

**Open Water Review Commission  
Recommendations  
April 12, 2011**

The Commission has been charged by USA Swimming to “review the circumstances surrounding the death of Fran Crippen in order to make recommendations for the improvement of safety protocols, procedures, and precautions for future domestic and international open water competitions.”

Because FINA has declined to provide information as to the circumstances on the day of the race until after it has issued its report, the Commission has not been able to complete a review of the circumstances surrounding Fran Crippen’s death. Requests for information have been made of FINA by the investigators engaged by USA Swimming, by USA Swimming staff and by the Commission. To date, no information has been provided by FINA.

The Commission has decided that the importance of improvements in safety protocols, procedures and precautions in a discipline such as open water swimming, with its particular risks, is such that proposals for the improvements must be considered whatever the circumstances of Fran Crippen’s death may have been.

It goes almost without saying that there must be immediate recognition when a swimmer is struggling or loses consciousness; there must be immediate rescue when loss of consciousness occurs; and there must be immediate resuscitation to address medical emergencies.

While it seems fairly clear that Fran Crippen lost consciousness as a result of heat exhaustion, there are many medical conditions which might lead to the same result. The difference between losing consciousness in a land-based event and an open water event is quite unique. The open water swimmer will sink and start to aspirate water instead of air and the progressive lack of oxygen will not cause the swimmer to “wake up.” Once this occurs, rescue must take place very quickly in order to avoid serious medical consequences, including death.

The recommendations which follow are circulated for consideration by USA Swimming and the open water community generally. They were adopted unanimously by the Open Water Review Commission:

Richard Pound, Chair  
Sid Cassidy  
Harold Cliff  
Dr. Scott Rodeo  
Erica Rose

All open water races organized by a responsible federation (FINA for FINA events and USA Swimming for USA Swimming sanctioned events) shall satisfy the following:

### **Part 1: Approval and Implementation of a Safety Plan**

No open water competition will be sanctioned unless the safety plan for the competition has been approved by a committee of safety experts. That safety plan must comply with the requirements set forth in Part 2 (below).

A safety officer approved by the responsible federation and independent of the race organizing committee must be present at each race in order to assure that the approved safety plan is implemented and to assure that adequate safety precautions are in place to deal with race-day conditions. The safety officer must have authority to withdraw the sanction on race day if adequate safety precautions are not in place. The race director and race referee shall each have a similar authority. If the sanction of a race is revoked, but the race organizer nevertheless goes forward with the race, notification of revocation due to safety considerations must be given to all race participants prior to the beginning of the race.

Any one of the safety officer, race referee or race director shall have the authority to stop a race at any point during the course of the race should conditions change and safety become a concern.

### **Part 2: Safety Plan Requirements**

A safety plan shall include the following minimum requirements:

#### **A. Monitoring Swimmers During Race**

One of the most critical topics related to swimmer safety during open water races is the concept of “who is watching the swimmers?”

Requirements:

1. For all open water races, certified, local lifeguards experienced in open bodies of water must be a part of the safety plan of the race.
2. All athletes must be observed at all times during the race by a member of the safety team.
3. Each race must have an appropriate number of first responders dedicated to the race, who are able to react to a need for assistance within 10 seconds, and are able to reach the swimmer within an additional 20 seconds.
4. Each race must take into consideration its course and set-up and determine if safety personnel should be assigned by zone, by following athletes through the course, or by a combination of both.

5. In an unescorted race, there must sufficient safety craft on the course to very quickly remove an athlete from the water. A ratio of one safety craft for each 20 swimmers is required. This ratio can only be modified with the approval of the sanctioning body (for example, in some races, a swimmer could be rescued directly by shore personnel without the use of a safety craft).

#### B. Safety Communications Plan

A safety communications plan is required for all races. The responsible federation should develop a safety communications plan template which would be made available to all race organizers.

Minimum Requirements:

1. A safety communications plan must enable efficient water-to-water, water-to-land and land-to-water communications. Unless otherwise approved by the sanctioning body, two-way radios, with one channel reserved for emergency communications, will be required (for example, it may be acceptable in some circumstances for safety personnel using kayaks to communicate with a system of whistles and hand signals).
2. Personnel on all boats, safety craft and feeding platforms must have the ability to communicate with the safety officer.
3. The safety officer must have the ability to communicate with all first responders, safety personnel and officials on the course.

#### C. Feeding Stations

Feeding stations are an essential part of all open water races over 5K because of the need to maintain hydration.

Minimum Requirements:

1. For races less than 5K, no feeding stations are required.
2. For unescorted races of 5K and longer, there must be a floating or stationary feeding station available every 2K.

#### D. Course Evacuation Plan

Each race site must have an approved course evacuation plan to get all swimmers and race personnel off the water with steps in place to address all potential emergency situations.

#### E. Medical Services

All open water races must have a medical and emergency services plan as part of the safety plan for the race. At a minimum, this plan must include:

- A physician on site with experience in providing medical care in endurance events (e.g., marathon, triathlon) and the ability to use the medical equipment described on the medical equipment list included below;
- One Emergency Medical Technician (EMT) per 150 participants;
- One ambulance on site or within a five-minute response time per 250 participants;
- A cooling or heating tent on site, unless the sanctioning body approves otherwise;

- A protocol for air evacuation if a hospital emergency room is more than 30 minutes away;
- Medical equipment as provided on the medical equipment list included below.

First responders must have the following training:

- Basic life Support (BLS) level CPR and first aid;
- Swimming ability that will allow the first responder to keep the athlete safe until further rescue/medical help is available; and
- Ability to use communication equipment and/or pre-agreed hand signals to begin emergency action.

#### F. Accounting for Swimmers

It is mandatory for all races to have a swimmer check-in prior to and immediately following each race. Races should consider using a “funnel in” before and “funnel out” system after the race in order to help ensure that all athletes are accounted for. All swimmers must comply with the accounting system adopted for the particular race.

All races must be able to account for all athletes who enter the race, compete in and finish the race. All athletes must be given a race number and have that number written on their body by a representative of the organizing committee.

#### G. Technical Meeting

The following minimum safety information must be presented at all technical meetings:

- course layout
- feeding stations
- rules of the swim
- water conditions
- marine life
- weather conditions
- the safety plan
- emergency situations
- the safety communications plan
- the evacuation plan for clearing the race course
- safety craft
- emergency phone numbers
- local hospitals

Organizing Committees are strongly encouraged to hold the Technical Meeting for all participants and coaches the day prior to the race in a venue appropriate for effective communication.

An athlete who is competing in the race must either attend the Technical Meeting or have his/her representative attend the Technical Meeting. If the athlete or his/her representative is unable to attend the Technical Meeting, he/she will be required to receive a special briefing in

order to ensure that he/she has been informed of all important safety factors for the race. All races must also include a pre-race safety briefing to be conducted immediately prior to the race. All athletes are required to attend this briefing.

H. Safety during pre-race warm-up and post-race warm-down

Race organizers must take precautions to keep athletes safe during pre-race warm-up and post-race warm-down. Specifically, no swimmer should be allowed to enter the race course prior to or following the event without an escort kayaker, paddle boarder, etc., or the race host needs to offer course monitoring and safety during set training hours. Race courses should be closed to boating traffic during designated training hours.

**Part 3: Other Requirements for Open Water Races**

A. Water and Air Temperature

Specific rules must be adopted in relation to water and air temperature for open water races. Race officials must monitor water and air temperatures and water conditions throughout the race in order to maintain a safe environment. One hour before the race, the safety officer must record, post and announce the water and air temperatures.

Requirements:

1. If the water temperature is below 16 C (60.8 F), no race can be held.
2. For races of 5K and above, if the water is above 31 C (87.8 F), no race can be held.
3. If the air temperature and water temperature added together (in Celsius) are less than a total of 30, no race can be held.
4. If the air temperature and water temperature added together (in Celsius) are greater than 63, no race can be held.

B. Water Quality

Water quality of a race must be considered in two phases: 1) the anticipated water quality, based on reliable data, when the sanction is requested; and 2) the water quality on the day of the race.

Requirements:

1. For the location of each swim, local municipality water rules shall apply. If the water quality meets the standards of the local testing authority, the water will be deemed acceptable for the race, unless otherwise determined by the safety officer. The organizing committee must have a certificate from the local authority stating that the water quality is acceptable, issued within 48 hours of the start of the race.
2. If an exceptional event which may affect water quality occurs (for example, heavy rain or flooding), the safety officer (race referee or race director) shall have the authority to postpone or cancel the race.

C. No Requirement to Participate in Specific Open Water Races

There shall be no requirement for any athlete to participate in any particular race of an open water series, including those that are a part of the FINA Open Water World Cup and Grand Prix series, in order to receive final point standings or prize money in the series.

**Part 4: Other Recommendations**

A. Tracking Swimmers During Races

It is strongly recommended that responsible federations work toward a solution of using a tracking device that is able to work in water (for example, sonar or possibly GPS) in order to help track athletes in open water races.

B. USA Swimming Support for Open Water

1. USA Swimming should hire a full-time person to manage open water administrative tasks.
2. The Commission recommends that while giving consideration to the timing and the quality of training opportunities which particular international open water competitions provide, USA Swimming establish a calendar of those open water events which will be supported by USA Swimming coaching and/or support staff. For those events for which USA Swimming will not be providing support, the Commission recommends that USA Swimming attempt to obtain safety-related information from FINA and the race organizer and make that information, together with a safety checklist, available to any U.S. swimmer who chooses to participate in that event with a personal coach or otherwise. If FINA requires the presence of a coach or other representative designated by USA Swimming as a condition of an athlete's participation at a race where USA Swimming was not otherwise planning on sending a representative, then the cost of sending that representative will be the responsibility of the athlete.

C. Medical Screening of Athletes

For any open water competition where the swimmer is entered by USA Swimming, that swimmer must annually certify to USA Swimming that he/she is medically fit and adequately prepared for the race given the anticipated conditions.

### **Equipment List (Minimum)**

- Pocket face mask to allow rescue breathing without contamination
- One rescue flotation device for each first responder
- Mask, snorkel, and swim fins readily accessible
- Binoculars
- Radio and workable mobile phone
- First aid kit to include supplies for lacerations
- Cardiac defibrillator
- Asthma inhaler/bronchodilator
- Diphenhydramine (for example, Benadryl)
- Benzodiazepine medications for treatment of seizure
- Epinephrine pen
- Intravenous fluids (including ability to rapidly cool with chilled IV fluid in hot weather)
- IV needles/equipment, including large bore (18-20 gauge) needles
- Oxygen with masks
- Glucose tablets