

# *SOLO SWIMS OF ONTARIO*

**REGULATIONS**

**AND**

**INFORMATION**

Revision 8  
**26 January 2010**

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# 1. REVISION HISTORY

Date	Changes
29 Apr 2005	New release
13 Jun 2006 Rev 02	<ul style="list-style-type: none"> <li>• Added Revision History and renumbered the sections.</li> <li>• Added changes to reflect SSO may or may not have equipment for rental.</li> <li>• Equipment list in Section 5. Added “safety equipment, as required by the coast guard”.</li> <li>• Removed reference to the Toronto-Rochester hydrofoil which no longer exists.</li> <li>• Updated the list of contacts for Public Relations, adding e-mail and FAX numbers where possible.</li> <li>• Added new Appendix 2 related to Registration and Insurance. Other Appendices updated as necessary.</li> <li>• Added SSO’s charity registration number to the TPA “Application for Authorization”, and updated Appendix 5 appropriately.</li> <li>• Updated “Swimmer’s Fees”, Appendix 6, and Appendices 7 and 8 to reflect motions by the SSO Board on 30 Jan 2006, 10 Apr 2006 and 5 Jun 2006. Registration fee changed to \$750, \$1,000 or \$1,250. 40¢ mileage allowance. \$60 per diem meal allowance.</li> <li>• Suspended equipment rental.</li> <li>• Inserted a new Appendix 7 for communication with the NOTLSC to get their approval for mooring. Other Appendices updated as necessary.</li> <li>• Updated appendix on Hypothermia to match the document in the Swim Master’s Handbook.</li> </ul>
17 Apr 2007 Rev 03	<ul style="list-style-type: none"> <li>• Corrected errors in references to the Sections of the document.</li> <li>• Added “Gender” to the registration and medical forms.</li> <li>• Revisions due to motions carried at 14 Nov 2006 Board meeting: <ul style="list-style-type: none"> <li>• Rule 1 changed to clarify bathing cap restrictions.</li> <li>• Rule 2 changed to clarify swimsuit restrictions.</li> <li>• New rules added as Rules 7 and 8 to address drafting and pacers.</li> <li>• Expansion of new Section 5D regarding pacers.</li> <li>• A minimum age of 14 is added to include the Trial Swim. Added to the Registration and Medical forms, and as the new Rule 13.</li> </ul> </li> <li>• Revisions due to the motion carried at 29 Jan 2007 AGM to remove Equipment Rentals from SSO’s activities: <ul style="list-style-type: none"> <li>• Removal of references in Sections 3E and 4 to “available equipment”.</li> <li>• Feeding stick moved from Section 5B to new Section 5C.</li> <li>• Spotlight moved from old Section 5C to new Section 5C.</li> <li>• Removed remainder of old Section 5C “May be borrowed from SSO”.</li> <li>• Tiers 4, 6 and 7 removed from Appendix 6 “Swimmers Fees”.</li> <li>• Removal of Appendices 7 and 8.</li> <li>• Updated new Appendix 9 “Advice for the last month” re equipment checks.</li> </ul> </li> <li>• Revisions due to Board input 16 Apr 2007. <ul style="list-style-type: none"> <li>• Changed Section 3E and Appendix 5 to indicate that swimmers do not need to submit the Insurance details to the TPA; the list of swimmers and the Insurance details are submitted annually to the TPA by the SSO Secretary.</li> <li>• Added comment to Section 5D on importance of the medical condition of crew.</li> <li>• Rule 9 expanded to require three watches for recognition of a record-breaking swim.</li> <li>• Appendix 3 changed to cover “Boat &amp; Crew” and to detail ages, boating qualifications and medical conditions.</li> </ul> </li> <li>• Updated 2006 dating of forms in the three Insurance Forms of Appendix 2.</li> </ul>

Date	Changes
25 May 2008 Rev 04	<ul style="list-style-type: none"> <li>• Corrections: <ul style="list-style-type: none"> <li>• Section 3H: Removed mention of “crest” that is no longer available.</li> <li>• Clarified Lake Ontario courses for which recognition is made on the NOTL plaque.</li> </ul> </li> <li>• Revisions generated at Board meeting on 1 April 2008: <ul style="list-style-type: none"> <li>• Section 5, A2. Include one lifejacket for the swimmer.</li> <li>• Section 7, Rules: <ul style="list-style-type: none"> <li>• Add headings to paragraphs to ease reading.</li> <li>• Clarify no “jammers”.</li> <li>• Rule 8. Insert missing word “given”.</li> <li>• Add details of recording of the time to the nearest second.</li> <li>• Add details of recording of watches used in a record-breaking swim.</li> </ul> </li> <li>• Appendix 5. Updated TPA requirements with their new forms.</li> </ul> </li> </ul>
28 Jun 2008 Rev 05	<ul style="list-style-type: none"> <li>• Appendix 5 updated with an additional form and associated details to reflect the latest requirements of the Toronto Port Authority.</li> <li>• Details added to Appendix 5 to reflect the requirement to carry Waiver Forms during the swim and to have them available for presentation upon the request of the Toronto Harbour Police.</li> </ul>
21 Feb 2009 Rev 06	<ul style="list-style-type: none"> <li>• Section 2, Introduction: <ul style="list-style-type: none"> <li>• Added details of registration as a Charity.</li> <li>• Added details of requirements to register as a Swim Master, with a reference to, and inclusion of, Appendix 17.</li> </ul> </li> <li>• Section 7, Rules. Clarified no pacers before five hours have elapsed.</li> <li>• Appendix 1. Signature and date clarified on Registration Form.</li> <li>• Appendix 5. <ul style="list-style-type: none"> <li>• Emphasized that the TPA requirements are open to changes that may not be reflected in the latest copy of the SSORI.</li> <li>• Extended TPA’s processing time to “approximately two weeks”.</li> <li>• Updated “Listing of Support Crew” with statement regarding signatory’s reading and agreement to comply with the listed TPA requirements.</li> </ul> </li> <li>• Appendix 6: <ul style="list-style-type: none"> <li>• Further explanation for a registration fee of \$1,250.</li> <li>• Swim Master’s expenses increased from 40¢ to 52¢ per km.</li> </ul> </li> </ul>
9 May 2009 Rev 06a	<ul style="list-style-type: none"> <li>• Appendix 6, Tier 3 (a). Corrected expense value to 52¢.</li> </ul>
18 Jun 2009 Rev 07	<ul style="list-style-type: none"> <li>• Section 4, The Trial Swim. <ul style="list-style-type: none"> <li>• Updated to clarify the requirements for the swim location, and its approval.</li> <li>• Clarified the role of the Swim Master and the SSO Board in determining the acceptability of the Trial Swim.</li> <li>• Clarified requirements for out-of-Ontario trial swims.</li> </ul> </li> </ul>
26 Jan 2010 Rev 08	<ul style="list-style-type: none"> <li>• Section 5. Added A1c to establish the safe use of kayaks.</li> <li>• Section 6. Modified the Minimum Acceptable Standards regarding Wave Height and Wind Speed.</li> <li>• Section 4. Trial Swim. Added details of recommended pre-Trial-Swim training and associated documentation (Appendix 18).</li> <li>• Section 5, A5 Crew. Updated the requirements for a <i>Pleasure Craft Operator Card</i>.</li> </ul>

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## **2. INTRODUCTION**

### **Solo Swims of Ontario**

The *Ontario Association of Solo Swims* was established upon the recommendation of the Ontario Ministry of Tourism and Recreation, Sports Fitness Branch, in 1975 as a result of a coroner's inquest into the drowning of a man attempting a swim across Lake Ontario without adequate safety precautions. The Association incorporated and changed its name to *Solo Swims of Ontario Inc. (SSO)* in 1990. SSO became registered as a Charity on 1<sup>st</sup> December 2004.

SSO's mandate is to sanction all individual swims across Lake Ontario, and to ensure that such swims are conducted safely. SSO has extended this directive to include all of the Great Lakes, and any other body of water in Ontario where the swim meets the definition of a marathon swim.

### **Marathon Swim**

A sanctioned marathon swim is considered to be a contest of endurance, and is 10 miles (16 kilometres) or more in distance, going across an open body of water from one shore to the opposite shore.

### **The Swim Master**

To ensure the safety of all marathon swimming in Ontario, SSO assigns one of its representatives, the Swim Master, to each swimmer to confirm that basic safety requirements are met before the swim is attempted. These duties include the following:

1. Establishing the swimmer's fitness and capability level (refer to "The Trial Swim" in Section 4);
2. Ensuring the swimmer has the proper boating and swimming equipment (refer to "The Equipment List" in Section 5);
3. Checking the weather conditions (refer to "The Weather" in Section 6).

The Swim Master accompanies the swimmer to oversee the swim and to ensure the safety of all concerned, including swimmer, pacers, and crew. As the government representative, the Swim Master has the authority to cancel a swim at any time, either before or during the swim, if the Swim Master considers the swim to be unsafe.

The Swim Master will prepare a report for SSO and the swimmer, not more than four weeks after the swim, documenting the swim, including start time and place, finish time and place, and the official time taken for the swim.

Usually, although not always, the Swim Master is a successful marathon swimmer. As such, this person has direct experience in long-distance swimming and would be pleased to give suggestions or advice to a challenger. Areas of expertise would include training tips, types of grease, feedings, and lake currents.

The qualifications for registration as a Swim Master are detailed in Appendix 17.

### **3. SWIMMER INFORMATION**

#### **A. Swimmer's Package**

The *SSO Regulations and Information (SSORI)* documents constitute the Swimmer's Information Package. The SSORI contains information regarding a marathon swim, including a checklist of requirements, necessary items, and equipment, as well as the Medical and Registration Forms.

The SSORI may be downloaded for free in PDF format from the Solo Swims web site. The SSORI may also be obtained from the Secretary of SSO upon the payment of \$50 to cover the costs of postage and handling.

SSO reserves the right to interview an applicant before approving an Application or Registration Form – especially swimmers under the age of 18 years.

#### **B. Registration and Sanction**

To be registered, the swimmer must submit a Registration Form and pay the Registration Fee. The Release Clause must be signed. The swimmer should include a preferred swim date and a back-up date. If the requested date is available, SSO will confirm and assign a Swim Master.

To be sanctioned, the swimmer must submit a Boat Confirmation Form, a Medical Form, a Waiver of Claims (to swim in the Toronto harbour area), and complete the Trial Swim.

The Registration Form (see Appendix 1) includes pertinent information to be provided about the swimmer and the coach, the date of the swim, the departure point and destination, and contains the Release Clause to be signed by the swimmer waiving all claims against SSO or its agents.

The Registration Fee, whether paid by the swimmer or the swimmer's sponsor (if any), is charged to cover the costs of administration, and the Swim Master honorarium.

The Boat Confirmation Form (see Appendix 3) requests information on the accompanying boats, including the names of the owners, the names of the boats, as well as call letters, type, size, top speed, and navigational equipment. Information on the swimmer's crew and medical personnel is recommended, but optional.

The Medical Form (see Appendix 4) requests a brief medical history of the swimmer, and requires a physical examination to provide specific information to be filled in and signed by the swimmer's doctor. All swimmers over the age of 40 must have an ECG test as part of the medical examination.

The Authorization and Waiver of Claims (Appendix 5) for the Toronto Port Authority (TPA) provides permission to swim in the Toronto Harbour area. The swimmer or swimmer's representative must FAX those completed forms to the TPA at least 15 days before the swim.

#### **C. Deadlines**

The assigning of the swim date, the lifeguard boats (if applicable), and the Swim Master is done on a first-come, first-served basis, and requires receipt of the Registration Form and Registration Fee. Therefore, the sooner the swimmer submits the Registration Form and the Registration Fee, the better the chance of getting the date requested. Once a swimmer is registered and a date is assigned,

no other swimmer can have this date, unless the other swimmer provides his own lifeguard boats and another Swim Master is available.

The Boat Confirmation Form should be submitted to SSO four weeks in advance but, in any event, at least two weeks before the swim; otherwise, the sanction of the swim may be cancelled. The medical examination should be completed and the Medical Form submitted at least a week *before* the Trial Swim is attempted.

The following deadlines should be considered minimum requirements in the process of receiving final approval for a swim:

<b>Minimum Deadlines</b>	
<b>Weeks Before Swim</b>	<b>Requirement</b>
8	Registration Form, Insurance Forms and Fee. Latest date is June 15
6	Medical Form
4	Trial Swim
2.5	Waiver of Claims
2	Boat Confirmation Form
2	Satisfactory submission of TPA and NOTLSC forms

#### **D. Trial Swim**

Prior to challenging a lake, the swimmer is required to complete a prescribed Trial Swim to confirm the swimmer's ability and level of fitness. Generally, the Swim Master conducts this Trial Swim, which must be performed outdoors in open water, and arrangements should be made for a convenient time and place. Refer to Section 4, "The Trial Swim", for further information.

#### **E. Pre-Swim Planning**

It is strongly recommended that swimmers have a "back-up" date planned should the swim not proceed on the assigned date. In order to provide first-choice dates for other swimmers, back-up dates cannot be reserved; however, every effort will be made to ensure the swimmer has an opportunity to make a crossing attempt.

At the Pre-Swim Meeting, the Swim Master will meet with the boat owners, the coach/manager, the swimmer, and crew to review safety procedures (such as weather conditions, course, and emergency evacuation), to assist in organization, to plan strategy, and to set up communications. This meeting ideally should take place well in advance of the swim, but this is not always feasible. At the very least, the Swim Master will hold the meeting at the departure point. No swim will be allowed to proceed until this briefing meeting has taken place.

A swimmer may request a specific SSO Swim Master for the swim, provided the requested Swim Master is willing and available.

The swimmer shall make the following arrangements for the Swim Master to attend the swim, with costs as detailed in Appendix 6 "Swimmer Fees":

1. Provide, or pay for, the transportation of the Swim Master to the starting point of the swim, plus any entrance fees;
2. If accommodation is required, pay for the Swim Master's hotel accommodation, or provide suitable accommodation acceptable to the Swim Master;
3. Provide meals, as necessary, before the swim;
4. Provide meals during the swim itself; and
5. Provide, or pay for, the transportation home for the Swim Master.

For a swim across Lake Ontario, The Toronto Port Authority requires notification and a signed Waiver of Claims. The notification is mandatory for any swim that takes place within the Toronto Port Authority's jurisdiction and a separate notification is required if the swimmer finishes the swim at the Leslie Street Spit (Vicki Keith Point). The forms are found in Appendix 5, but the swimmer should ensure that the forms are still up-to-date at the time of application. To reach the TPA, phone 416-462-3937 or FAX 416-462-1612, e-mail [cmarshall@torontoport.com](mailto:cmarshall@torontoport.com). Note that the swimmer does not need to provide the TPA with a copy of SSO's Liability Insurance; this information is provided to the TPA by the SSO Secretary, along with a list of the SSO-approved swimmers for the year.

The Metropolitan Police, Marine Division, also should be contacted at (phone) 416-808-5800. If notified, the Police will often send a boat, if available, for the last few miles of the swim to assist the entourage navigate through the near-shore traffic.

If leaving from Niagara-on-the-Lake for a swim across Lake Ontario, it is necessary to submit a notification form (Appendix 7) to the Manager of the Niagara-on-the-Lake Sailing Club (NOTLSC) for permission to berth the accompanying boats prior to the swim. Contact Ed McIlroy at least 2 weeks prior to the swim at 905-468-3966 (phone) or 905-468-7470 (FAX), or [emcilroy@niagarasailing.on.ca](mailto:emcilroy@niagarasailing.on.ca).

Due to congestion of boats at NOTLSC, only one swim will be allowed to set-up at a time at the NOTLSC. A 48-hour window will be provided to ensure safe departure prior to the next group moving in equipment. To facilitate these arrangements with the NOTLSC, the form in Appendix 7 will be used to provide details to the NOTLSC and to seek their approval for mooring for the swim.

Walkie-talkies are invaluable for communication between the Zodiacs and the accompanying boats. If walkie-talkie units are required, swimmers will need to provide their own units.

The swimmer may wish to obtain a sponsor for the swim. The sponsor, which may assist the swimmer with some or all of the costs associated with the swim, may be either a corporation or a charity. If a charity, the swimmer may be involved in fund-raising.

Public relations:

Toronto Star	416-869-4301	<a href="mailto:city@thestar.ca">city@thestar.ca</a>
Toronto Sun	416-947-2211	<a href="mailto:citydesk@tor.sunpub.com">citydesk@tor.sunpub.com</a>
Globe & Mail	416-585-5151	<a href="mailto:nrasbach@globe&amp;mail.com">nrasbach@globe&amp;mail.com</a>
Canadian Press	416-507-2150	<a href="mailto:jmcarten@cp.org">jmcarten@cp.org</a>
Spectator	905-526-3420	<a href="mailto:rhughes@thespec.com">rhughes@thespec.com</a>
St Cath Standard	905-684-7251	<a href="mailto:pconradi@stcatharinesstandard.ca">pconradi@stcatharinesstandard.ca</a>
CFRB	416-924-6717	<a href="mailto:news@cfrb.com">news@cfrb.com</a>
CHUM	416-925-6666	<a href="mailto:news@chumamfm.com">news@chumamfm.com</a>
CHML	905-521-2700	<a href="mailto:news2@900chml.com">news2@900chml.com</a>
CBC Radio North	807-625-5013	<a href="mailto:gary_rinne@cbc.ca">gary_rinne@cbc.ca</a>
CBC RADIO	416-205-6200	<a href="mailto:stuart_einer@cbc.ca">stuart_einer@cbc.ca</a>

CBC-TV	866-306-4636	Fax 416-205-7166
CTV Toronto	416-332-5000	Fax 416-299-2273 <a href="mailto:news@ctv.ca">news@ctv.ca</a>
CKCO	519-578-1313	Fax 519-743-8857
GLOBAL-TV	416-446-5311	<a href="mailto:globalnews.tor@globaltv.com">globalnews.tor@globaltv.com</a>
CP 24	416-591-5757	<a href="mailto:news@pulse24.com">news@pulse24.com</a>
CH-TV	905-522-1101 x2251	<a href="mailto:newstips@chtv.ca">newstips@chtv.ca</a>

## **F. Insurance**

SSO carries insurance coverage for the swimmer and SSO-appointed officials during these swims, provided the individuals are citizens of Canada or legal Landed Immigrants. Through the Release Clause on the Application Form (Appendix 1), and the Insurance forms (Appendix 2), SSO cannot be held responsible for injury incurred prior to, during, or after a sanctioned marathon swim, and the swimmer acknowledges this situation by signing the related Release Clause.

## **G. Other Pertinent Information**

The consuming of alcoholic beverages, sedatives or contraband drugs, of any kind, by anyone, is strictly prohibited during the swim and could lead to the discontinuance of the swim.

It is advisable for the swimmer to proceed to a hospital for a check-up after the swim has been completed. An ambulance should be secured well in advance. In Toronto, phone 416-638-7301.

The Emergency Department of a hospital should be notified in advance that a swimmer will be arriving. The Toronto Western Hospital Emergency Department phone number is 416-368-2581. Contact the Head Nurse.

It is advisable to obtain permission in advance for the use of facilities of the yacht clubs at the start and finish of the swim.

A swimmer's contact on land can telephone to an accompanying boat by dialling zero and then asking for the marine operator. State the name of the boat, the person to speak to, and the approximate location of the boat on the lake. A calling card is required.

There is a "dead zone" for cell phone reception of about 20 km in the middle of Lake Ontario.

The swimmer should bear in mind that the boat owners and the swimmer's crew are, in most cases, volunteers, and some form of recognition or formal thank-you is appreciated.

## **H. Certificate of Completion**

SSO provides a certificate and a crest to all swimmers who have abided by the rules (refer to Section 7 "The Rules") and made a successful swim. Pertinent details are entered into the Solo Swims of Ontario Record Book. The swimmer will receive the certificate and crest within three months of completing the swim (See Appendix 16). For swims from NOTL to Toronto, or Toronto to Port Dalhousie, the swimmer is also entitled to have his name, date, and time swum emblazoned in bronze on the SSO Plaque located at Niagara-on-the-Lake. This plaque is not updated until there are sufficient changes to warrant the costs involved; therefore, these changes may take five years or more before they are implemented.

## **I. Contact for Additional Information**

All swimmers registering with SSO for the first time, and after having paid the Registration Fee, receive a detailed Swimmer's Package on marathon swimming, training, coaching, equipment, boats, crew, and on SSO itself.

Swimmer registrations and medical forms, or requests for additional information, should be made to Solo Swims of Ontario at the following address:

Secretary, Solo Swims of Ontario Inc.  
Dr M. Korzekwa, MD  
3rd Floor Fontbonne Building  
St. Joseph's Hospital  
50 Charlton Avenue East  
Hamilton, Ontario  
Canada, L8N 4A6

Email: [mkorzek@mcmaster.ca](mailto:mkorzek@mcmaster.ca)

## **4. THE TRIAL SWIM**

Before SSO will sanction a proposed swim, a challenger must complete an outdoor, open water, continuous swim of not less than one-third of the intended distance, with a maximum of ten miles (sixteen kilometres), to test the swimmer's readiness for a marathon swim. This swim cannot be in a swimming pool. It should be conducted in the same, or a similar, body of water, to that which is being challenged.

***Pre-Trial-Swim Preparation:*** During the training season, in order to prepare for the Trial Swim and the Lake Ontario swim, SSO recommends that the swimmer complete the following training swims:

- A 25-30 km continuous swim, which may be done in a pool, and
- Five open-water swims in a similar body of water to the lake being attempted. Each swim should be of about 2 hours duration and include a variety of weather conditions including waves, cold water and night-time.
- Training for a swim on a lake other than Lake Ontario may involve adjustment of the times and distances and can be established in consultation with the Swim Master.

It is recommended that the swimmer utilize the form in Appendix 18 (Pre-Trial-Swim Training Log) for their coach or trainer to document these specific swims. This information sheet should then be passed to the Swim Master before the date of the Trial Swim.

Once SSO receives the aspirant's Registration Form, and the Registration Fee, either a representative of SSO or the actual Swim Master for the official swim will be assigned to conduct the Trial Swim. This person will contact the swimmer to set a date, preferably within four weeks of the proposed swim, and agree on a location. The swimmer swims either parallel to the shore while the Swim Master and coach on shore observe and count the laps, or across the body of water, provided boats and safety equipment are used. The length of the course used for the Trial Swim must be measured by GPS.

**Note:** A GPS will provide an accuracy of  $\pm 10$  to  $\pm 20$  metres when measuring between two points. This feature needs to be taken into account when establishing the course for the Trial Swim.

A successful Trial Swim is judged by the completion of the prescribed distance without undue fatigue. The recommended time limit for the 16 km Trial Swim for the Niagara-on-the-Lake to Toronto course is 6 hours. Consideration will be given to weather conditions. The interpretation of these requirements is the responsibility of the Swim Master who makes a recommendation to the Board of Directors of SSO on the acceptability of the Trial Swim. ***Judgement of the acceptability of the Trial Swim is the responsibility of the SSO Board.***

A swimmer must complete the Trial Swim in order to have SSO sanction the swim listed on the swimmer's Registration Form.

A swimmer who does not complete the Trial Swim successfully can reapply for another Trial Swim.

During the Trial Swim, the swimmer should try to imitate as much as possible the conditions that will be experienced on the actual swim. Trying different types of food and practicing feeding is highly recommended (See Appendix 8). Immediately after the swim, a core temperature (rectal) reading can be taken to provide information about resistance to cold.

Although night swimming is a valuable experience for the swimmer, this is not recommended for the Trial Swim, except under exceptional circumstances, and unless it is conducted by and with the consent of the actual Swim Master, who shall require all necessary safety procedures to be followed.

For swimmers resident outside of Ontario, SSO will accept evidence of a swim, authenticated (*e.g.*, newspaper article) and signed by at least two witnesses, as a proxy for the Trial Swim. For verification purposes, such statement should include the signatories' telephone numbers.

Where the nominal 10-mile Trial Swim meets the SSO requirements for a marathon swim (10 miles or more, crossing a body of water), the swimmer may request the issue of a Certificate of Completion (See Appendix 16) for a successful swim. This request must be established before the Trial Swim takes place so that it can be properly monitored and documented by the Swim Master. The swim must meet all of requirements outlined for a successful crossing as outlined in Section 7 "The Rules". There is an additional fee for the services provided to issue this certificate (See Appendix 6 "Swimmer's Fees). This fee is in addition to the Registration Fee charged for the swim listed on the swimmer's Registration Form.

## **5. THE EQUIPMENT LIST**

### **A. Swimmer Responsibility**

#### **A1a. Large Boats:**

Two boats, each at least 30 feet for a swim on a Great Lake. Although not mandatory, it is recommended that the "lead" boat be a sailboat and the "tail" boat be motor powered. In case of emergency, for evacuation purposes, one of the boats should be capable of a speed of at least 15 knots.

The navigational system on at least one of the boats should be either Loran-C or GPS. Although not preferred, VHF is acceptable. There should be compass back-up and a chart of the lake.

All accompanying boats should have lightning rods and/or be properly grounded. A radar reflector is highly recommended.

There should be ship-to-shore radio on at least one boat.

There should be cooking facilities on at least one boat to heat food for the swimmer and crew.

The boats should permit easy access for transferring crew to and from the lifeguard boats.

#### **A1b. Lifeguard Boats:**

The swimmer has to provide two inflatable boats, at least 14 feet (4 m) in length, with 7.5 to 15 HP motors, equipped with running lights (bow and stern), sufficient gas, life jackets, throw ropes, a tested towing system, and safety equipment as required by the coast guard.

#### **A1c. Kayaks:**

Only ONE kayak is allowed on a swim. Someone in the lifeguard boat has to be assigned to lifeguard the kayak. Vigilance in watching the kayak is especially required at night and in waves. SSO strongly recommends the use of the sit-on-top (unsinkable) model of kayak. All paddlers using the spray-skirt type kayak should be proficient in the Eskimo roll. There should be room on one of the Large Boats in the flotilla to accommodate the kayak in the event of unfavourable conditions or evacuation.

#### **A2. Life Jackets:**

The swimmer should ensure with the owners of the accompanying boats that there are sufficient life jackets for every crew member on all boats, plus one for the swimmer.

#### **A3. Walkie-Talkies:**

There should be a fully-charged walkie-talkie for each boat, including both lifeguard boats. The walkie-talkies and their recharger should be pre-tested.

A cellular phone is recommended, for emergency use and for media contact.

#### **A4. Food:**

It is the swimmer's responsibility to provide food for everyone, including swimmer, coach, pacers, crew, all personnel on the accompanying boats, and the Swim Master. Be environmentally conscious; no Styrofoam cups. For the swimmer, use recyclable or paper cups or, better still, retrievable plastic cups or plastic feeding bottles attached to the lifeguard boat on a string.

#### **A5. Crew:**

Four to six people to drive the lifeguard boats and act as lifeguards.

There should be a doctor, nurse, lifeguard, or someone having first aid experience, including a CPR certificate.

Since September 15, 2009 all boat drivers (including boats less than 4 metres in length, and jet skis) are required to carry a *Pleasure Craft Operator Card*. Obtaining a *Pleasure Craft Operator Card* involves passing a written boating test – details of which may be obtained from any Power Squadron or from <http://www.boaterexam.com>

#### **A6. Other:**

- One large flashlight on each boat for use by swimmer's crew.
- Blankets or sleeping bag for swimmer at conclusion of the swim or if pulled out because of cold.

### **B. Provided by SSO**

- Swim Master.
- Chemical glow lights for the swimmer and the lifeguard boats during night swimming.
- First-Aid kit.
- Low-temperature thermometer.
- Aluminum thermal blanket.

### **C. Optional (provided by swimmer)**

- Feeding stick.
- Spotlight to train on swimmer in darkness.
- Spare GPS or LORAN system for potential use in the inflatable support boat.
- A third boat, a high-speed power boat, with ship-to-shore radio to serve as an evacuation boat.
- Sea anchors.
- Light to illuminate stern of lead boat.
- Bullhorn/loudspeaker for the rear boat and lifeguard boat #1.
- Net on a long pole to retrieve cups, goggles, *etc.*
- Earplugs: Custom-made (available from hearing specialists), or silicone, or wax (both of which can be purchased at a drug store), or other form suitable to the swimmer's needs. If earplugs are used by the swimmer, it is advisable to have more than one pair available.
- Tinted, ultra-violet swim goggles during the day, clear swim goggles at night, and thick bathing caps.
- Vaseline or anhydrous lanolin, or other suitable non-allergenic grease that does not clog the pores of the skin.
- Pacers (*Not allowed to swim at night* for safety reasons).
- Wetsuits, flippers, pull-buoys, kickboards, paddle boards or closed sea kayaks for pacers only.
- Whistle and a small blackboard for messages.
- Anti sea-sickness sea bands or skin patches for the crew.

- Four hot packs to warm the swimmer.
- Large, pre-filled thermos flasks for initial swimmer feedings to minimize contact with the accompanying boats in the beginning hours of the swim, which is usually in darkness.

#### **D. Suggested Crew**

- Coach and/or Manager.
  - It is advisable to have a coach or manager who is experienced in long-distance swimming. Ideally, this person will have a swimming and/or coaching background, knowledge of water safety, and experience in open water swimming. He/she should also have a list of personal details about the swimmer for the purpose of testing the swimmer's mental state during the swim.
- 3 or 4 pacers (Refer to Section "7. The Rules" concerning their use.
- 3 or 4 lifeguards.
- 3 or 4 lifeguard-boat drivers.
- Doctor or nurse.
- Lifeguard with National Lifeguard Service certification.
  - It is strongly recommended that one or more of the swimmer's crew have a lifeguard certificate and is knowledgeable in first aid, CPR, and hypothermia.

#### **Additional Notes on Crew:**

- A marathon swim is an arduous undertaking, not only for the swimmer but also for the crew.
  - In the past a swim has been cancelled, just a few days before the scheduled swim, due to a heart attack suffered by the captain of the lead boat.
  - In a successful English Channel swim, the coach who had also swum the Channel in the past, died of a heart attack as the swimmer completed the swim.
- Swims are better organized and run more smoothly if every person on the swim is given a job identified in advance.
- Space on the lifeguard boats is limited and must accommodate support crew, safety equipment, carry-on bags, and food. No more than three people are allowed on a lifeguard boat at any one time. Remember, in an emergency, you may also have to accommodate an exhausted swimmer in the boat.
- To keep the number of crew manageable, crew can double-up on duties such as pacing, life-guarding, and lifeguard boat driving.
- Do not choose crew who are prone to sea-sickness. Nevertheless, ensure there are sufficient remedies to combat the possibility of sea-sickness occurring.

## **6. THE WEATHER**

Provided the swimmer has trained properly, both physically and mentally, the Trial Swim has been completed satisfactorily, the equipment and crew are well organized, and SSO has sanctioned the swim, then the remaining factor to be considered is the weather. A swim across a Great Lake is very much dependent upon the weather. For this reason, a crossing of Lake Ontario is reputed to be one of the toughest swimming challenges in the world.

SSO requires the swimmer's coach and/or manager, in consultation with the swimmer, to confirm with the Swim Master at least 12 hours before the anticipated time of the start of the swim that the weather meets the minimum acceptable standards, and the Swim Master must concur.

"Minimum Acceptable Standards" means the following:

1. No lightning or thunderstorms are predicted for the lake during the 24 hours after the anticipated start of the swim, with the recommendation that any thunderstorm predictions are located more than 50 km beyond the shores of the lake;
2. The waves are not more than one metre trough-to-crest;
3. The wind is not more than 10 knots (19 km/hr); and
4. The water temperature is at least 10°C (50°F).

These minimum acceptable standards have been established for safety reasons and that weather meeting these standards can be far from ideal for a swimmer. To ensure the best chance for success, the water temperature (See Appendix 13) should be at least 18°C (65°F), and there should be minimal winds. In addition, strong winds over the previous 24 hours can result in pronounced surface currents on the lake. Refer to Appendix 12, "Lake Currents".

After the start time is confirmed, the coach and swimmer ideally should not change it unless there is a medical problem, or other extenuating circumstance.

In the intervening period prior to the start of the swim, the Swim Master will notify the coach/swimmer if the weather becomes unacceptable and a postponement is necessary. SSO understands considerable organization and arrangement of people and time is involved in a marathon swim, and that a postponement can cause inconvenience and hardship; nevertheless, the safety of the swimmer is paramount.

One-to-two hours before the swim is to take place, at the point of departure, the Swim Master will confirm that the equipment is in order and that the weather forecast remains acceptable. At this time, the Swim Master will conduct a meeting with all concerned to review safety procedures, and will recommend to the coach/manager final job roles, if necessary.

For safety reasons only, the Swim Master has final authority on assuring that the swim meets required safety standards and, therefore, the Swim Master reserves the right to withdraw SSO's sanction for the swim.

For 3-5 days after a heavy downpour or when the lake has been at 75°F (23°C) for a week or more, the bacteria count increases rapidly, especially near Toronto. Please take extra precautions against nausea in these circumstances – e.g. very light pre-swim meal, stay well hydrated, use anti-nausea wristband, and don't wash goggles in the lake water.

## 7. THE RULES

1. **SWIMMING ATTIRE:** No swimmer shall use or be assisted by an artificial aid of any kind. The swimmer is permitted to wear a bathing suit, up to two bathing caps (Not neoprene or cellular), swimming goggles, and to apply some form of grease to the body before a swim.  

Heavy industrial or axle grease is not recommended as it clogs the pores and does not allow the body to breathe. Vaseline or anhydrous lanolin is recommended. Grease is not used to keep the cold out, but to keep the heat in. It also prevents chafing, particularly on the shoulders and inner thighs. (See "Hypothermia", Appendix 9.)
2. No swimmer shall wear a swimming suit that is made of neoprene, rubber, or any other nonporous material designed in any way to contain body heat and/or aid buoyancy, and may be subjected to a buoyancy test. The swimsuit shall end at the neck, top of the shoulders, and the crotch – *i.e.* no sleeves or shorts – no “jammers”. The bathing cap shall be normally designed swimming headgear.
3. **START:** The swimmer must enter the water from the shore at the departure point, swim across the body of water until there is no further water beyond, and touch the mainland of the opposite shore.
4. Aspirants are required to confirm with the Swim Master the departure time of the swim at least 12 hours in advance.
5. **MULTIPLE CROSSING:** For a multiple crossing, the swimmer must land as in Rule 3 above. The swimmer must then immediately return to the water and is permitted to stand or sit for up to 10 minutes. During this time, the swimmer must not be touched by any person, but may be handed food, drink, grease, medicants, or swimming apparel to be administered by the swimmer. At the end of the allotted rest period, or sooner if the swimmer wishes to continue, the swimmer, in agreement with the Swim Master, will make the most direct and reasonable way to water deep enough to swim, and recommence swimming. The time spent in shallow water during the rest period shall be included in the total time of the swim.
6. **PHYSICAL CONTACT:** During the swim, no physical contact with the swimmer is allowed by any person. Unintentional touching of the swimmer during feeding and re-greasing of the swimmer while in the water are both allowed, but the swimmer cannot be supported or aided in any way.
7. During the swim, the swimmer is not allowed to touch or hang on to any part of any of the boats, although unintentional touching or pushing away during feeding or in rough water will not result in disqualification.
8. **DRAFTING:** No drafting (following closer than 2 metres) behind another swimmer or boat will be permitted. One warning will be given before disqualification, unless the violation is blatant and/or deliberate.
9. **PACING:** One pacer at a time will be permitted with the swimmer. No pacers allowed before Five Hours have elapsed. No pacing at night. Pacers must be 14 years of age or older. The Swim Master shall have the final say regarding any accompanying swimmers.
10. **TIMING:** The Swim Master's ruling will be final, subject to official ratification by Solo Swims of Ontario Inc. The Swim Master shall be in sole charge of timing of the swim, and shall be responsible for compliance and interpretation of the rules.

The timing of the swim shall start from the moment the swimmer enters the water until the swimmer touches the opposite shore.

The timing shall be recorded to the nearest second.

A record-breaking swim shall be required to improve upon the previous best time by 60 seconds.

Three watches shall be required for recognition of a record-breaking swim and their times shall be recorded by the Swim Master. The *median* time (*i.e.* rejecting the fastest and slowest) shall be recorded as the record time.

11. **DRUGS:** Any swimmer found using any substance banned by the Sports Medicine Council of Canada will be immediately disqualified (See Appendix 15).
12. Alcohol, sedatives, and contraband drugs are **NOT** permitted to be consumed by anyone on any of the boats at any time during the swim.
13. **AGE:** The swimmer shall be at least 14 years old at the start of the swim. This requirement also applies to the Trial Swim.

## **8. CODE OF BEHAVIOUR**

### **A. Rules For Swim Crew**

1. Wearing of lifejackets is recommended, and is mandatory for non-swimmers, in rough water or upon instruction by the Swim Master.
2. Absolutely NO alcohol, sedatives, or contraband drugs before or during the swim.
3. Absolutely NO night swimming.
4. Do not stand in a moving lifeguard boat.
5. Do not enter the water without the approval of the Swim Master or coach AND the permission of the boat driver.
6. Be very careful when transferring from one boat to another as this is when most injuries occur.
7. Please honour the wishes of the boat owners, and respect their boats and facilities.
8. Do not use the ship radio without permission.
9. No swearing on the walkie-talkies, and keep walkie-talkie use to a minimum as the batteries quickly run down.
10. For the same reason, be diligent with flashlight use.
11. If sleepy, ask to be replaced.
12. Swim crew members must bring their own necessities. Recommended accessory items include: rain suit, sweater, towel, sunglasses, hat, sunscreen, gloves, wool socks, bathing suit, and sea-sickness pills.
13. The Swim Master has final authority regarding safety issues.

### **B. Rules for Lifeguard Boat Drivers**

1. Always stay at the side of the swimmer; never drive in front of, or be too close behind, the swimmer, or go where gas fumes will blow on the swimmer.
2. There must be at least one lifeguard boat beside the swimmer at all times.
3. Motors must be in neutral during feeding and transferring of occupants or equipment from boat-to-boat or water-to-boat.
4. Be careful with the fragile lighting system.
5. You should never be alone on the lake. During an evacuation, or at the end of a swim, always travel with a big boat or other lifeguard boat.
6. When rough water requires repositioning the boat next to a swimmer, one boat member must act as a “spotter” and point at the location of the swimmer throughout the manoeuvre.

## **9. APPENDICES**

**Appendix 1**

**Registration Form**

NAME OF SWIMMER: \_\_\_\_\_.

ADDRESS: \_\_\_\_\_.

\_\_\_\_\_.

PHONE: (HOME) \_\_\_\_\_ (BUSINESS) \_\_\_\_\_.

E-MAIL: (HOME) \_\_\_\_\_ (BUSINESS) \_\_\_\_\_.

GENDER: \_\_\_\_\_ BIRTH DATE: \_\_\_\_\_ AGE (Minimum 14): \_\_\_\_\_.

NATIONALITY: \_\_\_\_\_ OCCUPATION: \_\_\_\_\_.

HEIGHT: \_\_\_\_\_ WEIGHT: \_\_\_\_\_.

ALLERGIES: \_\_\_\_\_.

NAME OF COACH: \_\_\_\_\_.

ADDRESS: \_\_\_\_\_.

PHONE: (HOME) \_\_\_\_\_ (BUSINESS) \_\_\_\_\_.

E-MAIL: (HOME) \_\_\_\_\_ (BUSINESS) \_\_\_\_\_.

**RELEASE CLAUSE:**

In consideration of your acceptance of this Registration Form, I, \_\_\_\_\_, intending to be legally bound, hereby for myself, my heirs and assigns, waive any and all claims for damages I might have against Solo Swims of Ontario Inc., its members, or any persons working for or associated with Solo Swims of Ontario who are involved with my swim for any and all loss, damage, or injury sustained by me before, during, or after the swim. I have read the Regulations and Information, including the Rules, and will abide by the same if my swim is sanctioned.

SIGNATURE OF SWIMMER: \_\_\_\_\_ . Date: \_\_\_\_\_.

SIGNATURE OF COACH: \_\_\_\_\_ . Date: \_\_\_\_\_.

IF SWIMMER IS UNDER 18 YEARS OLD, SIGNATURE OF PARENT/GUARDIAN IS REQUIRED:

SIGNATURE OF Parent/Guardian: \_\_\_\_\_ Date: \_\_\_\_\_.

**ADDITIONAL INFORMATION**

1. Swimming Experience: \_\_\_\_\_.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

2. Next of Kin (to be notified in an emergency):

Name: \_\_\_\_\_.  
Address: \_\_\_\_\_.  
Phone: \_\_\_\_\_ Relationship: \_\_\_\_\_.

3. Swim Plan:

Date of Swim: \_\_\_\_\_.  
Back-Up Date: \_\_\_\_\_.  
Departure Point: \_\_\_\_\_.  
Destination: \_\_\_\_\_.

4. Deadline:

The Registration Form and the Registration Fee (see Appendix 6) must be submitted in order for the swimmer to be registered, and Solo Swims of Ontario must receive both not later than eight weeks prior to the planned date of the swim.

## **Appendix 2 Registration, Insurance Part 1**

### **ASSUMPTION AND ACKNOWLEDGMENT OF RISK**

I UNDERSTAND AND AGREE, on behalf of myself, my heirs, assigns, personal representatives and next of kin that my participation in the events and related activities of **SOLO SWIMS OF ONTARIO**, is not permitted without my execution of this document. I hereby warrant and agree that:

1. I know that there is always the risk of serious injury or death resulting from participation in any form of organized recreational activity, and particularly those involving solo swimming competitions, fitness activities, personal training instruction, swim training and like activities offered as part of the program of **SOLO SWIMS OF ONTARIO**, and
2. I acknowledge and accept these risks and all other risks associated with participation in these events and programs even if arising from the negligence or gross negligence, including any worsening of injuries caused by negligent rescue operations or procedures, of **SOLO SWIMS OF ONTARIO**, event and program organizers, the activity venues and any and all persons associated therewith or participating therein including those involved in transportation to and from events and activities; and
3. I understand that all applicable rules for participation must be followed and that at all times **THE SOLE RESPONSIBILITY FOR MY PERSONAL SAFETY REMAINS WITH ME;**
4. I will immediately remove myself from participation in any event or program and notify the nearest official, if at any time I sense any unusual hazard or unsafe condition or if I feel that I am physically, emotionally or mentally unfit, or if I feel that my equipment is not fit or appropriate, for continued participation;
5. I am \_\_\_\_\_years of age (Minimum 14).

**I HAVE READ AND UNDERSTAND THIS DOCUMENT AND I AM AWARE THAT BY SIGNING THIS ASSUMPTION AND ACKNOWLEDGMENT OF RISK I AND/OR MY PARENTS/GUARDIANS MAY SURRENDER CERTAIN LEGAL RIGHTS.**

**I SIGN THIS DOCUMENT VOLUNTARILY AND WITHOUT INDUCEMENT**

this \_\_\_ day of \_\_\_\_\_, 20\_\_\_, at \_\_\_\_\_, Ontario ,Canada

---

Witness to the Signature of Participant

---

Signature of Participant

---

Printed name of witness

---

Printed name of Participant

14911.0001/935819\_1

## **Appendix 2 Registration, Insurance Part 2 – Adult version**

### **RELEASE OF LIABILITY, WAIVER OF CLAIMS, ASSUMPTION OF RISKS AND INDEMNITY AGREEMENT**

**BY SIGNING THIS DOCUMENT YOU WILL WAIVE CERTAIN LEGAL RIGHTS,  
INCLUDING THE RIGHT TO SUE.**

#### **PLEASE READ CAREFULLY!**

In consideration for allowing me to participate in any or all of the games, events and related activities of ***SOLO SWIMS OF ONTARIO***, I hereby warrant and agree that:

1. I am familiar with and accept that there is always the risk of serious injury and death resulting from participation in any organized recreational activity particularly those involving solo swimming competitions, fitness activities, personal training instruction, swim training and like activities offered as part of the ***SOLO SWIMS OF ONTARIO*** program; and
2. I have satisfied myself, and believe, that I am physically, emotionally and mentally able to participate in this program, and that my equipment is appropriate for use in this program; and
3. I understand that all applicable rules for participation must be followed and that at all times the sole responsibility for personal safety remains with me; and
4. I will immediately remove myself from participation, and notify the nearest official, if at any time I sense or observe any unusual hazard or unsafe condition or if I experience any deterioration in my physical, emotional or mental fitness, or that of my equipment, or exceed my comfort level, for continued participation in any event or related activity.

**I UNDERSTAND AND AGREE, ON BEHALF OF MYSELF, MY HEIRS, ASSIGNS, PERSONAL REPRESENTATIVES AND NEXT OF KIN THAT MY EXECUTION OF THIS DOCUMENT CONSTITUTES:**

1. AN UNQUALIFIED ASSUMPTION BY ME OF ALL RISKS associated with my participation in any or all of the events and related activities of ***SOLO SWIMS OF ONTARIO***, even if arising from the negligence or gross negligence, including any compounding or aggravation of injuries caused by negligent rescue operations or procedures, of the aforementioned parties or any event organizer, event venue and any and all persons associated therewith or participating therein in any capacity; or in transportation to and from such events and activities, and

2. A FULL AND FINAL RELEASE AND WAIVER OF LIABILITY AND ALL CLAIMS that I have, or may in the future have, against **SOLO SWIMS OF ONTARIO**, event sponsors, event venues, and their respective directors, officers, employees, coaches, Swim Masters, leaders, instructors, contractors, agents and representatives, advertisers, volunteers, others participating in any capacity, (all of whom are collectively referred to as “the Releasees”) from any and all liability for any loss, damage, injury or expense that I may suffer as a result of my use of or my presence at event facilities, or my participation in any part of, or presence at, any or all of the events and related activities of the Releasees due to any cause whatsoever, INCLUDING NEGLIGENCE, GROSS NEGLIGENCE, BREACH OF CONTRACT, OR BREACH OF ANY STATUTORY OR OTHER DUTY OF CARE, INCLUDING ANY DUTY OF CARE OWED UNDER THE OCCUPIERS LIABILITY ACT, ONTARIO ON THE PART OF THE RELEASEES.
3. AN AGREEMENT NOT TO SUE THE RELEASEES for any loss, injury, costs or damages of any form or type, howsoever caused or arising, and whether directly or indirectly, from my participation in any aspect of the said events and related activities; and
4. AN AGREEMENT TO INDEMNIFY, and to SAVE and HOLD HARMLESS the RELEASEES, and each of them, from any litigation expense, legal fees, liability, damage, award or cost, of any form or type whatsoever, they may incur due to any claim made against them or any one of them whether the claim is based on the negligence or the gross negligence of the Releasees or otherwise.
5. An agreement that this document be governed by the laws, and in the courts of the Province of Ontario.

**I HAVE READ AND UNDERSTAND THIS AGREEMENT AND I AM AWARE THAT BY SIGNING THIS AGREEMENT I AM WAIVING CERTAIN SUBSTANTIAL LEGAL RIGHTS WHICH I AND MY HEIRS, NEXT OF KIN, EXECUTORS, ADMINISTRATORS AND ASSIGNS MAY HAVE AGAINST THE RELEASEES.**

**I SIGN THIS DOCUMENT VOLUNTARILY AND WITHOUT INDUCEMENT this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_ at \_\_\_\_\_, Ontario, Canada.**

---

Signature of Participant

---

Printed name of Participant

---

Signature of Witness

---

Printed name of Witness

14911.0001/935816\_1

## **Appendix 2 Registration, Insurance Part 2 – Minor Child version**

### **RELEASE OF LIABILITY, WAIVER OF CLAIMS, ASSUMPTION OF RISKS AND INDEMNITY AGREEMENT**

**BY SIGNING THIS DOCUMENT YOU WILL WAIVE CERTAIN LEGAL RIGHTS,  
INCLUDING THE RIGHT TO SUE.**

#### **PLEASE READ CAREFULLY!**

In consideration for allowing my minor child/ward to participate in all related events and activities of ***SOLO SWIMS OF ONTARIO***, I hereby warrant and agree that:

1. I am the parent/guardian having full legal responsibility for decisions regarding my minor child/ward, *namely* \_\_\_\_\_; and
2. I am familiar with and accept, on behalf of myself and my minor child/ward that there is the risk of serious injury and death from participation in any organized recreational activity particularly those involving solo swim competitions, fitness activities, personal training, swim training and like activities offered as part of the program of ***SOLO SWIMS OF ONTARIO***, and
3. I have satisfied myself and believe that my minor child/ward is physically, emotionally and mentally able to participate in this program, and that his/her equipment is mechanically fit and appropriate for his/her use in this event; and
4. I understand, and will instruct my minor child/ward, that all applicable rules for participation must be followed and that at all times the sole responsibility for personal safety remains with my minor child/ward; and
5. I will immediately remove my minor child/ward from participation, and notify the nearest official, if at any time I sense or observe any unusual hazard or unsafe condition or if I feel that my minor child/ward has experienced any deterioration in his/her physical, emotional or mental fitness, or in the adequacy of his/her equipment, for continued participation in the event or activity.

**I UNDERSTAND AND AGREE, ON BEHALF OF MY MINOR CHILD/WARD, HIS/HER HEIRS, ASSIGNS, PERSONAL REPRESENTATIVES AND NEXT OF KIN, MYSELF, MY HEIRS, ASSIGNS, PERSONAL REPRESENTATIVES AND NEXT OF KIN THAT MY EXECUTION OF THIS DOCUMENT CONSTITUTES:**

1. AN UNQUALIFIED ASSUMPTION OF ALL RISKS associated with participation in the events and activities of ***SOLO SWIMS OF ONTARIO***, by my minor child/ward even if arising from negligence or gross negligence, including any compounding or aggravation of injuries, caused by negligent rescue operations or procedures, of the event organizer, the event venues and any persons associated therewith or participating therein; and
2. A FULL AND FINAL RELEASE AND WAIVER OF LIABILITY AND ALL CLAIMS that I have or may in the future have against ***SOLO SWIMS OF ONTARIO***, event sponsors, event venues, and their respective directors, officers, employees, coaches, Swim

Masters, instructors, contractors, agents and representatives, advertisers, volunteers, other participants, (all of whom are collectively referred to as “the Releasees”) from any and all liability for any loss, damage, injury or expense that my minor child/ward may suffer, or that his/her next of kin may suffer as a result of his/her use of or my presence at the event facilities or my child’s/ward’s participation in any part of, or presence at, the events and activities of **SOLO SWIMS OF ONTARIO**, due to any cause whatsoever, INCLUDING NEGLIGENCE, GROSS NEGLIGENCE, BREACH OF CONTRACT, OR BREACH OF ANY STATUTORY OR OTHER DUTY OF CARE, INCLUDING ANY DUTY OF CARE OWED UNDER THE *OCCUPIERS LIABILITY ACT, ONTARIO*, ON THE PART OF THE RELEASEES.

3. AN AGREEMENT NOT TO SUE THE RELEASEES for any loss, injury, costs or damages of any form or type, howsoever caused or arising, and whether directly or indirectly from the participation of my minor child/ward in any aspect of the events and activities of **SOLO SWIMS OF ONTARIO**, and
4. AN AGREEMENT TO INDEMNIFY, and to SAVE and HOLD HARMLESS the RELEASEES, and each of them, from any litigation expense, legal fees, liability, damage, award or cost, of any form or type whatsoever, they may incur due to any claim made against them or any one of them whether the claim is based on the negligence or the gross negligence of the Releasees or otherwise.
5. An agreement that this document be governed by the laws, and in the courts of the Province of Ontario.

**I HAVE READ AND UNDERSTAND THIS AGREEMENT AND I AM AWARE THAT BY SIGNING THIS AGREEMENT I AM WAIVING CERTAIN SUBSTANTIAL LEGAL RIGHTS WHICH MY MINOR CHILD/WARD, HIS/HER HEIRS, NEXT OF KIN, EXECUTORS, ADMINISTRATORS AND ASSIGNS AND I AND/OR MY MINOR CHILD/WARD MAY HAVE AGAINST THE RELEASEES.**

**I SIGN THIS DOCUMENT VOLUNTARILY AND WITHOUT INDUCEMENT** this \_\_\_\_ day of \_\_\_\_\_ 20\_\_ at \_\_\_\_\_, Ontario, Canada

\_\_\_\_\_  
Signature of Parent/Guardian

\_\_\_\_\_  
Printed name of Parent/Guardian

\_\_\_\_\_  
Signature of Witness  
[14911.0001/935825\\_1](#)

\_\_\_\_\_  
Printed name of Witness

## Appendix 3

### Boat & Crew Confirmation Form – Part 1

1. Boats: For a swim on a Great Lake, two boats of at least 30 feet in length are recommended. The final decision on the suitability and approval of all craft is at the discretion of the Swim Master.

	----- Boat #1 -----	----- Boat #2 -----
Name:	_____	_____.
Call Letters:	_____	_____.
Size:	_____	_____.
Mode of Propulsion:	_____	_____.
Top Speed:	_____	_____.
Navigational System:	_____	_____.
Owner:	_____	_____.
Owner Phone:	_____	_____.
Owner e-mail:	_____	_____.

2. Medical Personnel: \_\_\_\_\_.

Note 1: Part 1 of the Boat & Crew Confirmation Form must be submitted to Solo Swims of Ontario in order for the swim to be sanctioned. It should be received FOUR weeks before the swim, but AT LEAST TWO weeks before, otherwise the swim may be cancelled.

Note 2: The Boat & Crew Confirmation Forms can be sent to either the SSO Secretary or to the assigned Swim Master.

#### ***Part 2 of the Boat & Crew Confirmation Form:***

- Part 2 must be received by the SSO Secretary or the Swim Master so that it can be reviewed prior to the start of the swim.
- While Part 2 may be presented to the Swim Master at the start of the swim, it would be impossible for SSO's Medical Officer to review any designated medical conditions at that time. Any such late presentation that involved details of Medical Conditions would make it impossible for the Swim Master to approve starting of the swim.
- All Boat Operators must have their Boat Operator Cards to show to the Swim Master at the start of the swim.
- The Swim Master may employ Part 2 of the form for a safety Roll Call at any time during the swim.
- Make extra copies of Part 2, as necessary, to cover all of the boat operators, crew and pacers.



**Appendix 4**

**Medical Form**

**Part A: Medical History**

Name: \_\_\_\_\_.

Address: \_\_\_\_\_.

\_\_\_\_\_.

Postal Code: \_\_\_\_\_ Telephone: (\_\_\_\_\_) \_\_\_\_\_.

Occupation: \_\_\_\_\_.

Gender: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Age (Minimum 14): \_\_\_\_\_.

Do you suffer now, or have you suffered in the past, from any of the following disorders:

	<b>YES</b>	<b>NO</b>
1. Ear trouble, earache, discharge, or deafness? .....	..	..
2. Sinus trouble? .....	..	..
3. Chest disease, including asthma, bronchitis, tuberculosis, or collapsed lung? .....	..	..
4. Blackouts or fainting?.....	..	..
5. Seizures, epilepsy, fainting spells, black-outs, or any neurological disorders, including persistent headaches or concussion? .....	..	..
6. Anxiety, "nerves", or nervous breakdown? .....	..	..
7. Diseases of the heart and circulation, including high blood pressure and arrhythmias? .....	..	..
8. Diabetes?.....	..	..
9. Food or medication allergies?.....	..	..

Please answer the following questions:

1. Do you regularly or frequently take any medication or other treatment, with or without prescription?.....	..	..
2. Are you currently receiving medical care? .....	..	..
3. Have you consulted a doctor, other than for colds, influenza, etc., in the past 12 months? .....	..	..
4. Have you ever been refused life insurance, or failed a medical examination?.....	..	..
5. Have you ever been admitted to hospital, other than for broken bones?		
6. Do you smoke? .....	..	..
7. Have you had a previous medical examination for SSO and was it satisfactory? .....	..	..

... continued

Please give further details if the answer is YES to any question, or if there is anything relevant SSO should know about your medical history:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please list all medications that you will be taking on the day of the start of the swim and during the swim. These items must be approved in advance by the SSO Medical Officer:

\_\_\_\_\_  
\_\_\_\_\_

Name of Family Doctor: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Postal Code: \_\_\_\_\_ Telephone: (\_\_\_\_\_) \_\_\_\_\_

Declaration: I hereby declare that, to the best of my knowledge, I am in good general health, and declare that I have not omitted any information either to the examining doctor or to Solo Swims of Ontario, which might be relevant to my fitness and capability to attempt a marathon swim.

I hereby authorize my medical attendants to disclose any details of my past or present medical history, if requested to do so, to the Medical Officer of Solo Swims of Ontario.

I also agree that relevant information about my health may be disclosed to the Swim Master.

Signed: \_\_\_\_\_

Dated: \_\_\_\_\_

Witness (Examining Doctor): \_\_\_\_\_

Note: The physical examination will take your doctor some time to complete. You should book an appropriate appointment.

The fee in respect of this medical examination is the responsibility of the swimmer.

The completed Medical Form should be returned to the Medical Officer of Solo Swims at the address below, not later than TWO weeks before the Trial swim. Receipt of the Medical Form is required for sanction.

Dr M. Korzekwa, MD,  
St Joseph's Hospital  
50 Charlton Avenue East  
Hamilton, Ontario, L8P 3B6

**Part B: Current Physical Examination**

Name of Swimmer: \_\_\_\_\_.

The above-named swimmer wishes to receive a medical examination in order to check his/her physical fitness to attempt a marathon swim, which represents a very arduous undertaking. (See Note 1 below.)

HEIGHT: \_\_\_\_\_ WEIGHT: \_\_\_\_\_ BP \_\_\_\_\_ HEART RATE: \_\_\_\_\_.

EARS: R. Drum \_\_\_\_\_ R. Canal \_\_\_\_\_ L. Drum \_\_\_\_\_ R. Canal \_\_\_\_\_.

SINUSES, NOSE, THROAT: \_\_\_\_\_.

URINE: Protein \_\_\_\_\_ Sugar \_\_\_\_\_.

CHEST: \_\_\_\_\_ Chest X-Ray (Note 2): \_\_\_\_\_.

CARDIOVASCULAR SYSTEM: \_\_\_\_\_.

ECG (Note 3): \_\_\_\_\_.

ABDOMEN: \_\_\_\_\_.

NERVOUS SYSTEM: \_\_\_\_\_.

JOINTS/LIMBS (Note 4): \_\_\_\_\_.

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

Upon examination, I consider \_\_\_\_\_ to be fit/unfit to attempt a marathon swim.

Signature of Examining Doctor: \_\_\_\_\_.

Date: \_\_\_\_\_ Telephone: ( \_\_\_\_\_ ) \_\_\_\_\_.

Note 1: Any doubts concerning a swimmer's fitness may be clarified by contacting the Medical Officer of Solo Swims of Ontario, Dr Marilyn Korzekwa, MD, St. Joseph's Hospital, 50 Charlton Avenue East, Hamilton, Ontario, L8P 3B6 Telephone: 905-521-6040.

Note 2: A chest x-ray is not an essential requirement, but is recommended if the swimmer is over 40 years of age, or if there is any previous history of chest disease.

Note 3: An ECG is a definite requirement for any swimmer over the age of 40 years, or if any abnormality is found on the CVS.

Note 4: Solo Swims welcomes and admires disabled swimmers who wish to attempt a marathon swim. Physical handicaps, such as absent limbs, do not rule out a marathon swim attempt.

**Appendix 5**  
**Toronto Port Authority**  
**Waiver of Claims**

**APPLICATION FOR AUTHORIZATION**  
  
and  
  
**WAIVER OF CLAIMS**  
  
**FOR GRANTING OF PERMISSION**

## **Swimmer's Responsibilities in Obtaining Approval from the Toronto Port Authority**

The Toronto Port Authority (TPA) requires the following items from the swimmer in order for the TPA to consider authorization for the swim to enter their area of control that covers the Toronto waterfront and Leslie Street Spit:

- A Cover Letter outlining the swimmer's request.
- Completion of the TPA forms "Application for authorization of an event" and "Water-related permission: Conditions, waiver and indemnity", as provided in this Appendix 5.
  - Note that these forms must be completed by a person who is 18 years of age or older. In the event that the swimmer is not 18, then the form must be signed by the parent or guardian of the swimmer.
- A separate sheet (Waiver Form) MUST list EVERYONE taking part in the event, either in the water or in a boat. Each name must be signed and witnessed. The Waiver Forms are not complete unless each waiver is witnessed.

The SSO Secretary supplies the following information the TPA:

- A copy of the SSO Liability Insurance certificate naming the "Toronto Port Authority and Her Majesty in Right of Canada" as additional insureds. The SSO Secretary provides these insurance details annually to the TPA, along with a listing of SSO-approved swimmers for the season and associated swim-dates.
- A Safety Plan.
  - The Safety Plan will involve registration with Solo Swims of Ontario.
  - The presence of an SSO-approved Swim Master.
  - Adherence with the requirements of the SSORI package.
- SSO is a registered charity; consequently as of 2008, no fees are required with the TPA application.
  - The charity registration number for SSO is 88097 4134 RR0001.

**Note:** *The swimmer should anticipate there may have been changes at the TPA since the compilation of this version of the SSORI and that these forms and requirements may have changed.*

Consequently, early application to the TPA is advised to ensure that all permissions are granted in sufficient time to allow the swim to take place.

Once approved, and an Authorization signed, the TPA will also notify the Toronto Police Services Marine Unit, and a Notice to Mariners to cover the portion of the event in Toronto Harbour.

The current contact for this information and address for submitting an application is:

Carol Marshall  
Assistant to the Harbour Master and Deputy Harbour Master  
The Toronto Port Authority  
60 Harbour Street  
Toronto ON M5J 1B7  
Canada

e-mail: [cmarshall@torontoport.com](mailto:cmarshall@torontoport.com)

Tel: 416-462-3937

FAX: 416-462-1612

Processing of a complete application, after TPA's receipt of the application and waiver forms will take approximately two weeks or longer if statutory holidays are involved.



**APPLICATION FOR AUTHORIZATION OF AN EVENT**

<b>Application No:</b> .....	<b>Ref:</b> Harbour Master Office
<b>Account No:</b> (40410-110)	<b>Tel.:</b> (416) 462-3937
<b>Dated:</b> .....	<b>Fax:</b> (416) 462-1612
	<b>Email:</b> cmarshall@torontoport.com

*THIS APPLICATION* is for authorization to conduct an Event in Toronto Harbour

Name of Applicant: \_\_\_\_\_

Event Date/s: \_\_\_\_\_ Time/s: \_\_\_\_\_

Event Location: \_\_\_\_\_

Description of any Special Requirements: (please attach Safety Plan and Diagram if placing markers)

*(add separate sheet if necessary)*

The provision of false or misleading information will result in authorization being withdrawn by TPA.

**THIS APPLICATION form, duly completed, must be returned to the Harbour Master’s office for review, together with Administration Fee in the amount of \$100 + GST (payable to the Toronto Port Authority) and signed Waiver of Claims form, prior to any Permission Permit granted.**

- \_\_\_ **Proof of adequate liability insurance coverage with the “TORONTO PORT AUTHORITY AND HER MAJESTY IN RIGHT OF CANADA” added as an additional insured, must be provided prior to the event in question. The applicant will notify the TPA in the event that the policy is amended or cancelled.**
- \_\_\_ Deposit of performance bond or damage security in the form of a certified cheque, payable to the Toronto Port Authority, to be determined as required.
- \_\_\_ Safety Plan attached.

\_\_\_\_\_  
**Authorized Signature of Group/Organization  
 (if not a legal entity, Signature of individual/s  
 assuming personal responsibility)**

**Print Name and Address:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
**Tel.** \_\_\_\_\_ **Fax** \_\_\_\_\_  
**E-Mail** \_\_\_\_\_

(GST Reg. No. 108122458RT)

*Note: Fee waived if Registered Charity.  
 Charity Reg. No. (if applicable):  
 SSO Charity No. 88097 4134 RR0001*

# **TORONTO PORT AUTHORITY**

## **WATER-RELATED PERMISSION**

### **CONDITIONS, WAIVER AND INDEMNIFY**

I, the undersigned (print name) \_\_\_\_\_

on behalf of (SSO – Swimmer’s name and undersigned’s address):

Solo Swims of Ontario - \_\_\_\_\_

\_\_\_\_\_

in consideration for the Toronto Port Authority permitting me to enter the waters of Toronto Harbour for the purpose of filming/photography, swimming or underwater diving, understand and agree to the following conditions

#### **1. Compliance with Regulations**

We, the Company, undertake to comply with all Operating Regulations and Practices and Procedures as laid down by the Toronto Port Authority.

#### **2. Inform Toronto Police Marine Unit**

Before entering the water, we, the Company, will report to the Toronto Police Marine Unit (telephone 416-808-5800) to provide them with the location and times of water-related activities. It is understood this permission is null and void through failure to give such prior notice.

#### **3. Produce Proof of Permission**

Notwithstanding prior notice to the Toronto Police Marine Unit, the Company agrees to keep this properly-executed form available at the location, and to promptly produce it for inspection at the request of a police officer or an officer of the Toronto Port Authority. It is understood the failure to produce a valid permission form on request may be construed as absence of authorized permission, and if requested to do so, the Company will immediately discontinue the described activities until a valid form is produced, or face penalty under law.

#### **4. Act at Own Risk and Waive Claims**

We, the Company, acknowledge that we enter the water and engage in accepted water-related filming activity at our sole risk of injury or death or damage to the signee and any and all persons employed by the Company, or to other persons or property, and hereby agree to indemnify and hold harmless The Toronto Port Authority and Her Majesty in Right of Canada, their employees, servants or agents, against all suits, actions, claims, costs or demands of any nature arising or resulting directly or indirectly from the granting of this permission.

**5. Period of Permission**

It is understood this permission is granted for the period from \_\_\_\_\_ to \_\_\_\_\_ only, following which further permission must be obtained if necessary in order to be valid. Permission may be revoked at any time without prior notice upon breach of these conditions and undertakings.

**I solemnly state:**

- (a) that I have read and understand the foregoing upon the reverse
- (b) that I am 18 years of age or older
- (c) that, on behalf of the Company and myself, I waive any and all claims which but for this waiver I may have or the Company may have or hereafter acquire against the Toronto Port Authority, their employees, servants or agents, arising out of the granting of this permission, and this waiver shall be binding upon my heirs, executors, administrators and assigns.

**Signed this** \_\_\_\_\_ **day of** \_\_\_\_\_, 2\_\_\_\_\_.

**SIGNED:** \_\_\_\_\_

**Witness Signature** \_\_\_\_\_

**Permission to conduct water-related activities is granted subject to the foregoing undertakings and conditions.**

**Signed** \_\_\_\_\_  
**Harbour Master**

**Date** \_\_\_\_\_

**NOTE: Permission is not granted unless this form is signed by an authorized representative of the Company and the Harbour Master or his designated representative.**

**THIS FORM TO BE COMPLETED IN DUPLICATE. ONE COPY TO PARTICIPANT, AND ONE COPY TO TORONTO PORT AUTHORITY.**

**Listing of All Support Crew  
(Pacers, boat owners, coach, observers, etc.)**

**Each signatory below confirms that he or she has read and agrees to comply with the requirements of the preceding “Toronto Port Authority. Water-Related Permission. Conditions, Waiver and Indemnify” form.**

Name - Purpose	Age if <18	Signature	Witness

**These forms, along with the Insurance Waiver Forms (Appendix 2) are to be carried during the swim by the Manager of the swim (or their designate) and must be available for inspection upon request by the Toronto Harbour Police.**

## Appendix 6

### Swimmer Fees

Any person contemplating a swim across a Great Lake and who wishes to be sanctioned by Solo Swims of Ontario Inc. ("SSO") shall be subject to various fees, as set out below. Some of these fees are mandatory, while others are optional depending upon whether or not the swimmer is able to make alternative arrangements that are acceptable to SSO. All fees shall be made payable to "Solo Swims of Ontario" in Canadian dollars.

The fees are set up on a four-tier structure, as follows:

**Tier 1: Application Package Fee: \$50**

The "SSO Regulations and Information" (SSORI) document constitutes the Application Package. This package may be downloaded for free in PDF format from the SSO web site. If the swimmer requires an Application Package to be mailed to them, then it can be supplied by the SSO Secretary upon the pre-payment of \$50.00 to cover the costs of printing, postage and handling.

**Tier 2: Registration Fee: \$750, \$1,000 or \$1,250**

The Registration Fee for a swim is determined as follows:

- (a) \$750 if the swim is less than 15 statute (land) miles.
- (b) \$1,000 if the swim is greater than 15 statute miles and one Swim Master can manage the swim safely.
- (c) \$1,250 if the swim is sufficiently long that it will require two Swim Masters for its safe management. The definition of a "long swim" generally covers any swim that is expected to last more than 24 hours.

The Registration Fee covers SSO's cost of administering all aspects of the swim. It provides for the Swim Master, SSO's Liability Insurance, and Administration. The swimmer's requested swim date will not be reserved until this fee has been received in full and has cleared payment. Services provided include:

- (a) Recording the registration;
- (b) Providing acknowledgement of the application;
- (c) Providing advice on all aspects of the swim, including training, nutrition, and organization;
- (d) All mail (postal and e-mail), fax, and telephone correspondence;
- (e) Conducting and supervising the ten-mile test swim,
- (f) SSO is a registered charity, so the swimmer is exempted the standard registration fee of the Toronto Port Authority which, in 2005, was \$100 plus GST, and;
- (f) Issuing a certificate in recognition of a completed swim.

Once a swimmer's registration has been processed and a receipt issued, cancellation of the swim can involve a refund or carry-over of a portion of the fee to the following year. The extent of the refund or carry-over differs, depending upon the following circumstances:

- (a) From the date of issuing the receipt until June 15 of the year of the proposed swim, should the swimmer cancel the swim, the swimmer shall be entitled to a refund of the fee less \$100, or the swimmer may leave the fee less \$100 on deposit with SSO and carry it forward to the following year.
- (b) Cancellation of the swim by a swimmer after June 15 involves a reduction of the amount for rebate or carry-over by a further \$150 beyond the \$100 detailed above.

**Tier 3: Swim Master's Expenses:**

If the swim proceeds, the swimmer shall provide the following services for the Swim Master:

- (a) Provide, or pay for, the transportation of the Swim Master to the starting point of the swim at 52¢ per kilometre, plus any entrance fees;
- (b) If accommodation is required, pay for the Swim Master's hotel accommodation, or provide accommodation acceptable to the Swim Master;
- (c) If necessary, pay for the Swim Master's meals before the swim, to a maximum of \$60 per diem; and
- (d) Provide meals during the swim itself.
- (e) Provide, or pay for, the transportation home for the Swim Master at 52¢ per kilometre.

None of these costs are covered by the Swim Master's honorarium.

**Tier 4: Certificate of Completion for a 10-Mile Trial Swim: \$100**

Where the nominal 10-mile Trial Swim meets the SSO requirements for a marathon swim (10 miles or more, crossing a body of water), the swimmer may request the issue of a Certificate of Completion (See Appendix 16) for a successful swim. This request must be established before the Trial Swim (See Section 4) takes place so that it can be properly monitored and documented by the Swim Master. The swim must meet all of requirements outlined for a successful crossing as outlined in Section 7 "The Rules". There is an additional \$100 fee for the services provided to issue this certificate. This fee is beyond the Registration Fee charged for the swim listed on the swimmer's Registration Form.



Appendix 7

NOTSC Notice of A Marathon Swim

**SOLO SWIMS of ONTARIO**

To: **Niagara on the Lake Sailing Club Attn: Ed or Barb**

Melville Street, Box 1007  
Niagara-on-the-Lake  
Ontario, L0S 1J0  
Telephone: (905) 468-3966  
Fax: (905) 468-7470

Email: [nolsc@niagarasailing.on.ca](mailto:nolsc@niagarasailing.on.ca)

From: Solo Swims of Ontario  
Name of SSO Official: \_\_\_\_\_

Fax: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

The following swim is sanctioned by Solo Swims of Ontario.

Proposed Date: \_\_\_\_\_

Expected Arrival: \_\_\_\_\_

Expected Departure: \_\_\_\_\_

Moorings Required:

Name of Lead Boat: \_\_\_\_\_

Size: \_\_\_\_\_

Call sign: \_\_\_\_\_

Name of Back-up Boat: \_\_\_\_\_

Call sign: \_\_\_\_\_

Size: \_\_\_\_\_

\_\_\_\_\_ Approved at NOTLSC

Date: \_\_\_\_\_

## Appendix 8

### Nutrition

Nutrition can affect sport performance in a variety of ways. There are over 50 nutrients the body requires on a daily basis. There is no perfect diet, but the optimal is one that keeps the athlete well hydrated, provides adequate calories, and supplies the 50-plus nutrients in the needed amounts. No single food or supplement can meet these requirements. They are best achieved by consuming a wide variety of foods on a daily basis. A proper diet is essential for maintaining energy levels, developing muscles, and increasing endurance and strength.

The most important nutrient for the athlete is *water*. Water is necessary for the body's cooling system. It transports the body's nutrients throughout the tissues and maintains adequate blood volume. During intense or prolonged exercise the body's thirst mechanism lags behind actual need, thus it is important to make a conscious effort to drink water long before thirst occurs. When swimming, it is difficult for a marathon swimmer to gauge how much fluid loss is occurring. Therefore, it is extremely important to drink fluids regularly during a marathon swim. During events lasting longer than 3 hours, electrolyte replacement is also necessary. "Sport Drinks" are ideal to replace fluid sodium, potassium and carbohydrate losses. Salt tablets should be avoided. Quick energy foods, such as chocolate bars, should be avoided as they may cause retention of fluids in the digestive tract possibly causing nausea, cramps, and dehydration.

Most long-distance swimmers have heard of "hitting the wall" or have actually experienced the sensation. This sudden, overwhelming wave of physical and mental fatigue strikes when the body's energy reserves in the form of carbohydrates are all but exhausted. Intense or prolonged exercise can markedly deplete the body's energy reserves within a few hours, depending upon the athlete's fitness level and on the amount of reserves in the body. When this happens, the muscles cease to function efficiently, the athlete experiences extreme exhaustion, and confusion or disorientation can occur.

Marathon swimmers can avoid or minimize the effect of "hitting the wall" by consuming carbohydrates during the swim in the form of easily digestible liquids.

NOTE: Do not experiment with new foods just prior to or during the swim as they can adversely affect the digestive system and lead to cramps or vomiting. The appropriate time to test the suitability of foods is on the Trial Swim.

The most important rule to remember is to keep well hydrated, both before and during the marathon swim.

## **Appendix 9**

### **Hypothermia**

Hypothermia is a condition caused by the lowering of the internal body temperature. Specifically, a hypothermic person is one whose core temperature registers below 34.5°C (94°F).

On a long-distance swim, the potentially most dangerous problem comes from the swimmer suffering some form of hypothermia. It can be lethal, and it requires immediate and specialized medical care.

As the swimmer's body temperature declines, certain symptoms occur such as shivering, slurred speech, slow breathing, clumsiness, confusion, disorientation, amnesia, sleepiness, and irritability. In addition, hypothermia can cause impairment of sensory functions and motor performance, reflected in marathon swimmers by an unusual stroke pattern and/or directional instability.

One of the dangers to those who are monitoring the progress of the swimmer is distinguishing between hypothermia and extreme fatigue, both of which commonly occur with marathon swimmers. With proper safety precautions, a swimmer with a normal core temperature can swim to a point of near exhaustion without jeopardizing the swimmer's health; however, if the swimmer is suffering from hypothermia, and not from extreme fatigue, and is allowed to continue, then tragedy can result.

Death from hypothermia is cardiac in origin, and this is the most important physiological disturbance to occur in cold water.

The rate of heat loss from the body is caused by two factors. The first is the rate of heat transfer from the body core to the skin. This rate is influenced by the degree of blood flow and the amount of tissue insulation. Abundant amounts of subcutaneous fat will improve the body's ability to conserve heat.

The most important factors influencing the development of hypothermia in marathon swimmers are:

- (1) Amount of subcutaneous fat and body surface area.
- (2) Water temperature.
- (3) Duration of swim.
- (4) Amount of body and water movement.
- (5) Body heat production, which depends to some extent on the amount of calories and fluid ingested.

Resistance to cold in marathon swimmers depends primarily upon the thermal insulation provided by their subcutaneous fat. Other important factors are body size and body heat production. These three factors together are mainly responsible for the maintenance of thermal balance in cold water.

Solo Swims includes a low-temperature thermometer in its First-Aid Kit. Use of this thermometer should be known by the Swim Master, the swimmer's coach, the swimmer's doctor, or other appropriate person.

The following page sets out by temperature range the signs and symptoms of hypothermia.

### Signs and Symptoms of Hypothermia

Condition	Core Temperature		Comments
	°C	°F	
<b>Normal</b>	37.0	98.6	Normal body temperature
<b>Mild Hypothermia</b>	36.9 - 36.1	98.4 – 97.0	Goose bumps. Sporadic shivering.
	35.5	96.0	Uncontrollable shivering
	35.0	95.0	Voluntary tolerance limit in non-fatigued swimmer. Deep cold. Numbness. Blue skin
<b>Moderate Hypothermia</b>	34.9 – 34.3	94.9 – 94.0	Mental confusion begins. Motor performance impaired: slurred speech, incoordination, “claw hand” or other muscle stiffness. Skin may be grey.
	32.8	91.0	Severe mental confusion. Grossly impaired motor performance. Shivering impaired.
<b>Severe Hypothermia</b>	32.2 – 31.1	90.0 – 88.0	Heart rhythm irregularities. Severe disorientation, hallucinations. Rapid deterioration in motor performance: drop in stroke rate, hip drop, or directional instability. Dilated pupils. Grey-white skin. Shivering stops
	31.0 – 30.0	88.0 – 86.0	Loss of consciousness. No response to pain.
	28.0	82.4	Ventricular arrhythmias
	<26.6	<80.0	Death

## Appendix 10

### Early Season Advice

Unless the swimmer has a coach experienced in marathon swimming, the swimmer will have many questions. The swimmer usually has an amateur competitive coach who is willing to offer some extra time and come on the swim. If they have no coach, SSO tries to match them with a Swim Master who coaches. The following information is specific for marathon swims across Lake Ontario from south to north.

#### Training:

Physically, the swimmer should swim with a competitive swim club for at least 6 workouts a week until about March. They can also do weight training until March. In March or April, the emphasis switches from speed to distance, building up to 45-50 km per week by the end of May. In June, the venue switches to small warmer lakes with a “long swim” of 12-16 km every weekend and 6-8 km on weekdays for a total of 50-60 km per week. These long slow distance (LSD) workouts can be varied by timed swims of varying distance, with kick sets, or with “fartlek” intervals. Fartlek means slow/fast and refers to a continuous swim with sprint sections alternating with brief slow “rest” sections. One or two interval workouts in the pool per week help maintain speed. The strokes can be varied but most swimmers find front crawl to be most efficient and least wearing on the joints for LSD swimming. Breaststroke doesn’t maintain body temperature or speed against a headwind. Helping a backstroker swim in a straight line in open water is a nightmare for the crew. Treading water holding a brick, working up to 10 minutes daily, is good preparation for feeding times. In mid to late June, Lake Ontario warms up to over 14°C and as many workouts as possible should be in the lake. It is helpful to the swimmer’s confidence to have completed at least one 10-mile (16-km) swim before the Trial Swim. Three or four weeks before the big swim, a 15-20 mile (24-30 km) swim does wonders for the swimmer’s confidence (and conditioning). Care should be taken not to damage the joints (stop if there is undue pain) and to rest the day before and one or two days after. Finally, for those who really want to simulate the muscular fatigue of a 52-km swim, a 16-km swim in a short sleeve sweatshirt, sweat pants and sneakers can be tried.

#### Open Water:

Open water swimming presents challenges to which the swimmer should become accustomed before the big swim. The only way to get used to waves is to swim in all kinds of weather (except thunderstorms and fog). One pre-swim application of sunscreen cannot protect a swimmer from sunrise to sunset. Therefore, a tan should be slowly built up. Learning to swim in a straight line and only looking-up about every 10<sup>th</sup> stroke is a challenge for some. Bilateral breathing is an asset (prevents unilateral sore neck). The swimmer should get practice swimming beside a boat at 2-3 metres away. With practice, they can judge the boat’s angle and distance while breathing to the side and adjust their stroke without stopping. Night swimming should be practiced at least once in a familiar lake with a familiar boat and driver. For those who find it frightening, they should keep practicing night swimming until the fear dies down. At night, the swimmer should have attached a chemical glow stick (Cyalume<sup>®</sup>) or be illuminated from the boat. Also, at night the swimmer should swim closer to the boat, at about 2 metres.

#### Open Water Safety:

Open water swimming also presents dangers. The swimmer should never swim alone because of medical risks (cramps, heart problems, seizures) and the possibility of being run over by a boat. Swimming parallel to shore is acceptable, if supervised by someone walking. When swimming in open water, water-safety equipment (throw rope, floatation device, life jackets, and/or swim ladder)

and re-warming equipment (blankets and hot drinks) should be available. Boat drivers should always take care to switch the boat into neutral when talking to the swimmer. Wind and waves necessitate keeping the boat further away from the swimmer. The workout may need to be called off if the boat has difficulty negotiating the waves and the spotter cannot see the swimmer at all times. A swimmer should also learn to stay closer to the guide boat when surrounded by heavy boat traffic.

#### Pacers:

Open water swims are a good opportunity to train pacers. Furthermore, pacers also need to acclimatize to waves and cold. Most front crawl swimmers prefer their pacer to swim about one head ahead of them and about an arm's length away. When the pacer is a little ahead, it is motivating to the swimmer. The pacer should never be behind, as the swimmer slows down when he or she looks backwards. Most swimmers also find it motivating if the pacer matches the rhythm of their arm pull to the swimmer's rhythm (on the swimmer's breathing side). Thus, it appears that an invisible string from the pacer's arm is pulling the swimmer's arm through the recovery phase. The pacer may need to drag their feet and/or adjust the length of their other arm's stroke to be able to keep up this rhythm. The best pacers match the swimmer's rhythm initially but then subtly pick it up and keep it speeded up. Smiling during breaths or underwater can pick up the swimmer's morale.

#### Hypothermia:

Cold water is part of what makes Lake Ontario one of the five toughest swims in the world. (Being blown past Toronto is the other reason). Lake Ontario is very deep, up to 200 metres in places. Most of this vast body of water is at 4°C year round. Only the surface layers warm up with warm weather. The different layers are called thermoclines. The depth of the top warm layer varies tremendously from year to year. A strong wind can churn up the lake and bring the cold water to the surface in a matter of hours. The temperature can go from 20°C to 10°C from one day to the next (See Appendix 13). This can even happen during a swim, pockets of cold water may be left over from the last storm, a freighter may have churned up cold water for a ½ km swath, or the 5-8 kilometres near one shoreline may be cold due to wind effect. Therefore, the swimmer has to be acclimatized to swimming in cold water. Cold showers and sleeping with open windows all winter are not necessary as the body only needs 1-2 weeks to acclimatize. Swimming in Lake Ontario from 14°C and up daily for 4-6 weeks usually suffices. Care should be taken to avoid hypothermia by limiting the duration of very cold workouts or by coming out when the swimmer can't stand it any longer. This "voluntary tolerance limit" can be increased by longer exposures every swim. A cap and ear plugs reduce heat loss and prevent hypothermia. Don't forget that swimming faster keeps one warmer. The ability to resist hypothermia is a measure of fitness and body fat. Swimmers must rewarm immediately when muscles start to cramp. "After drop" is the phenomenon where the body's core temperature drops during re-warming because cold blood from the extremities is returning to the core. Because of this effect, some means of re-warming should be available at all cold water workouts (blanket, hot drink in thermos, car with heater). Don't forget to take off wet clothes. Care should also be taken to enter very cold water slowly to prevent heart arrhythmias or choking. Walk in, splash the face and neck, and then bob up and down before swimming.

Penny Lee Dean, in her book *Open Water Swimming*, recommends that the coach should have a discussion with the swimmer, at least 2 months before the swim. The coach asks about 25 to 40 personal questions from the past such as names, dates, colours of bikes or cars, favourite subjects, mother's birthday, etc. The coach writes these down and brings them on the swim to test the swimmer's orientation and ability to think, if hypothermia is a question, as this is a very important symptom to monitor.

### Weight Gain:

Should swimmers gain weight for more insulation? If they are very lean, (less than 12% body fat for males; 16% for females), they could do this gradually throughout the season. If they have the average amount of body fat, they could wait until about 2 weeks before the swim to decide. The anticipated water and air temperature will be the deciding factors. It is a strain on the heart to carry the extra weight throughout the training season. In the end, cardio-vascular fitness is probably a greater factor for success than above average body fat composition.

### Psychological Factors:

Psychological preparation is the key to pushing the body beyond all limits. The swimmer should start by setting smaller goals, for example, the Trial Swim, the 28 km swim (“I can do more than half the Lake”), and the sweatshirt swim (“I can take the fatigue”). They also need to imagine the big swim during workouts - for example, imagining how they will cope with the last 8 km and how the finish will look and feel. Visiting all potential finishing sites is enormously helpful. A large nautical chart of Lake Ontario on the wall helps them “*Think Lake Ontario*” at home. How does a swimmer cope with the long hours of mental monotony? Everyone develops their own solution during LSD training. Some count, some memorize songs or poems ahead of time, some engage in elaborate fantasies and others have the ability to “space-out” in a kind of self-hypnotic state. Pre-swim anxiety can be managed by practicing relaxation techniques ahead of time. Everyone has their “ideal performance state” for peak performance and too much anxiety can be detrimental (loss of focus, insomnia, migraines). The swimmer should share their dreams, goals and motivational statements with the coach, preferably in writing, for use during the swim.

If the swimmer is under 18 years of age, it is strongly recommended that the Swim Master should meet with the parents and explain the risks and safety precautions as well as answer all their questions.

### Swimming Equipment:

The swimmer can be testing out their swimming gear during workouts. Tinted, ultra-violet filtering goggles for daytime and clear goggles for night time should fit well and stay on in waves but not cause eye or headache on long swims. They can be pre-treated with anti-fog liquid. Neoprene is not allowed for the swim cap but more than one can be used (recommended in cold water). Silicone-rubber caps are thick. Choose bright colours for visibility. “The swim suit cannot aid in buoyancy or warmth”. Wetsuits are not allowed. The swimsuit should be comfortable and not cause excessive drag (should fit high up the chest and snugly in the small of the back for women) nor rub (avoid wide shoulder straps for women and tight leg openings for men). Being clean-shaven reduces shoulder rub for men. Lanolin or Vaseline applied to the neck and armpits for women and to the neck and groin for men prevents nasty rub marks during training. Custom earplugs are expensive and may require lanolin or Vaseline to provide a seal. Wax or silicone earplugs can be moulded and are cheap enough that extras can be taken. Earplugs and swim caps reduce heat loss tremendously. On the big swim, extras of all of the above can go in a bag with a towel in the Zodiac to accompany the swimmer.

### Swim Food:

Exercise physiologists have concluded that for events lasting greater than 3 hours, where the exercise intensity is 30-70% of maximum, the nutrition concerns are:

1. Glycogen replacement;
2. The prevention of dehydration; and
3. Hyponatremia (dangerously low sodium in the blood which occurs when only water is consumed).

To this list, the marathon swimmer must add:

4. Prevention of hypothermia.

The American College of Sports Medicine recommends that the average 70 kg endurance athlete drink 500-1000 ml (2-4 cups) per hour of electrolyte replacement drink containing 6-8% carbohydrates (60-

80 g per litre), 20-30 mEq per litre of Sodium, and 20-30 mEq per litre of Chloride. Since the marathon swimmer probably sweats less than the marathon runner, the swimmer's fluid requirements may be at the lower end of the range, *i.e.* 2-3 cups (500-750 mL) per hour. Hypothermia causes the body to burn extra calories; therefore the carbohydrate requirements may be at the upper end of the range, *i.e.* 80 g per litre. Also, in cold water, a swimmer's drinks need to be warmed.

The swimmer has a choice in planning "swimming food". They could either drink the perfect carbohydrate-electrolyte replacement drink (Gatorade reconstituted from powder, in 750 mL, instead of 1000 mL) for the whole swim or they could mix and match clear fluids with higher calorie drinks on each feeding, as long as the fluid replacement totals 2-4 cups per hour and there is some salt (electrolyte) content. The problem with Gatorade-like drinks alone is that this may not provide enough calories, especially if the swimmer weighs more than 70 kg. Also, Gatorade is not tasty when warm. The problem with solutions more concentrated than 8% carbohydrate is that they delay stomach emptying (normally taking 20-30 minutes for water) causing a sensation of fullness or even nausea. This may be more of a concern towards the end of a swim.

SSO recommends a variety of cold and hot milk-based, fruit juice-based, and sweetened clear fluids as well as carbohydrate-electrolyte replacement drinks. Examples include Ensure, Boost, fruit sport drinks, blended canned peaches with corn syrup, blended canned fruit cocktail, blended soup, cup-a-soup without noodles, tea, coffee, juice, soft drinks and Gatorade. New high energy products are PowerGel and GlycoMax. Some swimmers like Boost (comes in blueberry) and Ensure, but many of the ingredients in these drinks are unnecessary and the heavy milk content can be hard to digest. Too much pure fruit juice should be avoided as fructose (fruit sugar) can cause gastrointestinal distress. Carbonated beverages are OK only after they go flat. The important thing is to try out different "swim foods" on the longer training swims.

Solids should be avoided for many reasons. Waiting to finish chewing makes the feeding break too long and the swimmer cools off. Solids delay the emptying time of the stomach leading to nausea. A few hours into the swim, the intestines will also be having trouble digesting complex foods, leading to nausea.

#### Swim Organization:

The other important things a swimmer should be thinking about in the Spring are selecting a coach, a manager, 2-4 pacers, a First Aider, and recruiting large boats. Finding suitable large boats is difficult and the swimmer should start early.

Should relatives/lovers come on the big swim? There comes a point in almost every swim where the swimmer begs to come out. If the swimmer and relative both swear they will respect the coach's and Swim Master's opinion that the swimmer can still be pushed, then it might be workable. It helps if the relative has a job to do on board a big boat.

Many swimmers add personal meaning to their swim by raising money for a charity. Larger charities can help more with organization and costs, but also expect more from the swimmer. It is important for the swimmer to advise the charity that the swimmer's success depends on good weather and that the date and time are subject to change.

## Appendix 11

### Advice For The Last Month

Once the “28 km” swim has been accomplished, the training focus shifts to maintaining conditioning and cold acclimatization, avoiding injuries, and to psychological preparation. Suggested joint injuring activities to avoid include: swims longer than 15 km, choppy wave and weedy swimming, contact sports, and water skiing. Getting enough rest and staying healthy is important. Organizing the swim and the pre-swim meeting in the last month help with picturing how things will work on the swim, but they also increase anxiety. Having a trustworthy manager to assist reduces the load. Relaxation exercises and positive self-talk (available from Dr Korzekwa) may also help.

The last 1-2 weeks is the time to gain weight, if necessary. Carbohydrate loading is *not* recommended. A 52 km swim in polluted water is very hard on the digestive system and any upset in the balance that has been achieved during training is to be avoided. Furthermore, carbohydrate loading only provides an advantage for 3-5 hours. Also, the strategy has been proven ineffective for female athletes. (If males want to try it, the carbohydrate-depletion portion of the diet should be dropped, as it is dangerous and not necessary. Only the carbohydrate loading component needs to be done for 3 days prior to the event.) The diet on the day of the swim should be very easy to digest: no fibre, low fat, and neither gas forming nor spicy. The last meal should be no closer than 3-4 hours before the swim. Sugar should be avoided in the last 2-3 hours as it causes insulin secretion, which causes glycogen breakdown and premature fatigue.

When preparing for the swim, the swimmer should be cautioned that they will be disqualified if caught ingesting banned substances (See Appendix 15). The Swim Master reserves the right to inspect all medications offered to the swimmer in order to enforce this rule. Use of medications not listed on the Medical Form and not pre-approved by the SSO Medical Officer may result in withdrawal of SSO sanction, or in termination of the swim.

What starting time should the swimmer plan for? This is a controversial topic. The answer depends to a large extent on the speed of the swimmer and the weather. Sometimes the weather for the weekend only allows one 21-24 hour “window,” so there is no choice. If the forecast is for wind, the swim will take longer. The average swimmer who completes the 16 km Trial Swim in around 5 hours will take about 18-22 hours to swim Lake Ontario. Once the test swim gets close to 6 hours, the Lake time will be 24 hours or more, which means a night period is guaranteed.

The pros and cons of starting at sunset (9 pm) are:

- Pros: Set up and start is in daylight (reducing confusion); the coldest part of the swim (due to air temperature) is over first; the most dangerous part (night) happens when the crew and swimmer are fresh; the ending (for the average swimmer) is in daylight; and, if the crew assembles right after work on Friday, they have the best chance of catching the weather window for the weekend;
- Cons: 9 pm is the end of the day and people are starting to tire; the swimmer has to have been able to nap; if the swim starts late or takes longer than 24 hours it runs into darkness again.

The pros and cons of starting at sunrise (6 to 7 am) are:

- Pros: The swim can take up to 38 to 39 hours with only one night period; the ending may be calmer at night (allowing for progress against wind);
- Cons: No one gets a good night’s sleep unless they can spend the night on Niagara-on-the-Lake; set up is in the dark; the coldest and most dangerous part of the swim is in the last 6-9 hours (21-24 hour swim) when the swimmer and crew are exhausted; and the finish is in the dark (causing confusion).

Most swimmers opt for a start at sunset and the swimmer spends the day in Niagara-on-the-Lake trying to nap.

Once the large boats have been confirmed, final equipment and crew organization can begin. If at all possible, the pre-swim meeting should be held. If the meeting cannot be held, the swimmer or manager needs to ascertain that the necessary equipment and items (Section 5) are on board. They also should enquire about the facilities on board to plan the menu, walkie-talkies, cellular phones, lighting system, number of crew, amount of gas, and room for extras (*e.g.* paddle board). The Swim Master should try to get Captain's Information Packages (available from SSO) to the boat captains.

Another important equipment consideration in the last month is the grease. People have experimented with automotive greases but anhydrous lanolin is better for the skin; however, there have been recent concerns about toxins in lanoline (Wool fat) that have led to its reduced availability. The swimmer should insist on anhydrous lanoline, since hydrous lanoline is runny and does not stay on. Anhydrous lanolin sometimes cakes off but most of it remains, especially under the suit. Vaseline by itself tends to rub- or melt-off. Anhydrous lanolin may be blended with a little Vaseline, which also works well. The anhydrous lanolin usually needs to be ordered in advance through a pharmacist. Five to eight 500 g jars should suffice. For the big swim, packing the jars in a bag with 2 pairs of rubber gloves, a roll of paper towels and an old sheet for the swimmer to sit on in the car is helpful for clean-up. Swimmers may want to practice swimming with grease to get the feel of it. Especially important to remember is the facts that grease from the hands can smear goggles beyond repair and ruin the seal of goggles and cap.

In the last few weeks, the swimmer or manager has to contact the Toronto Port Authority, the Marine Division of Toronto Metropolitan Police and the Niagara-on-the-Lake Sailing Club. Rental or transport of SSO Zodiacs also needs to be arranged. Finally, the Boat Confirmation Form (see Appendix 3) should be submitted to the Swim Master at least 2 weeks before the swim.

## **Appendix 12**

### **Lake Currents**

#### **A. Determinants of Lake Currents**

Lake currents are caused either by wind or by water movement, such as rivers or streams. Wind currents are the dominant feature of surface circulation on the Great Lakes.

Currents are difficult to predict. Their speed and direction are dependent primarily upon the wind that creates them, as well as other factors, including depth and contour of the lake, the temperature difference between the air and the water, and the presence or absence of layers of water at different temperatures, known as thermoclines.

Depending upon what distance the wind has blown, surface currents will continue for some time after the wind has stopped. In addition, the distance over which the wind has blown, together with the velocity of the wind, will determine the height of waves.

#### **B. Lake Currents in the Niagara-Toronto Area**

The availability on the Internet of satellite data on the Great Lakes improved significantly over the ten-year period up to 2005. These services now supply information on winds, surface water temperatures (See Appendix 13), and surface currents. The data are available at <http://www.glerl.noaa.gov/res/glcfs/>

There are, however, general observations available from historical data and these figures can be useful in obtaining a general understanding of the behaviour of the Great Lakes. The following information on Lake Ontario provides such general information on Lake Currents.

#### **C. General Pattern of Currents in Lake Ontario**

Surface currents in Lake Ontario generally travel counter-clockwise, see Figure 1. However, the patterns are sensitive to wind direction. If the wind blows in the same direction for a sufficient time, the surface layer of water responds to the wind by following in the same direction.

Within about five miles of the shoreline, both the wind and the current tend to move parallel to the shore. In general, the currents flow in one direction along the shore for about three to eight days, then reverse over a period of about a day, and then flow in the opposite direction along the shore for several days. One of these directions, depending upon which side of the lake, tends to be dominant due to the prevailing winds.

#### **D. Lake Currents in the Niagara-Toronto Area**

Mid-summer average wind speeds of 10 to 16 knots (12 to 18 mph) in the region between Niagara and Toronto cause expected surface lake currents as follows:

- Within about 3 miles of the Niagara shore, currents will likely move to the east at 0.3 to 0.6 knot (0.4 to 0.7 mph) with a maximum of 1 knot (1.15 mph or 1.9 km/h).
- Beyond about 3 miles, the current will become more northerly and weaker, until near the centre of the lake where the direction may be variable and the speed modest. The currents then reverse towards the west and strengthen.

- Within about 5 miles of the Toronto shore, currents will likely flow to the southwest at 0.3 to 0.6 knot (0.4 to 0.7 mph) with a maximum of 0.8 knot (1.0 mph). At least one day of strong winds from the north or northeast is usually required to reverse the above pattern.

#### **E. Effect of Niagara River Current**

The outflow of the Niagara River also influences lake currents. The outflow enters Lake Ontario at speeds of approximately 2 knots (2.3 mph or 3.7 km/h) and slows to about 0.4 knot (0.5 mph) approximately 3 miles offshore. Beyond that point, the lake current masks the river current. The river discharge is generally deflected eastward in response to the normal direction of the lake currents and the prevailing winds. It is usual to see large eddies, up to a mile wide, forming on the sides of the river current as it flows into the lake.

#### **F. Effect of Humber River Current**

On the Toronto side, the dominant water entering the lake is the Humber River, the effect of which is to create a pattern of currents moving from the mouth of the river outwards and eastwards into the lake for about 5 miles, circulating towards the Toronto Islands, then reversing to flow westwards along the shoreline.

In addition, the eastward-flowing currents caused by the Humber River may interact with the usual pattern of southwest-flowing currents. Since it is at this point when the swimmer's energy levels often are at their weakest, it is prudent to take advantage of the predominate current and proceed to the nearest point of shore as soon as possible.

#### **G. Lake Ontario Current Charts**

General surface circulation on Lake Ontario is indicated in Figure 1 on the following page, while circulation depending upon wind direction is given in Figures 2 and 3.

The usual wind pattern at the western end of Lake Ontario is from the southwest. Thus, the surface current pattern to be expected is shown in Figure 3-B; however, the direction and intensity of the wind over the previous 24-48 hours would have a major influence on and could alter the direction of the currents.

In addition, heavy or prolonged rains swell rivers emptying into Lake Ontario and cause distortions in near-shore current patterns for days afterwards, *e.g.* the Humber River.

#### **H. Summary**

Lake currents are just one of many elements that must be considered when planning the strategy for a swim across Lake Ontario.

It is extremely difficult for swimmers to choose the optimal conditions for a swim since it requires the combination of many factors coming together at the same time. Such factors include availability of accompanying boats, availability of crew, availability of the Swim Master, low risk of thunderstorm/lightning activity, lack of heavy rains or winds up to 48 hours before the swim, no heavy winds forecast for the swim period, and sufficiently warm water temperatures.

However, keeping a close watch on the weather, specifically wind direction and speed, and the amount of rain recently received will give a clear indication of what surface currents to expect on the lake.

# LAKE ONTARIO CURRENTS

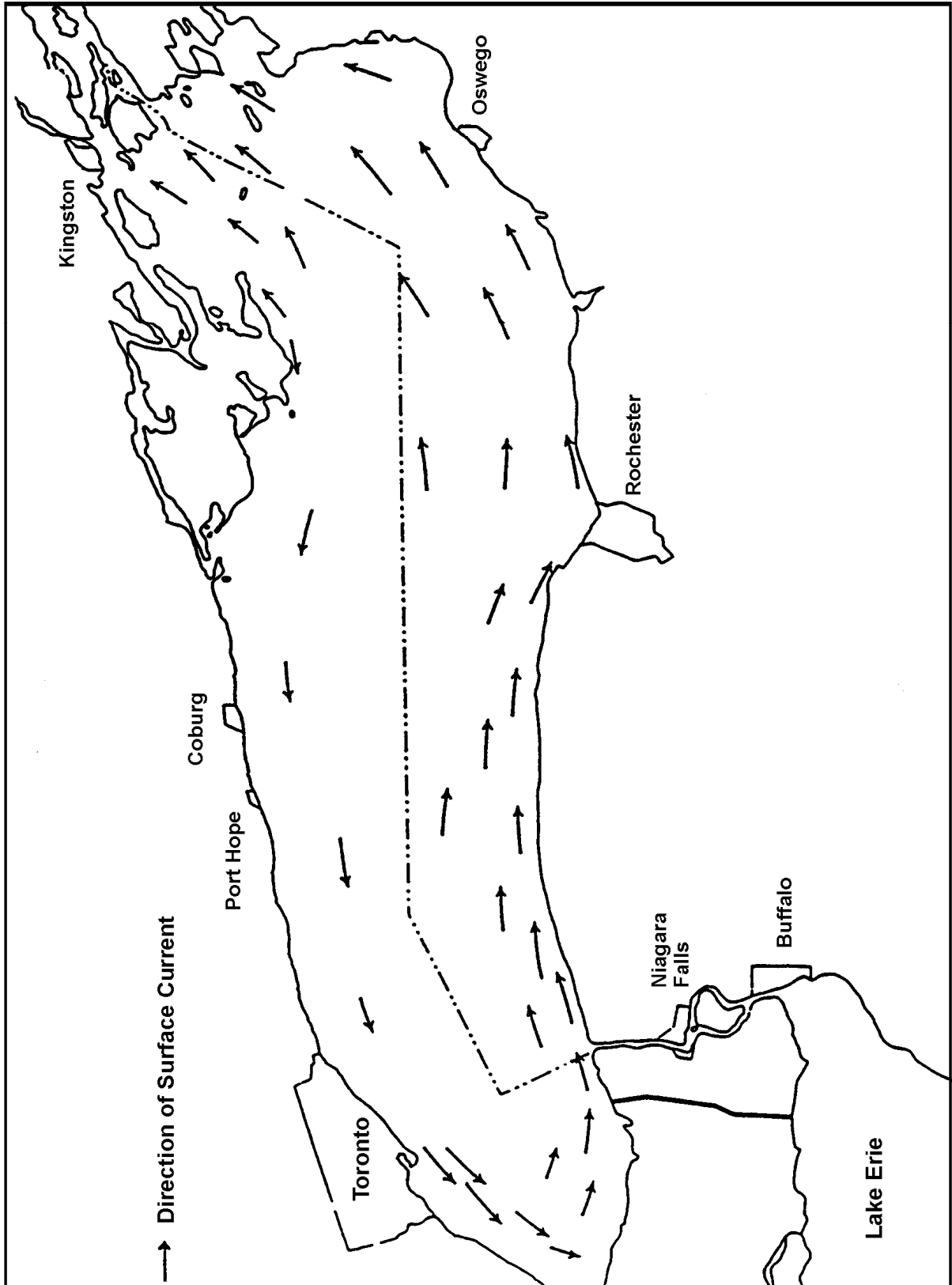


Figure 1. Summer Surface Circulation as inferred from drogoue and drift card observations, 1963-1967.

# LAKE ONTARIO CURRENTS

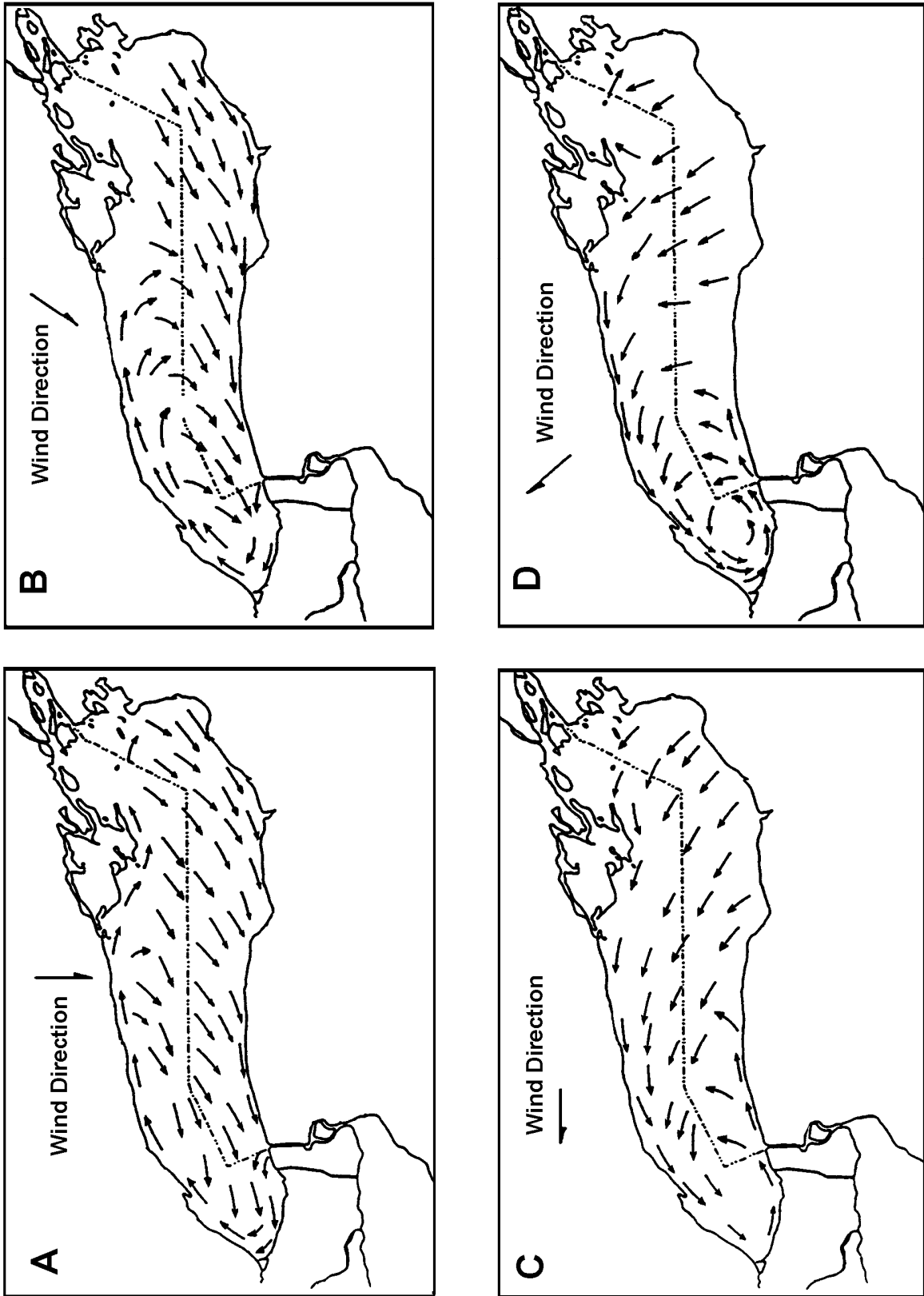


Figure 2. Surface circulation patterns under different wind conditions, 1967.

# LAKE ONTARIO CURRENTS

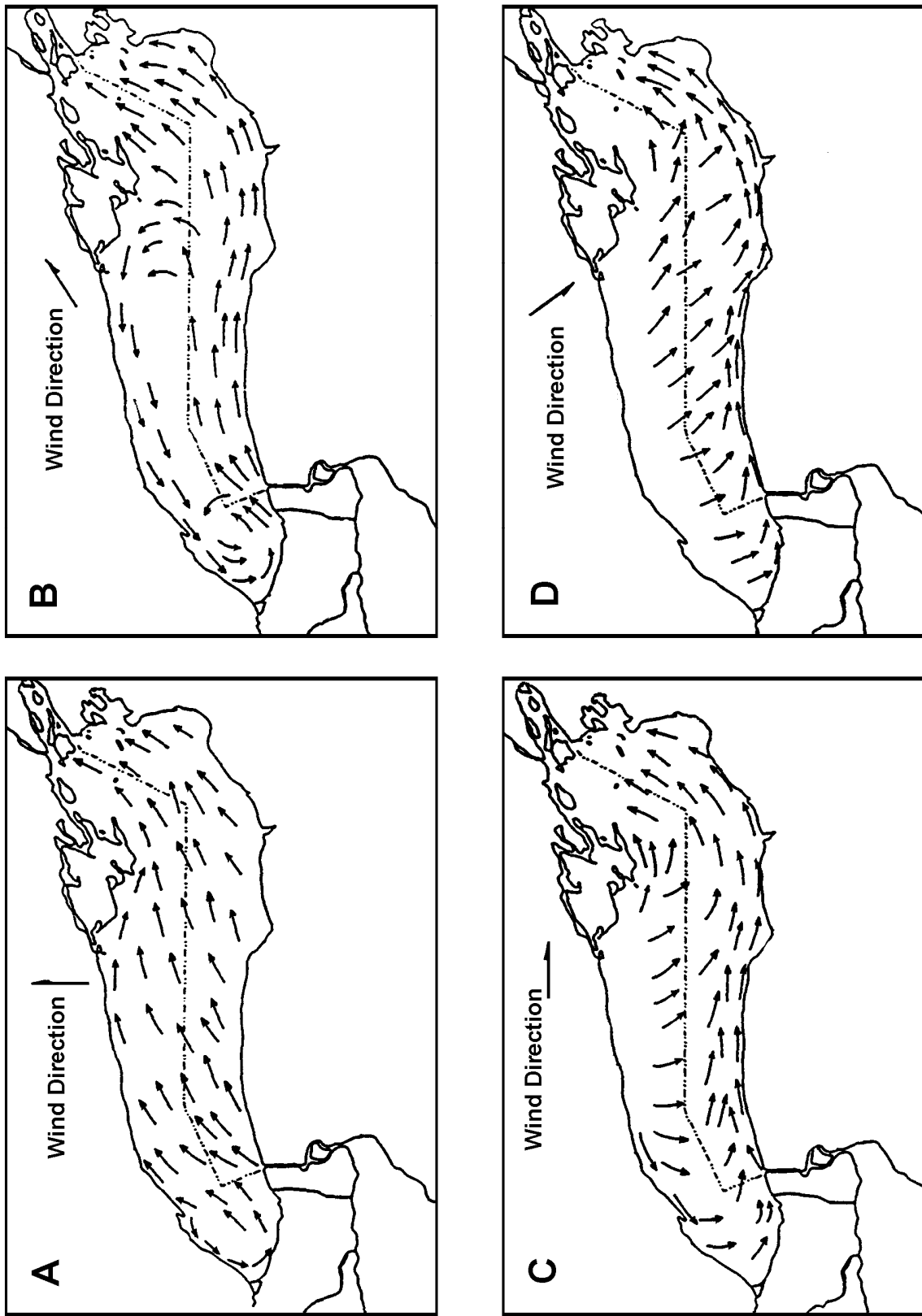
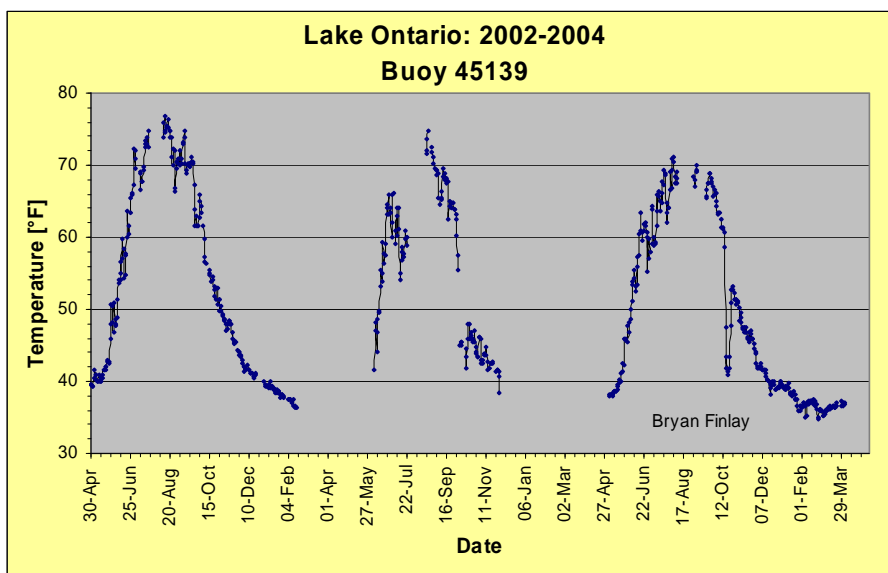


Figure 3. Surface circulation patterns under different wind conditions, 1967.

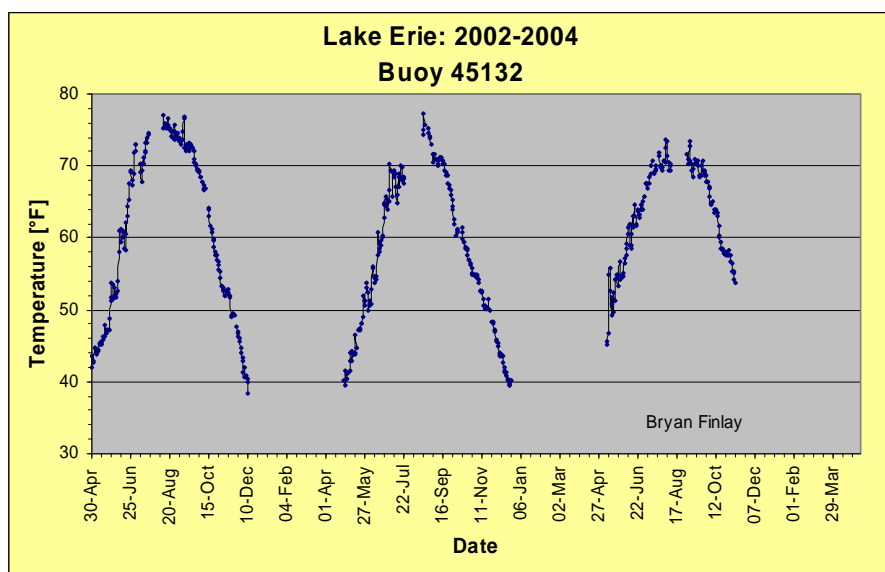
## Appendix 13

### Lake Surface Temperatures

The web site <http://www.ndbc.noaa.gov/Maps/EastGL.shtml> has been used to collect satellite data on surface-water temperatures. The first graph represents the surface water-temperature at mid-day at the western end of Lake Ontario at marine buoy 45139 (Global position 43°23'60" N, 79°27'2" W). This buoy is located in mid-lake to the west of Toronto and, therefore, does not experience the dramatic, sudden drops in Summer water-temperature (Inversion) that characterize the behaviour of the deep water up to 5 miles south of Toronto after a few days of a strong north wind. The fluctuations in temperature, however, are still apparent and are significantly greater than anything seen in the relatively shallow waters of Lake Erie during the same periods of time. The data shown cover the period 2002-2004.



The data below are for the same period and relate to the marine buoy that is located about 5 miles south of Port Stanley on Lake Erie (Global position 42°28'60" N 81°13'60" W). The changes in temperature are seen to be far less erratic and reflect the shallower water in Lake Erie.



## **Appendix 14**

### **Nautical Miles**

1 statute (land) mile = 5,280 feet = 1,609 metres = 0.868 nautical mile

1 nautical mile = 6,080 feet = 1,852 metres = 1.151 statute mile

## Appendix 15

### Banned Substances

**The following are examples of classes and Methods prohibited in sport:**

<b>Classes</b>	<p><b>Stimulants</b> eg. amphetamine, bromantan, caffeine (above 12 µg/mL), carphedon, cocaine, Ephedrine, certain beta 2 agonists.</p> <p><b>Narcotics</b> eg. diamorphine (heroin), morphine, methadone, pethidine.</p> <p><b>Anabolic Agents</b> eg. methandienone, nandrolone, stanozolol, testosterone, clenbuterol, DHEA, androstenedione.</p> <p><b>Diuretics</b> eg. acetazolamide, frusemide, hydrochlorothiazide, triamterene, mannitol.</p> <p><b>Peptide &amp; Glycoprotein Hormones &amp; Analogues</b> eg. growth hormone, corticotrophin, chorionic gonadotrophin, erythropoietin, and all respective releasing factors and their analogues.</p>
<b>Methods</b>	<p><b>Blood Doping</b></p> <p><b>Pharmacological, Chemical &amp; Physical Manipulation</b> eg. substances and methods that alter the integrity and validity of the urine; eg. probenecid, catheterisation, urine substitution.</p>
<b>Classes of drugs subject to certain restrictions</b>	<p><b>Alcohol &amp; Marijuana</b> Restricted in certain sports. Refer to regulations of national or international sports federations.</p> <p><b>Local Anaesthetics</b> Route of administration restricted to local or intra-articular injection*.</p> <p><b>Corticosteroids</b> Route of administration restricted to topical, inhalation*, local or intra-articular injection*.</p> <p><b>Beta-blockers</b> Restricted in certain sport. Refer to regulations of national or international sports federations.</p>

**\* Written notification of administration should be given to relevant medical authority, eg. governing body medical officer, except for dental application of local anaesthetics.**

### Treatment Guidelines

Examples of permitted & prohibited substances

	<b>ALLOWED</b>	<b>BANNED</b>
<b>ASTHMA</b>	sodium cromoglycate, theophylline, salbutamol*, terbutaline*, salmeterol*, beclomethasone*, fluticasone*, (* by inhalation only & written notification of administration should be given to relevant medical authority).	products containing sympathomimetics eg. ephedrine, isoprenaline, fenoterol, Rimiterol, orciprenaline.
<b>COLD/ COUGH</b>	all antibiotics, steam & menthol inhalations, permitted antihistamines, terfenadine, astemizole, pholcodine, guaiphenesin, dextromethorphan, paracetamol.	products containing sympathomimetics eg. ephedrine, pseudoephedrine, phenylpropanolamine.
<b>DIARRHOEA</b>	diphenoxylate, loperamide, products containing electrolytes eg. Dioralyte, Rehidrat).	products containing opioids eg. morphine.
<b>HAYFEVER</b>	antihistamines, nasal sprays containing a corticosteroid or Xylometazoline, eyedrops containing sodium cromoglycate.	products containing ephedrine, pseudoephedrine.
<b>PAIN</b>	aspirin, codeine, dihydrocodeine, ibuprofen, paracetamol, all non-steroidal anti-inflammatories, dextropropoxyphene.	products containing opioids, caffeine.
<b>VOMITING</b>	domperidone, metaclopramide.	

**The complete book is available from SSO.**

Appendix 16

The SSO Certificate of Completion



**SOLO SWIMS  
OF ONTARIO**

S A M P L E

*hereby certifies that  
on August ?? 200?*

*Another Swimmer*

*swam Lake Ontario*

S A M P L E

*from Niagara-on-the-Lake  
to Leslie Street Spit, Ontario*

*a distance of 52 kilometres  
in ?? hours ?? minutes.*

S A M P L E

\_\_\_\_\_  
PRESIDENT

\_\_\_\_\_  
VICE-PRESIDENT

\_\_\_\_\_  
REGISTRATION NO. ??

## Appendix 17

### Standards for the Swim Master

1. Marathon swimmers, coaches or others with related experience are eligible to become a **Swim Master**.
2. The **Swim Master** is an authorized representative of SSO and must meet stringent requirements before being certified. The SSO Board of Directors is responsible for the ratification of an SSO member as a **Swim Master**.
3. **Swim Master** candidates must serve an apprenticeship involving acting as an **Assistant Swim Master** at two-or-more marathon swims at the discretion of the supervising **Swim Masters** and/or the SSO Board. At the end of the apprenticeship, the supervising **Swim Masters** will each submit a report to the Board with a recommendation concerning ratification of the apprentice as a **Swim Master**. Candidates will be judged on the following criteria:
  - Attendance at a Swim Master Workshop,
  - Letters of recommendation from two different supervising Swim Masters,
  - Leadership abilities,
  - Swimming and rescue ability\*,
  - Knowledge of boat safety,
  - A written Swim Master quiz is used to ensure adequacy of the candidate's knowledge,
  - Driving experience and ability to handle an inflatable boat (Zodiac) with a swimmer,
  - Obtained a Pleasure Craft Operator's Card,
  - First aid and CPR training \*\*

\* Candidates without lifeguard qualifications (minimum Bronze Cross) are given *ratification with restrictions*, namely that they must always work with a qualified lifeguard who should always be by the swimmer's side.

\*\* Those candidates without recognized First Aid and CPR qualifications are given *ratification with restrictions*, namely that they must always work with a person with these medical qualifications who should generally be stationed on the evacuation boat.
4. In addition, completion of a Power Squadron Course and a Radio Operation License are considered an optional asset.

Compiled by Marilyn Korzekwa, Chair of Risk Management, SSO.

**Created:** 15<sup>th</sup> December 1998

**Last Updated:** 18<sup>th</sup> January 2009



## Appendix 18

### Pre-Trial-Swim Training Log

<b>Date</b>	<b>Location</b> [GPS data if relevant]	<b>Distance Swum</b> [km]	<b>Duration</b> [hh:mm]	<b>Temperatures Water &amp; Air</b> [°C]	<b>Waves*</b> Height & Direction	<b>Comments</b> [e.g. Night, Winds, Feeding, Condition at end of swim]	<b>Signature of Observer</b>

\* Estimates:

**Wave Height** in metres trough-to-crest.

**Wave Direction** relative to the swimmer, e.g. Head-on, Angle from head-on left or right, Broadside, Following.