# **BOAT INTERVENTION**

Lesson plan





# **Boat Intervention**

# Introduction

The Lifesaving Society is an expert authority recognized as reference center to establish standards on drowning and water related trauma prevention.

The Boat Intervention course is intended for those working on or near water who need to respond to emergencies with the use of a craft. This course aims at acquiring a competency, which is the ability to use skills and knowledge and to make safe choices to quickly approach and retrieve a worker in distress in open water in order to transport him/her to a safe place and provide first aid, if necessary.

More specifically, the Boat Intervention course aims at developing the candidate's skills and knowledge regarding the use of a craft and basic lifesaving techniques. This course is suited to candidates' work environment and develops on the one hand an understanding of navigation and lifesaving principles, and on the other hand a variety of skills to approach and retrieve a victim on board. The course facilitates the decision making process in order to choose adequate techniques according to the situation and the environment.

## Overview

The Boat Intervention course is recognized by the Safety Code for the construction industry and more specifically by the regulation about work carried out above or near water. The course includes practical activities on the water with a rescue craft.

# Target clientele

 Any worker responsible for responding in lifesaving situation or responsible for the lifesaving organization plan on a construction site on or near water.

## Time required

One day (7 hours)

#### **Prerequisite**

- Pleasure Craft Operator Card
- Experience in motorized craft driving\*
- Preventionnist in waterfront areas course (strongly recommended)

#### Ratio

1 trainer by craft for 6 candidates or according to the craft capacity.

## Validity

3 years

<sup>\*</sup> The boat driving manoeuvres part is not included in the Boat Intervention course. This part needs to be taught and verified outside the scheduled class hours. It takes about four hours to be taught, depending on the candidates initial competences.

Objectives and standards

Objectives and standards	
Competency statement	Context of achievement
To use a craft to respond to an emergency occurring on a body of water where there is a construction site	<ul> <li>Practical activities, role play, simulations and feedback</li> <li>Practice on a rescue craft with material required by Transport Canada and appropriate lifesaving equipment</li> <li>Practice on an appropriate body of water where motor-boating is permitted</li> <li>Reference documents created by the Lifesaving Society</li> </ul>
Competency components	Performance criteria
To explain the various regulations about the use of a boat	<ul> <li>Appropriate reference to the various regulations made under the Canada Shipping Act</li> <li>Reference to the Act respecting occupational health and safety and the Safety Code for the construction industry</li> <li>Effective use of reference materials</li> </ul>
To recognize boat features	<ul> <li>Recognition of various types of boat (rigid hull, inflatable, etc.)</li> <li>Use of terms specific to boats</li> </ul>
To prepare a rescue craft ready in order to respond to an emergency	<ul> <li>Appropriate choice of the craft type to use according to the conditions and the body of water</li> <li>Utilization of a check list to verify the craft, motor and lifesaving and navigation equipment condition</li> <li>Proper disposal of lifesaving equipment inside the craft</li> <li>Appropriate use of terms specific to lifesaving equipment</li> </ul>
To use established emergency procedures to respond to an emergency on water	<ul> <li>Compliance with procedures during simulated intervention</li> <li>Adequate communication during emergencies</li> <li>Wearing of mandatory personal protective equipment at all time (e.g. PFD)</li> </ul>
To sail and approach a person overboard	<ul> <li>Control of the craft speed and direction in order to approach a person overboard</li> <li>Safe approach of the victim with the craft</li> <li>Use of manoeuvring techniques to approach the person overboard</li> <li>Adequate communication between rescuers on board</li> </ul>
To intervene by craft with a person in distress in a river	<ul> <li>Respect of ladder approach to reduce risks as much as possible</li> <li>Adequate choice and use of lifesaving equipment according to the situation (rope bag, boat hook, ring buoy, etc.)</li> <li>Safe and proper manoeuvres of victim recovery depending on its condition and the available equipment</li> <li>Ongoing adaptation according to the evolution of the situation</li> <li>Appropriate care to the victim once on board</li> </ul>

# Training content

# Laws and regulations

Theoretical notions about requirements arising from the various regulations under the Canada Shipping Act (Transport Canada):

- Small Vessel Regulations
- Collision Regulations
- Vessel Operation Restriction Regulations
- Competency of Operators of Pleasure Craft Regulations

# **Boat features**

Theoretical notions about boat types and features:

- Terms specific to boats
- Features of rigid hull and inflatable boats
- Natural and human-induced dangers that can be faced on the different bodies of water
- Ice related dangers
- Precautions to take to avoid a fall into the water

# Safety and lifesaving equipment

Theoretical notions about the use and features of the equipment required to operate a rescue craft and to recover a person over board:

- Individual protective equipment:
  - Life jacket
  - Personal flotation device,
  - Hypothermia protective garment
- Rescue equipment:
  - Throw bag
  - Reaching pole
  - Reboarding device
  - Ring buoy
- Mandatory boat safety equipment:
  - Based upon the boat length, refer to the Safe Boating Guide
  - Additional mandatory equipment for commercial boats
  - Responders' proof of competency

# Boat preparation

Theoretical notions about the check list to go through before using a rescue craft:

- Check list:
  - Trailer verification (if applicable)
  - Verification of the craft general condition
  - Engine or propulsion system verification
  - Verification of mandatory navigation equipment
  - Verification of lifesaving equipment
- Equipment layout:
  - Mandatory navigation equipment
  - Lifesaving equipment
  - Responders' personal equipment
- Verification pre-departure on water:
  - Weather conditions
  - Conditions on the water
  - Functional communication system
  - Nautical chart (if available) and destination.

# Boat operation and person overboard approach

Theoretical notions and practice of person overboard approach techniques:

- Boat driving manoeuvres\*:
  - Launching
  - Starting
  - On board communication rules
  - Berthing, mooring, casting off and collision
  - Basic manoeuvres (forward gear and reverse gear, turns, 180°, 360°, etc.)
  - Obstacle avoidance
- Person overboard approach techniques:
  - Identification and localisation
  - Communication between responders
  - Ladder approach
  - Person overboard approach manoeuvres
  - Recovering technique and care to the victim

<sup>\*</sup> The boat driving manoeuvres part is not included in the Boat Intervention course. This part needs to be taught and verified outside the scheduled class hours. It takes about four hours to be taught, depending on the candidates initial competences.

# Emergency boat intervention

Theoretical notions about implementation of rescue plan:

- Use of lifesaving equipment:
  - Ring buoy, reaching pole and throw bag
- Emergency procedures:
  - Rescue plans
  - Emergency calling code to initiate rescue operations
  - Location of first aid stations and lifesaving equipment and number of rescue crafts
  - Procedures for different types of emergencies (conscious or unconscious injured worker)
  - Communication with the victim, responders and emergency services
  - Victim carrying to the first aid station

# Reference Material

Boat Rescue for First Responders, Candidate Manual, Lifesaving Society, 1997, 90 pages.

Swiftwater Rescue, Lifesaving Society and Fédération québécoise du canot et du kayak, 2007, 118 pages.

BOAT Study Guide, Ninth Printing, Lifesaving Society, 2011, 74 pages.

#### Websites

Cold Water Boot Camp

[On line], [www.coldwaterbootcamp.com/french/] (accessed May 27, 2013)