National Defence / Défense nationale

A-CR-CCP-924/PG-001

CANADIAN CADET ORGANIZATIONS

SMALL CRAFT OPERATOR PROGRAM (SCOP)
MODULE 4 - POWERBOAT RESCUE

(ENGLISH)

(Cette publication est disponible en français sous le numéro A-CR-CCP-924/PG-002)

Issued on Authority of the Chief of the Defence Staff

OPI: D Cdts & JCR

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Canada

FOREWORD AND PREFACE

1. **Issuing Authority.** This document was developed under the authority of the Director Cadets and Junior Canadian Rangers (D Cdts & JCR) in accordance with Cadet Administrative and Training Order (CATO) 14-19 *Small Craft Operator Program*, and is issued on the authority of the Chief of Defence Staff.

2. A-CR-050-834/PC-001*, Qualifying Standard (QS) for the Cadet Instructors Cadre Occupation MOSID 00232.01 Small Craft Rescue Instructor* is issued on the authority of the Chief of Reserves and Cadets.

3. This document supercedes A-CR-050-834/PC-001, *Qualification Standard (QS) for the Cadet Instructors Cadre Occupation MOSID 00232.01 Small Craft Rescue Instructor* and is effective upon receipt.

4. **Development.** Development of this document was in accordance with the performance oriented concept of training outlined in the Canadian Forces Individual Training and Education System A-P9-050 Series, *Manual of Individual Training and Education*, with modifications to meet the needs of the Canadian Cadet Organization (CCO).

5. The document contains the training requirements for SCOP Module 4 – Powerboat Rescue Operator – Sail and Module 4 – Powerboat Rescue Operator – Canoe and requirements and assessment package for those who wish to become a Powerboat Rescue Instructor – Sail or Powerboat Rescue Instructor – Canoe. Students will receive the Powerboat Rescue Operator qualification upon successful completion of this training.

6. The Lesson Specifications (LSs) and Instructional Guides (IGs) in Chapter 4 are to be used by Technical Establishments (TEs) in conjunction with other resources to conduct SCOP Module 4 training.

7. **Suggested Changes.** Suggested changes to this document can be forwarded to cadettraining@forces.gc.ca.

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CHAPTER 1

GENERAL

AIM

1. The Small Craft Operator Program (SCOP) is the Canadian Cadet Organization's (CCO) training program for qualifying persons to operate and instruct small craft in support of Sea, Army, and Air Cadets and Cadet Instructor Cadre (CIC) on-water training activities in accordance with (IAW) CATO 14-19, *Small Craft Operator Program*.

2. SCOP Module 4, Powerboat Rescue (PR*)* is composed of three separate qualifications, PR – Sail, PR – Canoe and PR Instructor (PRI). This document includes the standard and assessments for the three qualifications.

3. The PRI is trained to instruct cadets and CIC officers to the PR standard, either PR – Sail or PR – Canoe depending upon the requirement. Personnel who possess this qualification are required at cadet training centres (CTCs), training establishments (TEs) and in support of regionally and nationally directed activities. The PRI will have a sound working knowledge of all orders and regulations pertaining to the planning and safe conduct of powerboat rescue instruction.

4. The training resulting from this module will provide the student with a solid foundation and training for operating powerboats as a safety boat in either sail or canoe training.

PROGRAM DESIGN

5. SCOP training is designed in a modular format to allow personnel to complete only the training required to be qualified to operate a specific small craft in support of CCO on-water training activities. Each module of training has an associated performance objective (PO).

6. SCOP is used in both cadet and CIC training.

7. The majority of the training for PR – Sail and PR – Canoe is the same. However, PR – Sail has been developed in line with the *Sail Canada Standard for Approved Coach Boat Safety Courses* and as such there are certain requirements for PR – Sail that are not included in the PR – Canoe training. These requirements are identified in the lesson specifications. Training has also been modified to take into account the differences of rescuing a dinghy sailboat versus a canoe.

TRAINING MODULES AND POs

8. The aim of PR – Sail and PR – Canoe is to provide the student with the knowledge and skills required to operate a safety boat during either dinghy sailing or canoeing training.

9. The aim of PRI training is to provide personnel with the skills and knowledge required to plan and conduct powerboat rescue instruction.

10. It is expected but not required that prior to the assessment, the instructor trainee will work alongside and assist a PRI to gain experience in the conduct of a PR course.

METHOD OF ACHIEVING OBJECTIVES

11. The majority of SCOP training is skills-related. Skills are acquired through practical periods of instruction and practice. In order to achieve the POs, a hands-on learning approach is essential. The following guidance may assist in the implementation of training:

a. Some theory is required for safety purposes and for introducing new material. However, most material can be taught using hands-on practical methods.

b. Ensure training is well organized and planned for in advance to allow instructors adequate time to prepare for the delivery / conduct of training. This includes reviewing lesson specifications and instructional guides and creating instructional materials as required.

c. Schedule training such that the material is presented in a manner to ensure a smooth flow from one activity to the next.

d. Take adequate time for students to reflect upon and be debriefed on training activities, to include discussing the ways that experience can benefit them in the future.

TRAINING PREREQUISITES – OPERATOR

12. Prerequisites for participation in this training module are as follows:

a. Powerboat Operator (SCOP Modules 1, 2 and 3), and
b. Emergency First Aid.

TRAINING PREREQUISITES – INSTRUCTOR

13. Prerequisites for CIC and Cadet participation in PRI are as follows:

a. held the PR qualification for at least two years,
b. 18 years of age,
c. completed Phase 4 and Senior Sail,
d. water scene management experience, and
e. possesses water scene management experience recognized by the SCOP Regional OPI.

QUALIFICATION

14. The SCOP Module 4, PR – Sail and SCOP Module 4, PR – Canoe are valid for three years.

15. The SCOP Module 4, PRI – Sail and SCOP Module 4, PRI – Sail are valid for three years.

RECERTIFICATION

16. When the SCOP Module 4, PR – Sail and SCOP Module 4, PR – Canoe expire, the operator is required to undergo recertification training. The amount of training required will depend on the amount of time the operator has spent in a powerboat conducting either sail or canoe training and be IAW CATO 14-19 *Small Craft Operator Program* and the Regional SCOP OPI.

17. It is recommended that for SCOP Module 4, PR – Sail, the operator complete all the practical evaluations required under the *Sail Canada Standard for Approved Coach Boat Safety Courses* and a simulated rescue.

18. It is recommended that for SCOP Module 4, PR – Canoe, the operator complete a simulated rescue.

19. When the SCOP Module 4, PRI – Sail and SCOP Module 4, PRI – Canoe expire, the instructor is required to undergo recertification training. The amount of training required will depend on the amount of time the instructor has spent in a powerboat conducting either sail or canoe training, how many courses they have instructed and be IAW CATO 14-19 *Small Craft Operator Program* and the Regional SCOP OPI.

20. It is recommended that for both the SCOP Module 4, PRI – Sail and the SCOP Module 4, PRI – Canoe, the instructor is evaluated instructing an on-water lesson and the simulated rescue.

USE OF THIS DOCUMENT

21. This document shall be used as the primary authority governing the development, implementation, conduct, and evaluation of the training and standards for PR – Sail, PR – Canoe and PRI. It shall also be used by D Cdts & JCR as the primary reference for validation.

QUALIFICATION CODES

22. The following qualifications will be awarded:

Qualification / Mite Code	Qualifications
AKBH	Powerboat Operator
118649	Powerboat Rescue Operator

CHAPTER 2

TRAINING MANAGEMENT DETAILS

RESPONSIBLE AGENCY AND TRAINING ESTABLISHMENTS

1. The Designated Training Authority (DTA) for SCOP Module 4 is D Cdts & JCR. The conduct of said program is the responsibility of the Regional Cadet Support Units (RCSUs) through authorized Training Establishments (TEs), IAW CATO 14-19, *Small Craft Operator Program*. These TEs include:

a. Royal Canadian Sea Cadet Corps (RCSCC);

b. Cadet Training Centres (CTC);

c. Regional Cadet Instructor Schools (RCIS); and

d. Technical TEs, such as:

(1) Nautical Sites; and

(2) Other zone, detachment or regional TEs as authorized by the RCSU Commanding Officer (CO).

TRAINING DELIVERY

2. Module 4 may be conducted for cadets and CIC Officers of all three environments whose duties require them to operate a small craft.

3. Students shall complete SCOP Modules 1, 2 and 3 before undertaking PR – Sail or PR – Canoe.

4. The S*ail Canada Standard for Approved Coach Boat Safety Courses* includes skills that have been previously trained in the Royal Canadian Sea Cadet Phase One Program and SCOP Module 3, Powerboat. It is expected that the student possesses these skills and as such they are not included in the PR – Sail training. A list of these skills is located at Annex A, Equivalencies Chart.

5. **Period Allocation.** Periods are 40 minutes in duration. Total period allocation for PR – Sail and PR – Canoe is as follows:

EO No.	Performance Objective	No. Pd
PO 004 - Operate a Safety Boat		
004.01	Recover a Person From the Water	3
004.02	Prepare for Departure	1
004.03	Manoeuvre a Safety Boat	5

EO No.	Performance Objective	No. Pd
004.04	Assist a Small Craft	3
004.05	Perform Emergency Scene Management	4
	Total	16

6. PRI trainee evaluations will be completed during a PR – Sail or PR – Canoe course.

SCHEDULING GUIDELINES

7. The group discussion on critical decisions faced by safety boat operators required for PR – Sail may be conducted prior to the course. Details are located in EO 004.05, Perform Emergency Scene Management.

8. Students undertaking PR – Sail or PR – Canoe will have obtained their Emergency First Aid. It is advisable, however, to review basic first aid principles prior to EO 004.05, Perform Emergency Scene Management.

9. As part of the Sail Canada standard, each student undergoing PR - Sail is required to pour a small amount of gas from a jerry can into a coach boat (EO 004.02 Prepare for Departure). This may be conducted when opportunities arise prior to the course and IAW local fuelling policy.

10. The students should be shown the parbuckle segment from the *Beyond Cold Water Boot Camp* DVD prior to the on-water portion of EO 004.01, Recover a Person From the Water.

11. Training time has not been allocated for students to practice driving a powerboat during the course. It is recommended that students are given time to drive a powerboat prior to the course.

INSTRUCTOR REQUIREMENTS AND TRAINING CAPACITY

12. PR – Sail or PR – Canoe training shall be conducted by a PRI – Sail or PRI – Canoe. A PRI – Sail can qualify either PR – Sail or PR – Canoe however, PRI – Canoe can only qualify PR – Canoe.

13. PRI training assessments are located in Chapter 3, Annex B and IAW CATO 14-19, *Small Craft Operator Program*.

14. PRI trainees shall be evaluated by a PRI approved by the SCOP Regional OPI.

15. The instructor to student ratio for PR – Sail or PR – Canoe shall not exceed 1:20 during instruction ashore and 1:4 during in- / on-water instruction, with appropriate adjustments made based on vessel capacity / payload.

TRAINING ADMINISTRATION

16. Details on operator evaluation and reports are located in Chapter 3, Annex A and instructor evaluation Annex B.

17. SCOP certificates shall be issued IAW CATO 14-19, *Small Craft Operator Program*.

RELATED DOCUMENTS

18. This document is to be used in conjunction with:

a. Cadet Administration and Training Orders (CATOs);

b. A-CR-CCP-030/PT-001, *Water Safety Orders*;

c. A-CR-CCP-614/PG-001, *Royal Canadian Sea Cadets Senior Sail Qualification Standard and Plan*; and

d. *Sail Canada Standard for Approved Coach Boat Safety Courses*.

RESOURCES

19. RCSU COs are responsible for ensuring that required equipment and supplies are available. A detailed list of material, audiovisual equipment, and training / learning aids required to conduct the training is located in each lesson specification found in Chapter 4.

ANNEX A – EQUIVALENCIES CHART

SAIL CANADA PRACTICAL SKILL #	SKILL REQUIRED BY SAIL CANADA	ROYAL CANADIAN SEA CADET PROGRAM
1	Coil and throw a heaving line.	Phase One - Lesson M121.03
3	Enter and exit a powerboat. Check required safety equipment and describe how and when it is used. Start / stop a powerboat	SCOP Module 3 - Lesson 003.02
4a.	Manoeuvre the powerboat using wake and no-wake speed. Leave a jetty and come alongside with wind and no wind.	SCOP Module 3 - Lesson 003.03
4b.	Beach a powerboat or leave it in shallow water.	SCOP Module 3 - Lesson 003.04
6	Maintain an appropriate speed while travelling from one activity to another.	SCOP Module 3 - Lesson 003.03
7	Anchor a power boat setting the appropriate scope for wind and bottom conditions.	SCOP Module 3 - Lesson 003.04
10	Safely demonstrate a man overboard recovery.	SCOP Module 3 - Lesson 003.03
12	Tie a powerboat to the jetty using a horn cleat or dock ring.	SCOP Module 3 - Lesson 003.04
14	Tie the following knots:	
	• bowline and bowline with half hitches,	Phase One - Lesson M121.01
	• sheet bend,	Phase One - Lesson M121.01
	• round turn and 2 half hitches, and	Phase One - Lesson M121.01
	• cleat knot.	SCOP Module 3 - Lesson 003.04
15	Stop a powerboat and secure to a race mark or mooring buoy.	SCOP Module 3 - Lesson 003.03

CHAPTER 3

STUDENT EVALUATION – OPERATOR AND INSTRUCTOR

PURPOSE

1. The purpose of this chapter is to outline the specific evaluation requirements for achievement of each performance objective.

LEARNER EVALUATION

2. “Learner evaluation is the assessment of progress made by participants during an instructional programme (formative evaluation) and of their achievement at the end of the programme (summative evaluation).” (A-P9-050-000/PT-Z01, Manual of Individual Training and Education, Volume 1 (1), Glossary).

3. Formative evaluation, or assessment **for** learning, takes place during a phase of instruction and helps students and instructors recognize progress or lapses in learning. Through formative evaluation, the instructor can; identify when corrective or remedial action is required, plan the next steps in instruction, provide students with feedback so they can improve, and reinforce learning to aid the student in retaining information. Formative evaluation may also include opportunities for students to practice using Performance Checks (PCs) employed in summative evaluation.

4. Summative evaluation, or assessment **of** learning, takes place to determine whether learners have achieved POs, or critical EOs (those deemed prerequisites to further individual training and education) and are used at the end of a phase of instruction. Details for assessment of learning are detailed within this chapter.

ASSESSMENT OF LEARNING PLAN

5. The Assessment of Learning Plan – SCOP Module 4 – Powerboat Rescue located at Annex A, provides an overall strategy for using assessment activities to determine if the student meets the outlined requirements. The Assessment of Learning Plan will:

a. provide an outline of each assessment; including its purpose, when it will occur and details the assessment instrument(s) used to support the evaluation;

b. identify the learning target(s) associated with the PO and / or EO being assessed, to include:

(1) **Knowledge Mastery.** The facts, concepts and theory a student needs to know;

(2) **Reasoning Proficiency.** A student uses what they know to solve a problem, make a decision, make a plan, think critically, set goals, or self-assess;

(3) **Skills.** Performance demonstration; where the student demonstrates their ability to perform a skill. To be assessed, these performances must be demonstrated by the student and observed by an assessor;

(4) **Ability to Create Products.** A student uses their knowledge, reasoning and skills to create a concrete product; and / or

(5) **Attitudinal / Dispositional Changes.** A student's attitude about learning, safety, conduct, etc. Targets in this realm reflect attitude and feeling. They represent important affective goals we hold for a student as a by-product of their CP experience, and as such are not generally assessed for the purpose of attaining a qualification.

c. identify the assessment method(s) that best matches PO and / or EO learning targets, to include:

(1) **Selected Response.** A student selects the correct or best response from a list provided. Formats include multiple choice, true / false, matching, short answer, and fill-in-the-blank questions. Although short answer and fill-in-the-blank questions do require the student to generate an answer, they call for a very brief answer that is counted as right or wrong, so these have been included in the selected response category;

(2) **Extended Written Response.** A student is required to construct a written answer in response to a question or task rather than select one from a list. An extended written response is one that is at least several sentences in length;

(3) **Performance Assessment.** This assessment method is based on observation and judgment; we look at a performance or product is observed and a determination is made as to its quality; and / or

(4) **Personal Communication.** Gathering information about a student through personal communication; learning is assessed through interpersonal interaction with the student.

ASSESSMENT INSTRUMENTS

6. Specific assessment instruments have been designed to support the assessment activity within the assessment of learning plan. These are meant to standardize assessment activities and evaluation for all students.

a. Annex A consists of the assessment instructions and tools for SCOP Module 4 – PR – Operator – Sail and SCOP Module 4 – PR – Operator – Canoe.

b. Annex B consists of the assessment instructions and tools for SCOP Module 4 – PRI – Sail and SCOP Module 4 – PRI – Canoe.

ADDITIONAL ASSESSMENT OF LEARNING ACTIVITIES

7. A written test is required for PR – Sail. Students undergoing PR – Canoe are not required to complete the test as it is a Sail Canada Safety Boat Course requirement. No additional student evaluations, eg, theory tests or performance checks, are to be used. Therefore, these national standards are not to be supplemented with additional standards.

MONITORING STUDENT PROGRESS

8. Instructors must closely monitor and keep students apprised of their progress using the provided assessment instruments. Assessment for learning should be provided through ongoing verbal feedback.

STUDENTS NOT MEETING THE STANDARD

9. A student who does not meet the standard for the PO shall be given a reasonable opportunity to achieve the standard. Unless otherwise specified in the Assessment of Learning Plan – SCOP Module 4 – Powerboat Rescue and associated assessment instruments, there is no limit to the number of additional opportunities that may be afforded to the student, provided it is within the time and resource limitations of the TE.

10. If, by the end of the course, a student has yet to successfully complete the PO, they will be assessed as “Incomplete”.

RECORDING AND REPORTING STUDENT ACHIEVEMENT

11. Recording and reporting of student achievement shall be IAW Annex A, CATO 14-19, *Small Craft Operators Program* and any reporting procedures put in place by the Regional SCOP OPI.

CERTIFICATE OF COMPLETION

12. SCOP certificate shall be issued IAW CATO 14-19, *Small Craft Operators Program*.

Annex A
Assessment of Learning Plan – SCOP Module 4 – Powerboat Rescue

EC / PC	Scope	Purpose	Target	Method	How	When	Resources	Limitations
004 EC – Sail	EO 004.01 to EO 004.04	To assess the student's ability to recover a person from the water, prepare for departure, manoeuvre a safety boat and assist a small craft.	Knowledge and Skills	Performance Assessment	The student is observed while manoeuvring a safety boat and assisting a sailboat. Use instructor notes and EC Checklist to track completion of associated tasks and progression of skills.	Ongoing during conduct of lessons related to EO 004.01 to EO 004.04.	Annex A, Appendices 1–3	Limited Assistance
004 PC – Sail	PO 004	The purpose of this PC is to assess the student's ability to operate a safety boat during sail training.	Knowledge and Skills	Performance Assessment	The student will complete a written test and be observed responding to a simulated scenario where a small craft requires assistance – Use instructor notes and PC Checklist to track.	Upon completion of lessons related to PO 004.	Annex A, Appendices 4–7	Assistance Denied
004 PC – Canoe	PO 004	The purpose of this PC is to assess the student's ability to operate a safety boat during canoe training.	Knowledge and Skills	Performance Assessment	The student will be observed responding to a simulated scenario where a canoe requires assistance. Use instructor notes and PC Checklist to track.	Upon completion of lessons related to PO 004.	Annex A, Appendices 8–10	Assistance Denied
PR Instructor – Sail	PO 001.01	The purpose of this PC is to assess the instructor trainee's ability to instruct SCOP Module 4 – PR – Sail.			Evaluated while conducting two periods of instruction, two activities and a simulated scenario.	Throughout PR – Operator – Sail course.	Annex B, Appendices 1–7	Nil
PR Instructor – Canoe	PO 001.01	The purpose of this PC is to assess the instructor trainee's ability to instruct SCOP Module 4 – PR – Canoe.			Evaluated while conducting two periods of instruction, two activities and a simulated scenario.	Throughout PR – Operator – Canoe course.	Annex B, Appendices 8–9	Nil

ANNEX A, APPENDIX 1

004 EC – POWERBOAT RESCUE – SAIL

ASSESSMENT INSTRUCTIONS

GENERAL

This EC is to be conducted on open water IAW *Water Safety Orders* and the *Sail Canada Standard for Approved Coach Boat Safety Course*.

PRE-ASSESSMENT INSTRUCTIONS

1. Photocopy the 004 EC Group Checklist Powerboat Rescue – Sail, located at Annex A, Appendix 2, based on the number of students being assessed.

2. Photocopy the 004 EC Assessment Checklist Powerboat Rescue – Sail, located at Annex A, Appendix 3, for each student.

CONDUCT OF ASSESSMENT

1. EC 004 Part 1 shall be conducted in a pool or alongside the jetty. Divide the students into pairs, each taking turns towing each other. The parbuckle and underarm lifts should be conducted alongside the powerboat.

2. EC 004 Part 2 should be conducted on land using scrap shroud wire.

3. EC 004 Part 3 and 4 are assessed while students are driving the safety boat.

4. The demonstration of the mast toss method may be assessed at the same time as the tows since the students are already in the water.

5. Complete the 004 EC Group Checklist Powerboat Rescue – Sail after each part is completed.

POST-ASSESSMENT INSTRUCTIONS

1. Record the results on the 004 EC Assessment Checklist Powerboat Rescue – Sail, for each student.

2. Indicate the overall performance assessment on the assessment checklist as:

   a. **Incomplete.** The student has not completed all of the tasks; or

   b. **Completed.** The student has achieved the performance standard by completing all the tasks.

3. Sign and date the 004 EC Assessment Checklist Powerboat Rescue – Sail.

4. Discuss the overall performance results with the student and provide them with a copy of their completed checklist.

ANNEX A, APPENDIX 2

004 EC GROUP CHECKLIST

POWERBOAT RESCUE – SAIL

	Part 1				Part 2	Part 3				Part 4		
Name	Swim 50 m Freestyle Unassisted	Tow a Person 50 m	Perform the Underarm Lift	Perform a Parbuckle Lift	Demonstrate Proper use of Wire Cutters	Manoeuvre at Wake and No-wake Speeds	Adjust for Heavy Winds and Waves	Manoeuvre in Proximity of Sailboats	Tow a sailboat using an Alongside Tow	Monitor a Sailboat From a Perpendicular Position	Monitor a Sailboat From a Head-On Position	Recover a Capsized Sailboat Using the Mast Toss Method
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
21.												
22.												
23.												

I = Incomplete C = Completed

ANNEX A, APPENDIX 3

004 EC ASSESSMENT CHECKLIST

POWERBOAT RESCUE – SAIL

Student's Name: _____ Division /Corps: _____

Recover a Person From the Water	Incomplete	Completed
Swim 50 m freestyle unassisted		
Tow a person 50 m		
Perform the underarm lift		
Perform a parbuckle lift		
Demonstrate proper use of wire cutters		

Manoeuvre a Safety Boat	Incomplete	Completed
Manoeuvre at Wake and No-Wake Speeds		
Adjust for Heavy Winds and Waves		
Manoeuvre in Proximity of Sailboats		

Assist a Small Craft	Incomplete	Completed
Tow a Sailboat using an Alongside Tow		
Monitor a Sailboat From a Perpendicular Position		
Monitor a Sailboat From a Head-On Position		
Recover a Capsized Sailboat Using the Mast Toss Method		

Check One	**Incomplete**		**Completed**	
Overall Performance	The student has not completed all of the tasks.		The student has achieved the performance standard by completing all the tasks.	

Evaluator's Name:	**Position:**
Evaluator's Signature:	**Date:**

ANNEX A, APPENDIX 4

004 PC – POWERBOAT RESCUE – SAIL

ASSESSMENT INSTRUCTIONS

GENERAL

This PC is comprised of two parts. Part One is a written test and Part Two is a practical test conducted IAW *Water Safety Orders*. Students will act as safety boat operator and crew providing assistance to a sailboat with other students playing the role of the sailboat crew.

Other staff members' assistance may be required to act as the small craft "casualties" during the simulated scenario.

PRE-ASSESSMENT INSTRUCTIONS

1. Obtain a copy of the 004 PC SCOP Module 4 - Powerboat Rescue Knowledge Examination and Answer Key from the Regional SCOP OPI.

2. Photocopy the 004 PC SCOP Module 4 – Powerboat Rescue Knowledge Examination and 004 PC SCOP Module 4 – Powerboat Rescue Knowledge Examination Answer Sheet, located at Annex A, Appendix 5 for each student.

3. Photocopy the 004 PC Group Checklist Powerboat Rescue – Sail, located at Annex A, Appendix 6, based on the number of students being assessed.

4. Photocopy the 004 PC Assessment Checklist Powerboat Rescue – Sail, located at Annex A, Appendix 7 for each student.

CONDUCT OF ASSESSMENT

Part One – Written Test

1. Have the students sit in the testing area in such a way that there is no visual access to reference material (eg, posters or other training aids) and with minimal distractions.

2. Before the test begins provide the following verbal instructions to the students:

   a. This is a closed book test. No reference material is allowed;

   b. Do not write in the test booklet and use the sheet provided to record your answers;

   c. During the test you may not speak with anyone;

   d. If you have any questions during the test, raise your hand for assistance;

   e. Upon completion, your results will be discussed with you;

f. You may not keep the test booklet or answer sheet. All materials must be returned upon completion;

g. The test consists of 50 multiple choice questions and the pass mark is 76% (38/50); and

h. You have 60 min to complete the test.

3. Allow students that finish before the time limit to hand in their test and leave the room (if possible) as to not disturb the other students. Collect all remaining tests once the time limit expires.

4. Mark the tests using the corresponding answer key.

Part Two – Scenarios

1. Have the student act as a safety boat operator and safety boat crew taking action in response to a simulated scenario. The instructor will create the scenario using the following parameters:

a. capsized sailboat,
b. basic first aid required (eg, cut, sprain or minor contact injury),
c. SAP and EMS protocols, and
d. EAP as necessary.

2. Provide specific instructions to the students acting as the casualties regarding the parameters of the scenario and the types of conditions / injuries that are to be simulated. It is recommended that a set of visual signals be devised to help with communication between the assessor and the casualties during the simulation.

3. In the absence of actual signs and symptoms, it will be necessary for the assessor / casualty to use verbal queues, to prompt the student to move through the steps of the primary and secondary surveys. (eg, “the casualty is breathing”,”the casualty is not breathing”, “the casualty has regained consciousness”, “there is blood coming from the casualties ear and nose”, etc.)

4. Assess the correctness of each task / skill and mark it as incomplete or complete on the 004 PC Group Checklist Powerboat Rescue – Sail.

The evaluator shall stop the simulation and take control of the safety boat should they feel that the students’ actions are unsafe and the risk of injury exists.

The evaluator may stop the simulation once satisfied that the student has demonstrated all the requirements IAW the 004 PC Assessment Checklist Powerboat Rescue – Sail (eg, it is not necessary to proceed to the shore to finish the scenario).

POST-ASSESSMENT INSTRUCTIONS

RECORDING ASSESSMENT RESULTS

Part One

1. Discuss the performance results with the student.

2. Forward the answer sheets to the Regional SCOP OPI.

Part Two

1. Record the results on the 004 PC Assessment Checklist Powerboat Rescue – Sail, for each student.

2. Indicate the overall performance assessment on the 004 PC Assessment Checklist Powerboat Rescue – Sail as:

    a. **Incomplete.** The student has not achieved the performance standard by not successfully completing one or more tasks or skills; or

    b. **Completed.** The student has achieved the performance standard by completing all the tasks.

3. Record notes made in the evaluator's feedback section of the 004 PC Assessment Checklist Powerboat Rescue – Sail.

4. Sign and date the 004 PC Assessment Checklist Powerboat Rescue – Sail.

5. Discuss the overall performance results with the student and provide them with a copy of the completed 004 PC Assessment Checklist Powerboat Rescue – Sail.

6. Complete any electronic recording of results and student information, as directed by the Regional SCOP OPI.

ANNEX A, APPENDIX 5

004 PC – SCOP MODULE 4 – POWERBOAT RESCUE KNOWLEDGE EXAMINATION

ANSWER SHEET

Name:_____**Test No:**_____ **Date:**_____

1.	T	F			**26.**	A	B	C	D
2.	T	F			**27.**	A	B	C	D
3.	A	B	C	D	**28.**	A	B	C	D
4.	A	B	C	D	**29.**	A	B	C	D
5.	A	B	C	D	**30.**	A	B	C	D
6.	A	B	C	D	**31.**	A	B	C	D
7.	A	B	C	D	**32.**	A	B	C	D
8.	A	B	C	D	**33.**	A	B	C	D
9.	A	B	C	D	**34.**	A	B	C	D
10.	A	B	C	D	**35.**	A	B	C	D
11.	A	B	C	D	**36.**	A	B	C	D
12.	A	B	C	D	**37.**	A	B	C	D
13.	T	F			**38.**	A	B	C	D
14.	T	F			**39.**	A	B	C	D
15.	A	B	C	D	**40.**	A	B	C	D
16.	A	B	C	D	**41.**	T	F		
17.	A	B	C	D	**42.**	T	F		
18.	A	B	C	D	**43.**	T	F		
19.	A	B	C	D	**44.**	T	F		
20.	A	B	C	D	**45.**	T	F		
21.	A	B	C	D	**46.**	T	F		
22.	A	B	C	D	**47.**	T	F		
23.	A	B	C	D	**48.**	T	F		
24.	A	B	C	D	**49.**	A	B	C	D
25.	A	B	C		**50.**	T	F		

ANNEX A, APPENDIX 6
004 PC GROUP CHECKLIST
POWERBOAT RESCUE – SAIL

Name	Safety boat approach	Safety boat position (monitoring)	Sailboat recovery, as required	SAP Protocol	Safety boat control	Perform first aid as required	Communication with safety boat crew	Communication with sailboat crew	Action taken, resolved the situation	Primary survey (simulated)	Secondary survey (simulated)
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											

I = Incomplete C = Completed

ANNEX A, APPENDIX 7
004 PC ASSESSMENT CHECKLIST
POWERBOAT RESCUE – SAIL

Student's Name: _____ Division /Corps:_____

	Assessment	
	Incomplete	**Completed**
Safety boat approach		
Safety boat position (monitoring)		
Sailboat recovery, as required		
Safety boat control		
Primary survey (simulated)		
Secondary survey (simulated)		
SAP protocol		
First aid, as required		
Communication with safety boat crew		
Communication with sailboat crew		
Action taken resolved the situation		

Assessor's Feedback (General):

Overall Performance Assessment:

PO Assessment				
Check One	**Incomplete**			**Completed**
Overall Performance	The student has not completed all of the tasks.		The student has achieved the performance standard by completing all the tasks.	

Evaluator's Name:	**Position:**
Evaluator's Signature:	**Date:**

ANNEX A, APPENDIX 8

004 PC – POWERBOAT RESCUE – CANOE

ASSESSMENT INSTRUCTIONS

GENERAL

This PC is a practical test conducted IAW *Water Safety Orders*. Students will act as safety boat operator and crew providing assistance to a canoe.

Other staff members' assistance may be required to act as the canoe "casualties" during the simulated scenario.

PRE-ASSESSMENT INSTRUCTIONS

1. Photocopy the 004 PC Group Checklist Powerboat Rescue – Canoe, located at Annex A, Appendix 9, based on the number of students being assessed student.

2. Photocopy the 004 PC Assessment Checklist Powerboat Rescue – Canoe, located at Annex A, Appendix 10, for each student.

CONDUCT OF ASSESSMENT

Scenario

1. Have the student act as a safety boat operator and safety boat crew taking action in response to a simulated scenario. The instructor will create the scenario using the following parameters:

   a. capsized canoe,
   b. towing a canoe,
   c. basic first aid required (eg, cut, sprain or minor contact injury),
   d. SAP and EMS protocols, and
   e. EAP as necessary.

2. Provide specific instructions to the students acting as the casualties regarding the parameters of the scenario and the types of conditions / injuries that are to be simulated. It is recommended that a set of visual signals be devised to help with communication between the evaluator and the casualties during the simulation.

3. In the absence of actual signs and symptoms, it will be necessary for the evaluator / casualty to use verbal queues, to prompt the student to move through the steps of the primary and secondary surveys. (eg, "the casualty is breathing", "the casualty is not breathing", "the casualty has regained consciousness", "there is blood coming from the casualties ear and nose", etc.)

4. Assess the correctness of each task / skill and mark it as incomplete or complete on the 004 PC Group Checklist Powerboat Rescue - Canoe.

The evaluator shall stop the simulation and take control of the safety boat should they feel that the students' actions are unsafe and the risk of injury exists.

The evaluator may stop the simulation once satisfied that the student has demonstrated all the requirements IAW the assessment checklist (eg, it is not necessary to proceed to the shore to finish the scenario).

POST-ASSESSMENT INSTRUCTIONS

RECORDING ASSESSMENT RESULTS

1. Record the results on the 004 PC Assessment Checklist Powerboat Rescue – Canoe, for each student.

2. Indicate the overall performance assessment on the assessment checklist as:

   a. **Incomplete.** The student has not achieved the performance standard by not successfully completing one or more tasks or skills; or

   b. **Completed.** The student has achieved the performance standard by completing all the tasks.

3. Record notes made in the evaluator's feedback section of the 004 PC Assessment Checklist Powerboat Rescue – Canoe.

4. Sign and date the 004 PC Assessment Checklist Powerboat Rescue – Canoe.

5. Discuss the overall performance results with the student and provide them with a copy of the completed 004 PC Assessment Checklist Powerboat Rescue – Canoe.

6. Complete any electronic recording of results and student information, as directed by the Regional SCOP OPI.

ANNEX A, APPENDIX 9
004 PC GROUP CHECKLIST
POWERBOAT RESCUE – CANOE

Name	Safety boat approach	Safety boat position (monitoring)	Towing a canoe	SAP Protocol	Safety boat control	Perform first aid as required	Communication with safety boat crew	Communication with small craft crew	Action taken, resolved the situation	Primary survey (simulated)	Secondary survey (simulated)
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											

I = Incomplete C = Completed

ANNEX A, APPENDIX 10
004 PC ASSESSMENT CHECKLIST
POWERBOAT RESCUE – CANOE

Student's Name: _____

	Assessment	
	Incomplete	**Completed**
Safety boat approach		
Safety boat position (monitoring)		
Safety boat control		
Towing a canoe		
Primary survey (simulated)		
Secondary survey (simulated)		
SAP protocol		
First aid, as required		
Communication with safety boat crew		
Communication with small craft crew		
Action taken resolved the situation		

Assessor's Feedback (General):

Overall Performance Assessment:

PO Assessment				
Check One	**Incomplete**			**Completed**
Overall Performance	The student has not completed all of the tasks.		The student has achieved the performance standard by completing all the tasks.	

Evaluator's Name:	**Position:**
Evaluator's Signature:	**Date:**

ANNEX B

004.01 PPC – POWERBOAT RESCUE INSTRUCTOR - SAIL

ASSESSMENT INSTRUCTIONS

Pre-Assessment Instructions:

1. Review the Assessment of Learning Plan – SCOP Module 4 – Powerboat Rescue, located at Annex A.

2. Photocopy the 004.01 PPC Powerboat Rescue Instructor – Lesson Rubric, located at Annex B, Appendix 1, two copies for each instructor trainee.

3. Photocopy the 004.01 PPC Powerboat Rescue Instructor – Activity Rubric, located at Annex B, Appendix 2, two copies for each instructor trainee.

4. Photocopy the 004.01 PPC – Powerboat Rescue Instructor – Sail Feedback and Summative Evaluation Form, located at Annex B, Appendix 3, one copy for each instructor trainee.

Requirements:

- Pool or operating area IAW *Water Safety Orders*,
- Powerboat, and
- Sailboat
- 004 EC – Powerboat Rescue – Sail, Assessment Instructions, located at Annex A, Appendix 1
- 004 EC Group Checklist Powerboat Rescue – Sail, located at Annex A, Appendix 2, and
- 004 EC Assessment Checklist Powerboat Rescue – Sail, located at Annex A, Appendix 3, for each student.

Purpose of test: The purpose of this PPC is to assess the instructor trainee's ability to instruct small craft rescue boat operation, IAW *Water Safety Orders*.

Type of test: This PPC is divided into two parts and requires the instructor trainee to conduct two periods of instruction and conduct two activities.

Description of how test will be conducted:

Part A

The instructor trainee will select and conduct two periods of instruction. The instructional period lessons will be selected from the following Enabling Objectives (EOs):

- 004.01 Recover a Person From the Water
- 004.02 Prepare for Departure
- 004.03 Manoeuvre a Safety Boat
- 004.04 Assist a Small Craft

- 004.05 Perform Emergency Scene Management

The evaluator will approve the instructional period choices based on a need to avoid duplicate lessons, however, one of the lessons must be from EO 004.01, Recover a Person From the Water.

The evaluator will monitor the instruction and record the instructor trainee's performance on the 004.01 PPC Powerboat Rescue Instructor – Lesson Rubric.

Part B

The instructor trainee shall conduct the following two activities:

- The recovery of a sailboat using the mast toss.
- The approach and monitoring of a sailboat that is capsized, swamped, or turtled.

The instructor trainee will follow the pre-lesson instructions and adhere to the instructional method(s) indentified in the instructor guide for each lesson.

An evaluator will monitor the instruction and record the instructor trainee's performance on the 004.01 PPC Powerboat Rescue Instructor – Activity Rubric.

Time allowed for the test:

Part A
Each instructor trainee will be required to present two 40 minute periods of instruction, within the following time frame:

5 min – preparation / set-up
40 min – lesson delivery
5 min – debrief of student

Part B
5 min – preparation / setup
40 min – activity
5 min – debrief of student

The instructor trainee will be allocated a minimum of 10 minutes to modify their subsequent lesson plan based on the feedback received from the evaluator on their previous period of instruction.

Resources available or denied:

Available: The instructor trainee will be provided the following for training and evaluation:

- access to instructional guides and other lesson planning resources,
- blank lessons plans,
- assess to training aids, and

- copies of the 004.01 PPC Powerboat Rescue Instructor – Lesson Rubric and 004.01 PPC Powerboat Rescue Instructor – Activity Rubric (prior to evaluation only).

Denied: Nil.

Standard of achievement required to pass:
A pass standard is achieved if all elements on the evaluation form are checked “Yes” within the time allocated.

Re-Test: If an instructor trainee is unsuccessful on the first attempt, they are permitted a second attempt.

The instructor trainee shall be retested using a lesson or activity selected by the evaluator, based on the training needs of the students.

Actions to be taken upon completion of test:

Record the lesson and activity scores on the 004.01 PPC – Powerboat Rescue Instructor – Sail Feedback and Summative Evaluation Form.

Upon completion of the PPC, the instructor trainee shall be debriefed on their performance by the evaluator and provided feedback on their strengths and areas for improvement. The instructor trainee shall be advised if they have passed or failed. In the event of a failure, the instructor trainee should be fully advised in which areas they were unsuccessful and provided assistance in how to rectify these. However, in all cases, the circumstances of the instructor trainee’s inability to meet the standard shall be explained / recorded in the comments portion of the instructor trainee’s evaluation form.

The evaluation forms are to be forwarded to the Regional SCOP OPI to be placed on the instructor trainee’s file. Instructor trainees are to have access to these forms, if requested.

ANNEX B, APPENDIX 1
004.01 PPC POWERBOAT RESCUE INSTRUCTOR – LESSON RUBRIC

INSTRUCTOR TRAINEE UNIT **INSTRUCTOR TRAINEE NAME** **SN (CIC ONLY)**

LESSON: _____

	CRITERIA				
	3	**2**	**1**	**0**	**SCORE**
PREPARATION					
Set-up of Training Environment	Set-up includes all of the following: functional seating formation, training area is clean, well-lit, training aids are prepared and ready for use.	The instructor missed one item in training environment set-up.	The instructor missed two items in training environment set-up.	The instructor missed more than two items, or no set-up of training environment is evident.	**/3**
Lesson Plan Content	The lesson plan contains sufficient detail to cover the teaching points (TPs) IAW the applicable QSP and includes the relevant details of how TPs are to be presented.	The lesson plan contains adequate detail to cover the teaching points (TPs) IAW the applicable QSP and includes some relevant detail of how TPs are to be presented.	The lesson plans contains insufficient material to cover the teaching points (TPs) IAW the applicable QSP and includes few details of how TPs are to be presented.	The instructor has no detail to support the delivery of an effective period of instruction or the lesson plan was not developed IAW the QSP.	**/3**
INTRODUCTION					
Introduction	The instructor stated **what** is being taught (teaching points), **why** it is important, **where** the lesson fits in.	The instructor missed one main item in their introduction.	The instructor missed two main items in their introduction.	The instructor missed more than two main items in their introduction.	**/3**
BODY OF THE LESSON					
Training Aids	A variety of visual training aids were used that were relevant, realistic, and assisted trainees in understanding the course material.	Training aids were relevant and assisted trainees in understanding course material.	Training aids were used but were limited in enhancing trainee understanding of the course material.	No training aids were used or if used hindered trainee learning.	**/3**
Method		The instructor selected one or more of the methods specifically listed for that lesson in the SCOP Instructor Guide (IG).	Method selected detracted from learning.	The instructor selected a method not condusive to learning.	**/2**
Comprehension	The instructor asked questions to confirm previous knowledge and during lesson to confirm understanding, adjusted instruction to trainee's reaction, and utilized handouts and assignments as learning activities (as applicable).	The instructor asked questions during lesson to confirm understanding, made some effort to adjust instruction to trainee's reaction, and utilized handouts and assignments as learning activities (as applicable).	The instructor asked a limited number of questions during the lesson and made little effort to adjust instruction to trainee's reaction.	The instructor asked no questions during the lesson, and did not make any effort to adjust or respond to trainee's reaction.	**/3**

	CRITERIA				
	3	**2**	**1**	**0**	**SCORE**
Participation	Students participated in the learning process through the use of thought-provoking questions, and the encouragement of expression and class solutions.	Students participated in the learning process through the use of thought-provoking questions.	Students participated in the learning process through the use of some questions.	Students did not participate in the class through the use of questions.	**/3**
Accomplishment		The instructor motivated and provided feedback to trainees consistently throughout the lesson.	The instructor motivated and provided feedback to trainees during some parts of the lesson.	The instructor did not motivate or provide feedback to trainees.	**/2**
Confirmation		The instructor consistently confirmed understanding of lesson material by conducting periodic progress checks using questions, and / or practice, exercises, assignments, group activities (as applicable) during the lesson.	The instructor confirmed understanding of lesson material by conducting periodic progress checks using questions, and / or practice, exercises, assignments, group activities (as applicable) for some parts during the lesson.	The instructor did not confirm understanding of lesson material.	**/2**
Lesson Development	The instructor introduced each stage, presented all the teaching points applicable to the stage, and confirmed understanding at the end of each stage.	The instructor missed either the intro or confirmation for one of the stages or did not cover all teaching points adequately within one stage.	The instructor missed all of the introductions or all of the confirmations for each stage.	The instructor missed all introductions and confirmations or missed the majority of teaching points of the lesson.	**/3**
CONCLUSION					
End of Lesson Check	The instructor confirmed the lesson by conducting an end of lesson confirmation / test, which covered all of the main teaching points in the lesson.	The instructor confirmed the lesson by conducting an end of lesson confirmation / test, which covered the majority of the main teaching points in the lesson.	The instructor confirmed the lesson by conducting an end of lesson confirmation / test, which covered only some of the main teaching points in the lesson.	The instructor did not conduct an end of lesson confirmation / test.	**/3**
COMMENTS:				**TOTAL**	**/30**
				SCORE REQUIRED: 18 / 30 (60%)	

INSTRUCTOR TRAINEE'S SIGNATURE
(I have read and discussed this evaluation)

DATE

EVALUATOR'S SIGNATURE

DATE

ANNEX B, APPENDIX 2

004.01 PPC POWERBOAT RESCUE INSTRUCTOR – ACTIVITY RUBRIC

INSTRUCTOR TRAINEE'S UNIT	**INSTRUCTOR TRAINEE'S NAME**	**INIT.**	**SN (CIC only)**
EVALUATION LOCATION	**EVALUATOR LAST NAME**	**INIT.**	

ACTIVITY: _____

	CRITERIA				
	3	**2**	**1**	**0**	**SCORE**
PREPARATION					
Set-up of Training Environment	Set-up includes all of the following: selected training area is of sufficient size and safely positioned in a low traffic area, resources (i.e. safety boats, sailboats, buoys, PFDs) are prepared and ready for use, and the introduction briefing is prepared and ready to present.	The instructor missed one item in training environment set-up.	The instructor missed two items in training environment set-up.	The instructor missed more than two items, or no set-up of training environment is evident.	**/3**
INTRODUCTION					
Introduction	The instructor correctly stated **why** the activity is important (objective), **what** is being practiced (key points), **how** the activity will be conducted (drill(s)) all IAW how the activity is described in the SCOP IG.	The instructor missed or incorrectly described one main item in their introduction.	The instructor missed or incorrectly stated two main items in their introduction.	The instructor missed or incorrectly stated more than two main items in their introduction.	**/3**
CONTENT					
Activity Demonstration	The instructor correctly demonstrated all of the steps to follow all IAW the content of the activity as described in the SCOP IG.	The instructor missed or incorrectly demonstrated one step.	The instructor missed or incorrectly demonstrated two steps.	The Instructor did not state the steps to follow or incorrectly demonstrated more than two steps.	**/3**

	CRITERIA				
	3	**2**	**1**	**0**	**SCORE**
Activity Development	The instructor introduced each stage, reviewed all the teaching points applicable to the stage, and confirmed understanding at the end of each stage.	The instructor missed either the intro or confirmation for one of the stages or did not review all teaching points adequately within one stage.	The instructor missed all of the introductions or all of the confirmations for each stage.	The instructor missed all introductions and confirmations or missed the majority of teaching points of the activity.	**/3**
Safety	The instructor immediately stopped any unsafe actions, was attentive and maintained control, and continuously promoted safe practices through discussion and / or demonstration.	The instructor immediately stopped any unsafe actions and occasionally promoted safe practices through discussion and / or demonstration.	The instructor delayed in stopping unsafe actions or was frequently inattentive during the activity.	The instructor did not stop any unsafe actions or was not in control of the activity or displayed unsafe practices during the activity.	**/3**
Participation		Each trainee practiced the skill multiple times or until they were assessed as competent.	Each trainee was given only one opportunity to practice the skill	One or more trainees were not given an opportunity to practice the skill.	**/2**
Accomplishment		The instructor motivated and provided feedback to trainees consistently throughout the activity.	The instructor motivated and provided feedback to trainees during some parts of the activity.	The instructor did not motivate or provide feedback to trainees.	**/2**
CONCLUSION					
Conclusion	The instructor provided detailed feedback to each trainee regarding their performance during the activity IAW the activity objectives as described in the SCOP IG.	The instructor provided some detailed feedback to trainees IAW the activity objectives as described in the SCOP IG.	The instructor provided generalized feedback to the trainees IAW the activity objectives as described in the SCOP IG.	The instructor did not provide any feedback or the feedback was not IAW the activity objectives as described in the SCOP IG.	**/3**
COMMENTS:				**TOTAL**	**/22**
				PASS SCORE REQUIRED: 13/22 (60%)	

INSTRUCTOR TRAINEE'S SIGNATURE
(I have read and discussed this evaluation)

DATE

EVALUATOR'S SIGNATURE

DATE

ANNEX B APPENDIX 3

004.01 PPC – POWERBOAT RESCUE INSTRUCTOR – SAIL

FEEDBACK AND SUMMATIVE EVALUATION FORM

INSTRUCTOR TRAINEE UNIT | INSTRUCTOR TRAINEE NAME | INIT. | SN (CIC only)

EVALUATION LOCATION | EVALUATOR LAST NAME | INIT.

The instructor trainee successfully conducted		YES	NO	REMARKS
1	Lesson 1:_____ (title)			Score: /30 PASS SCORE: 18 / 30 (60%)
2	Lesson 2: _____ (title)			Score: /30 PASS SCORE: 18 / 30 (60%)
3	Activity 1: Recover a sailboat using the mast toss method			Score: /22 PASS SCORE: 13 / 22 (60%)
4	Activity 2: Approach and monitor a sailboat.			Score: /22 PASS SCORE: 13 / 22 (60%)

All elements must be checked “Yes” in order for the student to be successful.

COMMENTS:

INSTRUCTOR TRAINEE’S SIGNATURE
(I have read and discussed this evaluation)

DATE

EVALUATOR’S SIGNATURE

DATE

ANNEX B, APPENDIX 4

004.02 PPC POWERBOAT RESCUE INSTRUCTOR – SAIL

ASSESSMENT INSTRUCTIONS

Pre-Assessment Instructions:

1. Review the Assessment of Learning Plan – SCOP Module 4 – Powerboat Rescue, located at Annex A.

2. Photocopy the 004.02 PPC Powerboat Rescue Instructor Rubric, located at Annex B, Appendix 5, for each instructor trainee.

Requirements:

- 004 PC – Powerboat Rescue – Sail Assessment Instructions located in Annex A, Appendix 4,
- 004 PC Group Checklist Powerboat Rescue – Sail, located in Annex A, Appendix 6,
- 004 PC Assessment Checklist Powerboat Rescue – Sail, located in Annex A, Appendix 7, for each student,
- Powerboat, and
- Sailboat.

Scenario:

The instructor trainee will create and conduct a simulated rescue. During the simulated rescue, the instructor trainee will monitor and provide feedback to the PR – Sail students as the students preform the rescue.

The instructor trainee shall, while adhering to Water Safety Orders (WSO):

1. Create the scenario in consultation with the evaluator;

2. Set up the training area and resources;

3. Provide an introduction briefing to rescuers and casualties (PR – Sail students);

4. Compile written observations describing the PR – Sail students performance;

5. Detect and correct PR – Sail students errors; and

6. Provide detailed verbal feedback to PR – Sail students.

Description of how test will be conducted: This PO will be assessed using PR Instructor assessment instructions, checklists and rubric.

Assessment Scenario – The PR instructor trainee / evaluator will create a scenario using the following parameters:

a. capsized sailboat,
b. perform basic first aid (eg, cut, sprain or minor contact injury),
c. SAP and EMS protocols, and
d. EAP as necessary.

The PR Instructor trainee will conduct the scenario while being observed by an evaluator. The evaluator will select “1”, “2”, or “3” for each item on 004.02 PPC Powerboat Rescue Instructor Rubric.

Time allowed for the test: The evaluation will be completed during EO 004.05, Perform Emergency Scene Management.

Resources available or denied:

Available: The instructor trainee will be provided the following for training and evaluation:

- EO 004.05, Lesson Specification and Instructional Guide,
- Resources listed above, and
- 004.02 PPC Powerboat Rescue Instructor Rubric (prior to evaluation only).

Denied: Nil.

Standard of achievement required to pass:

A pass standard is a mark of 8 out of 10 on the 004.02 PPC Powerboat Rescue Instructor Rubric.

Re-Test: If the instructor trainee is unsuccessful on the first attempt, they are permitted a second attempt. If the instructor trainee is unsuccessful on a retest, this matter will be referred to the Regional SCOP OPI.

Actions to be taken upon completion of test:

Upon completion of the PPC, the instructor trainee will be debriefed on their performance by the evaluator and provided feedback on their strengths and areas for improvement. The instructor trainee shall be advised if they have passed or failed. In the event of a failure, the instructor trainee should be fully advised in which areas they were unsuccessful and provided assistance in how to rectify these. However, in all cases, the circumstances of the instructor trainee’s inability to meet the standard shall be explained / recorded in the comments portion of the instructor trainee’s evaluation form.

The evaluation forms are to be forwarded to the Regional SCOP OPI to be placed on the instructor trainee’s file. Instructor trainees are to have access to these forms, if requested.

ANNEX B, APPENDIX 5

004.02 PPC POWERBOAT RESCUE INSTRUCTOR – RUBRIC

INSTRUCTOR TRAINEE UNIT	INSTRUCTOR TRAINEE NAME	INIT.	SN
EVALUATION LOCATION	EVALUATOR LAST NAME	INIT.	

SCENARIO: _____

	CRITERIA				
	3	**2**	**1**	**0**	**SCORE**
PREPARATION					
Set-up of Training Environment	Set-up includes all of the following: selected training area is of sufficient size and safely positioned in a low traffic area, resources (eg, safety boats, sailboats, buoys, PFDs) are prepared and ready for use, and the introduction briefing is prepared and ready to present.	The instructor missed one item in training environment set-up.	The instructor missed two items in training environment set-up.	The instructor missed more than two items, or no set-up of training environment is evident.	**/3**
INTRODUCTION					
Introduction	The instructor stated **why** practicing a rescue scenario is important, **what** is being practiced and **how** the scenarios will be conducted.	The instructor missed one main item in their introduction.	The instructor missed two main items in their introduction.	The instructor missed more than two main items in their introduction.	**/3**
CONTENT					
Safety		The instructor immediately stopped any unsafe actions, was attentive and maintained control during the scenario.	The instructor delayed in stopping unsafe actions or was frequently inattentive during the scenario.	The instructor did not stop any unsafe actions or was not in control of the scenario or displayed unsafe practices during the scenario.	**/2**
Observations	The instructor created brief written observations regarding student performance including: safety boat skills, first aid	The instructor missed one main item in their written observations.	The instructor missed two main items in their written observations.	The instructor missed more than two main items in their written observations.	**/3**

	CRITERIA				
	3	**2**	**1**	**0**	**SCORE**
	performed, and communication (between rescuers and casualties and rescuers and personnel ashore).				
Error detection / correction		The instructor immediately identified rescuer errors, paused the scenario and demonstrated or discussed correct techniques for water rescue, first aid, and/or safety boat skills IAW CCO small craft rescue.	The instructor delayed in identifying rescuer errors, paused the scenario and demonstrated or discussed correct techniques for water rescue, first aid, and/or safety boat skills IAW CCO small craft rescue.	The instructor did not identify rescuer errors or demonstrated / discussed incorrect techniques for water rescue, first aid, and/or safety boat skills IAW CCO small craft rescue.	**/2**
CONCLUSION					
Conclusion	The instructor provided detailed verbal feedback to rescuers based on their observations of rescuer performance including: water rescue techniques, safety boat skills, first aid performed, and communication (between rescuers and casualties and between rescuers and personnel ashore).	The instructor provided three main items in their detailed feedback to rescuers and casualties.	The instructor provided one or two main items in their detailed feedback to rescuers and casualties.	The instructor did not provide any feedback or the feedback was incorrect IAW CCO powerboat rescue.	**/3**
COMMENTS:				**TOTAL**	**/14**
				PASS SCORE REQUIRED: 8 / 14 (60 %)	

INSTRUCTOR TRAINEE'S SIGNATURE
(I have read and discussed this evaluation)

DATE

EVALUATOR'S SIGNATURE

DATE

ANNEX B APPENDIX 6

SCOP MODULE 4 – POWERBOAT RESCUE INSTRUCTOR – CANOE

004.01 PPC – ASSESSMENT INSTRUCTIONS

Pre-Assessment Instructions:

1. Review the Assessment of Learning Plan – SCOP Module 4 – Powerboat Rescue.

2. Photocopy the 004.01 PPC PCOC Instructor – Lesson Rubric, located at Annex B, Appendix 1, two copies for each instructor trainee.

3. Photocopy the 004.01 PPC PCOC Instructor – Activity Rubric, located at Appendix 2, two copies for each instructor trainee.

4. Photocopy the 004.02 PPC Powerboat Rescue Instructor Rubric, located at Annex B, Appendix 5, for each instructor trainee.

Requirements:

- Powerboat,
- Canoes,
- 004 PC – Powerboat Rescue – Canoe Assessment Instructions located in Annex A, Appendix 8,
- 004 PC Group Checklist Powerboat Rescue – Canoe, located in Annex A, Appendix 9, and
- 004 PC Assessment Checklist Powerboat Rescue – Canoe, located in Annex A, Appendix 10, for each student.

Purpose of test: The purpose of this PPC is to assess the instructor trainee's ability to instruct small craft rescue boat operation, IAW *Water Safety Orders*.

Type of test: The instructor trainee is required to conduct two periods of instruction and two activities.

Description of how test will be conducted:

Part A

The instructor trainee will select and conduct two periods of instruction. The instructional period lessons will be selected from the following Enabling Objectives (EOs):

- 004.01 Recover a Person From the Water
- 004.02 Prepare for Departure
- 004.03 Manoeuvre a Safety Boat
- 004.04 Assist a Small Craft
- 004.05 Perform Emergency Scene Management

The evaluator will approve the instructional period choices based on a need to avoid duplicate lessons, however, one of the lessons must be from EO 004.01 Recover a Person From the Water.

The evaluator will monitor the instruction and record the instructor trainee's performance on the 004.01 PPC Powerboat Rescue Instructor – Lesson Rubric.

The instructor trainee will follow the pre-lesson instructions and adhere to the instructional method(s) identified in the instructor guide for each lesson.

Part B

The instructor trainee shall conduct two activities following the pre-lesson instructions and adhere to the instructional method(s) identified in the instructor guide for each lesson.

An evaluator will monitor the instruction and record the instructor trainee's performance on the 004.01 PPC Powerboat Rescue Instructor – Activity Rubric.

Time allowed for the test:

Part A

Each instructor trainee will be required to present two 40 minute periods of instruction, within the following time frame:

5 min – preparation / set-up
40 min – lesson delivery
5 min – debrief of student

Part B

5 min – preparation / setup
40 min – activity
5 min – debrief of student

Resources available or denied:

Available: The instructor trainee will be provided the following for training and evaluation:

- access to instructional guides and other lesson planning resources,
- blank lessons plans,
- assess to training aids, and
- copies of the PPC 004.01 Instructor Rubric and the PPC 004.01 Instructor Evaluation Form (prior to evaluation only).

Denied: Assistance.

Standard of achievement required to pass:
A pass standard is achieved if all elements on the evaluation form are checked "Yes" within the time allocated.

Re-Test: If an instructor trainee is unsuccessful on the first attempt, they are permitted a second attempt.

The instructor trainee shall be retested using a lesson or activity selected by the evaluator. The evaluator will select a lesson based on the training needs of the trainee(s).

Actions to be taken upon completion of test:

Record the lesson and activity scores on the 004.01 PPC Powerboat Rescue Instructor – Canoe Feedback And Summative Evaluation Form located at Appendix 7.

Upon completion of the PPC, the instructor trainee shall be debriefed on their performance by the evaluator and provided feedback on their strengths and areas for improvement. The instructor trainee shall be advised if they have passed or failed. In the event of a failure, the instructor trainee should be fully advised in which areas they were unsuccessful and provided assistance in how to rectify these. However, in all cases, the circumstances of the instructor trainee's inability to meet the standard shall be explained / recorded in the comments portion of the instructor trainee's evaluation form.

The evaluation forms are to be forwarded to the Regional SCOP OPI to be placed on the instructor trainee's file. Instructor trainees are to have access to these forms, if requested.

ANNEX B APPENDIX 7

004.01 PPC – POWERBOAT RESCUE INSTRUCTOR – CANOE

FEEDBACK AND SUMMATIVE EVALUATION FORM

INSTRUCTOR TRAINEE UNIT	INSTRUCTOR TRAINEE NAME	INIT.	SN (CIC only)
EVALUATION LOCATION	EVALUATOR LAST NAME	INIT.	

	The student successfully conducted	YES	NO	REMARKS
1	Lesson 1:_____ (title)			Score: /30 PASS SCORE: 18 / 30 (60%)
2	Lesson 2: _____ (title)			Score: /30 PASS SCORE: 18 / 30 (60%)
3	Activity 1: _____ (title)			Score: /22 PASS SCORE: 13 / 22 (60%)
4	Activity 2: _____ (title)			Score: /22 PASS SCORE: 13 / 22 (60%)

All elements must be checked “Yes” in order for the student to be successful.

COMMENTS:

INSTRUCTOR TRAINEE’S SIGNATURE
(I have read and discussed this evaluation)

DATE

EVALUATOR’S SIGNATURE

DATE

ANNEX B, APPENDIX 8

004.02 PPC POWERBOAT RESCUE INSTRUCTOR – CANOE

ASSESSMENT INSTRUCTIONS

Pre-Assessment Instructions:

1. Review the Assessment of Learning Plan – SCOP Module 4 – Powerboat Rescue, located at Annex A.

2. Photocopy the 004.02 PPC Powerboat Rescue Instructor Rubric, located at Annex B, Appendix 5, for each instructor trainee.

Requirements:

- 004 PC – Powerboat Rescue – Canoe Assessment Instructions located in Annex A, Appendix 8,
- 004 PC Group Checklist Powerboat Rescue – Canoe, located in Annex A, Appendix 9,
- 004 PC Assessment Checklist Powerboat Rescue – Canoe, located in Annex A, Appendix 10, for each student,
- Powerboat, and
- Canoe.

Scenario:

The instructor trainee will create and conduct a simulated rescue. During the simulated rescue, the instructor trainee will monitor and provide feedback to the PR – Canoe students as the students preform the rescue.

The instructor trainee shall, while adhering to *Water Safety Orders* (WSO):

1. Create the scenario in consultation with the evaluator;

2. Set up the training area and resources;

3. Provide an introduction briefing to rescuers and casualties (PR – Canoe students);

4. Compile written observations describing the PR – Canoe students performance;

5. Detect and correct PR – Canoe students errors; and

6. Provide detailed verbal feedback to PR – Canoe students.

Description of how test will be conducted: This PO will be assessed using PR Instructor assessment instructions, checklists and rubric.

Assessment Scenario – The PR instructor trainee / evaluator will create a scenario using the following parameters:

a. capsized canoe,

b. towing the canoe,
c. perform basic first aid (eg, cut, sprain or minor contact injury),
d. SAP and EMS protocols, and
e. EAP as necessary.

The PR Instructor trainee will conduct the scenario while being observed by an evaluator. The evaluator will select “1”, “2”, or “3” for each item on 004.02 PPC Powerboat Rescue Instructor Rubric.

Time allowed for the test: The evaluation will be completed during EO 004.05, Perform Emergency Scene Management.

Resources available or denied:

Available: The instructor trainee will be provided the following for training and evaluation:

- EO 004.05, Lesson Specification and Instructional Guide,
- Resources listed above, and
- PPC 004.02 Instructor Evaluation Form (prior to evaluation only).

Denied: Assistance

Standard of achievement required to pass:
A pass standard is achieved if all elements on the PPC 102 Evaluation Form are checked “Yes” within the time allocated.

Re-Test: If an instructor trainee is unsuccessful on the first attempt, they are permitted a second attempt. If an instructor trainee is unsuccessful on a retest, this matter will be referred to the Regional SCOP OPI.

Actions to be taken upon completion of test:

Upon completion of the PPC, the instructor trainee will be debriefed on their performance by the evaluator and provided feedback on their strengths and areas for improvement. instructor trainee s shall be advised if they have passed or failed. In the event of a failure, the instructor trainee should be fully advised in which areas they were unsuccessful and provided assistance in how to rectify these. However, in all cases, the circumstances of the instructor trainee’s inability to meet the standard **shall** be explained / recorded in the comments portion of the instructor trainee’s evaluation form.

The evaluation forms are to be forwarded to the Regional SCOP OPI to be placed on the instructor trainee’s file. Instructor trainees are to have access to these forms, if requested.

CHAPTER 4

PERFORMANCE OBJECTIVES (POs) AND TRAINING PLAN

PURPOSE

1. The purpose of this chapter is to outline the specific POs, and Training Plan associated with the Module 4 – Small Craft Rescue qualification.

PERFORMANCE OBJECTIVES

2. POs are a description of the student's ability after training is complete. They include a description, in performance terms, of what the individual must do, the conditions under which the performance must be completed, and the standard to which the performance must conform. These three elements are respectively defined as:

a. a performance statement,

b. a conditions statement, and

c. a standard.

TRAINING PLAN

3. This chapter also details the training plan that is designed to assist students to achieve the required POs using Enabling Objectives (EOs) and Lesson Specifications (LS) that are the key reference used for development of this document.

ENABLING OBJECTIVES

4. EOs are a description of the cadet's ability after each unit of learning is complete and constitute a major step towards achieving the PO. EOs may correspond to the major components identified in the first round of deconstructing POs or they may result from grouping several related components. They are composed of three essential parts:

a. a performance statement,

b. a conditions statement, and

c. a standard.

LESSON SPECIFICATIONS

5. LSs describe the instructional strategy to be applied to each EO, and include:

a. supporting teaching points,

b. references,

c. learning activities (methods, media and environment),

d. estimated timings,

e. assessment directions, and

f. any remarks that further clarify the design intent.

INSTRUCTIONAL METHODOLOGIES AND THEIR APPLICATION

6. General information including age-appropriateness, definition, application, advantages and disadvantages for the various methods of instruction commonly accepted as appropriate for cadet training are located at Annex A.

ASSESSMENT FOR LEARNING

7. Formative evaluation, or assessment for learning, takes place during a phase of instruction and helps cadets and instructors recognize progress or lapses in learning. These assessments can also provide cadets with opportunities to practice PCs. This helps to diagnose cadet needs, eg, corrective action or remedial instruction, plan the next steps in instruction and provide cadets with feedback they can use to improve. It also reinforces learning so that it can be retained longer. Details for Module 4 - Small Craft Rescue assessment for learning are outlined within the applicable lesson specifications.

PO 004

1. **Performance**: Operate a Safety Boat

2. **Conditions**:

   a. Given:

      (1) Fully equipped safety boat,
      (2) Personal floatation devices (PFDs),
      (3) Supervision, and
      (4) Assistance as required.

   b. Denied: Nil.

   c. Environmental:

      (1) Training area large enough to accommodate the entire group; and

      (2) Safety boat, during daylight hours, in suitable weather conditions, IAW A-CR-CCP-030/PT-001, *Water Safety Orders*.

3. **Standard**: The small craft rescuer will provide safety-support and supervision during on-water activities by:

   a. recovering a person from the water;
   b. preparing for departure;
   c. manoeuvring a safety boat;
   d. assisting a small craft; and
   e. performing emergency scene management.

4. **Remarks**: Prior to participating in this PO, the student shall have attained the following qualifications:

   a. Small Craft Operator Program (SCOP) Module 1, *Pleasure Craft Operator Card* (PCOC),

   b. SCOP Module 2, *Restricted Operator Certificate (Maritime)* ROC(M)

   c. SCOP Module 3, *Small Boat Power*, and

   d. Emergency First Aid (minimum).

EO 004.01

1. **Performance**: Recover a Person From the Water

2. **Conditions**:

   a. Given:

      (1) Personal floatation device (PFD),
      (2) Assist,
      (3) Line, and
      (4) Supervision.

   b. Denied: Assistance.

   c. Environmental: Pool or swimming area.

3. **Standard**: The student shall recover a person in the water by:

   a. recognizing when a person needs assistance;
   b. explaining the ladder approach;
   c. using an assist, to include:

      (1) selecting;
      (2) throwing; and
      (3) swimming;

   d. swimming 50 metres freestyle unassisted, while wearing a PFD;
   e. towing a person in the water 50 metres, while wearing a PFD; and
   f. removing a person from the water using the underarm and parbuckle method.

4. **Teaching Points**:

TP	Description	Method	Time	Refs
TP1	Describe how to recognize when a person in the water needs assistance.	Interactive Lecture	5 min	7b (p. 4-3, p. 4-4)
TP2	Explain the ladder approach.	Interactive Lecture	5 min	7b (pp. 4-4 to 4-9)
TP3	Demonstrate and have the students practice the ready position and using an assist, to include: a. selecting; b. throwing; and c. swimming.	Demonstration and Performance	15 min	7b (pp. 4-12 to 4-15)
TP4	Conduct an activity to have the students swim 50 m freestyle unassisted, wearing a PFD.	Practical Activity	10 min	
TP5	Demonstrate and have the students tow a person in the	Demonstration	25 min	7a (p. 4-20)

TP	Description	Method	Time	Refs
	water 50 m, wearing a PFD.	and Performance		
TP6	Demonstrate and have the students perform an underarm lift.	Demonstration and Performance	25 min	7a (p. 4-24, p. 4-25) 7b (p. 225)
TP7	Demonstrate and have the students perform a parbuckle lift.	Demonstration and Performance	25 min	7a (p. 4-24) 7b (pp. 225–227)

5. **Time**:

a.	Introduction / Conclusion:	10 min
b.	Interactive Lecture:	10 min
c.	Demonstration and Performance:	90 min
d.	Practical Activity:	10 min
e.	Total:	120 min

6. **Substantiation**:

a. An interactive lecture was chosen for TPs 1 and 2 to explain how to recognize when a person in the water needs assistance and the ladder approach.

b. A demonstration and performance was chosen for TPs 3 and 5–7 as it allows the instructor to demonstrate the various lifesaving skills required to be a safety boat operator while providing an opportunity for the students to practice these skills under supervision.

c. A practical activity was chosen for TP 4 as it is an interactive way to allow the students to experience swimming 50 m in a PFD in a safe and controlled environment.

7. **References**:

a. ISBN 0-920326-46-3 The Royal Life Saving Society Canada. (2008). *Canadian lifesaving manual* (12th ed.). Toronto, ON: Lifesaving Society.

b. ISBN 0-9730217-0-5 Canadian Coast Guard Auxiliary–Pacific. (2002). *Canadian Coast Guard Auxiliary search and rescue crew manual*. Victoria, BC: Queens Printer.

c. DVD Video. *Beyond Cold Water Boot Camp*. Ontario: Canadian Safe Boating Council.

8. **Training Aids**:

   a. PFD,
   b. Assist, and
   c. Line.

9. **Learning Aids**:

   a. PFD,
   b. Assist, and
   c. Line.

10. **Test Details**: This EO is assessed IAW Chapter 3, Annex A.

11. **Remarks**: Show the students the segments from the *Beyond Cold Water Boot Camp* prior to the on-water portion of this lesson.

EO 004.02

1. **Performance**: Prepare for Departure

2. **Conditions**:

   a. Given:

      (1) Fully equipped safety boat,
      (2) Heaving line,
      (3) Rope,
      (4) Felco wire cutters,
      (5) Shroud wire, and
      (6) Supervision.

   b. Denied: Assistance.

   c. Environmental: Training area large enough to accommodate the entire group.

3. **Standard**: The student shall:

   a. fuel a safety boat;
   b. explain the Stop Assess Plan (SAP) protocol;
   c. describe scene management;
   d. explain the theory of entrapment and escape; and
   e. demonstrate proper use of wire cutters.

4. **Teaching Points**:

   a. explain the SAP protocol;
   b. describe scene management; to include

      (1) crew communication,
      (2) shore station communication, and
      (3) emergency medical services (EMS) communication.

   c. explain the theory of entrapment and escape; to include

      (1) how entrapment occurs;
      (2) how to identify and reduce the risks of entrapment;
      (3) how to verbally assist an entrapped person; and
      (4) how to physically assist an entrapped person with the aid of tools; and

   d. cut a wire using wire cutters.

5. **Time**:

a.	Introduction / Conclusion:	5 min
b.	Interactive Lecture:	30 min
c.	Demonstration	5 min
d.	Total:	40 min

6. **Substantiation**:

a. An interactive lecture was chosen for this lesson to present basic material and to orient the students to preparing for departure.

b. A demonstration was chosen for TP 4 as it allows the instructor to explain and demonstrate the steps to various turtled sailboat recoveries.

7. **References**:

a. A-CR-CCP-030/PT-001 Director Cadets 4. (2005). *Water safety orders*. Ottawa, ON: Department of National Defence.

b. Ontario Sailing's Learn to Sail/Race Committee. *Dealing with Entrapment of a Sailor Under a boat/and or in rigging.* Sail Canada. (2012). Kingston, ON: Sail Canada.

c. Felco.com. (2011). *Felco C7*. Retrieved April 9, 2014, from http://www.felco.com/felco/pages/product.page?name=FELCO+C7

8. **Training Aids**: Fully equipped safety boat.

9. **Learning Aids**: Nil.

10. **Test Details**: This EO is assessed IAW Chapter 3, Annex A.

11. **Remarks**:

a. Fuelling a powerboat should take place when opportunities arise prior to SCOP 4 training.

b. Cutting the wire using wire cutters is only required for obtaining SCOP Module 4 - Sail.

EO 004.03

1. **Performance**: Manoeuvre a Safety Boat

2. **Conditions**:

   a. Given:

      (1) Fully equipped safety boat,
      (2) Sailboat,
      (3) Personal floatation device (PFD), and
      (4) Supervision.

   b. Denied: Assistance.

   c. Environmental: During daylight hours, in suitable weather conditions, IAW A-CR-CCP-030/PT-001, *Water Safety Orders.*

3. **Standard**: The student shall:

   a. demonstrate proficiency in the operation of a powerboat; to include

      (1) leaving sufficient distance between a target and coach boat with and without using reverse;

      (2) maintaining appropriate speed when travelling from one activity to another;

      (3) manoeuvring in diverse conditions; and

      (4) manoeuvring between the dock and boat launch using no-wake speed.

   b. manoeuvre in proximity of small craft; and

   c. tow a small craft a distance of 25 metres using the alongside tow.

4. **Teaching Points**:

TP	Description	Method	Time	Refs
TP1	Describe manoeuvring in diverse conditions, to include: a. high winds, b. current, and c. waves and swells.	Interactive Lecture	10 min	7a (p. 103) 7b (p. 9-6, p. 9-45)
TP2	Describe manoeuvring in proximity of small craft.	Interactive Lecture	10 min	
TP3	Conduct a review of SCOP Module 3 elements, to include:	Practical	20 min	

TP	Description	Method	Time	Refs
	a. starting and stopping the vessel engine; b. mooring; c. anchoring d. beaching; and e. man overboard.	Activity		
TP4	Conduct an activity where the students manoeuvre in proximity to other small craft.	Practical Activity	75 min	
TP5	Demonstrate and have the students tow a small craft using the alongside tow.	Demonstration and Performance	70 min	7a (p.191) 7b (p. 10-31, p. 11-47)

5. **Time**:

a. Ashore:

(1)	Introduction / Conclusion:	5 min
(2)	Interactive Lecture:	20 min
(3)	Subtotal:	25 min

b. Afloat:

(1)	Introduction / Conclusion:	10 min
(2)	Practical Activity:	95 min
(3)	Demonstration and Performance:	70 min
(4)	Subtotal:	175 min

c. Total: 200 min

6. **Substantiation**:

a. An interactive lecture was chosen for TPs 1 and 2 to present basic material and to orient the students to aspects of manoeuvring in various conditions prior to participating in practical training.

b. A practical activity was chosen for TPs 3 and 4 as it is an interactive way to allow the students to experience manoeuvring in proximity to other small craft and review manoeuvres taught in SCOP Module 3 in a safe and controlled environment. This activity contributes to the development of manoeuvring skills in a fun and challenging setting.

c. A demonstration and performance was chosen for TP 5 as it allows the instructor to explain and demonstrate how to tow a small craft using the alongside tow, providing an opportunity for the students to practice these skills under supervision.

7. **References**:

a. ISBN 0-9730217-0-5 Canadian Coast Guard Auxiliary–Pacific. (2002). *Canadian Coast Guard Auxiliary search and rescue crew manual*. Victoria, BC: Queens Printer.

b. ISBN 0-660-18352-8 Canadian Coast Guard. (2001). *SAR seamanship reference manual*. Ottawa, ON: Search and Rescue, Canadian Coast Guard, Department of Fisheries and Oceans.

c. Operational Services CCG. (2000). *Rigid hull inflatable operator training RHIOT student manual*. Victoria, BC: Department of Fisheries and Oceans.

8. **Training Aids**:

a. Fully equipped safety boat,
b. Small craft, and
c. PFD.

9. **Learning Aids**:

a. Fully equipped safety boat,
b. Small craft, and
c. PFD.

10. **Test Details**: This EO is assessed IAW Chapter 3, Annex A.

11. **Remarks**:

a. The theory for anchoring, towing, beaching and securing a powerboat to a mooring buoy was taught in SCOP Module 3, Powerboat. Therefore, timings may need to be adjusted to allow the students time to practice these manoeuvres.

b. The alongside tow is required only for students obtaining Module 4 – Sail. Students obtaining Module 4 – Canoe shall use the appropriate method for towing a canoe.

EO 004.04

1. **Performance**: Assist a Small Craft

2. **Conditions**:

   a. Given:

      (1) Fully equipped safety boat,
      (2) Small craft,
      (3) Personal floatation device (PFD), and
      (4) Supervision.

   b. Denied: Assistance.

   c. Environmental: During daylight hours, in suitable weather conditions, IAW A-CR-CCP-030/PT-001, *Water Safety Orders*.

3. **Standard**: The student shall assist a small craft, to include:

   a. approaching;
   b. monitoring; and
   c. recovering.

4. **Teaching Points**:

TP	Description	Method	Time	Refs
TP1	Describe approaching capsized, turtled and swamped small craft.	Interactive Lecture	20 min	
TP2	Demonstrate and have the students monitor a small craft from the following positions: a. perpendicular, and b. head-on.	Demonstration and Performance	30 min	7a
TP3	Demonstrate and have the students recover a capsized sailboat using the mast toss method.	Demonstration and Performance	40 min	7a, 7b
TP4	Demonstrate turtled sailboat recoveries.	Demonstration	20 min	7a

5. **Time**:

   a. Ashore:

      (1) Introduction / Conclusion: 5 min
      (2) Interactive Lecture: 20 min
      (3) Subtotal: 25 min

   b. Afloat:

	(1)	Introduction / Conclusion:	5 min
	(2)	Demonstration and Performance:	70 min
	(3)	Demonstration:	20 min
	(4)	Subtotal:	95 min
c.	Total:		120 min

6. **Substantiation**:

a. An interactive lecture was chosen for TP 1 to present basic material and to orient the students to aspects of approaching, monitoring and recovering a small craft prior to participating in practical training.

b. A demonstration and performance was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate how to monitor and recover a small craft, providing an opportunity for the students to practice these skills under supervision.

c. A demonstration was chosen for TP 4 as it allows the instructor to explain and demonstrate the steps to various turtled sailboat recoveries.

7. **References**:

a. United States Sailing Association. (2000). *Safety, rescue and support*. Portsmouth, RI: United States Sailing Association.

b. ISBN: 978-1905104383 Royal Yachting Association. (2007). *Safety boat handbook*. Hamble, Southhampton: RYA.

8. **Training Aids**:

a. Fully equipped safety boat,
b. PFD, and
c. Small craft.

9. **Learning Aids**:

a. Fully equipped safety boat,
b. PFD, and
c. Small craft.

10. **Test Details**: This EO is assessed IAW Chapter 3, Annex A.

11. **Remarks**: Nil.

EO 004.05

1. **Performance**: Perform Emergency Scene Management (ESM)

2. **Conditions**:

   a. Given:

      (1) Fully equipped safety boat,
      (2) Small craft,
      (3) PFDs, and
      (4) Supervision.

   b. Denied: Assistance.

   c. Environmental: During daylight hours, in suitable weather conditions, IAW A-CR-CCP-030/PT-001, *Water Safety Orders*.

3. **Standard:** The student shall, using an on-water scenario perform ESM, to include:

   a. participating in a critical decision-making group discussion prior to the on-water scenario to include actual sailing accidents and relevant boating accidents;

   b. applying the principles of Stop, Access, Plan (SAP) and ESM to the given situation;

   c. communicate, using VHF marine voice procedure, relevant information to a land-based station; and

   d. coordinate, using VHF marine voice procedure, emergency response with a land-based organization while on the water.

4. **Teaching Points**:

TP	Description	Method	Time	Refs
TP1	Conduct a group discussion on critical decisions faced by safety boat operators.	Group Discussion		
TP2	Review ESM.	Interactive Lecture	10 min	7a
TP3	Review SCOP Module 2.	Practical Activity	25 min	7b
TP4	Have the students complete a scenario, to include: a. using the principles of SAP and ESM; b. communicate relevant information to a land-based station using VHF marine voice procedure:	Simulation	120 min	

TP	Description	Method	Time	Refs
	c. perform basic first aid; and d. coordinate emergency response for causalities.			

5. **Time**:

a.	Introduction / Conclusion:	5 min
b.	Interactive Lecture:	10 min
c.	Practical Activity	25 min
d.	Simulation:	120 min
e.	Total:	160 min

6. **Substantiation**:

a. A group discussion was chosen for TP 1 as it allows the students to interact with their peers and share their knowledge, experiences, opinions and feelings about critical decision-making.

b. An interactive lecture was chosen for TP 2 to review basic material and to orient the students to SAP and ESM prior to participating in practical training.

c. Practical activity was chosen for TP 3 as it is an interactive way to allow the students to review VHF marine radio voice procedure. This activity contributes to the development of skills and knowledge in a fun and challenging setting.

d. A simulation was chosen for TP 4 as it allows the instructor to explain and demonstrate a response to an on-water situation while providing an opportunity for the students to practice in a safe and controlled environment.

7. **References**:

a. ISBN 1-874070-28-8 St. John Ambulance. (2007). *Military first aid, Safety oriented, Basic and standard levels*. Ottawa, ON: St. John Ambilance and Department of National Defence.

b. ISBN 0-9738142-6-8 Canadian Power & Sail Squadrons. (2006). *Maritime radio course: Student's notes*. Toronto, ON: Canadian Power & Sail Squadrons.

c. Canadian Safe Boating Council. (2011). *Beyond cold water boot camp.* Ottawa, ON: Government of Canada.

8. **Training Aids**:

   a. Presentation aids (eg, whiteboard / flip chart / OHP / multimedia projector) appropriate for the classroom / training area,

   b. Fully equipped safety boat,

   c. PFD,

   d. Fully equipped small craft and crew,

   e. ESM Scenarios.

9. **Learning Aids**:

   a. Fully equipped safety boat,
   b. PFD, and
   c. Fully equipped small craft and crew.

10. **Test Details**: This EO is assessed IAW Chapter 3, Annex A.

11. **Remarks**:

   a. No time has been allocated in this module to review first aid. Centres are encouraged to review relevant first aid material prior to the SCOP Module 4 course.

   b. The critical decision-making group discussion can be conducted prior to the SCOP Module 4 course.

SMALL CRAFT OPERATOR PROGRAM

MODULE 4 – POWERBOAT RESCUE

INSTRUCTIONAL GUIDES

1. The IG provides instructors with the base means from which to deliver training. Individual IGs are to be reviewed in conjunction with the LSs, when developing lesson plans, so that each instructor can adequately plan for and prepare each lesson. Instructors may be required to develop instructional materials to support training in addition those provided, eg, posters, videos, handouts, models, etc, supplemental to training control and support documents. Suggested instructional activities are included in the IGs to maximize learning and fun. Instructors are also encouraged to modify / enhance the activities, as long as they continue to contribute to enabling objective achievement.

2. Throughout the IGs, a series of information boxes are used to highlight information; they include:

	Note to the Instructor.
	Key information to pass along to the students.
	Refer to the following CAF regulations and policies.
	Points of interest or special instructions the instructor should pass along to the students.

SMALL CRAFT OPERATOR PROGRAM

MODULE 4 – POWERBOAT RESCUE

INSTRUCTIONAL GUIDE

SECTION 1

EO 004.01 – RECOVER A PERSON FROM THE WATER

Total Time:	120 min

PREPARATION

PRE-LESSON INSTRUCTIONS

This IG supports EO 004.01 (Recover a Person From the Water).

Review the following segments from the *Beyond Cold Water Boot Camp* DVD or http://www.beyondcoldwaterbootcamp.com/en/extraction/medium-freeboard-boat-par-buckle-a-package

It is recommended that the segments from the *Beyond Cold Water Boot Camp* are shown to the students prior to the on-water portion of this lesson.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

An interactive lecture was chosen for TPs 1 and 2 to explain how to recognize when a person in the water needs assistance and the ladder approach.

A demonstration and performance was chosen for TPs 3 and 5–7 as it allows the instructor to demonstrate the various lifesaving skills required to be a safety boat operator while providing an opportunity for the students to practice these skills under supervision.

A practical activity was chosen for TP 4 as it is an interactive way to allow the students to experience swimming 50 m in a PFD in a safe and controlled environment.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the student shall have recovered a person from the water by applying the ladder approach, using an assist, towing and performing an underarm and parbuckle lift.

IMPORTANCE

It is important for students to recognize when a person in the water needs assistance and know how to recover them. The continual use of the ladder approach and utilization of assists minimizes the risk to all involved.

Teaching Point 1	**Describe how to recognize when a person in the water needs assistance.**
Time: 5 min	Method: Interactive Lecture

A safety boat operator must recognize when someone is in danger of drowning. People in danger of drowning can be classified into two categories.

DISTRESSED SWIMMER

Distressed swimmers often have limited swimming ability or are tired / physically weak swimmers. A swimmer that becomes ill or injured is considered a distressed swimmer. They can become a drowning person if they are not rescued.

The following signs can help to identify a distressed swimmer:

- body position approaches vertical,
- makes little forward progress,
- face shows signs of distress,
- may call or wave for help, and
- may be holding the affected area of the body, if injured.

DROWNING PERSON

A drowning person is unable to support themselves at the surface and is not limited only to non-swimmer. They may or may not struggle against drowning (many factors can prevent people from struggling). Those that do struggle stay at the surface for a short time.

The following signs help to identify a drowning person:

- vertical in the water and does not use legs for propulsion,
- face shows signs of fear,
- may look like they are playing in the water due to their arm movements,
- cannot call for help,
- cannot control the reaction to struggle,
- may not be moving at all, or
- may not be visible.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS:

Q1. What are the two categories into which people in danger of drowning can be classified?

Q2. What distressed person classification is an injured swimmer considered?

Q3. What is the key indicator of a drowning person?

ANTICIPATED ANSWERS:

A1. Distressed swimmer or a drowning person.

A2. A swimmer that is injured is considered a distressed swimmer.

A3. A drowning person is unable to support themselves at the surface for any length of time.

Teaching Point 2 **Explain the ladder approach.**

Time: 5 min Method: Interactive Lecture

THE LADDER APPROACH

The ladder approach is a rescue strategy which breaks down the steps to performing a rescue in order of increasing risk to the rescuer. The rescuer must know the appropriate options and actions to take in an emergency situation, and choose the rescue method with the least amount of risk.

The steps in the ladder approach from least risk to greatest risk are:

1. **Talk.** Talk to the distressed person and encourage them to swim to safety.

2. **Throw.** Throw a buoyant assist to the distressed person and talk them to safety.

3. **Reach.** Reach, with an assist, to the distressed person and pull them to safety.

4. **Wade.** Wade into shallow water and extend an assist to the distressed person. In deep water, hold on to the edge of a solid object and extend an assist to the distressed person.

5. **Row.** Row, motor or sail to the distressed person in a watercraft and extend an assist while staying in the craft.

6. **Swim.** Swim to the distressed person, provide a buoyant assist and talk them to safety without making direct contact.

7. **Tow.** Swim to the distressed person, provide a buoyant assist and tow them to safety without making direct contact.

8. **Carry.** Swim to the distressed person and carry them to safety.

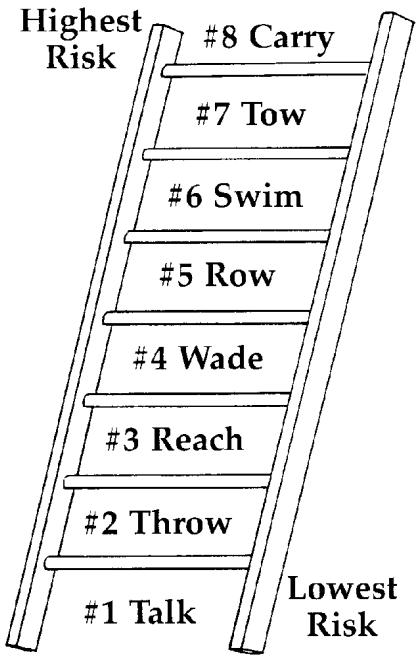

Figure 1 The Ladder Approach

Note. From *Canadian Lifesaving Manual* (p. 4-9), by Lifesaving Society, 2008, Toronto, ON. Copyright 1994 by The Royal Life Saving Society Canada.

Factors that must be considered before moving to the next rung of the ladder are:

- Does the rescuer have the knowledge, judgment, skills, and fitness to accept the greater risk involved?
- Has the distressed person's condition worsened?
- Are suitable assists available for use?
- Have the environmental conditions changed?

CONFIRMATION OF TEACHING POINT 2

QUESTIONS:

Q1. What rescue method is the lowest risk to the rescuer?

Q2. What rescue method involves the greatest amount of risk?

Q3. What are some of the factors that must be considered before moving to the next rung of the ladder approach?

ANTICIPATED ANSWERS:

A1. Talk.

A2. Carry.

A3. Factors to consider when moving up the rungs on the ladder approach are:

- Does the rescuer have the knowledge, judgment, skills, and fitness to accept the greater risk involved?
- Has the distressed person's condition worsened?
- Are suitable assists available for use?
- Have the environmental conditions changed?

Teaching Point 3	**Demonstrate and have the students use an assist.**
Time: 15 min	Method: Demonstration and Performance

USE AN ASSIST

An assist is any object that can be used to help someone in difficulty in the water. When extending an assist, the rescuer should maintain a wide stance and the lowest centre of gravity to prevent being pulled into the water and not injuring the distressed person with the assist.

Selecting

An assist with a towline is preferred when swimming because it does not interfere with the swimming motion.

Possible assists include the following:

- PFD,
- kickboards,
- improvised buoyant assists,
- reaching poles,
- ring buoys,
- rescue cans / tubes, and
- throw bags.

When selecting an assist, consider:

- **Availability**. The assist must be readily available.
- **Buoyancy**. Floating objects support a distressed person higher in the water and allows rest as needed.

- **Manageability**. The assist must be easy to handle on land and in the water, and it should add little resistance on the rescuers approach.

- **Strength**. The assist must be strong enough for the task at hand.

- **Rescuer fitness and strength**. Be sure the assist can be used and carried effectively.

- **Immediate surroundings**. The selected assist should fit the surroundings. For example, a reaching pole is long but harder to manoeuvre around people and in small spaces.

Throwing

One of the safest ways to get an assist to a distressed person with a minimal amount of risk to the rescuer is to throw it. Attaching a line to the assist allows the rescuer to retrieve the assist if the distressed person does not receive it and can also be used to pull the distressed person to safety. To improve throwing accuracy with a line, attach a lightly weighted buoyant object to the throwing end of the line.

When using a throwing assist:

- Ensure the trailing end of the line is secured under foot prior to throwing the assist.
- Consider how currents and wind may affect the throw.
- Coil the line and place one third of the coil in the throwing hand.
- Throw past the distressed person using a pendulum swing which is released at a 45–degree angle for maximum distance.
- Do not hit the distressed person with the assist.

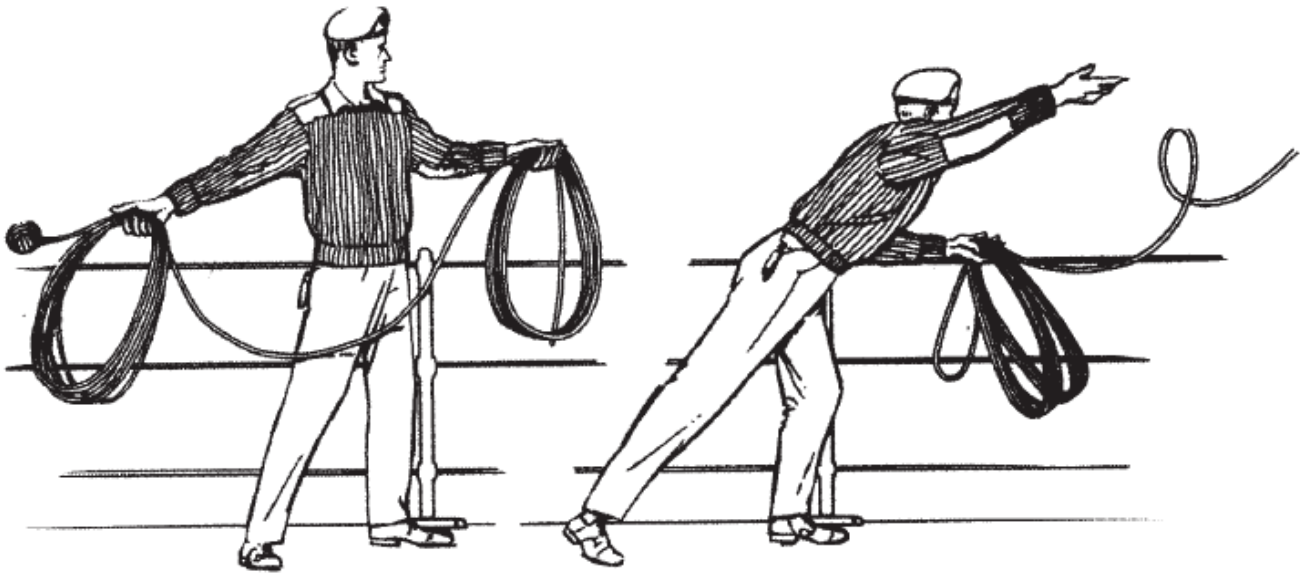

Figure 2 Throwing an Assist

Note. From *Canadian Forces CFCD 105 Fleet Seamanship Rigging and Procedures Manual* (p. 6-13), by Chief of Maritime Staff, 1997, Ottawa, ON: Department of National Defence. Copyright 1995 by HMSO Publications.

Demonstrate throwing an assist and have the students throw an assist.

Swimming

When the distressed person is out of the throwing range of an assist, or is unable to receive / seize the assist, it may be necessary to swim the assist to them. If the assist does not have a towline, hold the assist in front of the body with one hand and use the most efficient stroke with the other hand. If the assist is large enough, lie on top of the assist and paddle to the distressed person.

Demonstrate swimming with an assist during the water portion and have the students swim with an assist.

In the exceptional case that a rescuer must leave the safety boat, it is important to know the ready position. The safety of the rescuer while entering the water is essential.

READY POSITION

The ready position allows the rescuer to assess the distressed person in a safe environment and react quickly if the rescuer is attacked by the distressed person. The ready position is performed when the rescuer is 2–3 m away from the distressed person.

The ready position is often referred to as the "reverse and ready position" because the swimmer must reverse direction to perform the ready position.

Demonstrate the steps for the ready position and have the students perform the ready position.

Have the student swim with an assist when practicing the ready position.

The steps for the ready position are:

1. Stop 2–3 m away from the distressed person.

2. Reverse direction (facing the distressed person).

3. Sit in the water with one leg bent in front of the body with the foot breaking the surface of the water (use this foot to push the assist to the distressed person).

4. Maintain a stable body position by sculling. If necessary, use the bent leg to push the distressed person away, or swim away if the distressed person attacks.

When in the ready position, reassess the situation as the circumstances may have changed including:

- the distressed person may have become tired,
- a conscious distressed person may have become unconscious,
- a distressed person may have become a drowning person,
- the distressed person may be larger or smaller than originally assessed,
- the distressed person may not accept the assist, and
- water conditions may have changed.

After reassessing the situation decide whether to continue the rescue by talking the distressed person to safety or by using a tow or carry.

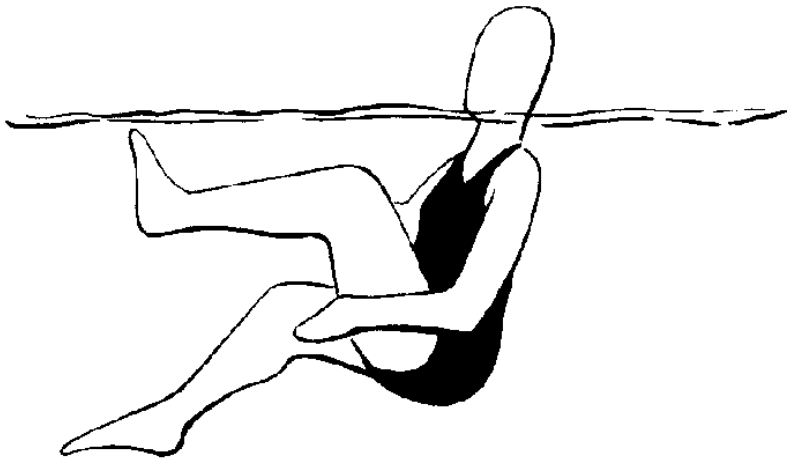

Figure 3 Ready Position

Note. From *Canadian Lifesaving Manual* (p. 4-19), by Lifesaving Society, 2008, Toronto, ON. Copyright 1994 by The Royal Life Saving Society Canada.

CONFIRMATION OF TEACHING POINT 3

The students' throwing an assist will serve as the confirmation of this TP.

Teaching Point 4 **Conduct an activity to have the students swim 50 m freestyle unassisted, wearing a PFD.**

Time: 10 min Method: Practical Activity

ACTIVITY

1. Determine a swimming area 50 m in length.
2. Have the students swim freestyle unassisted, wearing a PFD.

CONFIRMATION OF TEACHING POINT 4

The students' swimming 50 m will serve as the confirmation of this TP.

Teaching Point 5	**Demonstrate and have the students tow a person in the water 50 metres, wearing a PFD.**
Time: 25 min	Method: Demonstration and Performance

TOWING

A tow is a method of bringing a conscious distressed person to safety. Towing is used when it is not possible to talk them to safety. When towing, never make direct physical contact with the distressed person. Always maintain a safe distance from them. Tow in the ready position if possible, and maintain visual and verbal contact with the distressed person at all times.

Things to consider when performing a tow are:

- the rescuer's safety,
- the safest method,
- the distressed person's condition, and
- the water conditions.

Demonstrate the steps for towing and have the students tow another student for 50 m.

Keep the head of the distressed person above the water at all times.

The steps to towing are:

1. Swim to the distressed person with an assist.

2. Move to the ready position, 2–3 m away from them.

3. Push the assist to the distressed person using the foot at the surface of the water.

4. Have the distressed person grab the assist securely.

5. Grab the assist and start towing the distressed person. If the distressed person is capable, have them kick or use their arm to help assist in swimming.

6. Maintain visual and verbal contact with the distressed person at all times.

Tow a distressed person in a horizontal position. Most conscious distressed person instinctively want to sit because it keeps their head above the water. While towing, keep visual contact with the distressed person and constantly offer encouragement and reassurance. Throughout a tow, be ready to release the assist or tow line and swim away if the distressed person 's behaviour becomes unpredictable. If this happens, assume the ready position and wait until the distressed person is calm or manageable before continuing the tow.

Clothes Carry

Demonstrate the steps for a clothes carry and have the students perform a clothes carry.

The steps for the clothes carry are:

1. Manoeuvre behind the distressed person in the ready position.

2. Grab a piece of the distressed person's clothing, preferably the arms of the shirt.

3. Support the distressed person's head with the arms while holding the clothing. Avoid grabbing clothing that could put pressure on the throat and choke the distressed person.

4. Pull the distressed person to safety while swimming on the side or back using a supportive kick.

5. Encourage the distressed person to kick.

6. Keep visual contact with the distressed person and constantly offer encouragement and reassurance.

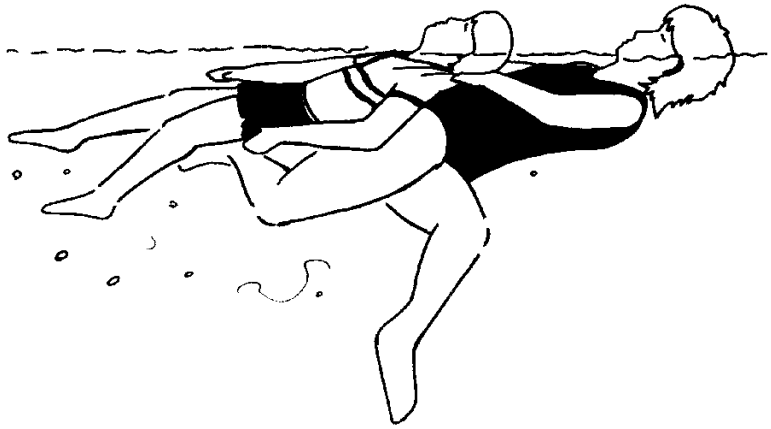

Figure 4 Clothes Carry

Note. From *Canadian Lifesaving Manual* (p. 4-21), by Lifesaving Society, 2008, Toronto, ON. Copyright 1994 by The Royal Life Saving Society Canada.

CONFIRMATION OF TEACHING POINT 5

The students' towing a person for 50 m will serve as the confirmation of this TP.

Teaching Point 6	**Demonstrate and have the students perform an underarm lift.**
Time: 25 min	Method: Demonstration and Performance

When removing a distressed person from the water it is important to treat them gently. Continually support the head and neck particularly when laying the distressed person down on a secure surface. When orienting them on a safety boat; always place their head forward so when underway their head is higher than their feet. Prior to removing them from the water, ensure that their legs have not drifted under the hull of the safety boat.

UNDERARM LIFT

Demonstrate the steps and have the students perform an underarm lift.

The underarm lift works best when removing a distressed person from water that is at the same height as the rescuer. Once the rescuer has grabbed the distressed person's wrists, the rescuer's lifting advantage is often compromised and the risk of a lifting injury to the rescuer increases.

The steps for the underarm lift are as follows:

1. Hold the distressed person in a stable position facing away from the rescuer.

2. Reach under the distressed person's armpits and hold their wrists, ensuring their elbows are pointed down and the rescuer's arms are angled forward.

3. Lift the distressed person vertically until their hips are above the surface the rescuer is standing on, ensuring the distressed person's back is not scraped.

4. Step back and lower the distressed person to the bottom of the boat in a sitting or laying position.

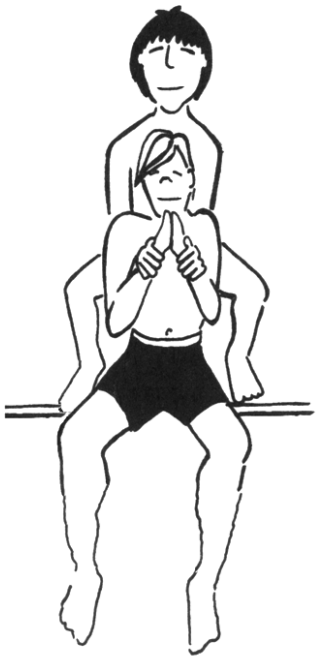

Figure 5 Underarm Lift

Note. From *Canadian Lifesaving Manual* (p. 4-25), by Lifesaving Society, 2008, Toronto, ON. Copyright 1994 by The Royal Life Saving Society Canada.

CONFIRMATION OF TEACHING POINT 6

The students' performance of the underarm lift will serve as the confirmation of this TP.

Teaching Point 7	**Demonstrate and have the students perform a parbuckle lift.**
Time: 25 min	Method: Demonstration and Performance

PARBUCKLE LIFT

Demonstrate the steps and have the students perform a parbuckle lift.

This removal is used to recover a distressed person horizontally from the water and should be selected if the distressed person is suspected of sustaining a head or neck injury after immobilizing, or if they are suffering from hypothermia to minimize hydrostatic drop. Two rescuers are required for this removal with the second rescuer is positioned aft in the safety boat. This removal works best using an inflatable boat.

Hydrostatic Drop. Pulling a person out of the water in a horizontal position removes the hydrostatic squeeze on the body and lower limbs, allowing blood to pool in the extremities causing a decrease in blood pressure. The additional cardiac work load may

induce arrest or fibrillation of the cold heart.

The steps for the parbuckle lift are as follows:

1. Both rescuers hold the distressed person in a stable horizontal position parallel to the gunwale.

2. The rescuer closest to the distressed person's head leads a line between the gunwale and the distressed person's inboard arm, underneath the distressed person's back and outside of the distressed person's outboard arm.

3. The rescuer closest to the distressed person's head positions the line, previously lead, equidistant between the distressed person's shoulders and elbows ensuring both arms are inside the line.

4. The rescuer closest to the distressed person's head secures the inboard end of the line, previously lead, to a fixed point as low as possible ensuring that it is secured in a location aligned with the remaining line and the working end of the line is perpendicular to the distressed person's centre line.

5. The rescuer closest to the distressed person's feet leads a line: between the gunwale and the distressed person's inboard thigh, underneath the distressed person's legs and outside of the distressed person's outboard thigh.

6. The rescuer closest to the distressed person's feet positions the line, previously lead, equidistant between the distressed person's knees and hips.

7. The rescuer closest to the distressed person's feet secures the inboard end of the line, previously lead, to a fixed point as low as possible ensuring that it is secured in a location aligned with the remaining line and the working end of the line perpendicular to the distressed person's centre line.

8. The rescuer closest to the distressed person's head signals the rescuer closest to the distressed person's feet to begin and both haul in the working end of their lines hand over hand ensuring the lines remain aligned with the secured end.

9. Once the distressed person is rolled onto the gunwale, the rescuer closest to the distressed person's head lowers the distressed person to the bottom of the boat in a sitting or laying position.

Figure 6 Parbuckle Lift

CONFIRMATION OF TEACHING POINT 7

The students' performing a parbuckle lift will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The students' participation in the activities will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

This EO is assessed IAW with Chapter 3.

CLOSING STATEMENT

A safety boat operator needs to recognize a distressed swimmer and know how to use an assist, approach a distressed swimmer, towing a distressed swimmer and removing a distressed swimmer from the water to maximize the efficiency of a recovery.

INSTRUCTOR NOTES / REMARKS

TPs 6 and 7 shall be conducted alongside a safety boat.

REFERENCES

ISBN 0-920326-46-3 The Royal Life Saving Society Canada. (2008). *Canadian lifesaving manual* (12th ed.). Toronto, ON: Lifesaving Society.

ISBN 0-9730217-0-5 Canadian Coast Guard Auxiliary–Pacific. (2002). *Canadian Coast Guard Auxiliary search and rescue crew manual*. Victoria, BC: Queens Printer.

DVD Video. *Beyond Cold Water Boot Camp*. Ontario: Canadian Safe Boating Council.

SMALL CRAFT OPERATOR PROGRAM

MODULE 4 – POWERBOAT RESCUE

INSTRUCTIONAL GUIDE

SECTION 2

EO 004.02 – PREPARE FOR DEPARTURE

Total Time:	40 min

PREPARATION

PRE-LESSON INSTRUCTIONS

This IG supports EO 004.02 (Prepare for Departure).

PRE-LESSON ASSIGNMENT

Fuelling a powerboat should take place when opportunities arise prior to SCOP 4 training.

The demonstration of the proper use of wire cutters is only required for obtaining Module 4 - Sail.

APPROACH

An interactive lecture was chosen for this lesson to present basic material and to orient the students to preparing for departure.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the student shall have explained the Stop Assess Plan (SAP) protocol, described scene management, and explained the theory of entrapment and escape.

IMPORTANCE

It is important for students to utilize the SAP protocol to minimize the risks to safety boat crews, engage in scene management communications to increase the efficiency of safety boat operations and know the theory of entrapment and escape.

Teaching Point 1	**Explain the SAP protocol.**
Time: 5 min	Method: Interactive Lecture

SAP PROTOCOL

The SAP protocol is a pre-action assessment tool developed to prevent rescue crews from rushing into unknown situations and placing themselves in danger. Prior to entering the event zone, the safety boat crew need to observe the scene carefully to identify hazards and develop a plan.

Event Zone. Surrounding every incident there is an area of involvement called the event zone. Inside this zone, the urgency of the incident influences and compels safety boat crews to act immediately. Once safety boat crews have entered the event zone, they are in range of any dangers that may be present.

Safety boat crews are in the event zone when:

- The distressed person is able to make eye contact and speak with safety boat crews directly.
- Safety boat crews feel compelled to skip the assessment stage and take action.
- The safety boat's operator has to act or manoeuvre to keep oriented and safe.

Using the SAP protocol, a safety boat crew can:

- identify the hazards at the scene;
- receive input from all crew members;
- formulate an action plan that addresses the problem; and
- communicate the action plan with roles for each crew member.

Stop

When responding to a situation, it is important for the safety boat to avoid getting too close to the scene until the safety boat operator has stopped and assessed the situation. Once the safety boat has stopped, the assessment can begin. When responding to a situation in high wind, waves or in a current, in may be necessary to keep the powerboat moving to maintain control. This can be accomplished by slowly circling the scene to maintain an even pace with a vessel underway or by positioning the safety boat so that the bow is pointing towards the wind or current and keeping the engine in gear at no-wake speed.

Assess

The safety boat crew observes the scene carefully trying not to be distracted by the main elements, such as an injured person. Details can make a profound difference and safety boat crews must make an effort not to plan at this stage. If the scene is complex, it may be necessary to maintain a period of silence, this gives time for safety boat crew members to focus on observing. When safety boat crew members speak, they shall use the language of observation. For example:

- "I see lines leading off the stern", or

- "The water looks shallow".

Plan

The safety boat crew discusses the most effective plan, allowing everyone on the crew to provide input but the person in charge makes the final decision. Once a plan is decided upon, the person in charge assigns jobs and receives verification from the crew. Sometimes situations change so a backup plan should be discussed. If the scene becomes unstable or dangerous, the person in charge shall remove the crew from the event zone and reassess the scene for a new plan.

In many situations, completing the SAP protocol may only take several seconds. Under normal training conditions, the safety boat operator and often the operator of the small craft requiring assistance know the operating area and the procedures to be followed. This local knowledge enables the safety boat crew to react quickly and efficiently to offer assistance. Employing SAP protocol is most important when training conditions are unfamiliar or extreme. For example, when operating in an unfamiliar or potentially dangerous area, or when the weather has become foul, creating challenging operating conditions.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS:

Q1. What happens to safety boat crews inside the event zone?

Q2. Where should the safety boat stop prior to assessment?

Q3. What should happen if the scene becomes unstable or dangerous?

ANTICIPATED ANSWERS:

A1. The urgency of the incident influences and compels safety boat crews to act immediately.

A2. The safety boat should stop outside of the event zone.

A3. The person in charge shall remove the crew from the event zone and reassess the scene for a new plan.

Teaching Point 2 **Describe scene management.**

Time: 5 min Method: Interactive Lecture

SCENE MANAGEMENT

Communicating with safety boat crew members, other safety boats and shore stations is critical to acting as a safety boat operator. In most situations, a safety boat acts with autonomy, being responsible for the monitoring of assigned small craft. In the case of an atypical incident on the water, safety boats may be re-tasked to provide assistance where required. Managing an atypical incident scene response is the responsibility of the person in charge on the water but all safety boat crews must be able to receive directions and provide information when tasked. The

most common forms of communication are verbal, visual signals and radio communications. A breakdown in effective communication means the inability to manage a scene and the subsequent increase in risk to all members involved.

Crew Communication

Effective crew communication within a safety boat and between various safety boats minimizes misunderstandings and improves task efficiency and safety. In noisy environments, such as at high speed in an open boat, it is sometimes impossible to communicate verbally, this is where signals are used. Commonly used hand signals can assist, when verbal communication is not practical, providing all members are aware of their meaning.

Some considerations for safety boat crew communications are:

- Verbal messages must be loud and direct.
- Do not scream unless there is danger and no better way of alerting others.
- Make direct eye contact.
- Speak in common terms.
- Say the recipients name and wait for a reply before giving the message.
- Acknowledge any requests or commands by repeating the information.
- Provide as much relevant information as possible.
- If the information given is unclear, ask for it to be repeated or explained.

Shore Station Communication

Student on-water training follows established national and regional policies; awareness of these policies provides a reference framework for the locally produced policies that deal specifically with shore station communications. Knowing who to contact, under which circumstances and what information to transmit is a necessity for a safety boat operator. Regardless of what equipment is used to communicate with a shore station, commonly Family Radio Service (FRS), Very High Frequency (VHF) or cellular, it is important to use the correct calling procedures and transmitting techniques to ease the communication response by the station being called. If establishing contact on a distress or calling channel using a VHF transceiver, the shore station directs the caller to a working station for the remainder of the conversation.

Most established training centres have a working channel used by the shore station for all VHF transmission (eg, Channel 68, 72 or 80). A Restricted Operator‘s Certificate Marine (ROC[M]) is required to operate a VHF radio.

Some suggestions for shore station communications are:

- Listen to ensure the VHF or FRS channel is clear prior to transmitting.
- Keep the speech rate slow and regular using a calm, clear voice.
- Keep the message short and succinct.
- Formulate which information to communicate prior to speaking.
- Ensure the accuracy of the information communicated.
- If transmitting on a FRS or VHF, key the mic for one second prior to speaking to activate the squelch break.

Emergency Medical Services (EMS) Communication

In most situations, the person in charge of the on-water activity is responsible for contacting or initiating contact with EMS. Depending on the circumstances and local policies, a safety boat operator may be permitted to establish direct contact with EMS.

Some suggestions for EMS communications are:

- keep the speech rate slow and regular using a calm clear voice;
- identify the following:
    - who you are,
    - the nature of the emergency and what EMS services are required,
    - the number of casualties, and
    - current location and recommended casualty transfer point; and
- try to avoid identifying casualties by name over the VHF or FRS.

Add any additional steps or information based on local SOPs.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS:

Q1. What are the benefits of effective crew communications within a safety boat and between various safety boats?

Q2. Where can a safety boat operator learn about whom on shore to contact under which circumstances and what information to transmit?

Q3. When contacting EMS what information should you provide?

ANTICIPATED ANSWERS:

A1. Minimize misunderstandings and improve task efficiency and safety.

A2. Student on-water training follows established national and regional policies; awareness of these policies provides a reference framework for the locally produced policies which deal specifically with shore station communications.

A3. Who you are, the nature of the emergency and what EMS services you require, the number of casualties, your current location and recommended casualty transfer point.

Teaching Point 3 **Explain the theory of entrapment and escape.**

Time: 25 min Method: Interactive Lecture

The following information deals with entrapment and escape for a dinghy sailboat. Modify for canoes or kayaks, if required.

The following information was developed by Sail Canada Learning Facilitators and Ontario Sailing's Learn to Sail/Race Committee and modified to reflect policies and procedures for the CCO.

Dealing with Entrapment of a Sailor Under a boat / in rigging

Capsizing is a common occurrence for beginner and intermediate sailors in dinghy programming. Without quick reaction from the crew, a capsized boat will continue to turn over until the boat is turtled. Turning turtle means that the hull has completely turned over and the mast is vertical or nearly vertical below the water. Turtling is not a situation to be irrationally afraid of, however it is important for both students and coaches to understand the risks involved and be adequately prepared for situations where crew members may become tangled in rigging or submerged under the hull.

Situations where a student may be under the boat in a turtle or tangled in lines may occur on occasion. Coaches should aim to orchestrate a rescue from within the coach boat whenever possible. The coach boat is the primary safety platform and best tool for ensuring the safety and security of the students.

The following is a basic response that can be applied any time a student may be stuck under the boat. The primary indicator for this procedure is approaching a boat where only one of the crew is visible following a capsize (the steps assume a doublehanded boat).

1. Immediately check the capsized boat for two sailors.

2. If only one is visible make sure the visible sailor is moving toward or is on the dagger board.

3. Drive the coach boat to the mast side of the capsized boat and visually confirm the location of the second sailor.

4. From the coach boat, assist in immediately righting the capsized boat.

5. If the trapped sailor is not responding immediately activate your Emergency Action Plan (EAP).

6. Free the sailor, if required.

7. Once the injured crew member is free, secure both crew in the coach boat and continue to follow the EAP.

8. Following all emergency incidents debrief all students and coaches on the incident.

Refer to local policies regarding the completion of DND 663, Hazardous Occurrence Report when a sailor is physically removed from under a boat.

Most incidents will not progress past step 4, as once the mast is stabilized the students are able to free themselves without any secondary injury.

Be prepared – get equipped!

There are several pieces of essential equipment to be prepared for this type of rescue that each coach boat shall carry in the safety box.

1. **Cross-Over Wire Cutter**. Carbon steel blade that can cut up to 1/8 stainless wire and can be used with one hand (eg, similar to the Felco C7).

2. **Rigging Knife** – A serrated, Kevlar knife with a rubberized handle and a blade more than 1 inch long but less than 6 inches long. Supplied with a protective sheath (eg, similar to the GILL Marine Rescue Knife)

3. **Webbing Cutter** – A tool capable of cutting through harness, webbing, cord or small line. Supplied with a pouch. (eg, similar to the GILL Harness Rescue Tool).

Bolt cutters, pliers, vise grips, side cutters and knives are inadequate to cut through wire rope and are not a suitable substitute for carbon bladed cross-cutters.

Rope or webbing cutters are also effective in releasing athletes from harnesses that become tangled in rigging. Gill, Spinlock, Magic Marine and other manufactures make a version that will cut up to 6mm line but are completely encapsulated in a nylon handle making it virtually impossible for a panicked sailor to cut themselves. Dive knives or Leatherman style knives should be avoided as it is too easy to cut yourself when in an emergency. Usually cutting either both or one of the trapeze retractor shock cord or trapeze adjuster line releases the tension on the hook and allows the sailor to free themselves or at least gain enough freedom of movement to allow them to stay on the waters surface. Most of the other issues can be solved with a pair of wire cutters.

To optimize rescues of this type the CCO requires all sailing establishments create a plan that integrates a standard EAP that instructors use every time a boat capsizes. Coach boats shall have the equipment indicated above, and a VHF or Personal Radio that is monitored by other coaches and on shore in addition to the required boating safety equipment.

Inform students of the standard EAP / SOP for when a dinghy capsizes and any additional steps or information as per local SOPs.

CONFIRMATION OF TEACHING POINT 3

Review the steps following a capsize.

Teaching Point 4 **Demonstrate use of wire cutters.**

Time: 5 min Method: Demonstration

Demonstrate and have the students cut shroud wire with wire cutters.

CONFIRMATION OF TEACHING POINT 4

The students' using wire cutters will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

QUESTIONS:

Q1. What are the three stages of the SAP protocol?

Q2. What does the loss of effective communication on a safety boat cause?

Q3. If a trapped sailor is not responding what should you do?

ANTICIPATED ANSWERS:

A1. Stop, Assess, and Plan.

A2. The inability to manage a scene and the subsequent increase in risk to all members involved.

A3. Activate your EAP.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

This EO is assessed IAW Chapter 3.

CLOSING STATEMENT

The correct use of equipment and application of knowledge enables a safety boat operator to provide support to small craft while minimizing potential risk to safety boat crew members when conducting a rescue.

INSTRUCTOR NOTES / REMARKS

REFERENCES

A-CR-CCP-030/PT-001 Director Cadets 4. (2005). *Water safety orders*. Ottawa, ON: Department of National Defence.

Ontario Sailing's Learn to Sail/Race Committee. *Dealing with Entrapment of a Sailor Under a boat/and or in rigging.* Sail Canada. (2012). Kingston, ON: Sail Canada.

Felco.com. (2011). *Felco C7*. Retrieved April 9, 2014, from http://www.felco.com/felco/pages/product.page?name=FELCO+C7

SMALL CRAFT OPERATOR PROGRAM

MODULE 4 – POWERBOAT RESCUE

INSTRUCTIONAL GUIDE

SECTION 3

EO 004.03 – MANOEUVRE A SAFETY BOAT

Total Time:	160 min

PREPARATION

PRE-LESSON INSTRUCTIONS

This IG supports EO 004.03 (Manoeuvre a Safety Boat).

Gather the required resources:

- Fully equipped small craft,
- Safety boat,
- Two buoys with lines and weights, and
- Whistle.

Set two marker buoys approximately 50 m apart (as illustrated in Figure 1A).

Photocopy and laminate Annex A for Module 4 – Sail or Annex B for Module 4 – Canoe.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

An interactive lecture was chosen for TPs 1 and 2 to present basic material and to orient the students to aspects of manoeuvring in various conditions prior to participating in practical training.
A practical activity was chosen for TP 3 and 4 as it is an interactive way to allow the students to experience manoeuvring in proximity to other small craft and review manoeuvres taught in Module 3 in a safe and controlled environment. This activity contributes to the development of manoeuvring skills in a fun and challenging setting.

A demonstration and performance was chosen for TP 5 as it allows the instructor to explain and demonstrate how to tow a small craft using the alongside tow, providing an opportunity for the students to practice these skills under supervision.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the student shall have manoeuvred a safety boat by demonstrating proficiency in the operation of a powerboat in various environmental conditions, in close proximity to small craft and towing a small craft.

IMPORTANCE

It is important for students to manoeuvre a small craft as it is a skill required to act as a safety boat operator. A safety boat operator uses specialized manoeuvres and skills, such as towing a small craft, which require an increased level of operator training. Safety boats are required to operate in challenging environmental conditions to ensure the safety of the vessels they monitor.

Teaching Point 1 **Describe manoeuvring in diverse conditions.**

Time: 10 min Method: Interactive Lecture

The environmental conditions a safety boat operator manoeuvres in are more challenging than an average powerboat operator. Sailboats are capable of operating at high speeds over large areas during training. A safety boat must exceed the performance capabilities of the sailboats it is monitoring.

The dominant forces affecting a safety boat varies, and in most cases is a combination of forces. The ability to anticipate the dominant forces affecting a safety boat's response to helm and thrust inputs and anticipating those effects, allow the safety boat operator to operate safely in diverse conditions.

Experienced safety boat operators use the dominant forces to their advantage. They should take advantage of wind and current when docking or mooring by approaching against the wind and current.

HIGH WINDS

The wind acts on the hull's topsides and exposed crew members. The amount of surface that the wind acts on is called sail area. A safety boat makes leeway at a speed that is proportional to the wind velocity and the amount of sail area.

A typical safety boat with its outboard engine in the water and weight distribution in the stern drifts with the stern toward the wind.

Knowledge of how wind affects a safety boat is very important in all situations, such as docking, recovering an object overboard or manoeuvring close to another vessel.

When a safety boat operator manoeuvres from the leeward side of a larger vessel or dock, look for any wind shadows and account for changes. Plan manoeuvres with change in wind velocity in mind.

CURRENT

When the water under a safety boat is moving quickly, it requires increased skill to make the safety boat respond to helm and thrust inputs. Current acts on a safety boat's underwater hull, causing drift over the ground. A small amount of current can affect a safety boat to the same degree that a large amount of wind can and a strong current can move a safety boat against the wind.

The safety boat operator should look for the signs of current flow to be prepared when current affects the safety boat. A large stationary object, such as a dock, causes changes in the amount and direction of current. The safety boat operator should note the amount and direction of current around dock pilings or moorings by looking for wake or flow patterns. Use caution when manoeuvring close to the up current side of stationary objects, such as moored boats and docks.

Making leeway while drifting downstream or down current requires a change in approach to prevent overshooting the destination.

WAVES AND SWELLS

The safety boat is manoeuvred through the waves, maintaining control and minimizing stress on the safety boat and crew. The safety boat operator should avoid slamming into waves or falling off the crests by making adjustments in helm and throttle, to anticipate and react to changing wave conditions. The safety boat operator should always have one hand on the helm and one on the throttle. When the current direction moves opposite to the wind direction, the waves produced are steeper and closer together.

Manoeuvring Against Waves and Swells

The safety boat operator should maintain an optimal heading of 10 degrees off the wave front. If the distance between wave crests is short and there is not enough time for the safety boat to react, change the heading to between 30–45 degrees off the wave front. This increases the apparent wavelength, allowing the safety boat more time to react.

The safety boat operator uses rapid helm inputs to keep the safety boat from rolling, after exiting each crest, as it settles onto the back face. The safety boat operator throttles back quickly while on the front face and at the top of each crest to prevent launching the safety boat. The safety boat should maintain just enough momentum, leaving the crest to have only the stern slide down the back face. Once in the trough, the safety boat operator shall quickly throttle up to move up the front face of the wave, raising the bow and maintaining momentum.

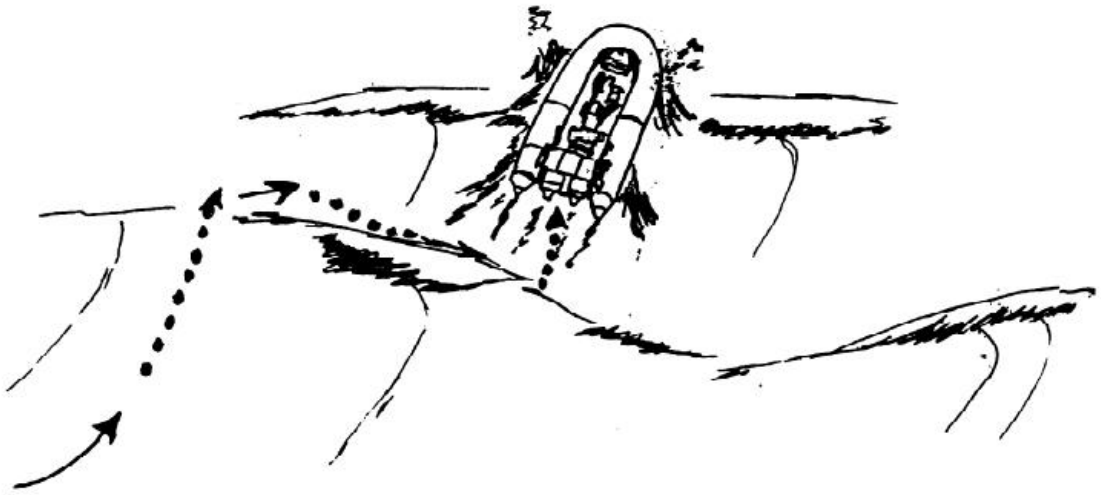

Figure 1 Manoeuvring Against Waves and Swells

Note. From *Rigid Hull Inflatable Operator Training RHIOT Student Manual* (p. 77), by Department of Fisheries and Oceans, 2000, Victoria, BC: Operational Services CCG.

Manoeuvring With Waves and Swells

The operator shall position the safety boat so it is heading straight up the back face of the waves. As the safety boat nears the crest, steer at an angle to stay in contact with the crest as the safety boat passes over it. As the safety boat nears the end of the front side of the wave and enters the trough. The safety boat operator shall straighten the heading to steer the safety boat straight up the back face of the next wave.

Manoeuvring in the same direction as waves can be difficult, if the disturbed water of a following wave catches up to the prop, decreasing its efficiency. Without the prop driving the safety boat forward, the following wave may turn the safety boat sideways to the wave front, increasing roll and possibly capsizing the safety boat. The safety boat operator shall position the safety boat on the back face of the next wave, just behind the crest, using throttle to maintain this position. The safety boat operator shall use caution, when overtaking a wave, not to power through the crest too early or quickly. The safety boat operator shall throttle back as the crest breaks around the hull allowing the momentum to carry the safety boat into the upcoming trough. The safety boat operator shall use caution when overtaking waves and swells because a shallow "V" hulled safety boat may not effectively punch through a wave crest, causing the bow to bury and the safety boat to abruptly stop, dislodging crew members.

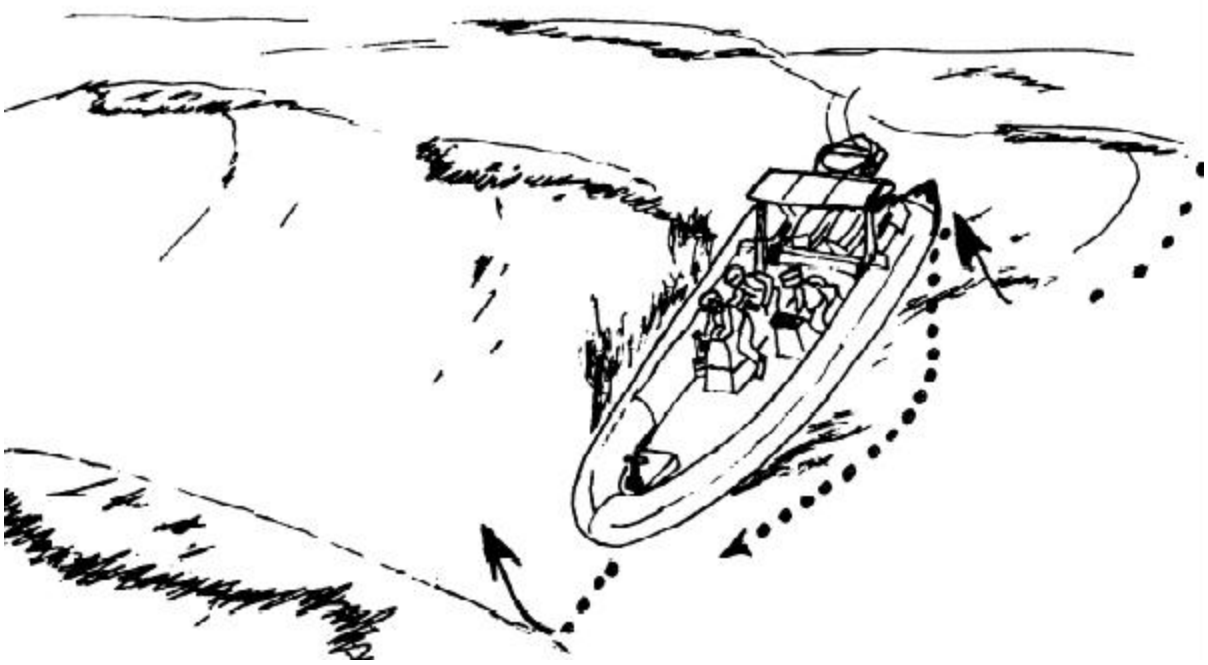

Figure 2 Manoeuvring With Waves and Swells

Note. From *Rigid Hull Inflatable Operator Training RHIOT Student Manual* (p. 79), by Department of Fisheries and Oceans, 2000, Victoria, BC: Operational Services CCG.

Safety boat operators must be prepared to make adjustments for heavy wind and waves during training and rescue situations. Operators should approach the crest of the wave at a 30-degree angle.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS:

Q1. What can be used to determine current direction and speed?

Q2. How can a safety boat operator avoid slamming into waves or falling off the crests?

ANTICIPATED ANSWERS:

A1. Observe around dock pilings or moorings by looking for wake or flow patterns.

A2. By making adjustments in direction and throttle to anticipate and react to changing wave conditions.

Teaching Point 2 **Describe manoeuvring in proximity to small craft.**

Time: 10 min Method: Interactive Lecture

MANOEUVRING IN PROXIMITY OF SMALL CRAFT

The safety boat operator is required to balance a requirement to position the safety boat for optimal observation and communication with the comfort and safety of the small craft.

The following are some general guidelines for manoeuvring in proximity to small craft:

- Be aware of the safety boat's wake and wash and its effect on small craft, principally the comfort of the small craft crew.

- Avoid groups of small craft on a closed course. Use courtesy and manoeuvre around the outside of closed courses.

- Give vessels engaged in towing a wide berth, especially when passing.

- Operate the safety boat with minimum wake and momentum when manoeuvring around vessels that are alongside, either another vessel or the dock. The risk of a pinching hazard is high even with the smallest amount of wave motion.

Observing Small Craft to Anticipate Movement

As a safety boat operator, it is important to anticipate small craft movements while coaching and monitoring. The safety boat operator should observe the following areas to look for indicators of impending course changes:

- the crew's body positions,
- the crew's communication,
- the small craft's position on course relative to marks, and
- the sailboat's point of sail and sheet position.

Specific indicators of impending course changes can include:

- The helm's aft leg is placed on the opposite side of the sailboat.
- The helm moves aft along the gunwale to a position behind the main sheets and traveller bar.
- A gust of wind is approaching the sailboat.
- The crew moves inboard and unhooks from the trapeze wire.
- The helm repeatedly looks abeam, usually over the aft shoulder.
- The sailboat has sailed past a lay line.

Manoeuvring to Monitor / Observe Small Craft

When monitoring / observing small craft, the following points should be considered:

- Position the safety boat off the windward quarter or behind the small craft in a position that allows the best vantage point.

- If the crew is on the trapeze, position the safety boat on the leeward quarter of the sailboat in case the crew falls into the water.

- Be aware of which direction the safety boat turns the quickest, due to prop rotation / pitch and dominant environmental factors.

- When crossing the course of a small craft, the safest method is to cross behind the stern rather than the bow.
- Minimize the amount of moving or driving through a busy course by observing from a distance until the small craft is closer to the safety boat's position.
- Be aware of the effect of wake and wash, produced by the safety boat, has on the small craft.
- Be vigilant with shoulder checks and looking aft while moving astern, for small craft that approaches the safety boat silently.
- When observing small craft at a mark / buoy, ensure the path of the small craft is not obstructed.

Manoeuvring to Communicate With a Small Craft

When communicating instructions to the crew of a small craft, the following points should be considered:

- Position the safety boat ahead and windward of the small craft.
- Position the safety boat ahead of the sailboat so that if the sailboat tacks, it passes astern of the safety boat.
- While the safety boat is manoeuvring parallel to the small craft, be cognizant of deviating the small craft from its intended course.
- Ensure the safety boat is not oriented so close to the source of the wind that the sailboat has difficulty following upwind.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS:

Q1. What does being able to anticipate the movements of small craft allow the safety boat operator to do?

Q2. How far ahead of a small craft should the safety boat be positioned when communicating?

Q3. What is the safest method to cross the course of a small craft?

ANTICIPATED ANSWERS:

A1. Manoeuvre safely while coaching and monitoring small craft.

A2. Position the safety boat ahead of the sailboat such that if the sailboat tacks, it passes astern of the safety boat.

A3. To cross behind the stern rather than the bow of the small craft.

Teaching Point 3	**Conduct a review of SCOP Module 3 elements.**
Time: 20 min	Method: Practical Activity

Conduct a review of SCOP Module 3 elements, to include:

- starting and stopping the vessel engine;
- mooring;
- anchoring
- beaching; and
- man overboard.

Teaching Point 4	**Conduct an activity where the students will manoeuvre in proximity to sailboats or canoes.**
Time: 75 min	Method: Practical Activity

Control position. Sailboats on the water are required to sail downwind of the coach boat and begin luffing their sails. This is indicated from the coach boat by three blasts from a whistle.

Have the students practice adjusting for heavy wind and waves during the activities.

ACTIVITY

1. Have the student manoeuvre the small craft into a control position.

2. Instruct the small craft crew to manoeuvre in the designated area on a course selected by the small craft crew.

3. Instruct the small craft crew to make course changes where appropriate or at one minute intervals.

4. Have the small craft depart the control position on a course selected by the small craft crew.

5. Have the safety boat operator manoeuvre the safety boat to the small craft's location and communicate to all members of the crew for a minimum of five minutes.

Some recommended subject matter for communication is:

- giving feedback on specific small craft skills, if the safety boat operator possesses the subject knowledge; or
- an icebreaker game such as 20 Questions, where each small craft crew member is instructed to create an answer, without sharing it, and then respond to the safety boat operator's questions using only the words "yes" or "no" until the safety boat operator deduces the correct answer.

6. Conduct a debrief.

7. Have the students rotate positions and repeat Steps 1–6.

CONFIRMATION OF TEACHING POINT 4

The students' participation in the activity will serve as the confirmation of this TP.

Teaching Point 5	**Demonstrate and have the students tow a small craft using the alongside tow.**
Time: 70 min	Method: Demonstration and Performance

The following information is for the towing of a dinghy sailboat. For the towing of canoes, refer to Annex B.

Small Vessel Regulations requires a person other than the safety boat operator onboard the safety boat to keep watch on the small craft being towed; they may also control the towline. *Small Vessel Regulations* also requires that there be seating space on the safety boat to accommodate the crew of the sailboat and that towing not occur during the period beginning one hour after sunset and ending at sunrise.

The tow line on the towed sailboat should be secured as low as possible onto a reinforced part of the sailboat. When the length of the tow line allows, adjust the tow line so that the towed sailboat crests a wave at the same time the safety boat does.

The towed sailboat crew shall be instructed to steer for the point where the tow line attaches to the safety boat. All occupants of the sailboat being towed should sit inside the sailboat and balance the sailboat. When towing a dinghy sailboat, ensure the centreboard is halfway down and that the sails are dropped or not cleated. Tow at a safe speed by slowly increasing the throttle to remove the slack in the tow line. All vessels involved have a loss of manoeuvrability and steerage while towing, and have an increased stopping distance.

ALONGSIDE TOW

The alongside tow is used for short distance tows in calm seas with variable set-up and release time. This tow is favoured by safety boat operators when maximum fore and aft manoeuvrability is required (eg, when towing sailboats into dock fingers).

The steps to a alongside tow are as follows:

1. Position the safety boat so the safety boat's transom is secured aft of the sailboat, to maximize manoeuvrability.

2. Brief the safety boat crew and sailboat crew on the pinch hazard present between the two vessels.

3. Instruct the sailboat to steer toward the safety boat to increase the safety boat's manoeuvrability.

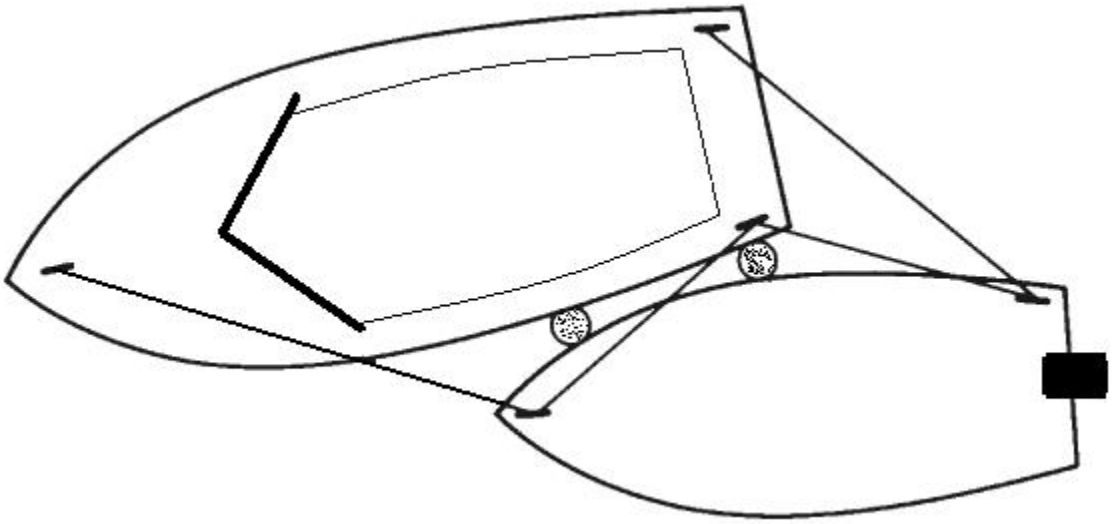

Figure 3 Alongside Tow

ACTIVITY

1. Have the sailboat manoeuvre into a control position.

2. Conduct the briefing for the activity.

3. Demonstrate and describe the approach and set-up of an alongside tow.

4. Divide the students, between the safety boat and the small craft.

5. Have the students in the safety boat perform the tow.

6. Conduct a debrief.

7. Upon completion, have the students rotate positions and repeat until all students have been the safety boat operator.

If time permits, demonstrate and have the students practice the quarter and bow-on pull tow. Review the tow line taught in SCOP Module 3.

BACKGROUND INFORMATION

QUARTER TOW

The quarter tow is used for medium distance tows with low set-up and release time. Often used as a transition tow between the bridal tow and alongside tow when entering harbour, especially when the bridal tow includes multiple sailboats.

The steps to a quarter tow are as follows:

1. Attach the bowline of the sailboat or a tow line to a secure point on the safety boat's transom, such as a horn cleat or D bolt, near the safety boat's quarter.

2. Ensure the tow line does not interfere with the engine or control mechanisms when the safety boat is turning.

3. The safety boat operator manoeuvres slowly and ensures the sailboat does not over take the safety boat when decreasing throttle.

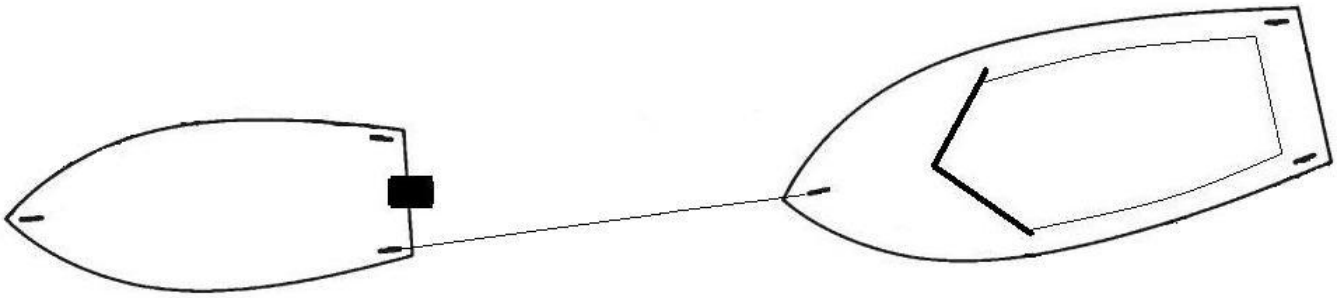

Figure 4 Quarter Tow

BOW-ON PULL TOW

The bow-on pull tow is used for short distance tows with minimal set-up and release time, where access to the sailboat is limited or maximum safety boat steerage is required. In most cases, this tow is selected for its quick set-up time. This tow is favoured by safety boat operators who need to maintain a sailboat on station into the wind, either before a capsize or directly after a capsize or to quickly tow a sailboat out of a hazard area, such as a shoreline.

The steps to a bow-on pull tow are as follows:

1. The safety boat crew moves to the bow while the operator manoeuvres the bow of the safety boat alongside the sailboat, ideally at the sailboat's painter.

2. Once contact is made, the safety boat crew obtains the painter, while the safety boat operator prepares to move astern.

3. Secure the painter of the sailboat to a horn cleat or hard point on the bow of the safety boat. A bowline can be tied at the end of the sailboat painter and looped around the hard point to facilitate quick set-up and release times.

4. Once the sailboat painter is secured, the safety boat operator manoeuvres astern towing the sailboat.

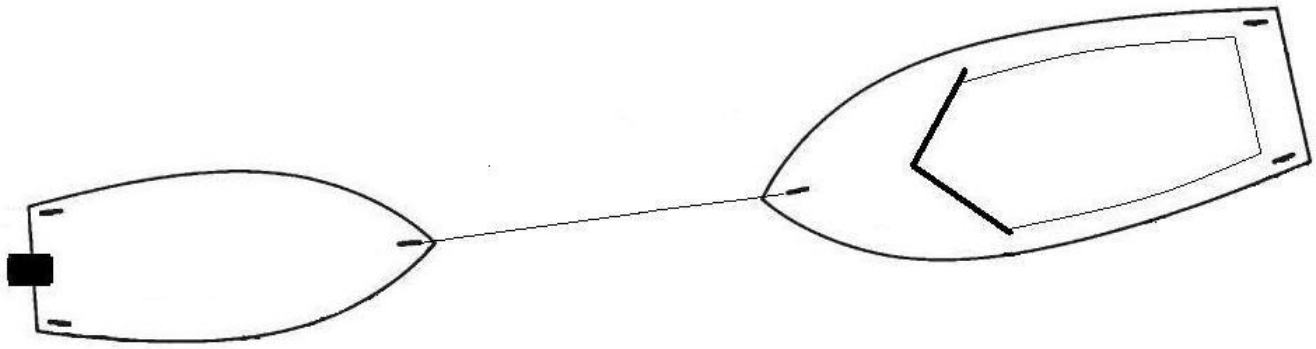

Figure 5 Bow-On Pull Tow

CONFIRMATION OF TEACHING POINT 5

The students' participation in demonstrating an alongside tow will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The students' participation in manoeuvring a safety boat will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

This EO is assessed IAW Chapter 3.

CLOSING STATEMENT

Safety boats are required to operate effectively in challenging environmental conditions, demonstrating proficiency in small boat manoeuvring. The specialized role of a safety boat requires operator proficiency at skills, such as manoeuvring in proximity to and towing small craft.

INSTRUCTOR NOTES / REMARKS

The theory for anchoring, towing, beaching and securing a powerboat to a mooring buoy was taught in SCOP Module 3. Therefore, timings may need to be adjusted to allow the students time to practice these manoeuvres.

The alongside tow is required only for students obtaining SCOP Module 4 – Sail. Students obtaining SCOP Module 4 – Canoe shall use the appropriate method for towing a canoe.

REFERENCES

ISBN 0-9730217-0-5 Canadian Coast Guard Auxiliary–Pacific. (2002*). Canadian Coast Guard Auxiliary search and rescue crew manual*. Victoria, BC: Queens Printer.

ISBN 0-660-18352-8 Canadian Coast Guard. (2001). *SAR seamanship reference manual*. Ottawa, ON: Search and Rescue, Canadian Coast Guard, Department of Fisheries and Oceans.

Operational Services CCG. (2000). *Rigid hull inflatable operator training RHIOT student manual*. Victoria, BC: Department of Fisheries and Oceans.

ALONGSIDE TOW - SAILBOAT

Objective: Tow a sailboat using the alongside tow.

1. Explain to the safety boat crew and towed sailboat what the actions will be and what manoeuvre is being attempted.

2. Perform an alongside tow with the sailboat starting at Point A.

3. Ensure the towed sailboat is being continually monitored and ongoing communication is maintained.

4. Apply both throttle and gear selection, keeping one hand on the tiller or wheel and the other hand on the throttle / gear selector if fitted.

5. Complete shoulder checks and maintain communication with the crew and towed sailboat.

6. Proceed around Point B and back to Point A to finish.

Have the crew relay boats in the immediate area throughout the course.

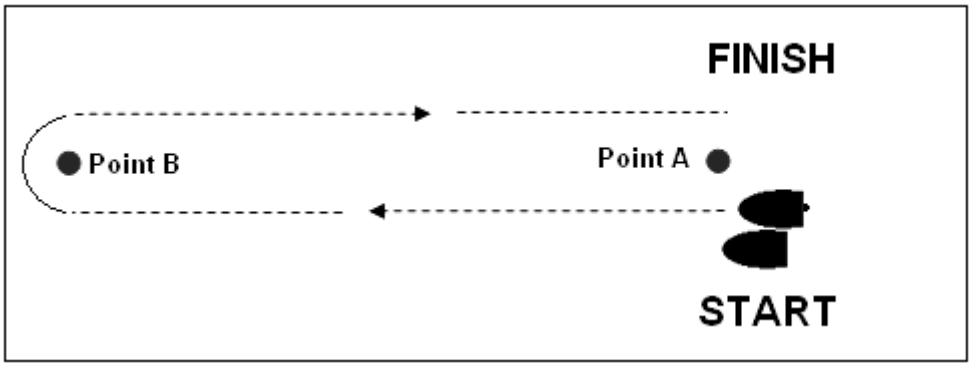

Figure 1A - Alongside Tow Course

TOWING A CANOE

A safety boat operator may be required to tow canoes for expediency of point-to-point transport or to keep a group of canoes from dispersing.

Alongside Tow

When towing a canoe over a short distance, the alongside tow is preferred. In most instances, the crew of the canoe remains seated inside the canoe while being towed. The crew of the canoe holds on to the safety boat's gunwale, while the safety boat is manoeuvred at no-wake speed. The advantage to the alongside tow is its quick set-up and release as well as increased control of the canoe.

Tow Line Towing

A quarter tow or bridal tow is an option when towing a canoe or group of canoes.

Additional care must be used when towing multiple canoes. The lead canoe must be capable of handling the force of the tow line on its attachment point, with the additional drag of the following canoes.

One consideration the safety boat operator makes is whether the canoe crew should remain in the canoe or move to the safety boat while towing.

Some factors to consider when deciding where to situate the canoe crew during towing are:

- wind and wave state,
- distance of the tow,
- speed of tow,
- maximum capacity of the safety boat, and
- loaded weight of the canoe.

Securing the tow line to the canoe. Attach the tow line to a secure point near the bow of the canoe. Displace the tow line load over the widest point by wrapping the tow line around strong points on the canoe. Tie the tow line using a bowline close to the waterline. The tow line should be lead from a point so that the angle of the tow line's pull lifts the bow out of the water. Some canoes may have a painter fitting at the stem of the canoe; caution should be used when towing from this point as it may not be designed for or capable of handling the force the tow places on it.

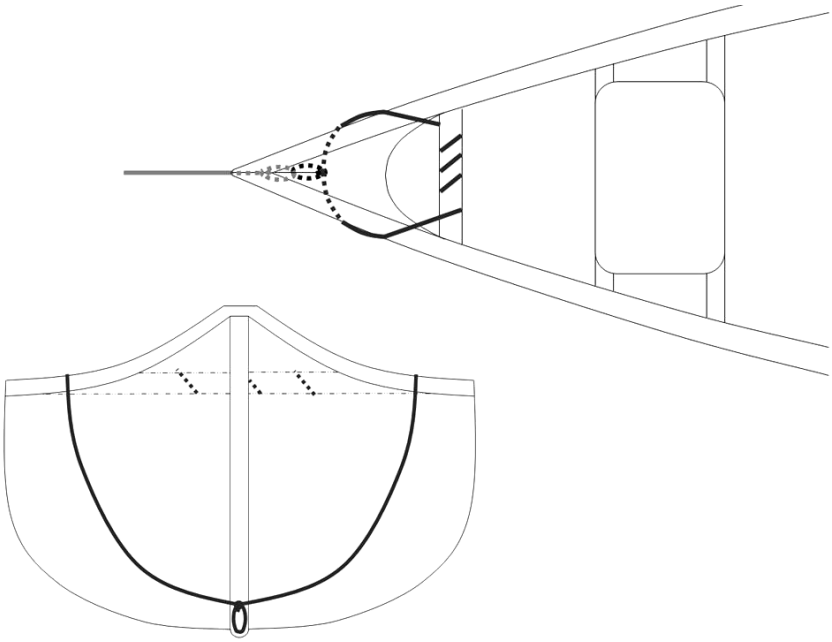

Figure 1B Securing the Tow Line

Keeping the canoe tracking straight while under tow. An empty canoe being towed with a tow line zigzags due to the canoe's long length, light weight and minimal keel. Caution should be used when towing a canoe at no-wake speed as it deviates from the track of the safety boat. Ballast can be positioned in the rear of the canoe to provide increased drag aft to minimize zigzagging. Caution should be used when using a student as aft ballast due to rapid course changes while under tow, increasing the risk of a capsize. Position a student in the stern of the canoe to provide steerage or drag with the use of a paddle.

Canoe overtaking the safety boat when slowing down. An empty canoe may overtake a safety boat when the safety slows, due to the canoe's light weight, minimal keel and low drag. The canoe may run into the stern of the safety boat or pass on either side, if off track while slowing. Caution should be used when slowing while towing a canoe. The safety boat operator should decrease the safety boat speed slowly and the safety boat crew should observe the canoe being ready to fend it off.

SMALL CRAFT OPERATOR PROGRAM

MODULE 4 – POWERBOAT RESCUE

INSTRUCTIONAL GUIDE

SECTION 4

EO 004.04 – ASSIST A SMALL CRAFT

Total Time:	120 min

PREPARATION

PRE-LESSON INSTRUCTIONS

This IG supports EO 004.04 (Assist a Small Craft).

Gather the required resources:
- Fully equipped sailboat,
- PFD,
- Safety boat, and
- Buoyancy assist for mast.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

An interactive lecture was chosen for TP 1 to present basic material and to orient the students to aspects of approaching, monitoring and recovering a small craft prior to participating in practical training.

A demonstration and performance was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate how to monitor and recover a small craft, providing an opportunity for the students to practice these skills under supervision.

A demonstration was chosen for TP 4 as it allows the instructor to explain and demonstrate the steps to various turtled sailboat recoveries.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the student shall have assisted a small craft by approaching, monitoring and recovering a capsized, turtled and swamped small craft.

IMPORTANCE

It is important for students who are acting as safety boat operators to provide assistance to small craft when the crew is not able to recover independently. In some cases, the safety boat operator will be required to assist a small craft without the assistance of its crew. The vessel-specific knowledge regarding approaching, monitoring and recovering a sailboat increases the efficiency of the assistance and ensures the safety of those involved.

Teaching Point 1	**Describe approaching capsized, turtled and swamped small craft.**
Time: 20 min	Method: Interactive Lecture

When a safety boat operator believes a small craft requires assistance, the safety boat operator proceeds to the small craft with the assumption that the crew is in immediate danger. While proceeding to the small craft, the safety boat operator can, through observation, determine:

- the level of assistance required by the small craft,
- whether there is a more appropriate safety boat able to respond,
- the number of visible small craft crew,
- the status / condition of small craft crew, and
- any potential dangers in the area.

After the safety boat operator has gathered further information on route, they adjust the approach speed and course. The safety boat operator considers the supervision of the group they are tasked with and ensures that A-CR-CCP-030/PT-001, *Water Safety Orders* is adhered to while the safety boat crew's attention is focused on the small craft requiring assistance.

Prior to the safety boat entering the event zone, the safety boat operator uses the Stop Assess Plan (SAP) protocol.

Once inside the event zone, the safety boat operator continuously reassesses the status / condition of the small craft crew, monitoring for signs of hypothermia and fatigue. The safety boat crew maintains a visual watch and verbal communication with the small craft crew, while reassuring or directing.

The safety boat operator shall be aware of the following recommendations for approaching a small craft:

- Approach the small craft from downwind, watching for lines trailing upwind.
- Approach the small craft slowly using intermittent power.
- Where possible, use the wind to slow the safety boat down rather than engaging reverse.

- Alter the safety boat's course so its heading is not directly at the small craft. This ensures the safety boat's wake has minimal effect and increases safety if the safety boat has a mechanical failure effecting manoeuvring.

- Approach the small craft crew on the safety boat operator's side of the safety boat to maintain visual contact.

- Manoeuvre the safety boat so the propeller is away from the small craft crew.

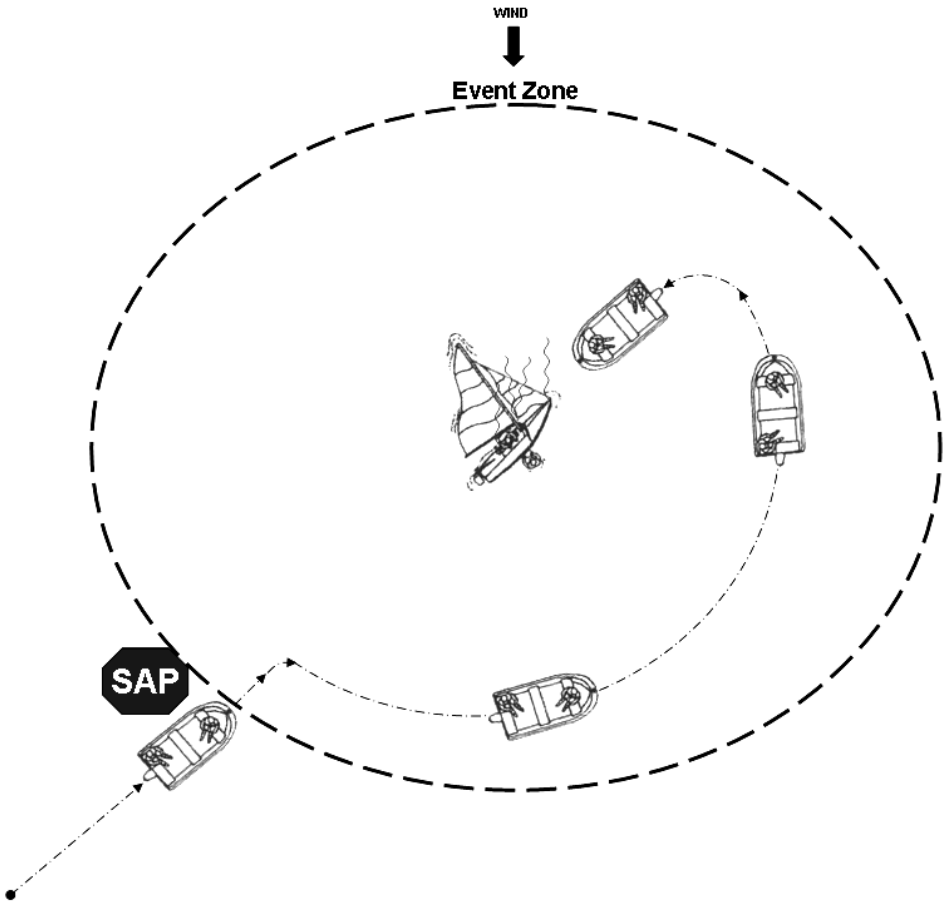

Figure 1 Approaching a Small Craft

CONFIRMATION OF TEACHING POINT 1

QUESTIONS:

Q1. What consideration should the safety boat operator make with regard to the supervision of the group the safety boat operator was tasked with, while the safety boat crew's attention is focused on the small craft requiring assistance?

Q2. What protocol should the safety boat operator use prior to entering the event zone?

Q3. Once inside the event zone, what should the safety boat operator continually reassess?

ANTICIPATED ANSWERS:

A1. Ensuring that A-CR-CCP-030/PT-001, *Water Safety Orders* is adhered to.

A2. The SAP protocol.

A3. The status / condition of the small craft crew, monitoring for signs of hypothermia and fatigue.

Teaching Point 2	**Demonstrate and have the students monitor a small craft.**
Time: 30 min	Method: Demonstration and Performance

The safety boat operator should position the safety boat to maintain visual contact and two-way communication with as many of the crew members of a capsized small craft as possible. The distance between the safety boat and small craft varies depending on a number of factors (eg, wind speed, wave action, skill level of the small craft crew and the type of assistance required). Consideration must be given to ensure that no unintended contact is made between the safety boat and the small craft crew in the water or the small craft being monitored. The most common position to monitor a small craft from is its bow or stern. This positioning allows the safety boat operator to monitor the cockpit and the centreboard areas simultaneously.

Positioning at the stern. Preferred because it allows an unobstructed view of the crew and means a shorter distance to cover if it is necessary to move in to pick up small craft crew.

Positioning at the bow. If the circumstances require the safety boat to take possession of the painter to assist with capsize recovery or prevent the small craft from drifting into danger.

The following are advantages of turning off the safety boat's engine while a safety boat is monitoring a small craft:

- It removes any risk of the safety boat engaging into gear and making contact with the small craft or its crew.
- It increases the ease of two-way communication by removing engine noise.

If the safety boat's engine remains turned on, the safety boat operator should consider the following monitoring orientations:

PERPENDICULAR

The safety boat is positioned perpendicular to the hull of the capsized small craft. The perpendicular orientation minimizes the risk of the safety boat making contact with the small craft or its crew if the safety boat's engine engages into gear. The perpendicular orientation allows the safety boat operator to manoeuvre the safety boat forward and backward to monitor both the cockpit and the keel side of the capsized small craft hull.

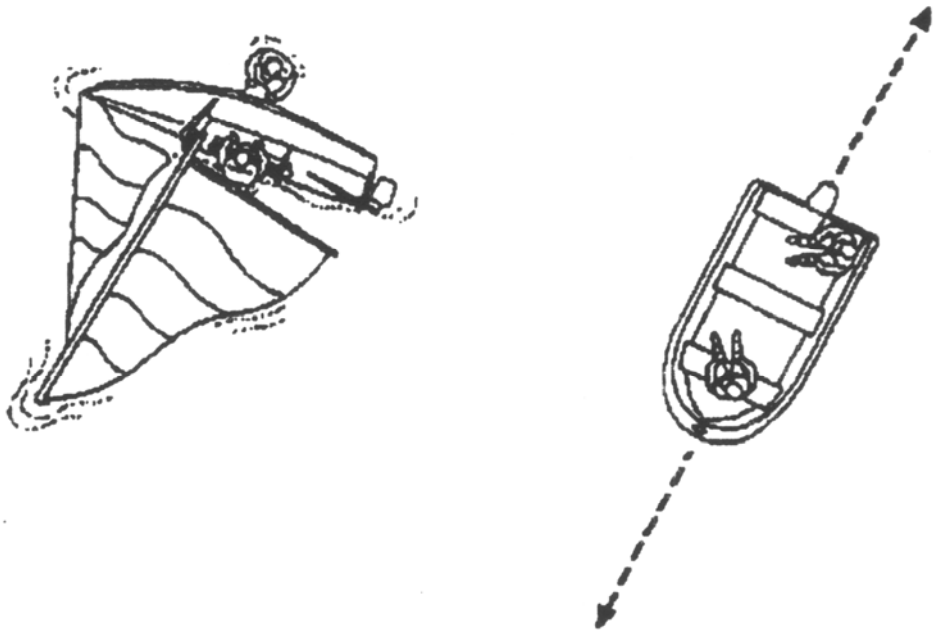

Figure 2 Perpendicular Orientation Monitoring Off the Stern Position

Note. From *Safety, Rescue and Support* (p. 29), by United States Sailing Association, 2000, Portsmouth, RI: United States Sailing Association.

HEAD-ON

The bow of the safety boat is oriented so it points toward the capsized small craft. The head-on orientation keeps the propeller as far away from the capsized small craft and its crew as possible and facilitates two-way communication by placing the engine noise away from the capsized small craft and its crew. It also makes it easier to move in quickly to pick up a crew member from the capsized small craft because the safety boat does not need to be turned toward the small craft prior to moving in.

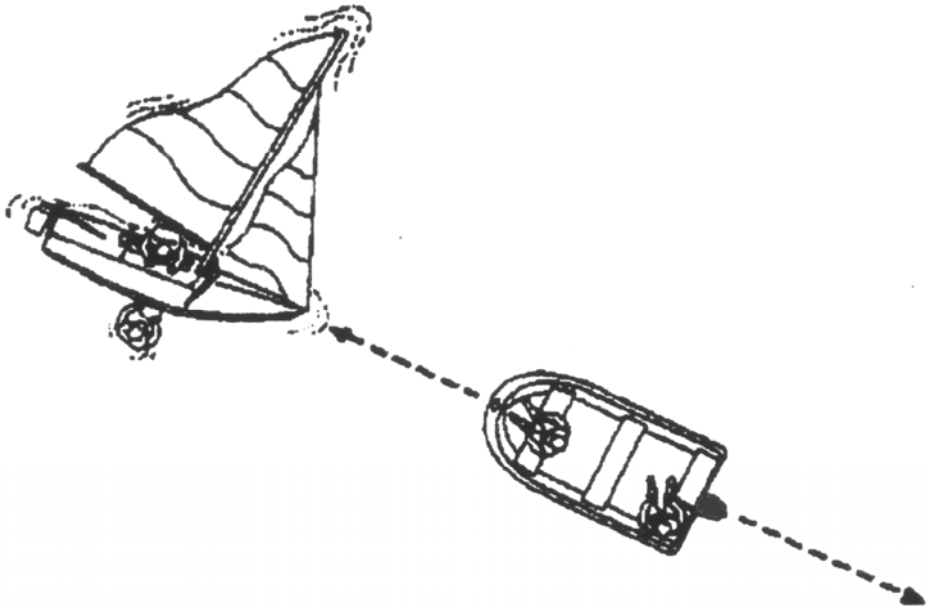

Figure 3 Head-On Orientation Monitoring Off the Bow Position

Note. From *Safety, Rescue and Support* (p. 29), by United States Sailing Association, 2000, Portsmouth, RI: United States Sailing Association.

ACTIVITY - PERPENDICULAR ORIENTATION

Have the safety boat operator use the following steps to lay out the activity:

1. Demonstrate the approach and perpendicular orientation monitoring of a capsized sailboat using a safety boat.

2. Have the safety boat operator confirm that the buoyancy tank plugs are in place and no known buoyancy issues exist with the selected hull.

3. Have the safety boat operator tow the small craft sailboat to a large area clear of any obstructions or potential vessel traffic.

4. Have the safety boat operator affix the buoyancy assist to the head of the sailboat's mast.

5. Have the safety boat operator position the sailboat into the capsized position and release the sailboat to drift.

6. Have the safety boat operator approach the capsized sailboat from beyond the event zone and perform the SAP protocol.

7. Have the safety boat operator proceed inside the event zone, ensuring that the safety boat is not on a direct course toward the capsized sailboat.

8. Have the safety boat operator manoeuvre the safety boat into a perpendicular orientation to monitor the capsized sailboat.

9. Have the safety boat operator manoeuvre the safety boat to various locations to maintain visual contact and two-way communication for the following capsized sailboat crew configurations:

    a. helm and crew in the cockpit area,
    b. helm and crew climbing onto the extended centreboard,
    c. helm climbing onto the extended centreboard while the crew is in the cockpit, and
    d. helm climbing onto the extended centreboard while the crew is holding the painter and swimming the capsized sailboat to windward.

10. Debrief the students.

11. Repeat until all students have met the activity objective.

ACTIVITY – HEAD-ON ORIENTATION

1. Demonstrate the approach and head-on orientation monitoring of a capsized sailboat using a safety boat.

2. Have the safety boat operator approach the capsized sailboat from beyond the event zone and perform the SAP protocol.

3. Have the safety boat operator proceed inside the event zone, ensuring that the safety boat is not on a direct course toward the capsized sailboat.

4. Have the safety boat operator manoeuvre the safety boat into a head-on orientation to monitor the capsized sailboat.

5. Have the safety boat operator manoeuvre the safety boat to various locations to maintain visual contact and two-way communication for the following capsized sailboat crew configurations:

    a. helm and crew in the cockpit area,
    b. helm and crew climbing onto the extended centreboard,
    c. helm climbing onto the extended centreboard while the crew is in the cockpit, and
    d. helm climbing onto the extended centreboard while the crew is holding the painter and swimming the capsized sailboat to windward.

6. Debrief the students on the activity.

7. Repeat until all students have met the activity objective.

CONFIRMATION OF TEACHING POINT 2

The students' participation in monitoring a small craft will serve as the confirmation of this TP.

Teaching Point 3	**Demonstrate and have the students recover a capsized sailboat.**
Time: 40 min	Method: Demonstration and Performance

A demonstration of the skills taught during this TP occurs during the practical activities. Use the following information to instruct the students during the demonstration.

MAST TOSS

The mast toss can be used to right a capsized sailboat without the assistance of the sailboat crew or to assist in righting a sailboat if the sailboat crew in unable to right the sailboat.

The following are the steps to performing a mast toss to right a capsized sailboat:

1. Ensure the sailboat is oriented head to wind, to minimize the risk of the sailboat re-capsizing once righted.

2. The safety boat crew communicates information to the safety boat operator regarding the location of the mast head.

3. The safety boat operator positions the safety boat at the head of the mast.

4. The safety boat crew grasps the head of the mast, informing the safety boat operator contact has been made with the masthead by saying "made" or similar, then the safety boat crew lifts the head of the mast out of the water.

5. The safety boat crew holds the masthead just above the surface of the water allowing any water that has accumulated inside the mast to drain.

6. The safety boat crew raises the mast and balances the mast's weight against the sailboat's righting moment if only providing assistance to the sailboat crew, or can toss the masthead upward if fully righting the sailboat.

7. The safety boat operator manoeuvres away from the capsized sailboat, while the safety boat crew watches the masthead to ensure the mast does not fall back onto the safety boat if the mast toss is unsuccessful.

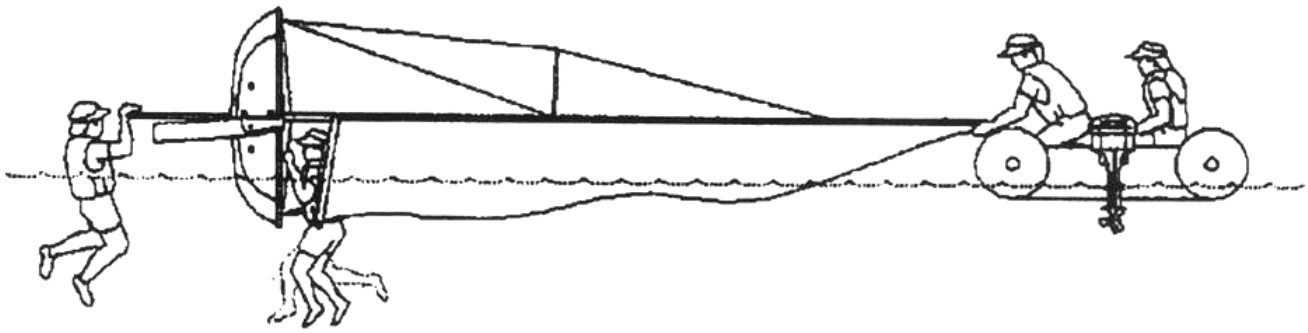

Figure 4 Mast Toss

Note. From *Safety, Rescue and Support* (p. 30), by United States Sailing Association, 2000, Portsmouth, RI: United States Sailing Association.

ACTIVITY - MAST TOSS

1. Demonstrate the recovery of a capsized sailboat using the mast toss.

2. Have the safety boat operator ensure the sailboat is oriented head to wind, to minimize the risk of the sailboat re-capsizing once righted.

3. Have the safety boat crew communicate information to the safety boat operator regarding the location of the masthead.

4. Have the safety boat operator position the safety boat at the head of the mast.

5. Have the safety boat crew grasp the head of the mast, informing the safety boat operator contact has been made with the mast head by saying "made" or similar. Then have the safety boat crew lift the head of the mast out of the water.

6. The safety boat crew holds the masthead just above the surface of the water allowing any water that has accumulated inside the mast to drain.

7. The safety boat crew can raise the mast and balance the mast's weight against the sailboat's righting moment if only providing assistance to the sailboat crew, or can rapidly toss the mast head upward if fully righting the sailboat.

8. Have the safety boat operator manoeuvre away from the capsized sailboat, having the safety boat crew watch the masthead to ensure the mast does not fall back onto the safety boat if the mast toss was unsuccessful.

9. Debrief the students.

10. Repeat until all students have met the activity objective.

CONFIRMATION OF TEACHING POINT 3

The students' participation in recovering a capsized sailboat will serve as the confirmation of this TP.

Teaching Point 4 **Demonstrate turtled sailboat recoveries.**

Time: 20 min Method: Demonstration

TURTLED SAILBOAT RECOVERIES

Many dinghies have a tendency to turtle very quickly after capsizing. Turtling may occur faster as a result of the sailboat's crew hanging off the sailboat after it has capsized, to stay dry or to climb over the hull onto the centreboard. A solution to a sailboat turtling is to add floatation to the head of the mast and instruct sailboat crews in actions which can be performed to minimize turtling.

Line Attached to Chainplate and Lead Over Hull

The line attached to a chainplate and lead over hull turtled sailboat recovery method requires the safety boat operator to rapidly monitor and alter the helm position and throttle position while in reverse. This method can be performed with the turtled sailboat crew members assisting, by standing on the low side of the sailboat's gunwale, holding onto the centreboard or the turtled sailboat crew members can be placed in the safety boat.

The following are the steps to the line attached to chainplate and lead over hull turtled sailboat recovery:

1. Secure a tow line, of approximately 15 m, to a chainplate or suitable hard point located amidships on the turtled sailboat.

2. Lead the tow line that was secured, overtop of the turtled hull and aft of the centreboard to the opposite side of the hull from its securing point.

3. Secure the remaining end of the tow line to a hard point on the bow of the safety boat.

4. Manoeuvre the safety boat slowly away from the turtled sailboat, taking up the slack in the line.

5. Manoeuvre the safety boat upwind so the mast of the turtled boat points downwind when in a capsized orientation.

When using lines under tension, care must be taken to minimize potential injury to personnel in the area if the line breaks.

6. Once the line is taut and the turtled sailboat begins to move, manoeuvre the safety boat's angle of pull to balance the yaw of the turtled sailboat's bow and stern.

7. Once the turtled sailboat is moving directly sideways in the direction of pull from the safety boat, increase the amount of pull by increasing the safety boat's throttle astern.

8. Observe the rate at which the turtled boat is righting and modify the amount of throttle as necessary.

9. Observe the yaw balance of the bow and stern and modify the helm as necessary.

10. As the turtled sailboat moves into a capsized position, be ready to quickly decrease the amount of applied throttle as the sailboat is righted from a capsized position.

11. The safety boat crew pulls in on the tow line and maintains the tension on the line until the safety boat is alongside the sailboat, to secure the sailboat.

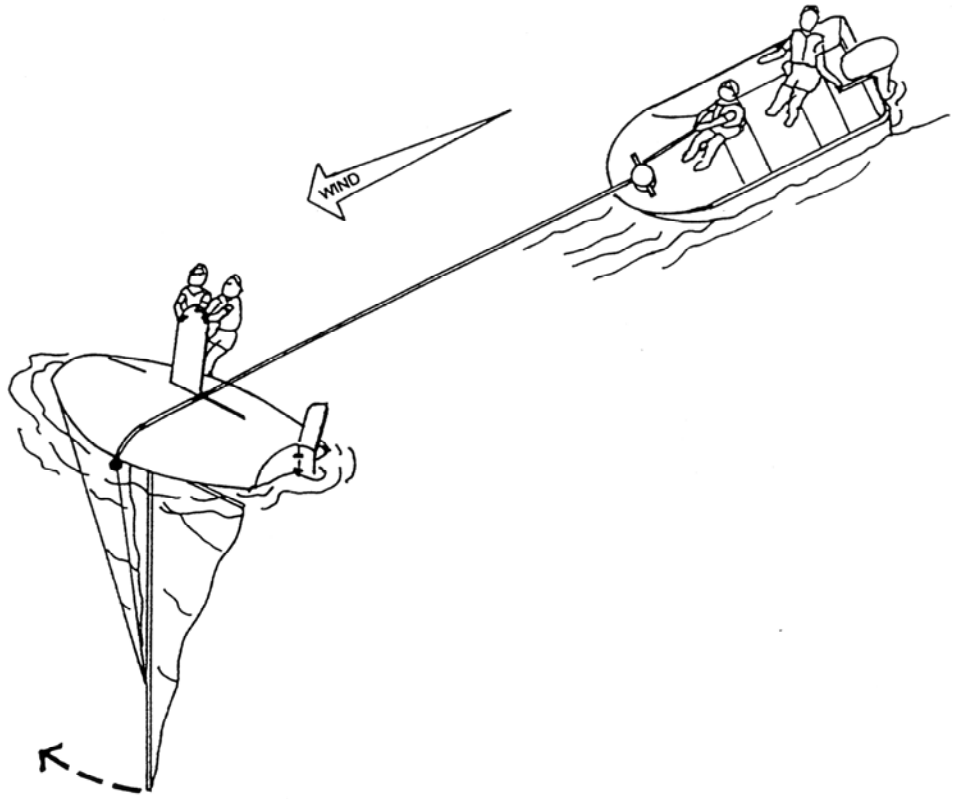

Figure 6 Line Attached To Chainplate And Lead Over Hull Turtled Sailboat Recovery Method

Note. From *Technical Level 1–Sailing National Coaching Certification Program* (p. 7-12), by Canadian Yachting Association, 1994, Gloucester, ON: Canadian Yachting Association.

CONFIRMATION OF TEACHING POINT 4

The students' participation in the demonstration will serve as the confirmation of this lesson.

END OF LESSON CONFIRMATION

The students' participation in assisting a small craft, by monitoring a small craft and recovering a capsized sailboat will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

This EO is assessed IAW Chapter 3.

CLOSING STATEMENT

The monitoring of small craft is an important role of a safety boat, typically the crew of the small craft will be able to deal with most situations including capsizing and turtling without assistance. When required to assist it is crucial that manoeuvring of the safety boat and the vessel specific skills employed are appropriate to ensure the safety of all involved.

INSTRUCTOR NOTES / REMARKS

Nil.

REFERENCES

United States Sailing Association. (2000). *Safety, rescue and support*. Portsmouth, RI: United States Sailing Association.

ISBN: 978-1905104383 Royal Yachting Association. (2007). *Safety boat handbook*. Hamble, Southhampton: RYA.

THE T-RESCUE

The T-rescue is used to remove water from a canoe after the canoe has capsized. The T-rescue can be facilitated by another canoe or a safety boat. Unlike sailboats, which are most stable in a capsized position, canoes are most stable in a swamped position.

The steps to completing the T-rescue using a safety boat are as follows:

If an additional canoe is available and the canoe crews involved are trained in canoe-on-canoe T-rescue, It may be preferable to have the swamped canoe perform a T-rescue with the additional canoe.

1. The safety boat operator approaches the swamped canoe by coming along side parallel to the canoe, providing stability and additional buoyancy.

2. The safety boat operator turns off the safety boat engine once the swamped canoe is secured alongside.

3. The safety boat crew recovers the crew of the swamped canoe into the safety boat using an appropriate recovery method.

A canoe crew member may be required to remain in the water to swim the outboard end of the canoe into a perpendicular position, or to push down on the canoe to break an air seal and raise the inboard end of the canoe.

4. The safety boat crew manoeuvres the swamped canoe into a perpendicular orientation, amidships, to the safety boat.

5. The safety boat crew and any available canoe crew members rotate the canoe sideways, draining water from the cockpit, until the keel is almost directed upward.

Prior to bringing the canoe onboard the safety boat, ensure there is room for all personnel once the full beam of the canoe is onboard and that there are no obstructions to bringing the canoe inboard.

6. The safety boat crew and any available canoe crew members lift on the inboard end of the canoe and place it on the gunwale of the safety boat.

7. The safety boat crew and any available canoe crew members slide the canoe out of the water along the safety boat gunwale then proceed to slide the canoe across the safety boat, resting the canoe on opposite sides of the safety boat's gunwales.

8. The safety boat crew and any available canoe crew members rotate the canoe until the keel is directed downward.

9. The safety boat crew and any available canoe crew members slide the canoe into the water along the safety boat gunwales.

10. The safety boat crew manoeuvres the canoe into a parallel orientation and secures the canoe alongside.

11. The canoe crew enter the canoe from the safety boat.

	If a canoe crew member remained in the water it may be preferable to lower the outboard gunwale of the canoe, by raising the inboard gunwale from the safety boat, while the canoe crew member holds on to the canoe's thwart and is scooped into the canoe.

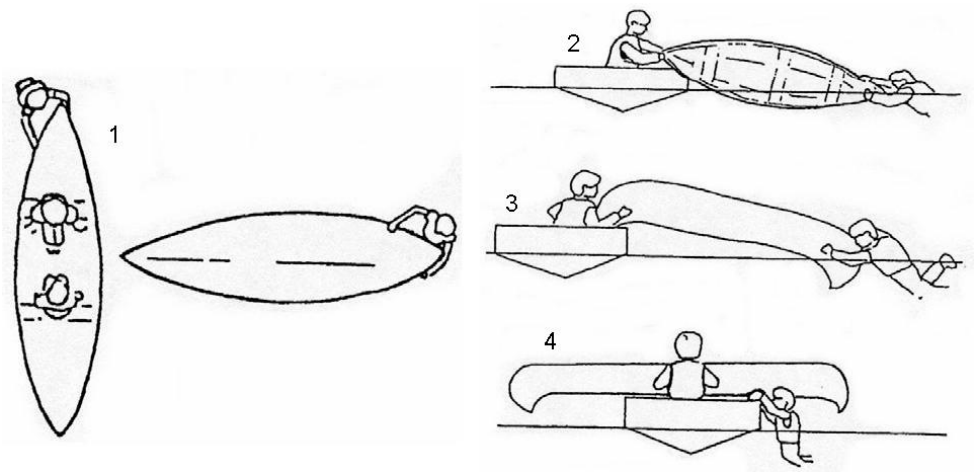

Figure A-1 T-Rescue of a Canoe

SMALL CRAFT OPERATOR PROGRAM

MODULE 4 – POWERBOAT RESCUE

INSTRUCTIONAL GUIDE

SECTION 5

EO 004.05 – PERFORM EMERGENCY SCENE MANAGEMENT

Total Time:	160 min

PREPARATION

PRE-LESSON INSTRUCTIONS

This IG supports EO 004.05 (Perform Emergency Scene Management).

Gather the required resources:

- Fully equipped small craft,
- Safety boat,
- Two buoys with lines and weights, and
- Whistle.

Photocopy Attachment A and B for each student.

The group discussion in TP 1 should take place prior to the start of the SCOP Module 4 course.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

A group discussion was chosen for TP 1 as it allows the students to interact with their peers and share their knowledge, experiences, opinions and feelings about critical decision making.

An interactive lecture was chosen for TP 2 to review basic material and to orient the students to SAP and ESM prior to participating in practical training.

Practical activity was chosen for TP 3 as it is an interactive way to allow the students to review VHF marine radio voice procedure. This activity contributes to the development of skills and knowledge in a fun and challenging setting.

A simulation was chosen for TP 4 as it allows the instructor to explain and demonstrate a response to an on-water situation while providing an opportunity for the students to practice in a safe and controlled environment.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the student shall have participated in a group discussion, reviewed ESM and Module 2 and completed rescue scenarios.

IMPORTANCE

It is important for students to be able to respond to emergencies by performing ESM, first aid and communicate using a VHF radio to fulfill their requirements as a safety boat operator.

Teaching Point 1 **Conduct a group discussion on critical decisions faced by safety boat operators.**

Time: Method: Group Discussion

BACKGROUND KNOWLEDGE

GROUP DISCUSSION

TIPS FOR ANSWERING / FACILITATING DISCUSSION:

- Establish ground rules for discussion, eg, everyone should listen respectfully; don't interrupt; only one person speaks at a time; no one's ideas should be made fun of; you can disagree with ideas but not with the person; try to understand others as much as you hope they understand you; etc.
- Sit the group in a circle, making sure all cadets can be seen by everyone else.
- Ask questions that will provoke thought; in other words avoid questions with yes or no answers.
- Manage time by ensuring the cadets stay on topic.
- Listen and respond in a way that indicates you have heard and understood the cadet. This can be done by paraphrasing their ideas.
- Give the cadets time to respond to your questions.
- Ensure every cadet has an opportunity to participate. One option is to go around the group and have each cadet answer the question with a short answer.

Cadets must also have the option to pass if they wish.

- Additional questions should be prepared ahead of time.

SUGGESTED QUESTIONS

Q1. If a student is in immediate and life threatening danger and no one is available to supervise your class what should you do?

Q2. Do you run the person to shore and leave your class unsupervised?

Q3. What instructions do you give the class?

Other questions and answers will develop throughout the group discussion. The group discussion should not be limited to only those suggested.

Reinforce those answers given and comments made during the group discussion, ensuring the teaching point has been covered.

CONFIRMATION OF TEACHING POINT 1

The cadets' participation in the group discussion will serve as the confirmation of this TP.

Teaching Point 2 **Review Emergency Scene Management.**

Time: 10 min Method: Interactive Lecture

Students have completed Standard First Aid so this TP is a review of material already learned. Check the most recent reference, as provided by the applicable first aid training provider, when preparing for this lesson and make changes as necessary.

EMERGENCY SCENE MANAGEMENT (ESM)

ESM is the sequence of actions a first aider should take at the scene of an emergency to ensure safe and appropriate first aid is given. Following the steps helps the first aider to make rapid and accurate decisions to give the best possible care to the casualty.

ESM has four main steps consisting of various actions to be taken based on the situation. These four steps are:

1. **Scene Survey.** The first aider takes control of the scene, makes the area safe and finds out what happened;

2. **Primary Survey.** The first aider assesses each casualty for life-threatening injuries or illnesses and gives life-saving first aid;

3. **Secondary Survey.** The first aider performs a more thorough check for injuries or illnesses that were not revealed in the primary survey but would benefit from first aid; and

4. **Ongoing Casualty Care.** The first aider stays with the casualty until medical help arrives and takes over.

Scene Survey

During the scene survey, the rescuer makes the area as safe as possible without placing anyone at risk and confirms that first aid is required or desired. The steps to the scene survey are:

1. **Take charge of the situation**. The first aider should act quickly to take charge and call out for help to attract bystanders.

2. **Assess hazards and make the area safe**. Do not enter an area if it cannot be made safe; call Emergency Medical Services (EMS) and wait. If the area is believed to be safe, look around for anything that can be dangerous or hazardous and remove it, or instruct bystanders to do so.

3. **Determine what happened**. Through observation and questioning of the casualty and / or witnesses, determine what happened, how many casualties there are and the mechanism(s) of injury (how and where the injury occurred).

4. **Obtain consent**. The first aider shall identify them self as a first aider and offer the casualty assistance. Ask for consent prior to touching a conscious adult casualty and ask for consent from a guardian before touching a child. Consent is implied with an unconscious adult casualty.

5. **Assess responsiveness**. Note casualty responsiveness when obtaining consent.

6. **Call for medical help (eg, 911)**. Have a bystander call EMS. Give the person clear instructions on what to say providing as much information about the situation as possible and to report back once the call has been made.

Primary Survey

The primary survey is the first step in assessing the casualty for life-threatening conditions and giving life-saving first aid. In the primary survey the first aider checks for the priorities of first aid; Airway, Breathing and Circulation (ABCs). The sequential steps of the primary survey should be performed with the casualty in the position found unless it is impossible to do so. If there is more than one casualty, a primary survey is performed for each casualty and only life-saving first aid is given. First aid for life-threatening conditions is given as they’re found while checking the ABCs.

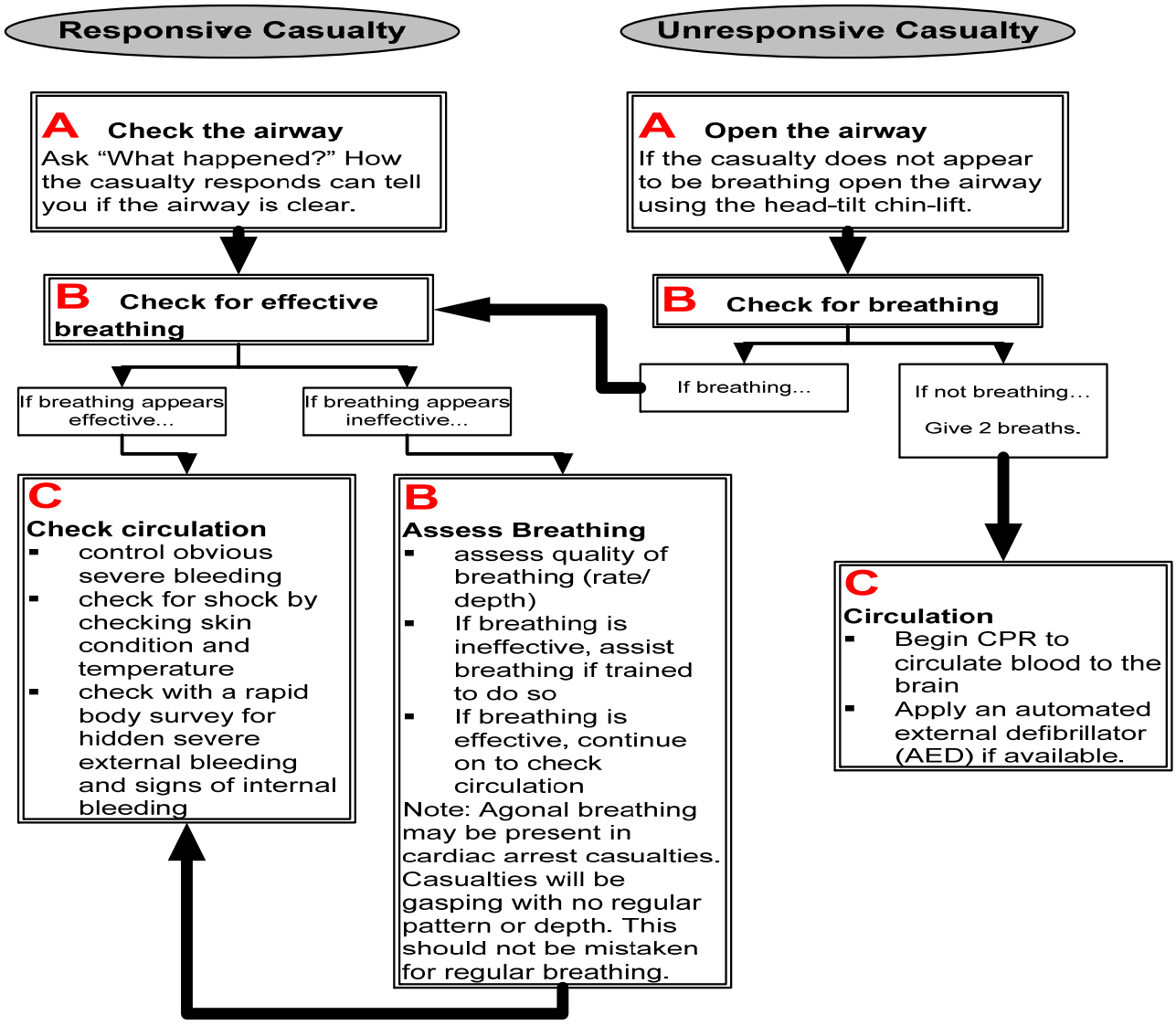

Figure 1 Primary Survey

Secondary Survey

A secondary survey is performed if EMS will be delayed more than 20 min, if the casualty must be transported or if the casualty has more than one injury. The secondary survey is a step-by-step way of gathering information to form a complete picture of the condition of the casualty. At this stage, the first aider is looking for injuries and illnesses that were not revealed during the primary survey but could benefit from first aid. The steps to performing the secondary survey are:

1. **Acquire a history of the casualty**. Ask questions if the casualty is conscious and/or witnesses/ bystanders to determine any relevant history.

Things to ask about:

S symptoms,
A allergies,
M medications,
P past and present medical conditions,
L last meal, and
E events leading up to the incident.

2. **Assess vital signs**. The following vital signs show the basic condition of the casualty:

   a. level of consciousness,
   b. breathing,
   c. pulse, and
   d. skin temperature.

3. **Perform a head-to-toe examination**.

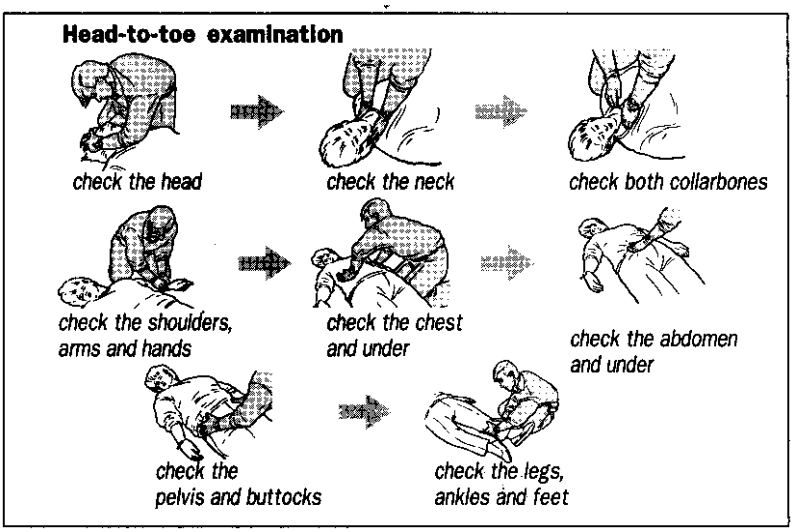

Figure 2 Head-to-Toe Examination

Note. From *Military first aid, Safety oriented, Basic and standard levels* (p. 1-14), by St. Jon Ambulance, 2006, Ottawa, ON.

4. **Give first aid for injuries and illnesses found**. The first aider treats the casualty for any injuries or illnesses found.

Ongoing Casualty Care

Once the first aid for non-life-threatening injuries and illnesses is given, one of three things happens:

- The first aider hands over control to the casualty, or someone else and ends their involvement in the emergency;
- The first aider stays in control of the scene and waits for medical help to arrive and take over; or
- The first aider transports the casualty to medical help.

When the first aider stays in control of the scene, they continue to provide first aid. It is the responsibility of the first aider to maintain the casualty in the best possible condition until medical help arrives. The first aider continues to give first aid by:

- giving first aid for shock, by:
    - reassuring the casualty;
    - loosening tight clothing;
    - placing the casualty in the best position for the condition; and
    - covering the casualty to preserve body heat;
- monitoring the casualty's condition and checking ABCs often;
- recording the events of the situation and protecting the casualty's belongings; and
- reporting to whoever takes over what happened, what kind of injuries are involved and what first aid was given.

CONFIRMATION OF TEACHING POINT 2

QUESTIONS:

Q1. What are the four steps of ESM?

Q2. During the primary survey, what is the first aider checking?

Q3. When is a secondary survey required?

ANTICIPATED ANSWERS:

A1. Scene survey, primary survey, secondary survey and ongoing casualty care.

A2. Airway, breathing and circulation (ABCs).

A3. A secondary survey is required if:

- EMS will be delayed more than 20 min
- there is a requirement to transport the casualty, or
- the casualty has more than one injury.

Teaching Point 3 **Review SCOP Module 2.**

Time: 25 min Method: Practical Activity

ACTIVITY

1. Divide the students into pairs.
2. Have each pair practice making radio calls.

Teaching Point 4 **Have the students complete a scenario.**

Time: 120 min Method: Simulation

The following scenarios are for students who are providing rescue for dinghy sailboats. Adapt for canoe rescue.

Have the students complete a scenario, to include:

a. using the principles of SAP and ESM;
b. communicating relevant information to a land-based station using VHF marine voice procedure;
c. performing basic first aid; and
d. coordinating emergency response for causalities.

CONFIRMATION OF TEACHING POINT 4

The students' participation in the simulations will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The students' participation in the simulations will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

This EO is assessed IAW Chapter 3.

CLOSING STATEMENT

As a safety boat operator, the ability to respond correctly to a first aid requirement is essential in order to satisfy a duty of care. Due to the inherent environmental risk associated with on-water instruction, a safety boat operator must be able to perform ESM, first aid for cardiovascular emergencies and one-rescuer CPR (adult).

INSTRUCTOR NOTES / REMARKS

The instructor should use the most up-to-date reference, as provided by the applicable first aid training provider, when preparing for this lesson.

REFERENCES

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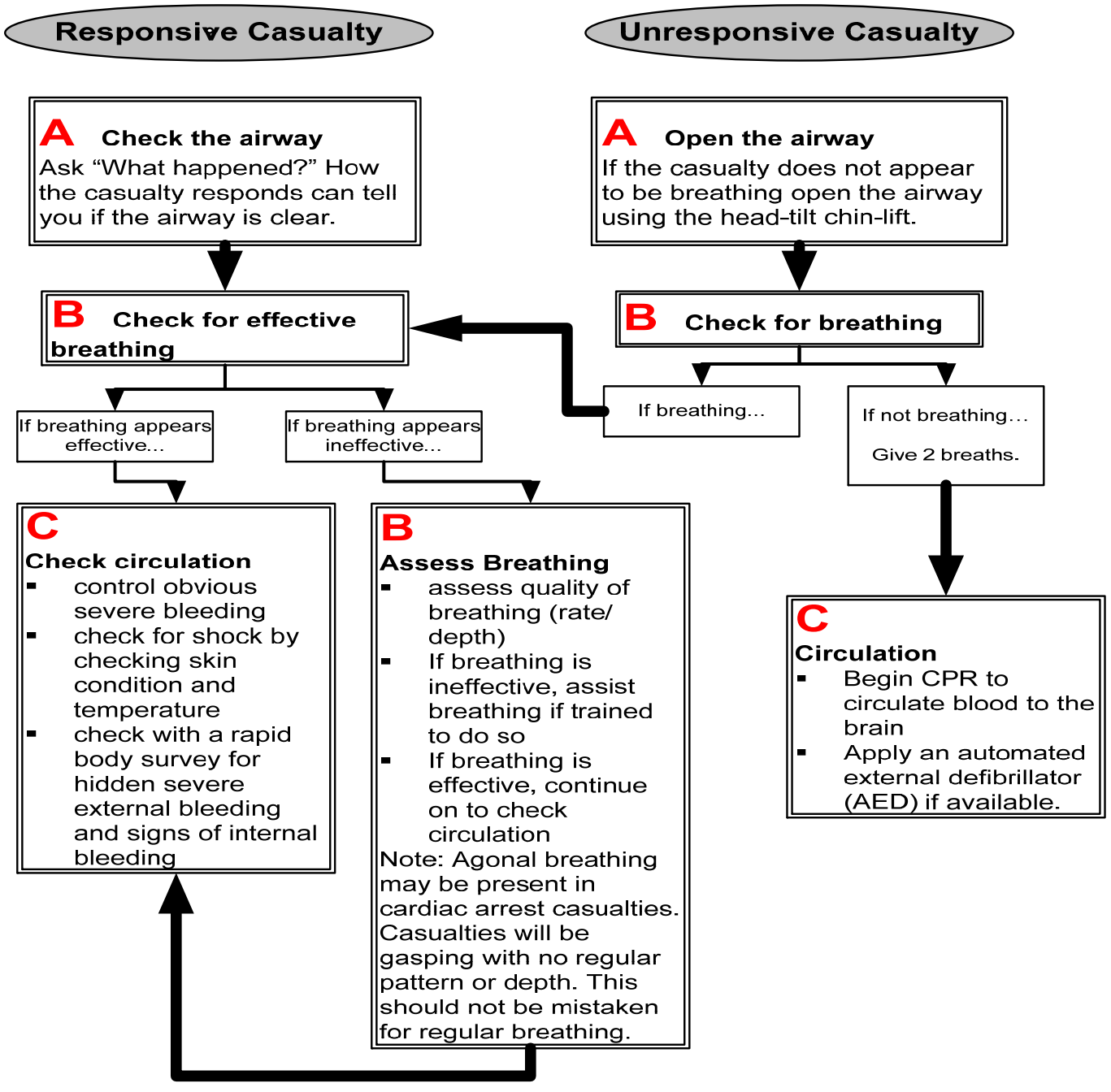
PRIMARY SURVEY



VHF MARINE RADIO - COMMON PHRASES	
WORD	**PHRASE MEANING**
ACKNOWLEDGE	Let me know that you have received and understood this message.
AFFIRMATIVE	Yes, or permission granted.
BREAK	To indicate the separation between portions of the message. (To be used where there is no clear distinction between the text and other portions of the message.)
CHANNEL	Change to channel ..... before proceeding.
CONFIRM	My version is _____. Is that correct?
CORRECTION	An error has been made in this transmission (message indicated). The correct version is _____.
GO AHEAD	Proceed with your message.
HOW DO YOU READ?	How well do you receive me?
I SAY AGAIN	Self-explanatory (use instead of “I repeat”).
MAYDAY	The spoken word for the distress signal.
MAYDAY RELAY	Is the spoken word for the distress relay signal.

VHF MARINE RADIO - COMMON PHRASES (CONT 1)	
WORD	**PHRASE MEANING**
NEGATIVE	No, or that is not correct, or I do not agree.
OVER	My transmission is ended and I expect a response from you.
OUT	Conversation is ended and no response is expected.
PAN PAN	The spoken word for the urgency signal.
PRUDONCE	During long distress situations, communications can resume on a restricted basis. Communication is to be restricted to ship's business or messages of a higher priority.
READBACK	Repeat all of this message back to me exactly as received after I have given OVER. (Do not use the word “repeat”.)
ROGER	I have received all of your last transmission.
ROGER NUMBER	I have received your message number ...
STANDBY	I must pause for a few seconds or minutes, please wait.
SAY AGAIN	Self-explanatory. (Do not use the word “repeat”.)
SÉCURITÉ	Is the spoken word for the safety signal.

VHF MARINE RADIO - COMMON PHRASES (CONT 2)	
WORD	**PHRASE MEANING**
SEELONCE	Indicates that silence has been imposed on the frequency due to a distress situation.
SEELONCE DISTRESS	Is the international expression to advise that a distress situation is in progress. This command comes from a vessel or coast station other than the station in distress.
SEELONCE FEENEE	Is the international expression for distress cancellation
SEELONCE MAYDAY	Is the international expression to advise that a distress sit is in prog. The command comes from the ship in distress.
THAT IS CORRECT	Self-explanatory.
VERIFY	Check coding & text with originator & send correct version.
WORDS TWICE	a) As a request: Communication is difficult, please send each word twice. (b) As information: Since communication is difficult, I will send each word twice.

PHONETIC ALPHABET					
	SYMBOL	**SOUND**		**SYMBOL**	**SOUND**
A	ALPHA	AL-FAH	**N**	NOVEMBER	NO-VÈM-BER
B	BRAVO	BRAH-VOH	**O**	OSCAR	OSS-CAR
C	CHARLIE	CHAR-LEE	**P**	PAPA	PAH-PAH
D	DELTA	DELL-TAH	**Q**	QUEBEC	KÉH-BECK
E	ECHO	ECK-OH	**R**	ROMEO	ROW-ME-OH
F	FOXTROT	FOKS-TROT	**S**	SIERRA	SEE-AIR-RAH
G	GOLF	GOLF	**T**	TANGO	TANG-GO
H	HOTEL	HOH-TÈLL	**U**	UNIFORM	YOU-NEE-FORM
I	INDIA	IN-DEE-AH	**V**	VICTOR	VIK-TAR
J	JULIETT	JEW-LEE-ÈTT	**W**	WHISKEY	WISS-KEY
K	KILO	KEY-LOH	**X**	X-RAY	ECKS-RAY
L	LIMA	LEE-MAH	**Y**	YANKEE	YANG-KEY
M	MIKE	MÏ-KE	**Z**	ZULU	ZOO-LOO

DIGITAL SELECTIVE CALLING (DSC)

DISTRESS Call

- MAYDAY, MAYDAY, MAYDAY
- This is
- Wave Skimmer, Wave Skimmer, Wave Skimmer
- MAYDAY
- Wave Skimmer
- Position two miles south of Black Island
- Have struck a log and taking on water. Engine seized
- Two seven foot Bayliner, white with orange strip
- Three people on board, one injured
- Preparing to abandon ship with lifejackets, but no dinghy
- Wave Skimmer
- Over

URGENCY Call (All Stations)

PAN PAN, PAN PAN, PAN PAN
ALL STATIONS ALL STATIONS ALL STATIONS
This is (the vessel call sign or MMSI) followed by the Urgency message.

SAFETY Call (All Stations)

SECURITÉ, SECURITÉ, SECURITÉ
ALL STATIONS ALL STATIONS ALL STATIONS
This is (the vessel call sign or MMSI) followed by the SAFET Y message.

ANNEX A
INSTRUCTIONAL METHODOLOGIES AND THEIR APPLICATIONS

The various methods of instruction commonly accepted as appropriate for cadet training is outlined below.

METHOD	DEVELOPMENTAL PERIOD ONE AGES 12 – 14 EXPERIENCE-BASED	DEVELOPMENTAL PERIOD TWO AGES 15 – 16 DEVELOPMENTAL	DEVELOPMENTAL PERIOD THREE AGES 17 – 18 COMPETENCY
Case Study	Not applicable	Applicable	Applicable
Demonstration and Performance	Applicable	Applicable	Applicable
Experiential Learning	Applicable	Applicable	Applicable
Field Trip	Applicable	Applicable	Applicable
Game	Applicable	Applicable	Applicable
Group Discussion	Applicable	Applicable	Applicable
Guided Discussion	Not applicable	Not applicable	Applicable
In-class Activity	Applicable	Applicable	Applicable
Interactive Lecture	Applicable	Applicable	Applicable
Lecture	Applicable	Applicable	Applicable
On-the job Training (OJT)	Not applicable	Not applicable	Applicable
Peer Learning	Not applicable	Not applicable	Applicable
Practical Activity	Applicable	Applicable	Applicable
Role Play	Not applicable	Applicable	Applicable
Self-Study	Not applicable	Not applicable	Applicable
Simulation	Not applicable	Not applicable	Applicable
Tutorial	Not applicable	Not applicable	Applicable

ANNEX A
INSTRUCTIONAL METHODOLOGIES AND THEIR APPLICATIONS

General information follows on each method for its age-appropriateness, definition, application, advantages and disadvantages.

METHOD(S)	APPLICATIONS	ADVANTAGES	DISADVANTAGES
DEMONSTRATION AND PERFORMANCE Cadets observe the instructor performing the task in a demonstration, and rehearse it under the supervision of the instructor.			
Demonstration Method A method of instruction where the instructor, by actually performing an operation or doing a job, shows the cadet what to do, how to do it and through explanations brings out why, where and when it is done.	**Demonstration Method** 1. To teach hands-on operations or procedures. 2. To teach troubleshooting. 3. To illustrate principles. 4. To teach operation or functioning of equipment. 5. To set standards of workmanship. 6. To teach safety procedures.	**Demonstration Method** 1. Minimizes damage and waste. 2. Saves time. 3. Can be presented to large groups.	**Demonstration Method** 1. Requires careful preparation and rehearsal. 2. Requires special classroom arrangements. 3. Requires equipment and aids.
Performance Method A method in which the cadet is required to perform, under controlled conditions, the operations, skill or movement being taught.	**Performance Method** 1. To teach hands-on operations or procedures. 2. To teach operations or functioning of equipment. 3. To teach team skills. 4. To teach safety procedures.	**Performance Method** 1. Builds confidence. 2. Enables learning evaluation. 3. Reduces damage and waste. 4. Promotes safety.	**Performance Method** 1. Requires tools and equipment. 2. Requires large blocks of time. 3. Requires more instructors.

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INSTRUCTIONAL METHODOLOGIES AND THEIR APPLICATIONS

METHOD(S)	APPLICATIONS	ADVANTAGES	DISADVANTAGES
EXPERIENTIAL LEARNING Learning in the cadet program is centred on experiential learning. This involves learning knowledge and skills from direct experience. People learn best from their own experiences and can then apply the knowledge and skills in new situations. The four stages of the cycle may be considered and applied to all activities within the Cadet Program, regardless of methodology chosen. **Stage 1: Concrete Experience:** Cadets have an experience and take time to identify and define what the experience is. Sample activities: direct observations, simulations, field trips, and reading. **Stage 2: Reflective Observation:** Cadets need to reflect on and examine what they saw, felt and thought while they were having the experience. Sample activities: discussion, journals / logs, and graphs. **Stage 3: Abstract Conceptualization:** Cadets work to understand and make connections from the experience to new or different situations. Sample activities: interview, discussion, model building, analogies and planning. **Stage 4: Active Experimentation:** Cadets look ahead to and plan the application of skills and knowledge acquired to future experience.	1. To teach practical skills. 2. To learn how to learn. 3. To teach transferable skills. 4. To teach a process or principle. 5. To teach problem solving.	1. Knowledge is shared and created by collectively by all participants. 2. Everyone is actively involved in the teaching – learning process. 3. Appeals to many learning styles. 4. Student centred.	1. Resource intensive. 2. Requires significant planning, preparation and organization prior to activity. 3. The instructor must master the subject developed. 4. Instructor needs very good pedagogical skills. 5. May not be a good process for learning details. 6. The instructor must be a good facilitator to carry out an effective reflective session in stage 2 &3 of this method.

ANNEX A
INSTRUCTIONAL METHODOLOGIES AND THEIR APPLICATIONS

METHOD(S)	APPLICATIONS	ADVANTAGES	DISADVANTAGES
Sample activities include: simulation, fieldwork. Note: The cycle is ongoing as each learning experience builds on another.			
FIELD TRIP Theoretical knowledge is reinforced through participation in an activity in a real-life setting. Prior planning helps to ensure all pre-training and safety standards are met. Field trip activities are planned and carried out to achieve clear instructional objectives that are understood by the cadets. Examples can include trips to areas of local interest, flying / gliding, hiking or sailing.	To introduce / illustrate and confirm topics. To allow for familiarization activities.	Immerses cadets in a specific environment.	May require additional staff to ensure adequate supervision. Requires significant planning, preparation and organization prior to activity. May have cost implications.
GAME Games are used with one or more participants to practice skills, apply strategies and enhance teams. It is critical that the game supports learning through the provision of a challenging activity that allows for the skill practice or knowledge confirmation.	1. To introduce a topic. 2. To discover concepts and principles. 3. To review and confirm.	1. Fun and interesting. 2. Creates ownership. 3. Highly participative.	1. May stratify the group by creating a winner and a loser. 2. May be difficult in providing instructor feedback.
GROUP DISCUSSION Cadets discuss issues, share knowledge, opinions and feelings about a topic in small groups to meet a specified goal. The instructor's questioning is flexible and minimal, and aims at encouraging cadets to explore their own experiences and opinions	1. To develop imaginative solutions to problems. 2. To stimulate thinking and interest and to secure cadet participation. 3. To emphasize main teaching points. 4. To supplement lectures and seminars.	1. Increases cadet interest. 2. Increases cadet acceptance and commitment. 3. Utilizes cadet knowledge and experience. 4. Results in more permanent learning because of the high degree of cadet participation / cognitive	1. Requires highly skilled instructors. 2. Time consuming. 3. Restricts size of group. 4. Requires selective group composition.

ANNEX A
INSTRUCTIONAL METHODOLOGIES AND THEIR APPLICATIONS

METHOD(S)	APPLICATIONS	ADVANTAGES	DISADVANTAGES
through peer interaction.	5. To determine how well cadets understand the concepts and principles. 6. To prepare cadets for application of theory or procedure. 7. To summarize, clarify points or review. 8. To prepare cadets for instruction that will follow. 9. To determine cadet progress and effectiveness of prior instruction.	involvement.	
IN-CLASS ACTIVITY In-class activities encompass a wide variety of activity-based learning opportunities that can be used to reinforce instructional topics or to introduce cadets to new experiences. In-class activities should provoke thought and stimulate interest among cadets, while maintaining relevance to the performance objectives.	1. To reinforce instructional topics. 2. To orient cadets to the subject. 3. To give direction on procedures. 4. To illustrate the application of rules, principles or concepts. 5. To review, clarify, and / or summarize.	Provokes thought and stimulates interest among cadets. Appeals to kinaesthetic learners.	1. Difficult to gauge cadet reaction. 2. Takes time to prepare.
INTERACTIVE LECTURE The instructor-driven methodology combines both lecture and interaction to meet lesson objectives. Lecture portions of the lesson are offset with relevant activities such as videos with discussion, games to confirm and completion of handouts.	1. To orient cadets to the subject. 2. To give instruction on procedures. 3. To illustrate the application of rules, principles or concepts. 4. To review, clarify, and / or summarize.	1. Saves time. 2. Permits flexibility of class size. 3. Requires less rigid space requirements. 4. Permits better control over content and sequence.	Difficult to gauge cadet reaction.
LECTURE This is a formal or semi-formal discourse in which the instructor presents a series of events, facts,	1. To orient cadets to the subject. 2. To give instruction on procedures. 3. To illustrate the	1. Proficient oral skills are required. 2. Useful for big groups. 3. Saves time because of fewer interruptions.	1. Requires preparation and a dynamic lecturer. 2. Cadets may be passive and uninvolved.

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INSTRUCTIONAL METHODOLOGIES AND THEIR APPLICATIONS

METHOD(S)	APPLICATIONS	ADVANTAGES	DISADVANTAGES
principles, explores a problem or explains relationships.	application of rules, principles or concepts. 4. To review, clarify, and / or summarize.		
PRACTICAL ACTIVITY Practical activities encompass a wide variety of activity-based learning opportunities that can be used to reinforce and practice instructional topics or to introduce cadets to new experiences. Practical activities should stimulate interest among cadets and encourage their participation, while maintaining relevance to the performance objectives.	1. To introduce a subject. 2. To practice skills. 3. To review and / or reinforce.	1. Encourages participation. 2. Stimulates an interest in the subject. 3. Fun and interesting. 4. Creates ownership.	1. Requires significant planning, preparation and organization. 2. May require additional staff to ensure adequate supervision.