance:** Light, Maintain and Extinguish a Fire
2. **Conditions:**
 - a. Given:
 - (1) Flint and steel,
 - (2) Magnifying glass,
 - (3) Matches,
 - (4) Battery,
 - (5) Steel wool,
 - (6) Saw,
 - (7) Wood / fuel,
 - (8) Water,
 - (9) Fire extinguisher,
 - (10) Shovel,
 - (11) Supervision, and
 - (12) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area, with a low to moderate rating under the Canadian Wildland Fire Information System (CWFIS).
3. **Standard:** The cadet shall:
 - a. adhere to all fire safety principles;
 - b. light a fire, to include:
 - (1) selecting an appropriate fire site;
 - (2) preparing the tinder, kindling and fuel; and
 - (3) applying a method for obtaining a spark;
 - c. maintain a fire, to include:
 - (1) applying an appropriate amount of wood;
 - (2) ensuring appropriate amount of ventilation; and
 - (3) ensuring the fire is contained to a controllable size; and
 - d. extinguish a fire, to include:
 - (1) smothering the fire with wet earth and / or water; and
 - (2) filling in the fire pit.

4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain principles of fire safety, to include: a. Forest Fire Danger Rating System, b. strong winds, and c. c. size of fire.	Interactive Lecture	5 min	C3-003 (Ch 10, p. 122)
TP2	Explain, demonstrate and have the cadets determine an appropriate site location and layout for a fire.	Demonstration and Performance	15 min	C3-003 (p. 122)
TP3	Identify the required elements of a fire.	Interactive Lecture	5 min	C3-002 (p. 266)
TP4	Describe types of fires, to include: a. warmth and comfort fires, b. signal fires, and c. cooking fires.	Interactive Lecture	15 min	C3-003 (pp. 122-135)
TP5	Explain, demonstrate and have the cadets practice lighting, maintaining and extinguishing fires.	Demonstration and Performance	45 min	C3-003 (pp. 122-130) C3-002 (pp. 268-275)

5. **Time:**

- | | |
|-----------------------------------|--------|
| a. Introduction / Conclusion: | 5 min |
| b. Interactive Lecture: | 25 min |
| c. Demonstration and Performance: | 60 min |
| d. Total: | 90 min |

6. **Substantiation:**

- An interactive lecture was chosen for TPs 1, 3 and 4 to illustrate the application of rules, principles and concepts of fire safety, elements of fire and types of fires.
- A demonstration and performance was chosen for TPs 2 and 5 as it allows the instructor to explain and demonstrate site location and layout, lighting, maintaining and extinguishing a fire.

7. **References:**

- C3-002 ISBN 0-00-653140-7 Wiseman, J. (1999). *The SAS survival handbook*. Hammersmith, London: HarperCollins Publishers.
- C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.

8. Training Aids:

- a. Teepee fire,
- b. Signal fire,
- c. Log cabin fire,
- d. Flag tape,
- e. Candle,
- f. Matches,
- g. Glass (cup),
- h. Flint and steel,
- i. Magnifying glass,
- j. Batteries,
- k. Steel wool,
- l. Saw,
- m. Tinder,
- n. Kindling,
- o. Fuel,
- p. Water,
- q. Fire extinguishers, and
- r. Shovels.

9. Learning Aids:

- a. Matches,
- b. Flint and steel,
- c. Magnifying glass,
- d. Batteries,
- e. Steel wool,
- f. Tinder,
- g. Kindling,
- h. Water,
- i. Wood,
- j. Sand, and
- k. Shovels.

10. **Test Details.** Nil.

11. **Remarks.** The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

EO M190.07 – ERECT, TEAR DOWN AND PACK TENTS

1. **Performance:** Erect, Tear Down and Pack Tents
2. **Conditions:**
 - a. Given:
 - (1) Modular tent,
 - (2) Mallet,
 - (3) Shovel,
 - (4) Supervision, and
 - (5) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadet shall erect, tear down and pack a two-section modular tent with walls.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	<p>Explain, demonstrate and have the cadets, as a member of a group, erect, tear down and pack a two-section modular tent with walls, to include:</p> <ol style="list-style-type: none"> a. identifying components of a modular tent; b. identifying tent sections; c. identifying accessories; d. discussing tent maintenance; e. discussing site selection; f. erecting; g. tearing down; and h. packing. 	Demonstration and Performance	60 min	A3-059 (p. 1-5, p. 1-8, p. 2-1-2-20)
TP2	<p>Explain and demonstrate erecting, tearing down and packing a 5- or 10-person Arctic tent, to include:</p> <ol style="list-style-type: none"> a. components of a 5- or 10-person Arctic tent, and b. Arctic tent inspection. 	Demonstration	30 min	A3-060 (pp. 3-11-3-25)
TP3	<p>Explain and demonstrate erecting, tearing down and packing a civilian-pattern tent, to include:</p> <ol style="list-style-type: none"> a. selecting a civilian-pattern tent; b. erecting; c. tearing down and packing; and d. care and maintenance. 	Demonstration	20 min	C3-003 (p. 37)

5. **Time:**

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|-----------------------------------|---------|
| a. Introduction / Conclusion: | 10 min |
| b. Demonstration and Performance: | 60 min |
| c. Demonstration: | 50 min |
| d. Total: | 120 min |

6. **Substantiation:**

- a. A demonstration and performance was chosen for TP 1 as it allows the instructor to explain and demonstrate erecting, tearing down and packing a modular tent while providing an opportunity for the cadets to practice these skills under supervision.
- b. A demonstration was chosen for TPs 2–3 as it allows the instructor to demonstrate the skills while providing the cadets with knowledge on erecting, tearing down and packing tents.

7. **References:**

- a. A3-012 B-GG-302-002/FP-001 DAD (1982). *Basic Cold Weather training*. Ottawa, ON: Department of National Defence.
- b. A3-059 C-87-110-000/MS-000 Canadian Forces. (1983). *Operational support and maintenance manual: Tent, main*. Ottawa, ON: Department of National Defence.
- c. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.

8. **Training Aids:**

- a. Modular tent,
- b. 5- or 10-person Arctic tent,
- c. Civilian-pattern tent,
- d. Mallet, and
- e. Shovel.

9. **Learning Aids:**

- a. Modular tent,
- b. Mallet, and
- c. Shovel.

10. **Test Details:** Nil.

11. **Remarks:**

- a. Every cadet, as a member of a group, should be given the opportunity to erect, tear down and pack a modular tent during the aircrew survival exercise.
- b. Assistant instructors may be required for this lesson.
- c. The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

EO C190.01 – PARTICIPATE IN A PRESENTATION GIVEN BY A MEMBER OF A SURVIVAL ORGANIZATION / SEARCH AND RESCUE (SAR) COMMUNITY

1. **Performance:** Participate in a Presentation Given by a Member of a Survival Organization / Search and Rescue (SAR) Community
2. **Conditions:**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental:
 - (1) Suitable classroom facilities / training area large enough to accommodate entire group; or
 - (2) Aircrew survival exercise training area.

Standard: The cadet shall participate in a presentation given by a member of a survival organization / Search and Rescue (SAR) community about different aspects of survival / SAR.

Teaching Points: The presentation should include:

- a. a description of their company / organization,
- b. a description of their role and duties,
- c. an outline of the training and experience required to do their job,
- d. a description of a day in the life of a member of the survival organization,
- e. anecdotes, and
- f. a question and answer period.

5. **Time:**

- | | |
|-------------------------|--------|
| a. Interactive Lecture: | 60 min |
| b. Total: | 60 min |

6. **Substantiation:** An interactive lecture was chosen for this lesson to review, clarify, emphasize and summarize the teaching points.
7. **Reference:** Nil.
8. **Training Aids:** Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for the training area.
9. **Learning Aids:** Nil.
10. **Test Details:** Nil.
11. **Remarks:**
 - a. There is no instructional guide for this EO.
 - b. This presentation can be conducted in a classroom or during the aircrew survival exercise.
 - c. For a list of organizations, visit the National Search and Rescue Secretariat website at www.nss.gc.ca/sar_directory/index_e.asp

EO C190.02 – TIE KNOTS AND LASHINGS

1. **Performance:** Tie Knots and Lashings
2. **Conditions:**
 - a. Given:
 - (1) Two three-metre lengths of 10mm braided rope,
 - (2) Poles,
 - (3) Supervision, and
 - (4) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadet shall tie knots and lashings, to include:
 - a. reef knot,
 - b. figure-of-eight knot,
 - c. clove hitch,
 - d. bowline,
 - e. round lashing,
 - f. square lashing, and
 - g. figure-of-eight lashing.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Describe the parts of a rope, to include: <ol style="list-style-type: none"> a. the working end, b. the working part, c. the standing part, d. the standing end, e. the crossing turn or loop, and f. the bight. 	Interactive Lecture	5 min	C3-026 (pp. 28–29)
TP2	Explain, demonstrate and have the cadets tie the following knots: <ol style="list-style-type: none"> a. reef knot, b. figure-of-eight knot, c. clove hitch, and d. bowline. 	Demonstration and Performance	25 min	C3-026 (p. 44, p. 98, p. 104, p. 162)

TP	Description	Method	Time	Refs
TP3	Explain, demonstrate and have the cadets tie the following lashings: a. round, b. square, and c. figure-of-eight.	Demonstration and Performance	25 min	C3-026 (p. 180, p. 182, p. 186)

5. **Time:**

- | | |
|-----------------------------------|--------|
| a. Introduction / Conclusion: | 5 min |
| b. Interactive Lecture: | 5 min |
| c. Demonstration and Performance: | 50 min |
| d. Total: | 60 min |

6. **Substantiation:**

- An interactive lecture was chosen for TP 1 to present background material on rope terminology.
- A demonstration and performance was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate tying knots and lashings while providing an opportunity for the cadets to practice and develop these skills under supervision.

7. **References:** C3-026 ISBN 1-55267-218-2 Pawson, D. (2001). *Pocket guide to knots and splices*. London: PRC Publishing.8. **Training Aids:**

- Presentation aids (eg, whiteboard / flip chart / OHP / multimedia projector) appropriate for the training area,
- Knot and lashing handouts,
- Knife,
- Three metres braided rope, and
- Poles.

9. **Learning Aids:**

- Two three-metre lengths of 10mm braided rope,
- Poles, and
- Knot and lashing handouts.

10. **Test Details:** Nil.11. **Remarks:** The cadet will require two pieces of 3 m long and 10 mm diameter braided rope to perform the required knots and lashings.

EO C190.03 – CONSTRUCT A HOOTCHIE-STYLE SHELTER

1. **Performance:** Construct a Hootchie-Style Shelter
2. **Conditions:**
 - a. Given:
 - (1) Groundsheets,
 - (2) Cord / rope / twine,
 - (3) Pegs,
 - (4) Other materials and equipment as required,
 - (5) Supervision, and
 - (6) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadets, in groups of two, shall construct a hootchie-style shelter, to include:
 - a. obtaining appropriate supplies;
 - b. selecting an appropriate site;
 - c. zipping groundsheets together;
 - d. tying the groundsheets to trees;
 - e. pegging the groundsheets; and
 - f. digging trenches.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain and demonstrate the procedure for constructing a hootchie-style shelter.	Demonstration	25 min	C3-002 (pp. 242, 243 and 247) C3-003 (pp. 96–101)
TP2	Have the cadets construct a hootchie-style shelter.	Practical Activity	60 min	C3-002 (pp. 242, 243 and 247) C3-003 (pp. 96–101)

5. **Time:**

a. Introduction / Conclusion:	5 min
b. Demonstration:	25 min
c. Practical Activity:	60 min
d. Total:	90 min

6. **Substantiation:**

- a. A demonstration was chosen for TP 1 as it allows the instructor to explain and demonstrate setting up a hootchie-style shelter while providing an opportunity for the cadets to observe and ask questions.
- b. A practical activity was chosen for TP 2 as it is an interactive way for the cadets to experience the setting up shelters in a safe and controlled environment.

7. **References:**

- a. C3-002 ISBN 0-00-653140-7 Wiseman, J. (1999). *The SAS survival handbook*. Hammersmith, London: HarperCollins Publishers.
- b. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.

8. **Training Aids:**

- a. Completed hootchie-style shelter for demonstration purposes,
- b. Cord / Rope / Twine,
- c. Knife,
- d. Shovel,
- e. Groundsheets, and
- f. Pegs.

9. **Learning Aids:**

- a. Cord / rope / twine,
- b. Knives,
- c. Shovel,
- d. Groundsheets, and
- e. Pegs.

10. **Test Details:** Nil.

11. **Remarks:** The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

EO C190.04 – COLLECT DRINKING WATER IN THE FIELD

1. **Performance:** Collect Drinking Water in the Field
2. **Conditions:**
 - a. Given:
 - (1) Plastic bags,
 - (2) Plastic sheets,
 - (3) Shovels,
 - (4) Pegs,
 - (5) Cup or bowl,
 - (6) Supervision, and
 - (7) Assistance as required.
 - b. Denied: Nil.
 - c. Environment: Aircrew survival exercise training area.
3. **Standard:** The cadets shall collect drinking water, to include:
 - a. locating water; and
 - b. using different methods for collecting rain, dew, water from other vegetation, water from soil, and ground water.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Describe the importance of water conservation and retaining fluids.	Interactive Lecture	15 min	C3-002 (pp. 22 to 24) C3-021 (pp. 68–77)
TP2	Explain, demonstrate and have the cadets collect drinking water, by: <ol style="list-style-type: none"> a. creating a rain collector; b. collecting dew; c. collecting water from vegetation; d. creating a solar still; and e. digging for ground water. 	Demonstration and Performance	40 min	C3-002 (pp. 22–24) C3-003 (pp. 149–152) C3-021 (pp. 68–77)

5. **Time:**

- | | |
|-----------------------------------|--------|
| a. Introduction / Conclusion: | 5 min |
| b. Interactive Lecture: | 15 min |
| c. Demonstration and Performance: | 40 min |
| d. Total: | 60 min |

6. **Substantiation:**

- a. An interactive lecture was chosen for TP 1 to orient the cadets to conserving water and generate an interest in the subject.
- b. A demonstration and performance was chosen for TP 2 as it allows the instructor to explain and demonstrate collecting drinking water and provides an opportunity for the cadets to practice the skill under supervision.

7. **References:**

- a. C3-002 ISBN 0-00-653140-7 Wiseman, J. (1999). *The SAS survival handbook*. Hammersmith, London: HarperCollins Publishers.
- b. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.
- c. C3-021 ISBN 0-7715-9035-0 McManners, H. (1994). *The complete wilderness survival manual*. Toronto, ON: McMillan Canada.

8. **Training Aids:**

- a. Plastic bags,
- b. Plastic sheets,
- c. Shovels,
- d. Pegs, and
- e. Cup or bowl.

9. **Learning Aids:**

- a. Rocks,
- b. Cloth (for collecting dew),
- c. Plastic bags,
- d. Plastic sheets,
- e. Shovels,
- f. Pegs, and
- g. Cup or bowl.

10. **Test Details:** Nil.

11. **Remarks:**

- a. The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.
- b. This lesson should be scheduled at the start of the first morning with the cadets setting up their water-collection devices. Follow up should take place the next day to indicate the cadets' water-collecting devices worked.

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EO C190.05 – IDENTIFY ENVIRONMENTAL INJURIES

1. **Performance:** Identify Environmental Injuries
2. **Conditions:**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental:
 - (1) Suitable classroom facilities / training area large enough to accommodate entire group; or
 - (2) Aircrew survival exercise training area.
3. **Standard:** The cadet shall identify environmental injuries, to include:
 - a. hiking injuries,
 - b. frostbite injuries,
 - c. hypothermia, and
 - d. heat-related injuries.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain how to recognize hiking injuries, to include: <ol style="list-style-type: none"> a. blisters, b. shin splints, c. muscle cramps, and d. sprains. 	Interactive Lecture	5 min	C3-007 (pp. 163–164) C3-014 (p. 213) C3-013 (pp. 120–121) C3-003 (p. 306)
TP2	Explain how to recognize frostbite injuries, to include: <ol style="list-style-type: none"> a. incipient frostbite (frost nip), b. superficial frostbite, and c. deep frostbite. 	Interactive Lecture	5 min	C3-015 (pp. 129–130)
TP3	Explain how to recognize the signs and symptoms of hypothermia.	Interactive Lecture	5 min	C3-015 (pp. 120, 122–124)

TP	Description	Method	Time	Refs
TP4	<p>Explain how to recognize heat-related injuries, to include:</p> <ul style="list-style-type: none"> a. heat cramps, b. heat exhaustion, c. heatstroke, d. sunburn, e. sore eyes, and f. dehydration. 	Interactive Lecture	10 min	C3-002 (pp. 446–448)

5. **Time:**

- a. Introduction / Conclusion: 5 min
- b. Interactive Lecture: 25 min
- c. Total: 30 min

6. **Substantiation:** An interactive lecture was chosen for this lesson to orient the cadets to environmental injuries and generate awareness of the subject.

7. **References:**

- a. C3-002 ISBN 0-00-653140-7 Wiseman, J. (1999). *The SAS survival handbook*. Hammersmith, London: HarperCollins Publishers.
- b. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.
- c. C3-007 ISBN 0-684-85909-2 Harvey, M. (1999). *The national outdoor leadership school's wilderness guide*. New York, NY: Simon & Schuster.
- d. C3-013 ISBN 0-7360-4602-X Clark, N. (2003). *Nancy Clark's sports nutrition guidebook*. United States: Author.
- e. C3-014 ISBN 0-3955-2808-9 Alter, J. (1986). *Stretch & strengthen*. United States: Author.
- f. C3-015 ISBN 089886-643-X Weiss, H. (1992). *Secrets of warmth for comfort or survival*. Seattle, WA: The Mountaineers.

8. **Training Aids:** Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for the training area.

9. **Learning Aids:** Nil.

10. **Test Details:** Nil.

11. **Remarks:** The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

EO C190.06 – DEMONSTRATE RESPECT FOR THE ENVIRONMENT DURING AN AIRCREW SURVIVAL EXERCISE

1. **Performance:** Demonstrate Respect for the Environment During an Aircrew Survival Exercise
2. **Conditions:**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadet shall demonstrate respect for the environment during an aircrew survival exercise.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Discuss the importance of low impact camping.	Interactive Lecture	5 min	C3-005 (pp. 251–253) C3-008 (pp. 98–100)
TP2	Discuss factors while cooking.	Interactive Lecture	5 min	C3-005 (pp. 253–255)
TP3	Discuss factors while washing.	Interactive Lecture	10 min	C3-005 (pp. 254–255)
TP4	Discuss waste disposal methods.	Interactive Lecture	5 min	C3-005 (pp. 257–258)

5. **Time:**
 - a. Introduction / Conclusion: 5 min
 - b. Interactive Lecture: 25 min
 - c. Total: 30 min
6. **Substantiation:** An interactive lecture was chosen for this lesson to present information on respecting the environment during an aircrew survival exercise.
7. **References:**
 - a. C3-005 ISBN 0-89886-814-9 Sierra Club San Diego Chapter. (1999). *Wilderness basics: The complete handbook for hikers & backpackers*. Portland, OR: The Mountaineers Books.
 - b. C3-008 ISBN 0-02861-100-4 Mouland, M. (1999). *Complete idiot's guide to camping and hiking*. Toronto, Canada: Alpha Books.

8. **Training Aids:**
 - a. Example of low impact survival exercise training area,
 - b. Biodegradable soap, and
 - c. Biodegradable shampoo.
9. **Learning Aids:** Nil.
10. **Test Details:** Nil.
11. **Remarks:** The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.

EO C190.07 – IDENTIFY HABITATS OF ANIMALS AND INSECTS

1. **Performance:** Identify Habitats of Animals and Insects
2. **Conditions:**
 - a. Given:
 - (1) Supervision, and
 - (2) Assistance as required.
 - b. Denied: Nil.
 - c. Environmental: Aircrew survival exercise training area.
3. **Standard:** The cadet shall identify habitats of edible insects and animals, to include:
 - a. signs of feeding,
 - b. droppings,
 - c. rootings,
 - d. scents and smells, and
 - e. tracks.
4. **Teaching Points:** Identify habitats of animals and insects.
5. **Time:**

a. Introduction / Conclusion:	5 min
b. In-Class Activity:	25 min
c. Total:	30 min
6. **Substantiation:** An in-class activity was chosen for this lesson as it is an interactive way to present the content.
7. **References:**
 - a. C3-002 ISBN 0-00-653140-7 Wiseman, J. (1999). *The SAS survival handbook*. Hammersmith, London: HarperCollins Publishers.
 - b. C3-003 ISBN 1-896713-00-9 Tawrell, P. (1996). *Camping and wilderness survival: The ultimate outdoors book*. Green Valley, ON: Author.
 - c. C3-150 ISBN 978-0-8117-3292-5 Davenport, G. (2006). *Wilderness survival*. Mechanicsburg, PA: Stackpole Books.
8. **Training Aids:** Nil.
9. **Learning Aids:** Nil.
10. **Test Details:** Nil.
11. **Remarks:** The directives outlined in CATO 11-08 *Environmental Protection and Stewardship* are to be adhered to during this training.