


Strathcona County Emergency Services				
	Level	SOP#		ICE RESCUE TRAINING MANUAL
	YELLOW	274A		
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Reference	This Appendix is attached to SOP 274 Ice Rescue			



Ice Rescue Training Manual

Ice Rescue

Strathcona County Emergency Services Water Rescue Team (WRT) has developed a department training package for ice rescue. This package includes a training manual, an Ice Rescue Standard Operating Policy (SOP), a training PowerPoint, and skills JPRs. To-date, department JPRs include donning/doffing Ice Commander suits and inflation of a rapid deployment craft (RDC).

The Ice Rescue SOP was created for increased safety of all members and is broken down into three categories:

- 1 - Awareness level (part-time suppression members)
- 2 - Operational level (full-time suppression members)
- 3 - Technical level (WRT)

Learning Objectives

The firefighter shall be able to:

- don, doff, and properly package an Ice Commander suit
- inflate an RDC as well as clean and package after use
- identify when the use of the RDC is necessary and when it is not
- perform an ice rescue with and without an RDC (suppression staff)
- list items the rescuer will bring to the victim in static water when using the RDC
- understand that ice over moving water is absolutely outside the scope of practice for Awareness and Operational level staff

SCES and Ice Rescue

Benefits of Ice Rescue Training

Annual training increases the safety of our personnel, the potential of a successful rescue and benefits the citizens of our community. The public sees the training which gives them confidence in our service and boosts our image.

Ice Responses and the Rescue Ladder

Bronze Cross training as well as most forms of swift and moving water training, (SCES Water Rescue Awareness) teaches a rescue ladder including "Self-rescue, Reach, Throw, Row, Tow, Go". Ice rescue evolutions are the exception to this rule. When SCES performs an ice rescue, it is almost always moved immediately to "Go". The time it takes to talk the victim into a self-rescue, or to reach and throw, the Ice Commander suit could be put on and be in response mode. A victim who has been hanging off an ice shelf might have their arms stuck to the ice. When performing a "Self Rescue, Reach, Throw" technique, the victim can become unstable and dislodged, or be pushed off the ice and into the water. Therefore, most often, an immediate move to a "Go" rescue is by far the most efficient and effective.

Initial Action Plan

The officer is to liaison with water team members to assist command in the planning role. Use the following existing officer operational checklists:

- Water incident safety officer checklist
- Water incident witness interview
- Water incident initial actions
- Water incident hazard information – open water/ice rescue

Laminated checklists will be in the airboat as well as with the ice rescue bags.

Incident Arrival and Safety

Initial actions should include developing an operational plan, initiate incident command, deploy WRT, and establish hot, warm, and cold zones.

Use the SANE approach

S - Simple, step-by-step approach

A - Always have adequate back-up

N - Never take chances

E - Eliminate the “beat the ice” attitude

You are there because the ice is unsafe...

Don't become another victim!

The following applies to personal protective equipment (PPE) and hot/warm/cold zones to be established by Incident Command:

- Hot zone – any area in and/or over water; all PPE required including thermal, flotation (PFD or Ice Commander suit), helmet and gloves
- Warm zone – any area that has potential for any rescuer to come into contact with water or over water; all PPE required
- Cold zone – any area away from warm zone that carries no risk of entering or coming into contact with or over water

The Water Incident Safety Officer Checklist is located in the N drive in the Operations Portfolio.

Officers and fire fighters need to be aware of the difference between rescues on moving water vs static water. Historically, ice rescue training did not differentiate between ice rescues in static and those over moving water. An ice rescue over moving water is a very dangerous situation and requires a different approach and strategy than static water as well as additional training and equipment. **The main purpose of the ice rescue SOP is to ensure that no suppression staff (operational level) or part-time staff (awareness level) attempt to affect a rescue in moving water and/or on a river.**

Static water ice rescue is relatively low risk and very low frequency. It is of utmost importance that our approach to ice rescue be kept as simple as possible.

Awareness Level Ice Rescue (static water, shore line rescues)

- part-time members do not have RDCs so are limited by the length of the tether (100 meters)
- When possible, two rescuers will don Ice Commander suits at the station prior to responding; on scene it is mandatory that two personnel have donned Ice Commander suits to perform a rescue - this ensures a back-up rescuer is available to assist the first-in rescuer should it be required.

Operational Level Ice Rescue (static water, shore melt, and mid-lake rescues)

- water between the victim and the rescue personnel
- where the victim is a greater distance from shore (greater than 100 meters) or the length of the tether

In both situations the distance between the victim and the rescuer is too large to remain tethered to shore. An RDC must be inflated/deployed with two rescue members wearing Ice Commander suits.

Basic Guidelines

- activate and page WRT as early as possible (if not done by dispatch)
- use the RDC to approach the victim; secure and stabilize the victim in the RDC
- never leave your RDC
- bring paddles and a radio
- bring a personal flotation device (PFD) for the victim
- WRT can assist and help if needed

The above are only suggestions. Do not hesitate to say NO if you are not comfortable in the situation.

Technician Level Ice Rescue (moving water)

- stay on shore as this is a very dangerous situation (Operational and Awareness)
- inflate RDC if available and wait for WRT
- set up an up-stream lookout with a radio
- set up a down-stream safety with throw bags

Ice Rescue Process

Ice rescues, and any rescue involving water, is an ongoing evaluation; a dynamic process that is not static.

Evaluate the scene condition, paying particular attention to environmental factors. This includes, but is not limited to, time of day, temperature, and wind. These factors can be mitigated with lighting and proper PPE. SCES has a heated shelter that can be utilized for extended operations.

Establish victim contact immediately! Locate and assess the condition of the victim as much as possible from shore. Assess the victim's ability to respond and other possible injuries and

decide what needs to be done to prevent further injury. The victim might be stuck to the ice and may or may not be unconscious. If they are conscious, tell them to remain still. Maintain communication with the victim and assign one member to focus on the victim. Make contact with bystanders and try to determine the time of the incident.

The Water Incident Witness Interview form is located in the N drive in the Operations Portfolio.

Factors affecting survivability

- age
- submersion time
- water temperature
- water quality
- victim struggle
- injuries
- available ALS

Shore based rescue - step by step instructions

- two members don Ice Commander suit preferably at Station before responding
- one member on-scene small carabineer to harness assembly on Ice Commander suit
- holding big carabineer in dominant hand and distal end of sling in non-dominant hand, approach victim
- when necessary, stay low to the ice and try to distribute weight evenly, crawl if necessary
- give a wide berth and access the water from behind the victim
- using both arms, hug victim from behind attaching sling under arms clipping large carabineer to sling, tension sling as much as possible
- reach under victim and pull his/her lower body out from under ice encouraging victim to lean forward onto ice shelf and kick legs. This decreases resistance when the shore based team pulls on the tether and will decrease the strength of restriction applied from the sling to the victim's chest
- rescuer pats his head to indicate he is ready for the shore team to pull himself and the victim out of the water
- all members of the shore team (the members pulling the rope) must slowly pull victim and rescuer onto ice maintaining eye contact with rescuer; use minimal pulling pressure to get victim and rescuer onto hard ice

Mid lake / shore melt rescue - step by step instructions

- two rescuers don Ice Commander Suits (as per Ice Commander JPR) preferably at the Station before responding
- on-scene it is determined if the distance from shore is too far to be reached with the tether
- inflate RDC as per JPR
- two members respond to victim with a radio, two paddles and a PFD for the victim
- both rescuers must be in contact with the RDC at all times and can either walk at the side of the RDC, in front and behind the RDC or in the bow and stern holes. If there is open water between the victim and rescuers, they will have to paddle.
- upon arrival to the victim, the bow rescuer will kneel on the front floor of the RDC while the stern rescuer pushes the RDC to the victim so that the victim is in the front hole - be careful not to push the victim off the ice shelf
- the stern rescuer holds down the back of the RDC either standing at the back of the RDC or in the stern hole
- the bow rescuer grabs the victim from under both arms and pulls the victim up and back onto himself
- the stern rescuer pulls the RDC back onto hard ice

NOTE: There will not always be hard ice to work on. The focus is to get the victim safely onto the RDC with a PFD. If the RDC rescue team is having difficulty getting off the ice, WRT should have already been initiated and be enroute.

CONCLUSION

Ice rescue in Strathcona County is at a very low frequency; however these calls do and have occurred. For this reason, it is of utmost importance that our approach to ice rescue is kept as simple as possible. **Moving water/river ice rescue is very dangerous and is not in scope for suppression staff and part-time staff.** If you do not feel comfortable you can say NO. There will (inevitably) be emergency situations which are abnormal and may not be discussed in this manual. Reflect on the ice rescue process and operational guidelines to help determine a risk benefit analysis to your rescue operation.

Date	No.	Change	References