2016



Friday September 16 – Sunday, September 18, 2016 Lake George, New York

Participants' Guide

Sanction Number 036-W001



This event is dedicated to the memory of our teammate and friend, Suzanne Murphy. We will always have a lane for you.



Welcome

Welcome to the 2016 Lake George Marathon Swim. This event is intended to celebrate the rich history of Marathon Swimming in Lake George and to highlight the beauty of our Lake.

From the 1927 Hague to Lake George Village swim that attracted 150 swimmers and only one finisher, to the 1958 first swim of the whole length by Diane Struble in 35 hours and 30 minutes, Lake George has garnered national attention. Our remake of historic swims pays homage to the traditions while recognizing advancements in swimming training.

We want to share swimming in Lake George with as many people as possible. To celebrate this gathering, we have organized educational and entertaining events for the day before the swim. These events are described in this Guide. Please participate!

This event tests human endurance. It is not a race. Attempting it meets our definition of winning. Safety must be our top priority. Athletes provide a key safety layer to open water events through compliance with rules and procedures. There is A LOT of information in this Guide. Please review it carefully.

Each swimmer is a member of a team. The team—swimmers, boat Captain, Observers, kayakers, and supporters on shore—need to know the plan. Study your plans, know your feeds, and know the emergency procedures, evacuation plans, communication plans, and navigation equipment. Take this all seriously, and then relax and enjoy a great weekend.

We look forward to hosting a fun and safe event!



Event Director Bob Singer and Referee Deb Roberts at their favorite place on October 1, 2015, at the end of our open water season. Water temperature 64F, air temperature 35F. After this we said; *let's swim the whole Lake with some friends next year*. Thank you all for helping us celebrate this wonderful place!

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Due Dates

Jan. 15, 2016 Application Form
Jan.-Feb., 2016 Event registration
March 1, 2016 Deposits due

June 1, 2016 Completed Medical Form

July 31, 2016 Qualifying Swim Form, and 2016 USMS card (or FINA equivalent or One Event

Registration), and final payment.

Schedule of Events

Friday, September 16

10:00 AM – 4:00 PM Registration, for ALL Swimmers and Volunteers: Comfort Suites, 1533 State Route

9, Lake George, NY. Sign in Friday OR Saturday.

11:00 AM-12:30 PM Fun Swim, Million Dollar Beach, Lake George, NY

3:00 PM – 4:15 PM Marathon Swimming Forum. Lake George Historical Association, 290 Canada St,

Lake George, NY

5:00 PM -7:00 PM Dinner and sight-seeing cruise. (Board at 4:30).

Saturday, September 17

9:00 AM - 12:00 PM Registration, for ALL Swimmers and Volunteers: Comfort Suites, 1533 State Route

9, Lake George, NY. Sign in Friday OR Saturday

9:00 AM Confirmation of the direction of the swim via email, phone chain, FaceBook*

2:00 PM Red Pod Briefing. Briefing for all swimmers and volunteers will take place by Pod

at Mossy Point. Briefings will be 60 minutes before each start time. Positive checkin at Mossy Point in Ticonderoga for north to south route and at the Lake George Village dock on Beach Road for south to north route. See "Start" beginning on

page 25

2:30 PM Red pod swimmers are taken to Snug Harbor North by a Pod Leader. Red pod

kayakers paddle up to Snug Harbor North (about half a mile)

2:55 PM Red Pod Swimmers and kayakers enter water to go to Diane's Rock start area.

3:00 PM Red Pod Starts.

2:30 PM Orange Pod briefing at Mossy Point

3:00 PM Orange Pod swimmers are taken to Snug Harbor North by a Pod Leader. Orange

pod kayakers paddle up to Snug Harbor North (about half a mile)

3:25 PM Orange Pod swimmers and kayakers enter water to go to Diane's Rock start area.

3:30 PM Orange Pod Starts.





(3:00 PM	Green Pod briefing at Mossy Point
3:30 PM	Green Pod swimmers are taken to Snug Harbor North by a Pod Leader. Green Pod kayakers paddle up to Snug Harbor North (about half a mile)
3:55 PM	Green Pod swimmers and kayakers enter water to go to Diane's Rock start area.
4:00 PM	Green Pod Starts
(3:30 PM	White Pod briefing at Mossy Point
4:00 PM	White Pod swimmers are taken to Snug Harbor North by a Pod Leader. White Pod
}	kayakers paddle up to Snug Harbor North (about half a mile)
4:25 PM	White Pod swimmers and kayakers enter water to go to Diane's Rock start area.
4:30 PM	White Pod Starts
(4:00 PM	Blue Pod briefing at Mossy Point
4:30 PM	Blue Pod swimmers are taken to Snug Harbor North by a Pod Leader. Blue Pod
}	kayakers paddle up to Snug Harbor North (about half a mile)
4:55 PM	Blue Pod swimmers and kayakers enter water to go to Diane's Rock start area.
5:00 PM	Blue Pod Starts

Sunday, September 18

7:00 AM - 5:00 PM **Swim ends at 5:00 PM**, swimmers still in the water must be picked up by boats. Because swimmers will complete the event over a long period, up to ten hours, and boats need to be immediately returned, there will be no formal awards ceremony. Swimmers will pick up certificates of completion at the conclusion of the swim. If anyone is staying around Sunday night and would like to meet up please let the event organizers know and we can suggest a place depending on the size of the group.

^{*}If the swim is reversed, see directions under "The Start" below on page 25.



History of Marathon Swimming in Lake George

Lake George has a rich tradition of being a destination for recreation. Thomas Jefferson wrote in 1791:

Lake George is without comparison, the most beautiful water I ever saw; formed by a contour of mountains into a basin... finely interspersed with islands, its water limpid as crystal, and the mountain sides covered with rich groves... down to the water-edge: here and there precipices of rock to checker the scene and save it from monotony.

Marathon swimming became a huge sport in the early twentieth century. Matthew Webb's first swim across the 21-mile English Channel garnered world attention in 1885, but the advent of radio coverage allowed "spectators" to follow along with epic swims starting in the 1920's. Gertrude "Trudy" Ederle's record swim across the English Channel in 1926 was a major event for woman's rights as well as swimming. Her ticker tape parade upon her return in Manhattan was bigger than Lindbergh's.

Soon marathon swims sprung up in many places: most noticeably the Catalina Channel (George Young, 1927), the first group swim around Manhattan (1927) and many other places around the world. On July 12, 1927, the biggest group swim in the world was at Lake George, where 150 professional and amateur swimmers assembled in Hague, NY to compete for a \$10,000 purse. Famous baseball player Jack Dempsey was the official starter. The start was delayed because the overloaded dock collapsed, sending Dempsey and others into the water.



A flotilla of support boats assembled off Hague, NY for the start of the 1927 Lake George Marathon Swim

The actual race was mayhem. Swimmers were lost, many became sick and exhausted, and the cold water and long distance took its toll. Much to the surprise of the professional swimmers, a 24 yearold swimming instructor from Manhattan, Edward Keating finished at 4:30 AM, after almost 19 hours in the water.

The few remaining



contestants dropped out after hearing this news (Keating Alone Ends Lake George Swim)

There were no organized group swims in Lake George until 2007, but many solo swimmers challenged the full 32 miles of the Lake. Swimmers were continuously surprised how difficult it can be to navigate, the amount of chop, the cold, and the grueling distance. Finally, in 1958, after a failed attempt in 1950 at age 17 (Girl to Swim Lake George), a 25 year-old single mother of three, Diane Struble, finished the epic swim from a rock in the channel at Ticonderoga (marked with bronze plaque and now called *Diane's Rock*), to the public docks in Lake George Village in 35 hours and 33 minutes (Mother, 25, First to Swim Lake George).

The current long-term Mayor of Lake George Village, recounts his memory of the swim. He was a young patrol officer assigned to crowd control for the finish. About 10,000 spectators lined the village boardwalk. Cars kept trying to arrive. Route 9, (this was before Interstate 87) was backed up to Saratoga Springs. Blais worked with other police to divert traffic to Crandall Park in Glens Falls, where they parked on the grass, opened their car doors, and listened to the live report on the radio of her success.



Diane Struble at the start, with what is now Snug Harbor North in the background



Diane Struble with Betsy Palmer, host of the *Today Show*.

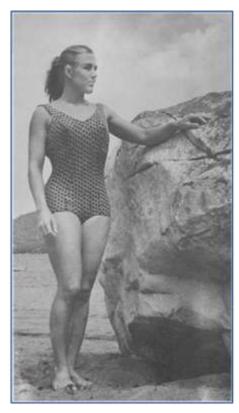
Diane Struble began an overnight national sensation, with an appearance on the Today show and support for other swims, including a crossing of Lake Champlain and an attempt around Manhattan. Her



daughter, Gwenne Rippon, gave a presentation at the Lake George Historical Association in 2015 that motivated the committee that is bringing about this reincarnation of Struble's swim.

Since 1958 a few people have repeated this swim. A list is provided in the table below. We hope to add many new names to this list, maybe yours?

Date	Swimmer	Age	Time
1958	Diane Struble	25	35:30:00
1962	Bill Stevens	31	31:27:00
1967	George Dempsey	17	32:15:00
1977	Stella Taylor	45	26:51:00
1981	John Freihofer	Unknown	21:26:00
1983	Jerry Ferris	43	29:15:00
2016	David Dammerman	47	18:49:22



Diane Struble 1958, 35 hours, 30 minutes



David Dammerman 2016, 18 hours, 54 minutes



Expected Conditions

Lake Morphology

Lake George is a graben lake, which is a type of lake formed geologically by two land masses that separate, leaving a deep rift between them. Subsequent to the tectonic schism that formed the lake, the entire valley and surrounding mountains were scoured by glaciers. This genesis left very thin topsoil around the lake, and the steep sides of the basin result in a very small watershed area and depths that exceed 200 feet. The steep watershed created plunging rocky shorelines in most places where water just offshore is very deep. Except where warning buoys mark shoals, you can motor almost to the shore in most places.

The Lake is "pinched" in the middle, with a shallow area speckled with islands known as "The Narrows." This area is a consequence of a split in the fault that created the graben, with one fork becoming Northwest Bay and the other fork the main stem. Another split in the graben created Lake Champlain, which is just a few miles to the east and extends 200 miles to the St. Lawrence River. In the other direction the rift between the two plates formed the Hudson River Valley. From a distance of a few miles, and at night, an approach to the Narrows from either direction looks like you are heading into a solid shoreline. See the aerial view of Northwest Bay and the Narrows on page 31. If the event is reversed, with a start at the south, keep to your right (east) after the Sagamore Hotel. Do not be lulled into navigating into the seven-mile dead end of Northwest Bay!

The combination of small watershed area and thin soils that overlay bare igneous rock results in water that is low in nutrients, unusually clear, and mostly free of algae. However, rapid development over the last fifty years, especially in the southern basin, has produced some degradation of clarity in the south and the introduction of invasive species of plants and mollusks. Typically water visibilities are 20 feet in the south basin and 30 feet in the north.

Currents

The retreating glacier left a ridge of rubble, a "moraine" that represents the southern boundary of the lake's basin, a few miles south of the Lake. You will drive up over a hill when you drive south out of Lake George. This terminal moraine to the south means the lake drains to the north, over a water level control structure and down the cataracts of the La Chute River to nearby Lake Champlain, which lies 80 feet below Lake George. Despite what "old-timers" may tell you, there is no measurable current in Lake George unless you are a few feet from the outlet or right in front of one of the inlet streams. You will feel intrusions of groundwater or streams when you are near the shore or if the wind is blowing. These groundwater or stream intrusions are colder, sometimes much colder!



Temperatures

Average air temperatures in mid-September vary between 46°F and 70°F, but extremes can be between 30°F and 90°F. Water temperatures average 68°F, with an historical range of 62°F and 72°F. See **Appendix A** for more information about historic water and air temperatures. Also, there is anecdotal information from a trained weather observer that strong winds can cause upwellings with water temperatures in the low 50s in some areas.

Wind and Waves

At its widest point, Lake George is barely over two miles, so winds out of the west or east do not produce more than chop. However, winds from the north or south can work on an uninterrupted fetch of over 12 miles, and three-foot waves are possible. As described in **Appendix B**, winds from the south are somewhat more common in September, but unless the sustained winds exceed 12 mph we will proceed with a traditional start at the north end of the Lake in Ticonderoga. Winds are almost always much lighter at night. The course direction will be announced no later than 9 AM on the morning of the start. If forecast winds sustained exceed 25 mph the event will be cancelled. Despite forecasts, the steep terrain around Lake George result in rapidly changing wind directions and intensities.

Sun and Moon

The sun will set September 17, 2016 at 7:00 PM. It will rise on September 18, 2016 at 6:38 AM. The moon will be full on September 17, 2016; it will rise at 7:25 PM and set at 7:26. Barring a heavy cloud cover there should be enough light all night to see the landforms.

Fog

Another environmental condition that may affect the event is fog. Early morning fog is quite common in September. Sometimes the fog layer is only a few feet thick. It might be thin enough for boaters to see over it but swimmers may be effectively blinded. Kayaks and boats need to understand that the swimmers may be experiencing very different visibility. Sometimes the fog is thick enough that visibility shrinks to a few hundred yards for everyone. Boaters need to know how to navigate with their GPS systems on their smart-phones (See *Electronic Aids to Navigation*, page 37).

The pictures show how rapidly conditions can vary. The picture on the left was taken after winds were blowing at 20 knots all night long. It was not hazardous, but it was a lot harder to swim in than the glassy conditions the next day! Seeing hundreds of sunrises from this beautiful spot motivate us to do all we can to preserve this special place.





July 14, 2015, 6:30 AM;

Offshore "Dog Beach," South end of Lake George
Same time of day, same location, same people. What a difference a day makes!



Rules

Rules serve to:

- Promote safety
- Provide fairness
- Set expectations
- Allow recognition by other sanctioning bodies

Jurisdiction of the rules is as follows:

The Event Director has developed the rules in cooperation with the Open Water Committee of United States Masters Swimming (USMS). The Event Director has authority to interpret and enforce the rules.

The Referee has authority to enforce all the rules. The Referee will supervise the Start and Finish and keep the official time for all swimmers. The Referee may delegate authority to record finish times if she cannot be present.

Official Observers will be assigned to each individual swimmer and relay team. The Observers shall be responsible for enforcing the rules for the swimmer and team they observe.

If an Observer, the Referee or the Event Director reports an infraction, the Referee will make the final determination that an infraction has occurred. An infraction can result in a warning for a minor infraction, such as touching a boat, or expulsion from the event for a major infraction, such as wearing a wetsuit. The Referee has authority for final determination on how to interpret an infraction.

The Lake George Marathon Swim shall follow the Open Water Rules and interpretations by USMS. The complete set of swimming rules from USMS is available at http://www.usms.org/rules/. Open water rules are in Part 3 of the rulebook. USMS Open Water rules follow the international rules of FINA, as well as the USA Swimming rules.

International Marathon Swimming Federation (MSF) rules are slightly different. To allow this swim to be recognized by MSF and USMS, an interpretation has been provided by USMS to accommodate the MSF rules related to swimwear, which prohibit wet suits and swimwear below the knees. This allows the Lake George Marathon Swim to prohibit bathing suits below the knees. The MSF also promotes a "Spirit of Marathon Swimming," which the Lake George Marathon Swim wholeheartedly embraces. This "Spirit" acknowledges the rich history of marathon swimming..

MSF Rules (http://marathonswimmers.org/rules/) are guided by the traditions and spirit of unassisted marathon swimming. They are consistent with USMS rules and summarized below as the Rules for the Lake George Marathon Swim.



The Spirit of Marathon Swimming

Marathon swimmers embrace the challenge of crossing wild, open bodies of water with minimal assistance beyond their own physical strength and mental fortitude. There are ways to make the sport easier, but marathon swimmers consciously eschew them.

Marathon swimmers take pride that their achievements can be meaningfully compared to the achievements of previous generations, because the standard equipment of the sport has not changed significantly since 1875.

Start & Finish

The swim will start on a signal from the Referee with an in-water start behind a designated line. The Finish will be marked by the swimmer passing under a finish line or between two buoys.

Physical Contact

The swimmer may not make intentional supportive contact with any vessel, object, or support personnel at any time during the swim. If a swimmer comes in contact with the bottom of the lake they may stand but may not walk or push forward off the bottom. Pulling along the bottom is prohibited.

Standard Equipment

The swimmer may wear a single textile swimsuit with coverage to the neck but not over or below the shoulders and above the knees, one latex or silicone cap, goggles, ear plugs, nose clips, and may grease the body. The swimmer may not use any additional equipment that benefits speed, buoyancy, endurance, or heat retention. Swimsuits shall be a textile material and may not extend below the shoulders onto the arms or below the knees

Drafting

The swimmer may not intentionally draft behind any support boat, kayak, or support swimmer. The swimmer may not swim alongside support boat. Support boats are not intended to escort swimmers; that is the role of the kayaks.

Drafting behind another swimmer is allowed by FINA and WOWSA, and drafting is an important part of open water swimming and triathlon swims. In accordance with USMS 303.3.6, drafting is at the



discretion of the event director. Because some drafting at the start is likely in a narrow channel, and it could happen as faster swimmers pass slower swimmers, the Lake George Marathon Swim will approve drafting behind other swimmers. In the spirit of marathon swimming, we expect all swimmers will not stay on their feet for extended periods because it can become annoying to the lead swimmer. Touching and interfering with another swimmer is strictly prohibited.

Support Swimmers

A support swimmer (or swimmers) may accompany the solo swimmer for up to an hour at a time. Multiple support swims are allowed, but should not occur consecutively. A gap of at least one hour must elapse during which the swimmer swims alone between support swimmers. The support swimmer may not intentionally touch the solo swimmer and must position him or herself at least slightly behind the solo swimmer. Drafting behind a support swimmer is prohibited.

Relay Teams

The Lake George Marathon Swim includes relay teams. The following rules apply to the relay teams.

- 1. Relay teams may choose the number of swimmers from two to six.
- 2. The turn interval shall be one hour for four or more swimmers, up to two hours for two or three swimmers. Whatever interval the teams with two or three swimmers choose, they shall adhere to this interval for the whole event.
- 3. The team roster, order, and interval must remain fixed for the duration of the swim. The order of the swimmers shall be submitted to the Observer before the start of the swim. If a team member misses a turn that team member shall not swim again. In that case the new order is the same as before, but with the swimmer who missed a turn replaced by the next swimmer in the order.
- 4. The swimmer exchange takes place in the water, with the new swimmer approaching the previous swimmer from behind. Swimmers shall touch hands so the Observer can mark the exchange. If another boat or other hazard interferes with the exchange, at the discretion of the Captain, Observer, or the swimmers, the swimmers are allowed five minutes to complete the exchange, starting from the scheduled exchange time. The support boat shall be in neutral gear during the exchange,



Authority on the Support Powerboat

The Observer is responsible for documenting the facts of the swim, enforcing the swim rules, and reporting to the Pod Leader and Referee any discrepancies including the swimmer ending the event. See page 17. The Observer may warn a swimmer or disqualify a swimmer for an infraction of the rules.

The Captain of the support boat is the ultimate authority in all other matters. The Captain or the Observer may cancel the swim at any time, for any reason, including, but not limited to, concerns for the safety of the swimmer or support personnel. The Captain is responsible for following all relevant local maritime regulations. See page 16.

Responsible Environmental Stewardship

Everyone involved in the swim attempt - swimmer, observer, support personnel, and support boat personnel - must treat the environment respectfully and prevent avoidable harm to wildlife and ecosystems. All support powerboats shall be equipped with a marine head for use by crew. Boats not equipped with a head must obtain and use a portable head. Let the Event Director know if you would like to buy or borrow one of these. Bottles and wrappers must be disposed of on land in a trash receptacle.

Continuance of the Spirit of Marathon Swimming

If any issue regarding swim conduct arises that the Swim Rules do not clearly address, the swimmer should act, and the Observer should judge, in accordance with the spirit of unassisted marathon swimming.

Disqualifications

Disqualifications will be issued in accordance with USMS 303.9 and the Rules of this event. Swimmers may be given a warning for a minor, incidental, or accidental infraction. A warning would be issued for an inadvertent contact with a boat or another swimmer, standing on the bottom and pushing forward, accidental bumping of another swimmer, a relay swimmer mistakenly jumping in the water out of turn, or other accidental violation. If a swimmer were to jump in the water out of turn, a relay swimmer exchange would have to take place immediately. If an Observer, the Referee, or the Event Coordinator observes an intentional violation of the rules, a disqualification would be called. For example, if a swimmer is seeing holding onto the stern line of the kayak and getting towed, the swimmer would be immediately disqualified.



If the swimmer protests the disqualification they should tell the Observer that they are protesting and continue to swim and to abide by the Rules. All disqualifications must be confirmed by the Referee. The protest will be resolved by the Referee as soon as feasible. After a confirmed disqualification the swimmer and crew could elect to continue the swim with the understanding that the finish would not be recorded.



Roles and Responsibilities

The following roles and responsibilities are designed to promote safety, fairness, and to clarify decision-making. The event-wide roles that are already filled are listed by name, with a short bio of the person holding the position. Our insurance extends to all the volunteers and swimmers, but only people who are fulfilling one of the following roles may be on the water.

Event Director

The Event Director has overall responsibility for the event. The primary role is safety, but communications, liaison with other groups (sanction, emergency services, press, etc.) and management of the event steering committee fall in this role. The Event Director participates with the rest of the team in safety decisions and risk management. The Event Director may unilaterally cancel the event or disqualify any swimmer or team.

The Event Director in 2016 is Bob Singer. He is a local resident and recent retiree from a career as an aquatic ecologist in environmental consulting and university teaching. He is an avid Masters swimmer, certified USA Swimming and YMCA Official, experienced escort kayaker, and has managed several other local swim events.

Referee

The Referee is responsible for the Starts and Finishes, and keeping time for all swimmers and teams. If the referee cannot be at the Finish for all swimmers, this role can be delegated. The Referee shall work with Observers and the Event Director to enforce the Rules of the swim. If a swimmer or team leaves the event, the Observer shall report this to the Pod Leader and to the Referee. The

The Referee in 2016 is Deb Roberts. Deb is a botanist and runs a small environmental consulting firm. She is certified US Masters Swimming coach, a certified USA Swimming youth coach, certified USA Swimming and YMCA Official. She is an avid Masters swimmer, former collegiate swimmer, and kayaker.

Referee may unilaterally cancel the event or disqualify any swimmer or team.

Safety Director

The Safety Director has overall responsibility for reviewing safety plans, confirming the plans are being followed, and training volunteers before and during the event. The Safety Director may unilaterally cancel the event or remove any swimmer or team for safety reasons.





The Safety Director for 2016 is Ruthie Dietrich-Quinn. She currently holds the position of Head Lifeguard at the Glens Falls Family YMCA. She is a certified YMCA water safety instruction and YMCA trainer. She is up to date with CPR and Advanced First Aid. She schedules and supervises a large staff of lifeguards at a very busy facility.

Medical Director

The Medical Director will be available to treat anyone who may require first aid. The Medical Director will be based on shore and provide assistance as swimmers finish the event. If any medical assistance is rendered on the course, the Medical Director will be informed and will coordinate with EMS services if any medical evacuations are required.

The Medical Director in 2016 will be Tim Ward. Tim is a Physician's Assistant at Glens Falls Hospital. He has worked in Emergency Medicine for six years, certified in Advanced Cardiac Life Support, and experienced with sports injuries and sports medicine. He is an avid participant in endurance sports including completing the Lake Placid Ironman in 2015.

Independent Safety Monitor

The Independent Safety Monitor represents USMS and must be approved by the Local Masters Swim Club sanctioning officer and shall be independent of the event organizing body. The Independent Safety Monitor shall be present at the event to assure that the approved safety plan is implemented and that adequate safety precautions are in place for existing conditions. The Independent Safety Monitor shall have the authority to revoke the sanction on the day of the swim if adequate safety precautions are not in place. The Independent Safety Monitor may unilaterally cancel the event or remove any swimmer or team for safety reasons.

The Independent Safety Monitor for 2016 is Harrison Freer. Harrison is a retired Air Force Colonel. His last command was the Global Positioning System (GPS) operations unit. He also commanded a group in Germany responsible airlift support for European, African, and Middle East strategic. He retired in August 2000 in the grade of Colonel. He is a recreational sailor, an active volunteer in youth swimming, a FAA certified flight instructor and serves on the Queensbury Zoning Board of appeals





Emergency Coordinator

"Hope for the best, plan for the worst." We certainly do not expect anything to go wrong, but if it does...the Emergency Coordinator works with the local EMS and Fire Departments to identify known egress points on the lake utilized during emergency medical events. The Coordinator will also be in contact with the local agencies prior to, and during the marathon swim to update conditions and events. During the swim, the Emergency Coordinator will be on the lake, in radio communication with Pod

Leaders and escort boats, ready for problem solving and assistance.

The Emergency Coordinator for 2016 is Anne Green. Anne is a high school science teacher and EMT-B with Bolton Emergency Medical Services, Inc. She enjoys water in all its forms and seasons. Most recently she has become introduced to Nordic Ice Skating and is looking forward to the year she can skate the entire length of Lake George. This summer her lake event will be a tandem kayak of the length in August. She is also an avid swimmer having swum the width of Lake George and Northwest Bay to Veterans Park.

Boat Captains

Each of the swimmers or teams will be accompanied by a powerboat. The powerboat shall convey the swimmers, crew, and kayak to the Start, if this is not being done by land. The Captain is responsible for the operation of the boat and compliance with all boat operating rules and regulations (http://www.lakegeorge.com/boating/regulations.cfm). The Captain shall lead a group briefing before the event, to include swimmers and crew. This briefing is an opportunity for everyone to share any medical conditions or concerns (see page 54).

If you are bringing your own powerboat read about the special requirements on page 63. It is the Captain's responsibility to ensure that the boat has functional navigation lights. The Captain shall ensure that Personal Flotation Devices (PFDs) are available for all crew AND ALL THE SWIMMERS. Everyone on the boat except swimmers who are dressing or undressing should wear a PFD while on deck, especially at night.

The Captain must maintain an awareness of the fuel status. The rental boats and most other boats



The swimmer and kayak have the right of way here, but a prudent Boat Captain will give way to the larger vessel that is not as maneuverable.



should have adequate fuel capacity to idle through the entire event, but they should be topped off before the start. If fuel or other mechanical problems become an issue the Pod Leader should be called for assistance. The boat Captain will take primary responsibility for navigating, and may lead the kayak. During relay exchanges the boat Captain shall motor along near the swimmer in the water, and drift with the propeller in neutral while the exchange takes place. A similar operation will occur during exchanges of kayakers.

The boat Captain shall "protect" the kayak and swimmer from unwanted approaches by non-participating boat traffic. This can be done by positioning the boat between the non-participating boat and the kayak and swimmer and politely explaining the situation to the non-participating boat operator. The boat Captain must be respectful of fishermen who have gear in the water. The boat Captain should inform the kayaker to steer the swimmer at least 200 feet away from a fishing boat with gear in the water. Boat Captains may also change the course of their kayaks and swimmers to avoid a sailboat race, a boat in tow, a cruise ship or any other "burdened vessel."

The powerboat shall not be used to directly escort the swimmer. USMS rules require powerboats that are escorting swimmers to have caged propellers. Instead, the kayaks escort the swimmers and the powerboats support the kayaks by providing navigation help, a spare kayaker and a place to rest, food and water (and coffee!), and any other material support. If a kayak cannot provide escort to the swimmer, the swimmer should be pulled from the water.

A good source of information about "Rules of the Road" including lights, sounds, aids to navigation, and anchoring and docking is Boat US Foundation. See http://www.boatus.org/guide/navigation_20.html. Boat Captains must have a whistle or air horn. A whistle will be issued to all boat captains. The full suite of signals is available in the Boat US guide but everyone should know that five short blasts is a DANGER signal. Use this if a boater is bearing down on a swimmer or another threat is imminent.

Our event is expected to create interest; we do not want to discourage the interest and welcome other boats following along at a safe distance. However, if a non-participating boat operator is belligerent and hostile, or appears intoxicated, and the situation cannot be diffused with conversation, the Pod Leader can be called. The Pod Leader will try to "talk down" the boat operator while the support boat stays with the swimmer and kayak. A last recourse is to call the Warren County Sheriff's department, who has primary law enforcement responsibility (this has happened to us in a nearby lake during a swim). The Lake George Park Commission also maintains patrols.

Official Observer

Each support boat and kayak team shall have an Official Observer as part of the team. Pod Leaders may carry an Observer on their boat. The Observer's primary role is to monitor the status of the swimmer in



the water, and to check compliance with all safety rules. Similar to a "spotter" for a water skier, The Observer shall focus attention on the swimmer, especially during kayaker exchanges or resupply of the kayak, when the Captain and kayakers may have their attention diverted to the kayak. The Observer shall either take stroke count of the solo swimmers hourly, or retrieve this information from the kayaker. The Observer shall record and transmit the required hourly report to the Pod Leader (**Appendix C**). Copies of this form will be available at Registration. The Observer may assist the Captain and help with navigation, as long as the primary role of watching the swimmer is not compromised. The Observer and a kayaker may temporarily shift roles.

The Observer can assist the Boat Captain by running the navigation software (Navionics Boating USA). Familiarity with this software is an essential skill to practice BEFORE the event. See page 37.

The Observer must notify the Referee, Deb Roberts (518-796-9156) if a swimmer or team does not finish the swim. A swimmer may not finish because of an early withdrawal or due to running out of time at the end of the event at 5:00 PM, Sunday, September 18. The Observer needs to make two reports to the

Referee if a swimmer or team does not finish:

- Report the swimmer's status and location when the swim ends before the finish, along with any request for aid; and,
- 2. Confirm that all parties have left the water after they come ashore.

Kayaker

Kayakers must wear personal flotation devices (PFD—"life jacket") at all times. The kayaker shall escort the swimmer by paddling alongside the kayaker, between five and 20 feet away from the swimmer. Kayaks should carry and display a signal flag. Flags will be provided to each team with 1-inch poles. Each team should devise a method of holding the flag. The light standard shown in Appendix D will hold the flag, as will a "Scotty 433 Coaming/Gunnel mount." This clamp is



All kayaks must be illuminated with a minimum of one white light. Failure of the lighting on a kayak, the powerboat, or the swimmer will end the swim.

Blinking lights signal emergencies or urgent situations only. This kayak is well lit with green, red, and white "e-Gear Guardian Adventure" lights affixed to the deck via Velcro. Additionally, a large flashlight in the bow compartment projects a diffuse light into the water for the swimmer to see. This light can be placed behind the kayaker to maintain night vision for the kayaker. See Appendix D for more ideas about lighting kayaks.



available at Amazon at https://www.amazon.com/Amazing-Quality-Scotty-Coaming-Gunnel/dp/800UH1JLCU and elsewhere.

Kayakers should determine where the swimmer prefers them to be. Some swimmers will want the kayaker to switch sides, or be slightly ahead or behind the swimmer. The kayak and swimmer need to discuss how the kayak can "steer" the swimmer by moving closer to or farther away from the kayak.

The kayaker needs to be familiar with the early signs of hypothermia or distress, including "claw" hands, reduced stroke count, failure to feed or urinate, difficulty breathing, and mental confusion. See the discussion of distress starting on page 52. The kayaker has the authority to stop the swim. The kayaker or the Observer shall measure the stroke count per minute of the solo swimmers at least hourly and more frequently if the count appears to be slowing. If a kayaker makes the



All kayaks must be illuminated with a minimum of one white light. We advise red (left, port) and green (right, starboard) marker lights and glow sticks too. Note this kayak has marker lights and an orange flag in a "Scotty 433 coaming/gunnel clamp." The kayaker is wearing a jacket with reflective tape. See **Appendix D** for more ideas about lighting kayaks.

determination that continued swimming poses a threat to safety, either with consultation from the rest of the crew in the support boat, or on their own, they shall tap the swimmer and tell the swimmer the event is over (see Swimmer in Distress on page 52). The swimmer shall hold onto the bow or stern of the kayak until the powerboat is close enough for the swimmer to egress. If a swimmer elects to hold onto the kayak, or a stern line of the kayak, the swimmer shall be disqualified by the Observer.

High winds and waves can make it impossible for a kayak to continue. Kayakers may choose to exchange places more frequently. Observers may take a turn kayaking in these conditions as long as a kayaker is qualified and able to serve as an Observer. If conditions become dangerous or impossible for the kayak to continue, the swimmer shall be notified and the swim will end. In no case may the swim continue without a kayak escort, even if the powerboat is available. The powerboats do not have caged propellers, which is a USMS requirement for powerboats to serve as escorts.



Kayakers must always wear a PFD. If a kayak swamps, the swimmer shall tread water away from the kayak while the powerboat comes alongside, shifts to neutral, and the kayaker boards the boat. The boat captain and relief kayaker may lift and empty the kayak. The relief kayaker may then proceed with escorting the swimmer. At all times the Observer is to watch the swimmer, and not get involved with the kayak operation.

Each swimmer or team shall have at least two kayakers. Relay swimmers may serve as one or both kayakers. One or two kayaks may be used. Two kayaks are preferred, but a second kayak does add complications to travel and logistics and may add expense. If two kayaks are available the relief kayaker launches from the power boat, overtakes the first kayaker, and they switch positions. If only one kayak is available, kayaker exchanges must take place.

Kayakers exchange positions while the Observer maintains a watchful eye on the swimmer. Kayak exchanges should not occur simultaneously with relay swimmer exchanges. The swimmer needs to be notified of the impending kayak exchange. The choice of location of the exchange shall be at a place that the swimmer can continue on without being at risk from other boats and at a place where navigation is not critical. While the swimmer continues, the powerboat moves ahead of the swimmer while the kayak also moves ahead of the swimmer. The boat shifts to neutral as the kayak comes alongside for the exchange. During the exchange the Observer must maintain visual contact with the swimmer at all times. The boat moves away from the kayak under power only after it is confirmed that the swimmer is not in the path. More than two kayakers are welcome if space is available for them in the support boat.

An important role of the kayaker is to provide "feed" for the individual swimmers. This is accomplished by tossing the feed to the swimmer, generally with a thin line attached to the feed and the kayak. The swimmer may not receive flotation or support during these feeds. The exact feeding plan should be discussed and rehearsed in advance. If warm feed is provided from the powerboat the powerboat may approach the kayak under power, on the side away from the swimmer, to hand off the feed and retrieve empty bottles.

Kayakers and the rest of the crew must remember that they are also accomplishing a strenuous athletic event. Kayakers must be sure to stay hydrated, eat, and rest. An Observer can take a turn at kayaking if as long as one of the kayakers temporarily takes on the duties of an Observer.

For more information about being a kayaker, and lists of supplies and signs to observe in a swimmer, see "Paddler's Kit" at http://www.swimmerslastlonger.com/images/paddlersguide.pdf



The Swimmer

Oh, yes, let's not forget the swimmers! Mostly, all the swimmers need to do is to swim! Everyone else is there to facilitate safe swims.

Swimmers must be illuminated by at least two lights from sunset to sunrise. If one of the lights fails the kayaker shall inform the swimmer and powerboat. A spare shall be delivered. The kayaker may help attach the light to the swimmer's goggle strap, cap, or swim suit. See **Appendix D** for ideas for lighting swimmers.

THE SWIM IS OVER IF NO SPARE IS AVAILABLE!

The swimmers need to be aware of the Rules. This includes understanding the



prohibition on wetsuits, not gaining support or flotation, walking along the bottom, nighttime illumination (**Appendix D**), and the rules of relay exchanges and intervals. Swimmers need to communicate with their crew before the event, and during the event. If you have a rescue inhaler, all the crew needs to know about it and know where it is. You need to tell the kayakers where you want them to be, and if they should change sides. You need a signal so that you understand that they are exchanging paddlers and they won't be right alongside for a few minutes. Let them know how you feel. They are there to support you and want you to succeed. Be nice!

The swimmer must cooperate with the kayakers if they are questioned to test their mental acuity (this can be really annoying!). Most importantly, the swimmer must cooperate if the event is cancelled for any reason. Swimmers must understand that the rigors of this event can render them not fully competent to make safety decisions. Read about Distress starting on page 52.



Pod Leaders

How do we organize 28 support boats and kayaks, with 80 solo and relay swimmers, for a safe event? The basic principle is to have backups, clear roles, good communications, and plans for when these good plans do not work out!

With a nod to Phil White from the Northeast Kingdom swims in Lake Memphremegog, we are adopting his "pod" units. Each group of 5-6 swimmers or teams will be a pod. These pods will start together in a wave and are expected to stay fairly close to each other, based on seed times. Each pod will have a Pod Leader. By directing routine communications through the Pod Leaders to the Referee, Event Director, and Safety Director, the radio chatter will be minimized. The Pod Leaders provide a lot of redundancy in case a boat is disabled. A Pod Leader may fill in for a boat that is disabled or has another problem.

Pod Leaders are local boaters and can rally additional support if needed.

All participants must know which pod they are in, who their Pod Leaders are, have their phones on speed dial, and know the radio communications protocols.

Pod Leaders are:

Red Pod: Bob Singer, Event Director
Blue Pod, Deb Roberts, Event Referee
Orange Pod, Harrison Freer, Independent
Safety Monitor
Green Pod, Roy Ketring
White Pod, David Dammerman

Contact information for all of the Pod Leaders is provided in **Appendix E** and on a label in the clipboards provided to boat crews. Pod leaders have specific emergency duties (page



Preparations, Equipment, Supplies

Preparations, Equipment, Supplies

It is the responsibility of the swimmers to organize the planning and lead their crew teams. The swim requires a lot of planning and equipment. The swimmers need to understand that some crew members are new to escorting marathon swimmers. Crew members need guidance on packing clothes, food and water for themselves, cell phones and chargers, navigation software, sunscreen, where to assemble and park their cars, etc. Boats and kayaks need to be secured, permits for boats brought in from outside Lake George must be obtained, and housing and transportation must be arranged. Lights for kayaks and the swimmers should be secured. Each swimmer and relay team will have to work out these details with their crew.

Because boats will be loaded from different places and cars will be left at many places, the event cannot provide shuttle service to the Start or from the Finish. If volunteers are available we will try to help with transportation, but each team needs to plan on returning boats, kayaks, and getting to their cars at the conclusion. See the sections on the Start (page 25), Finish (page 44), and Local Logistics (page 61) in this Guide.

The event coordinators will provide advice and help, and to the extent feasible, recruit additional volunteers and crew members, but the ultimate responsibility for assembling the team and equipment is the swimmers'. Beyond a good faith effort, the event coordinators cannot make any warranty that the volunteers they recruit will be suitable. It is strongly advised that the swimmers conduct calls and messages with the crew in the months and weeks leading up to the swim to assure their commitment and understanding of this complex event.

The event coordinators have assembled checklists of materials that are recommended for each crew member and the swimmer. Some equipment, marked with an asterisk, will be provided by the Lake George Marathon Swim and available at registration. Items without an asterisk are expected to be supplied by the swimmers and crew. Some of these items, like lights for swimmers and kayaks, require ordering a week or more in advance. Local grocery stores are described in the section on Local Logistics (page 60). These checklists are available in **Appendix F**. Show up prepared for this swim! Show up on time at Mossy Point, ready to go. If you need half an hour to apply Desitin or sunscreen, move your arrival time up half an hour.

A note about packing for the boat...Although a 22-23 deck boat or pontoon boat is well sized for this, it can be overwhelmed if six swimmers and four crewmembers all pack everything on the checklists in their own, separate bags. For example, two sleeping bags are enough for everyone. Although you need drinking water, you do not each need to bring three gallons. Likewise, pack your food together for the



Preparations, Equipment, Supplies

crew. The only storage is in lockers under the seat cushions. You will be tripping over duffel bags if you do not consolidate your packing. Plan, plan, and plan!



The Start!

Saturday, September 17, 2016 2:30 PM – 5:00 PM

Ticonderoga, NY

The following directions are for the planned start at the north end of Lake George. If strong southerly winds are forecast, the course will be reversed. See directions on the following pages for a start from the southern end of the Lake. Check your email and FaceBook

(https://www.facebook.com/LGMarathonSwim1958/), or call or text Bob Singer at 518-791-1295 for a

NOTE: Snug Harbor has two locations. Many of the swimmers are renting boats at Snug Harbor South, 7968 Lake Shore Drive, RT9N, Silver Bay, NY. If you are renting a boat at Snug Harbor South allow an hour at the marina to receive a mandatory briefing and to load and park one car. Then allow at least 25 minutes to motor up to the staging area at Mossy Point, half a mile from the starting area at Snug Harbor Marina North.

decision on the starting location. This decision will be made by 9 AM, Saturday, September 17, 2016.

See the Local Logistics section, starting on page 61, for advice on travel.

There will be five "pods" of 5-6 swimmers/teams. Each "pod" will have a "Pod Leader" who is available in case there are any problems. Pods will be seeded slowest to fastest, starting at 3:00 PM and at half hour intervals.

With 35 powerboats, 80 swimmers and 130 volunteers, there is not enough room at Snug Harbor North for us all to assemble (see picture page 46). We will split the final briefing by briefing the kayakers and swimmers at Mossy

Point by podWe need to minimize boat traffic through this narrow channel. A 150 HP engine will use about 10 gallons to travel the 32 miles length of the Lake at an idle speed. Boats starting with full fuel at Snug Harbor South do not need to refuel. Please clear Snug Harbor North of powerboats (except Pod Leader boats) before 2:45 PM.

Be at Mossy Point an hour before your pod starts. Allow time and be prepared to raft up to get on shore at Mossy Point. The short briefings will be on current conditions and an opportunity to ask last minute questions. See the timetable in the table below or in text format on page 1. The kayakers, first swimmers of relays and all the individual swimmers will be taken up to Snug Harbor by Pod Leaders 30 minutes before their Start. Swimmers must locate their Pod Leader for transport to the start at Snug Harbor North. Kayaks will paddle up to the starting area. DO NOT MISS THIS RIDE! All the other power boats,



Observers, relief kayakers, and relief relay swimmers will wait at Mossy Point until their swimmers go by.

About an hour after the start of each pod, the support boats must depart Mossy Point to the wide bay south of Black Point (see map), where they will wait for their swimmers and accompanying kayaks. Powerboats must stay in the marked channel. Powerboats should not approach the swimmers, but wait for the kayak and the swimmer to reach them. First relay exchanges may be delayed if the first swimmer does not get to this area (about two miles from the start) within the first hour.



A swimmer at the starting line.
Diane's Rock is to the left (note the bronze plaque commemorating Diane Struble's 35:30:00 swim in 1958). Two navigation buoys will mark the line

Swimmers should hand off their clothes and shoes to their kayaks when each pod is given the signal by the Referee to prepare to enter the water. Kayakers will paddle out to a point about a hundred yards south of the Start where they will await their swimmers. The Referee or another Official will give a signal for the swimmers to enter the water by pod at 30 minute intervals five minutes before the start of each pod. Swimmers will enter the water off the docks and swim out to the Start. DO NOT DIVE off the dock—water is shallow. It is about 30 yards from the fuel dock at Snug Harbor North to the start line. The starting line will be in deep water between the two navigation buoys. Swimmers will start on a signal from the Referee, who will then announce over the radio to the boats at Mossy Point that the pod has started.

The first pod will be started at 3:00 PM. Remaining pods will start every 30 minutes until 5:00 PM. If the initial start is late, the swimmers will be started less than 30minutes apart. If a swimmer misses their start their time will start when their pod started. No swimmer may start after the last pod departs at



5:00 PM. Remember, this is an Event, not a Race. Be mellow at the start and give everyone room. After a few hours you won't be able to see each other.

Timeline for the Start

Pod	Briefing	Depart Mossy Point	Splash	Start
Red	2:00	2:30	2:55	3:00
Orange	2:30	3:00	3:25	3:30
Green	3:00	3:30	3:55	4:00
White	3:30	4:00	4:25	4:30
Blue	4:00	4:30	4:55	5:00

Note that this starting area is an active and very narrow boat channel. We may have to adjust the start time to clear the area of power boats. Swimmers and kayakers shall quickly move out of the channel into shallow water on the west side of the channel as soon as possible. Local boats who

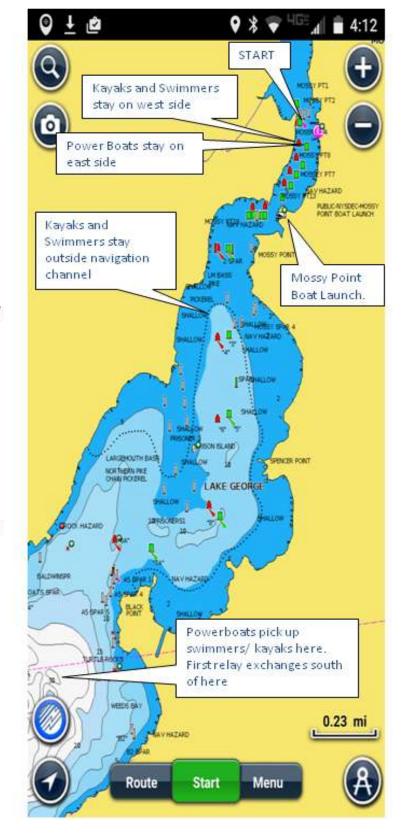
know the shoals may be operating in the shoal water so maintain vigilance for non-participating boats even when outside the channel markers.

Pods that arrive at Mossy Point after 3:00 PM must be aware of swimmers in the water. **Boats arriving** at Mossy Point or Pod Leaders going to Snug Harbor North shall stay to the east side of the channel, with swimmers and kayaks on the west side.



Starting Sequence: Goal is to keep the channel clear of powerboats

- Powerboats, crew, and all swimmers meet at Mossy Point
- Starting Swimmers catch a ride to Snug Harbor North with their Pod Leaders
- Kayakers paddle from Mossy Point to Snug Harbor
- Separate final briefings at Mossy Point and Snug Harbor North
- 5. Start at Diane's Rock
- Kayaks and swimmers stay to the West
- Powerboats pick up swimmers and kayaks south of Black Point, two miles from the Start





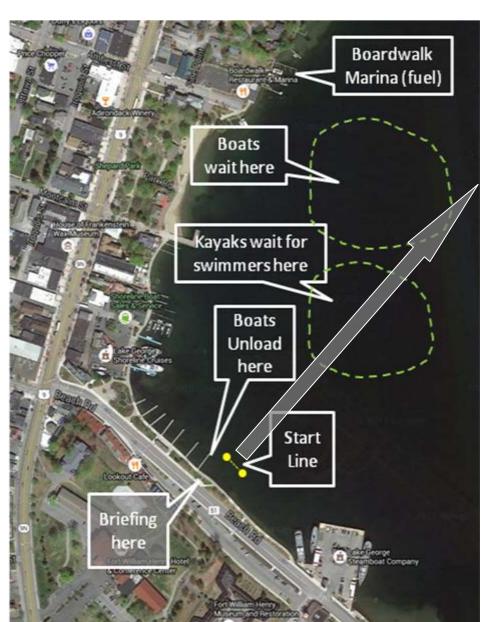
Lake George, NY

The Start (Backup Plan)

Assemble at the Village docks at 3:00 PM

If sustained winds are forecast over 12 knots (14 mph) from the south, the course will be reversed, starting in Lake George Village and ending in Ticonderoga. We will confirm that the Boardwalk Marina will be open; the Boardwalk is the closest fuel dock to the south end of the Lake. If fuel is not available there we may have to stop in Diamond Point, which is about six miles north of the Village.

The Start will proceed as described above for a start from Ticonderoga. Refer to the pod start-times in the table in the preceding section. Swimmers and kayaks will be dropped off at the public docks (the Finish if we start from the north). We may only have access to one dock; if dock space is not available boats can anchor after dropping off kayaks and crew for the mandatory safety briefings one hour before each start. The briefing



Plans for a Start in Lake George Village. Be sure to allow time to get through crowds of Antique Boat Show participants for the 3:00 briefing.



will be held along the shoreline. One boat will be used to ferry crew to the dock for the briefing. The briefing will take place on shore.

Also be aware that the Antique Boat Show (page 63) will be going on along this shoreline. The westbound lanes of traffic will be closed and filled with boats on trailers. If anyone is getting dropped off by car there will be two-lane traffic moving in the eastbound lanes. It will be slow and it is advised to avoid Beach Road and drop people off on Canada Street or West Brook Road.

The Start will proceed as described for the start in Ticonderoga, except that the Referee will be on the dock and the swimmers will wade out to the start line. Pods will start at 30-minute intervals starting at 3:00 PM and ending at 5:00 PM. Kayaks are to wait for their swimmers about 200 yards offshore. The powerboats are to wait another 200 yards from the kayaks. Powerboats should not approach the swimmers, but rather wait for the kayak and its swimmer to reach them. Refer to the figure.



Navigation

Lake George is generally very easy to navigate. It is a long, narrow lake. We do not prescribe a route. Part of the "fun" and "adventure" of this event is to determine your own course. Aids to navigation are described below. If there is wind you might try to stay closer to the windward shore to minimize the effects of the wind.

The navigable channel south of Snug Harbor North is very narrow for the first two miles and described under "Start" above. Powerboats must stay in the channel, which is marked by standard red and green buoys. The red buoys are on the western side of the channel, green to the east. Kayaks and swimmers may "cut the tangents," but one can quickly end up in mud or rock if you try to cut across too much. Powerboats must stay in the marked channels, which is why powerboats are "support" vessels and the kayaks are "escort" vessels.

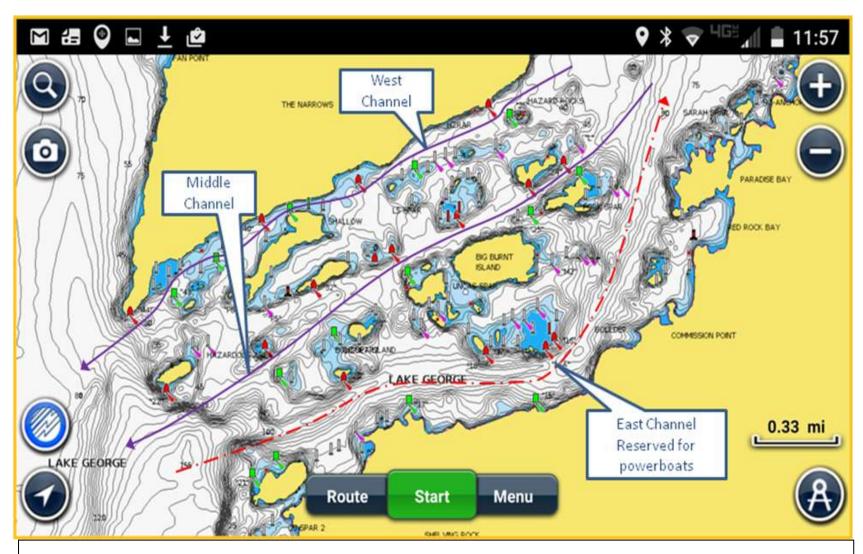
We recommend that the whole team takes a careful look together at the charts, and also Google Maps in "Earth View." After the swim out of Ticonderoga, the northern third of the Lake is wide open. The straightest line grazes Anthony's Nose on the eastern shore and Friends Point on the western shore. From that narrow chokepoint it is ten miles of open water, until you pass Odell Island, Sabbath Day Point, and then enter the Narrows, a five mile stretch with many small islands. See the photo on page 31.

The navigation chart below is from Navionics Boat USA¹, an optional charting software package, available for \$9.99. Use the versions in the footnote—the will also play on an iPad, although the higher priced iPad version is better. The chart shows the three channels through the Narrows. This chart shows buoys that are lit with "searchlight" symbols. These are obviously very helpful at night, but be aware that many spars and buoys that mark rocks are NOT LIGHTED and some of them mark rocks that are very shallow. Keep a sharp lookout, go slowly, and know where you are. We expect that kayakers and powerboats will stay in close voice communication through here. The western channel and the middle channel are about the same length. Use either one.

<u>Please do not use the eastern channel for swimmers</u>. We want to reserve the eastern channel for powerboats that are moving quickly after they have finished the swim or for Pod Leaders. All three channels have obstacles marked by buoys. At a swimming pace, it should be easy enough to navigate through here with frequent reference to charts and a GPS application on a smart phone or tablet. Also, there should be 33 boats out here, so you might just follow the boat ahead of you.

¹ Apple iPhone app = https://itunes.apple.com/us/app/boating-usa/id377908737?mt=8
Android app= https://play.google.com/store/apps/details?id=it.navionics.singleAppUsa&hl=en





The "Narrows" from a cell phone using Navionics Boat USA. The West and Middle Channel are to be used by swimmers. If a powerboat needs to move at high speed use the East Channel (Speed Limit night = 25 MPH, Day = 45 MPH



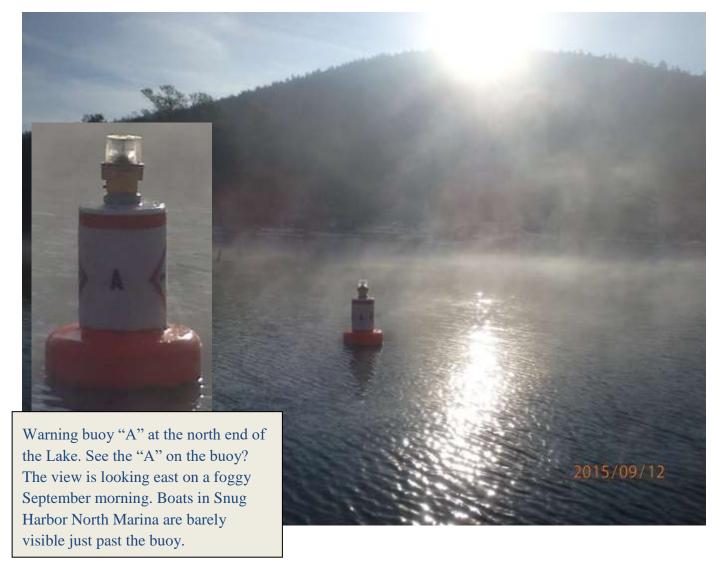
Once through the Narrows, it is a straight run to the Finish. You will see the Sagamore resort on the west shoreline; it is a large resort that will be lit up by night and looming large by daylight. Then you go by the aptly named Dome Island, either to the left or the right, straight past the Canoe Islands (either side or between), then Diamond Island (also either side), and on to the end of the Lake. A strong west wind might encourage you to take the eastern side of Long Island. It will give you two miles of lee. If you do stay east of Long Island, powerboats need to navigate the channel south of Speaker Heck Island. The channel on the north side of Speaker Hecht is only twelve inches deep. By the time you pass Tea Island, only a couple of miles from the end, the large cruise ships should be visible, as will our marker buoys marking the finish.

Paper Charts





The warning buoys on Lake George are labeled from A to Z, starting at the north. In many cases a letter designation is followed by a number, such as A1, A2....The last buoy is Buoy Z, near the cruise ship dock in Lake George Village. If you ever need to report your position, an easy way to do it is say, "by buoy A4, south of Mossy Point."



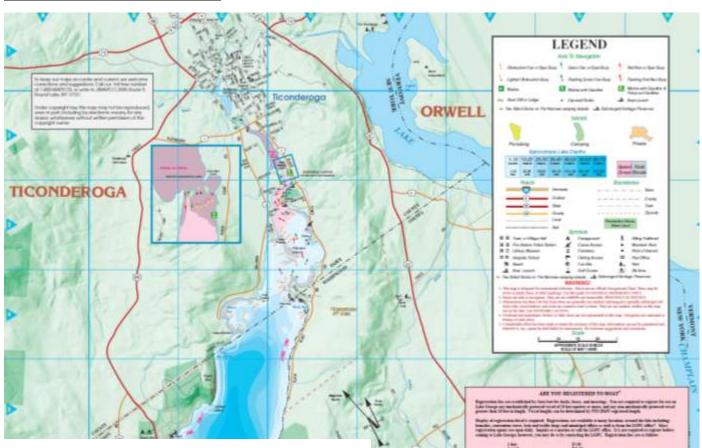
Every boat should be equipped with a paper navigation chart of Lake George. There are two charts available:

Jimapco Boaters Map of Lake George http://www.jimapco.com/shop/lake-george-boaters-map/. The low resolution screen shot of the north section of the Lake is copied below. It shows that the navigation buoys are plainly marked, and details on shore are revealed. The legend is very detailed. This map does

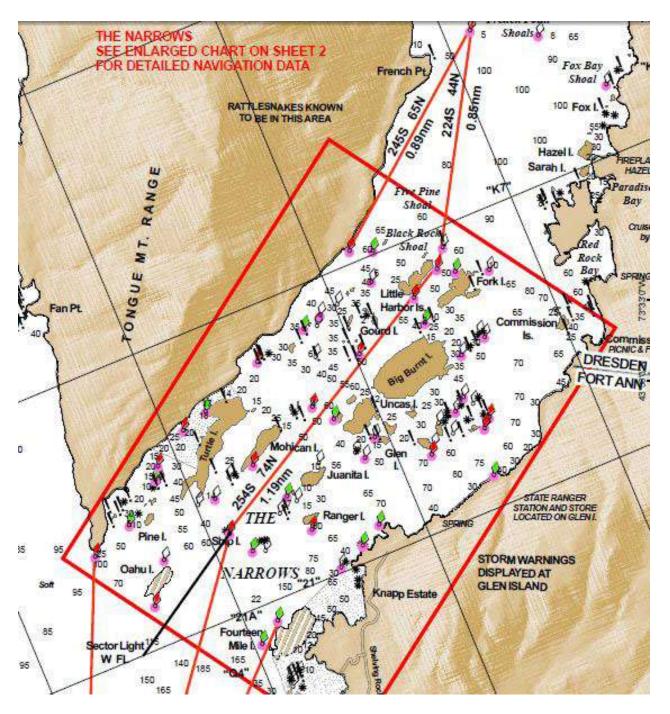


not show actual depths, but it does show the shallows by coloring. The Jimapco Map labels the buoys by their Letter-Number designation. It does not look like a conventional chart but it is better in many ways.

The Lake George Power Squadron makes a navigation chart that is printed on waterproof stock in four panels that roll up into a tube. Navigation buoys are labeled only by type and lighting. This map is more durable than the Jimapco version. It shows depth sounds and navigation buoys. It is available at http://www.lgps.org/store/pc/stgeorgecharts.asp. We will provide a photocopy of one of these charts to each boat Captain at Registration.



Section of Jimapco Boater's Map of Lake George



Section of Power Squadron Chart of Lake George



Electronic Aids to Navigation

If you have a smartphone or a tablet, you probably have a GPS in it. We urge everyone to use **Navionics Boating USA**. We tested it during our "practice" swim with two swimmers in June of 2016 and it worked well, but it does take some time to learn its important features. Once the base map is downloaded it does not require a cell signal.

Be sure to turn on the GPS in your phone or tablet Settings menu. Note: running the mapping software will suck batteries. Be sure to bring your charger cord and expect to plug the phone into the 12V receptacle on the boat every few hours.

Navionics Boating USA is a commercial product that costs \$9.99 for the smart phone version. It has very good charts of Lake George and the best depiction of the buoys and hydrology we have ever seen—much better than the paper charts. Although it allows sharing of tracks on social media, there is no way to combine all the tracks for the event managers to locate everyone in real time. We will rely on the SPOT trackers for that.

For my Motorola DROID, I went to Navionics Boating USA in my Chrome Browser



(https://play.google.com/store/apps/details?id=it.navionics.singleAppUsa&hl=en) and selected Navionics Boating USA. This opened the Google Store to this app. Buy the app from the Google Store for \$9.99. Accept terms of use Select an area to Download. I picked a big area from Albany to Plattsburgh and from Rutland to the western edge of the Adirondacks. The data size was 60 mB. Pick a smaller area if you are just interested in downloading the area around Lake George. Download the map while you have WiFi. This will give you access when you are out of cell phone range. Use two fingers to zoom into Lake George. Everything is pretty intuitive. You can go to Menu, Settings and change distance units to miles. Go to Start and select a New Track to show your track. If you choose, you can select a Route prior to your start, to aid in your navigation once you are on the lake. You can easily set a series of waypoints for this route by touching the screen at each waypoint location in the order they will be passed. There is a camera icon that lets you quickly switch to camera mode for that fleeting photo op of the heron taking

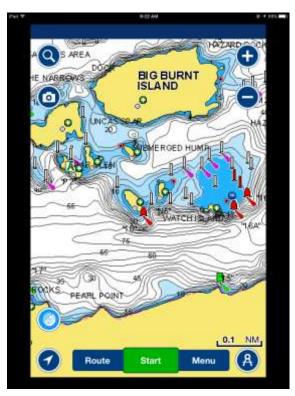


flight. There is a measuring tool that looks like a circle compass to measure distances. You can hover over a point until crosshairs appear. This will put a marker on the map and display how far you are from that point along with the heading from where you are at. The crosshairs also display Latitude and Longitude for the Observer to fill in the reporting form hourly. There is a search tool so you can search out a particular marina, island, or other point of interest. **We encourage you to play with this BEFORE** the start of the event.

For iPhone users, go to the App Store and search for Navionics. Select Boating USA Navionics-U.S only. Click on the \$9.99, Buy, and it will download. Open the app and allow it to use your location if you want your GPS active. Select OK to agree to the Terms of Use. Move the map to cover all of Lake George and the surrounding area. Press Download. Press Start and zoom in. Then use the tools as described above.

IPad Users are faced with a few challenges. The only direct option for buying Navionics Boating USA for the iPad in the App store is the HD version, for \$49.99. This seems like a really nice product, but probably not five times nicer than the \$9.99 version available for phones.

If you have already bought the iPhone version, you can follow the directions below to install the iPhone app for free on you iPad.



http://navionics.force.com/kb/articles/en_US/Knowledge_Article/iPhone-App-Download-to-iPad/?q=iphone&l=en_US&fs=Search&pn=1

If you want to install the \$9.99 version on your iPad, you can do that by going to the App store on your iPad, and then click on "iPhone Only" at the top left. This will then give you an option to install the iPhone version on your iPad. Once installed, the operation is the same as described above for Android devices.

If you want to compare the \$9.99 iPhone version with the \$49.99 iPad version, with both displayed on the iPad, click on the link below. We think the zoom capability of the cheaper version on the iPad is more than adequate for what we need to do on Lake George. A screen shot of Navionics Boating USA for iPhone running on an iPad is to the right. Notice it doesn't quite fill the iPad screen, but the image is still bigger than viewing on a phone.



http://navionics.force.com/kb/articles/en_US/Knowledge_Article/Apple-Standard-App-iPhone-vs-HD-App-iPad/?q=hd+ver&l=en_US&fs=Search&pn=1

Mapping apps depend on an activated GPS that sucks batteries. The powerboats will all have USB charging points but **bring your power cords**.

SPOT Trackers

We will be using SPOT trackers to provide your location to event coordinators and to viewers on shore or at their homes. These devices will be issued to individual swimmers and relay captains at Registration. You can read about these units at https://www.lowergear.com/product.php?id=261. Operating instructions are easy—there is an on-off button and a button to press when you start tracking. There is also a "911" button that sends a signal to a satellite that then downloads to an international emergency center that notifies local authorities of an emergency.

We suggest you clip these to the deck of the kayak. You will be given a URL to share with anyone you want to be able to track you, and we will display all the locations at the Finish tent. PLEASE return these units to one of the Event Coordinators at the conclusion of the event.



Kayak Exchanges

Kayakers should plan on changing positions every two to three hours. During a kayak exchange the primary escort of the swimmer is temporarily disrupted. It will take about five minutes to do the exchange. In that time the swimmer will cover over 300 yards and may be hard to see. Here are some guidelines:

- Plan the Exchange at least a half hour in advance.
- Ensure that the swimmer knows the plan; give the swimmer something to sight on if possible. The swimmer should keep swimming during the exchange.
- Tell the Pod Leader when you intend to make the exchange. If available, the Pod Leader will try
 to take over direct observation of the swimmer during the exchange.
- THE OBSERVER MUST MAINTAIN A WATCHFUL EYE ON THE SWIMMER AND NOT GET DISTRACTED BY THE KAYAK EXCHANGE.
- The powerboat should motor about 100 yards ahead of the swimmer.
- The kayaker shall move ahead of the swimmer and paddle quickly to the powerboat. For most boats, coming alongside the powerboat with the boat moving slowly at idle is easier than coming to the front or back, but if there is wide platform the bow or stern may prove easier. THE BOAT MUST BE NEUTRAL IF A STERN PLATFORM IS USED!
- Everyone must wear their PFDs.
- The relief kayaker should reach down and grab the bow line of the kayak and secure it to a cleat or stanchion. Check that lights (nighttime) or the safety flag (daytime) are displayed.
- The kayaker shall secure the paddle; pass up empty feed bottles and their personal gear.
- The kayaker shall carefully exit.
- If the Pod Leader is with the swimmer, the relief kayaker shall enter.
- If the Pod Leader is not with the swimmer, the kayak should be held while the powerboat motors on ahead of the swimmer before the relief kayaker enters the kayak.
- New feed bottles and personal gear shall be passed down to the relief kayaker
- The line can be freed and the kayaker can paddle to the swimmer and resume escorting.



Kayaker Exchanges

There is a risk that the kayak can capsize during this exchange. If the kayak is capsized, the power must be immediately put into neutral. The Pod Leader should be notified so that the swimmer is provided with an escort. The kayak should be secured by its bow line, so attention should be diverted to getting the kayaker and gear aboard. DURING ALL THIS THE OBSERVER MUST KEEP THE SWIMMER IN SIGHT. The kayaker in the water can help by retrieving any bottles or other loose gear. Once the kayaker is out the kayak should be hauled aboard and drained.



Relay Exchanges

Relays with more than three swimmers must exchange swimmers hourly. Relays with two or three swimmers can choose their interval between one and two hours, inform the Observer, and maintain this interval. The Observer shall record the time of the exchange, the names of the two swimmers, and the location (lat-long) on the Observer reporting form. Record keeping is critical to have the relay accepted by the Marathon Swimming Federation, who will archive these results.

Relay swimmers must stay in the same order. If a relay swimmer is unable to swim at their turn, the relay team may continue with the next swimmer. The swimmer who was unable to swim at their turn may not take a later turn and is out for the duration of the swim. See the Rules for Relays on page 11. Compliance with these rules is very important, and pretty easy.

The timing of an exchange may be modified if conditions are not safe. For example, at the start, the swimmers and kayaks will be in very shallow water for two miles. It is not safe for the support boat to leave the navigation channel, so the exchange may be delayed until the swimmer exits the shallow water and gets into navigable depths. Relay exchanges should not take place close to other teams or non-participating boat traffic.

The swimmer in the water and the relief swimmer should be notified. The support boat should motor on ahead and put the boat into idle. The relief swimmer should jump in and tag the first swimmer, who may then swim over to the powerboat. The kayak and the observer should keep a watchful eye on the swimmers.

When a swimmer comes on the boat they are likely to be unsteady and dizzy. Crew on the boat should lend a hand and get them seated, dry and warm. It is recommended that they get out of the wet suit and get into a sleeping bag or warm clothes.

The powerboat must not get back into gear until the swimmer and kayak are clear.

The Observer should catch up on paperwork.



The Finish!

Lake George Village

Sunday, September 18, 2016 Cutoff time: 5:00 PM

All swimmers must clear the water by 5:00 PM!

The picture below shows the Village dock, where we will set up a Finish line. Boats may come in here, tie up, use the bathroom on shore, and make sure the swimmers are alright. Docking here must be temporary. We will only have access to one dock that can accommodate up to four boats. We will have a Event Tent and Medical Tent here. Boat crew should remember to leave a bag with warm clothes for the swimmers and kayakers and anyone else who is not returning to drop off the boat or put it on a trailer.



The Finish in Lake George Village, looking north. The Finish Line will be to the right (east) of this dock, and boats may temporarily tie up here. The Event Tent and Medical Tent will be immediately behind the camera vantage point. The Start will be here if we reverse the course and go to the north



We anticipate that swimmers will finish over a ten hour period. Our plans for the Finish in Lake George are shown below. We will have two tents, an Event tent and a Medical tent. The small building between the third and fourth docks is a public restroom. Be advised that the Antique Boat Show (page 63) will be going on and it will be hard to access by car. Everyone should be sure to have a cell phone. We will try to have a volunteer around to shuttle finishers to the Comfort Suites, but you will have to work out returning the boat and picking up cars. Finish times will be posted on our website (http://www.lakegeorgeswim.com/marathon/) as soon as possible

Finish Procedures

When a swimmer passes through the Finish Line the finish time will be recorded by the Referee or a designated official. There will be a stepladder provided to help swimmers get on the dock. Swimmers should anticipate being unsteady on their feet and to wait for assistance. The kayaker should get out on the dock past the Finish Line, secure their boat, and help the swimmer to the Medical Tent (or Marina Garage if we end up in Ticonderoga). The kayaker or one of the crew or a relay swimmer should bring dry, warm clothes to the swimmer. The Medical Tent will be staffed by volunteer doctors, physician's assistants, and nurses. Swimmers will be offered warm drinks and blankets, and they will be assessed by the staff. If there are any concerns, they will be asked to stay in the warm tent and possibly lay down while they are monitored. If they are in distress an ambulance will be called and they will be taken to the Glens Falls Hospital. All solo swimmers must check in at the Medical Tent at the Finish.

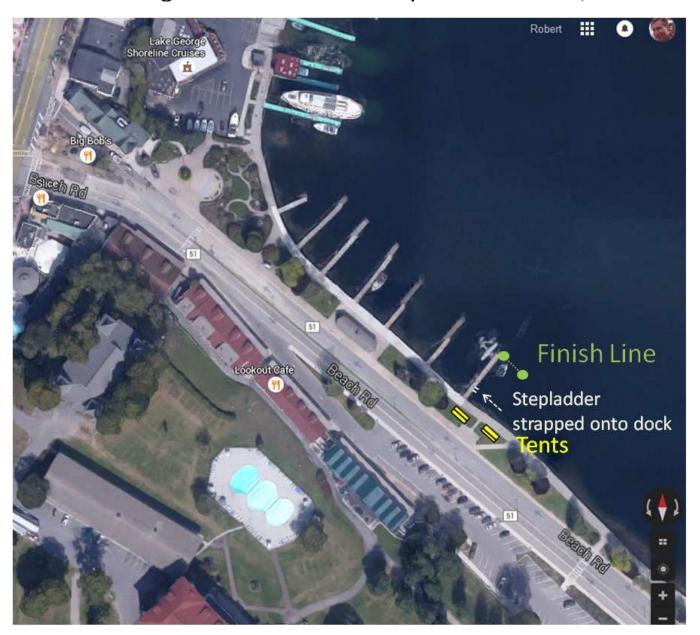
The support powerboat may tie up on the dock briefly, while relay swimmers and crew come ashore, change clothes, use the restrooms, and arrange ground transportation. If any crew or relay swimmers do not feel well they should also go to the Medical Tent for an evaluation. There is only room for four powerboats, so they need to be taken back to their bases as soon as possible. If a boat cannot be moved right away it can be anchored offshore.

At 5 PM, the swim must end. Swimmers still in the water must be picked up by boats. The Referee (Deb Roberts, 518-796-9156) must be told about any swimmer who does not finish. This is VERY IMPORTANT and a critical role of the Observer.

Because swimmers will complete the event over a long period, up to ten hours, and boats need to be immediately returned, there will be no formal awards ceremony. Swimmers will pick up certificates of completion at the conclusion of the swim. If anyone is staying around Sunday night and would like to meet up please let the event organizers know and we can suggest a place depending on the size of the group.



Proposed Location of Temporary Facilities Lake George Marathon Swim September 17-18, 2016





Ticonderoga

Sunday, September 18, 2016 Cutoff time: 5:00 PM Ticonderoga, NY

All swimmers must clear the water by 5:00 PM!

If we reverse the course from south to north, a Finish line will be set up with bright colored buoys in front of "Diane's Rock." Swimmers will then have to swim over to the docks at Snug Harbor North to get out of the water. We will use the service garage of the Marina instead of tents. Cars can come in to pick up the swimmers. The closest public parking is at the Mossy Point boat launch (\$10), which would be a good place to launch so that the car and trailer are near the Finish. Boats going back to Snug Harbor South can either take their swimmers and crew or leave the swimmers and kayakers and come back by car.



Snug Harbor Marina North. Diane's Rock, the Start southbound and the Finish Northbound, is to right, the Lake Channel is visible to the left



Communication Procedures

Primary communication between Boat Captains, Observers, and kayakers should be by just speaking to each other. Each Boat Captain and Pod Leader will be equipped with a two-way, hand-held radio. Line of sight reception is about seven miles. Listening uses much less battery than transmission. Use the radio sparingly. For the hourly reports (**Appendix C**) and other non-time-sensitive communications, please send a text to the Pod Leader via cell phone (phone numbers of Pod Leaders are in **Appendix E**). A cell phone will store and deliver the report when cell coverage is available.

Radio Usage

We are going to be issuing boat captains, Pod Leaders, and the finish tent different radios. Each boat captain will receive a Motorola handheld radio, along with spare batteries. These are multi-channel radios; each pod will communicate on a different frequency. These radios have about a 7-mile range, and should be adequate for talking to other members of the pod and the Pod Leader. Pod Leaders, along with other event coordinators, will be issued a high power emergency use handheld loaned to us by a local utility. These radios have longer range and operate on a different frequency.

By using different frequencies we can reduce the potential for congestion on the frequency. Even so, Please use the following guidelines for the radio.

- Non time-sensitive communications, like hourly reports, should be sent by text message.
- Think about what you are going to say before using the radio
- Make sure you are not interupting another conversation, unless you have an emergency.
- Press the "Push to Talk" button and wait two seconds before speaking.
- Each transmission should include the following:
 - Who you are
 - Who you are calling
 - What you want

Keep the chatter to a minimum, and be sure you identify who you are and who you are calling. At the first transmission be sure to say which pod you are in in case you are calling on the wrong frequency.

If you are in an emergency situation, the same protocol applies, but start your transmission with "Emergency" or "Mayday." Emergency calls should go to your Pod Leader, who will contact Anne Green, the Emergency Coordinator. If you cannot immediately reach your Pod Leader contact Anne Green directly at 518-796-6405.



Cell Phone Usage

Cell phone coverage is spotty on the Lake, and the phone ringers may be masked by a zip lock bag (keep your phone in a bag!) or layers of clothes. Boats have 12V power receptacles for you to plug in a phone charger, so keeping your phone charged should not be a problem. You can try calling a Pod Leader, but between different service plans, difficulty hearing the ringer, and the spotty coverage on the Lake it is likely the call will not go through. It is much better to try a text message for all non-emergency or non time-sensitive communications. Pod Leaders and boat Captains need to check their phones at least every 15 minutes.

Appendix E provides a list of phone numbers. This list will be updated and handed out at the final briefing before the start.

Lost Communication

It is likely that radio and phone communications will be lost at times. The islands block communications, radio batteries fail, cell coverage is variable and it is hard to hear a call or a phone ringer over engine noise and wind and waves. Losing communications is not an emergency. If you make an hourly report and there is no answer on the cell phone, try the radio. If that doesn't work and you think you might come out from behind a barrier, wait a few minutes and try again. If communications remain broken for over 15 minutes, send a text message to your Pod Leader. Your Pod Leader will come to check on you if you do not check in. The Pod Leader will have spare batteries for the radio and perhaps a spare radio.

We will have 35 boats on the lake, so you can also try to relay an important message via a nearby boat.

Outside Contacts

In the event of an emergency, including an evacuation, leave the communications with local agencies to the Pod Leaders, unless the emergency is on your boat. If you need to take someone to shore for an emergency you may be asked by the Pod Leader to coordinate directly with emergency agencies. More likely, emergency services will drive their boat to you, while you stabilize the person. Emergency communications, as described in the next section, should be coordinated through your Pod Leaders or directly to Ann Greene, the emergency coordinator. Do not speak to the Press. Press contacts should go to the Event Coordinator.



Emergency Procedures

Hopefully all will go well; all the swimmers will complete the swim, the weather will behave, and the following sections will not be needed.

Immediate Emergencies

Most emergencies, whether they are a broken leg or mild hypothermia, can be delayed long enough to discuss a plan and to proceed in a logical, deliberate fashion. Studies have shown that many serious situations develop from minor situations that are not addressed with a well thought-out plan. However, some situations do require immediate action. These include:

- Drowning (swimmer slips beneath the water);
- Lack of breathing or pulse;
- Serious injury /amputation/ major blood loss;
- Fire on board;
- Etc.

In all these cases, your response should be similar.

- 1. Mark your location with a "pin" on the GPS tracker
 - 2. Mark the time
 - 3. Call a Mayday to Anne Green at 518-796-6405 or on the radio. If she doesn't answer call your Pod Leader. Briefly say your position, and tell her approximately where you are (e.g. "about a mile south of Sabbath Day Point) and briefly describe the incident happened.
 - 4. Perform first aid recovery of the victim.
 - 5. Set a light on strobe or blink, or wave your flag during the day.

Lost Swimmer

How can you lose your swimmer? You have a full-time Observer to watch for her. The kayak is supposed to be right alongside. Is this a serious scenario? You bet it is! It's happened to us twice. In both times, it was during kayaker exchanges. Consequently, we have created new procedures to utilize for kayaker exchanges (page 40). When the crew gets distracted, the swimmer can get hundreds of yards away in a few minutes. They can be very hard to see, especially if there is any chop. If you lose sight of the swimmer, follow these procedures:

- 1. Mark your location with a "pin" on the GPS tracker
- 2. Mark the time



- 3. Call your Pod Leader and the Pod Leader will join the search
- 4. Search up ahead where the swimmer should be for up to 3 minutes.
- 5. Call Anne Green at 518-796-6405 or on the radio. Briefly say your position, and tell her where you are. Continue the search. If you see the swimmer, notify her immediately.
- 6. Set a light on strobe or blink, or wave your flag during the day
- 7. Use extreme caution while looking for the swimmer. If possible, have someone stand on a seat and hold onto to the top to get a higher vantage point. Motor slowly and cautiously. The swimmer may have lost their lights and may be very hard to see.

Evacuation

This section provides guidance in case one or more people need to get off the water. An evacuation may be required if someone is ill or injured. Always remember that non-swimming crew can be stricken too. First aid aboard the powerboats should be minimal, with a call for help being the top priority. Pod Leaders and some support boats will carry rudimentary first aid equipment. Steps for an evacuation include:

Evaluate: Who is stricken? Injuries (e.g. boat collision or fall on deck) or illness (e.g. swimmer or crew is ill or injured)

Communicate: Radio an Emergency to the Pod Leader. Provide:

Your Name and Role

Location

Who is stricken

Symptoms

What you want to do

Evacuate: If the swimmer cannot continue bring them on board the powerboat with help from the crew, being careful not to cause further injury or to hurt anyone else. Kayakers should not try to help lift from the water—we don't need another person in the water. Secure the kayak, get life jackets on everyone, and proceed toward an evacuation point. Contact your Pod Leader. If you cannot reach the Pod Leader, contact Anne Green at 518-796-6405, our emergency coordinator, who will organize emergency medical services You will either be met on the water or on shore by EMS.

What not to do: Do not rush to the point that others may be hurt or you might wreck the boat. Do not try to diagnose an illness beyond your ability. Low blood sugar may look a lot like hypothermia. Just keep the person warm and offer fluids if they are fully conscious and can



take liquids. In the case of an accident do not try to assess blame and only state facts to law enforcement, not opinion, analysis, or recriminations. Do not talk to press.

Role of Boat Captains and Pod Leaders: If the stricken person is the swimmer in an individual swim, the boat captain should perform the evacuation. The Pod Leader can maintain their role with the remaining boats and swimmers. If a relay swimmer or crew member is stricken, the relay may wish to continue. In that case the Pod Leader will perform the evacuation. The closest other Pod Leader should be notified to provide coverage until the Pod Leader returns. At night, get one of the kayak or swimmer marker lights on blink mode. During the day, arm waving is a recognized emergency signal.

Event Cancellation

This section outlines the actions that participants must follow if the entire event is cancelled after the start.

The entire event can be cancelled at any time. The most likely scenario would be a forecast or observation of severe weather. A chance of widely scattered showers will not be grounds for cancelling. The Event Director and Finish Line staff will watch for the advent of thunderstorms using National Weather Service radar. Lightning strike information will be available online via third party vendors. Cancellation will occur if sustained winds over 25 knots are likely or if lightning is imminent. Cancellation can occur at any time, and in the event of lightning the warning might be as little as 20 minutes. If the event is cancelled because of weather the Event Director will broadcast the decision via radio and text message. Pod Leaders will also visit their boats. Swimmers must be pulled immediately, kayaks stowed, and boats shall proceed to the emergency egress points in **Appendix G.**

Do not violate the speed limit of 25 mph from 9 PM to 6 AM and 45 mph from 6 AM to 9 PM.

If the weather changes too fast to evacuate, pull the swimmer and kayaks into the powerboat and proceed cautiously to a point that is out of the direct wind. Anchor or tie up. Stay low in the boat.

Call for Help While on the Lake

Use these procedures if you have a problem while on the Lake and need help. You may have an engine problem or other problem that requires another boat to come to your aid. Your kayaker may have capsized and you need to help the kayaker, leaving the swimmer temporarily unmonitored. Notify the Pod Leader and give your location. The Pod Leader will come to your aid if it is something easy, like running out of fuel (the Pod Leaders will carry some extra fuel) or loaning a light for a swimmer or kayak.



If it is a mechanical problem on a rental boat the mechanic from Snug Harbor will have to be called. The Pod Leader will take over your duties as a support boat while your issue is resolved.

You will need to provide your location. Reading off Lat-Long from a GPS on a phone is not recommended. Instead, provide your location from a nearby landmark. Orienting to a labeled buoy is a great way to describe your location ("we are just past Buoy N, November"). You can put a pin on a map and send it to someone but both parties need good cell coverage and skill with mapping software, so just calling out a buoy letter is probably best.

If your boat is adrift, you may need to anchor while awaiting help if you are drifting toward shore. Recognize that Lake George may be very deep right up to the shore. Make the decision to anchor early.

Use the emergency signal of waving your distress flag (issued to each boat), or waving arms side to side to help the boat that is coming to your aid to identify you during daylight.

It is challenging at night to pick out one boat from others. We will use a blinking light to identify a boat that needs help. Most of our swimming lights and many flashlights have blinking modes. If you do not have a light that blinks, pass your hand slowly back and forth in front of the light. Of course this means that swimmers and kayaks should not use blinker mode for normal operations.

Swimmer in Distress

A good article called "What Can Be Done When a Swimmer is Down" (http://dailynews.openwaterswimming.com/2011/08/what-can-be-done-when-swimmer-is-down.html) hilghlights the role of the crew in maintaining the mental attitude of a marathon swimmer—and mental attitude is what gets a swimmer through a marathon event.

The crew may need to make the difficult decision of pulling a swimmer out of the event. This is a judgment call that should be based on the symptoms that you see. Do not try to diagnose the cause of distress. Although hypothermia is the most likely cause of a swimmer in distress, conditions including hypoglycemia, swimming induced pulmonary edema, sudden cardiac arrest, heart attack, asthma, and even allergic reactions to feed can all present with some of the symptoms of hypothermia. Treat the symptoms until the person can be evacuated to proper medical facilities. Here are some signs of distress, and advice on how to identify the distress.

1. **Impaired judgment.** One of the first symptoms of distress in a swimmer is reduced judgment. **All swimmers must leave the water** if told to by their kayakers, the Observer, the Boat Captain, or one of the Event Officers (Safety Director, Referee, or Event Director).



- 2. Confusion. The kayakers should assess the mental state of the swimmer at each feed, or about every half hour. We like to do this by asking a question or engaging in a very brief conversation. This is where it really helps if the kayaker knows the swimmer well. To initiate a short conversation during a feed, give them a status report like "I can see the finish" instead of focusing on problems like "how do you feel?" Ask them if they want that chocolate bar they have been saving, or it has been six hours, if they want ibuprofen mixed in the next feed. Ask if they have urinated. If you have any doubt about their mental sharpness, ask a random question that should be very easy: "What is your dog's name?" "How many quarters in a dollar?" Who is President of the U.S.?" "What month is it?"Being a little disoriented is not a major cause for alarm—if you ask me where I parked the car I might have trouble coming up with an answer, but monitor this carefully. Not knowing where they are or what is going on is more serious.
- 3. **Erratic Swimming**. If the swimmer is having trouble maintaining their station with the kayak, veering off, losing their straight body position, stopping and starting or otherwise behaving erratically this is a sign of distress. The distress may be due to a sore shoulder, or they might be nauseated, or it could be hypothermia or even a heart or lung problem. If it doesn't pass, it is a sign of a swimmer in distress.
- 4. **"Claw" Hand**. Cold water can result in fingers turning white and become insensitive and stiff. By itself, claw hand does not automatically mean the core temperature is dropping, but it is annoying and can be an indicator of hypothermia.
- 5. **Nausea, dizziness, diarrhea**. It is not unusual for swimmers to have the constant rotating of the body and head, and the motion of the waves, develop motion sickness. However, these are also symptoms of serious illnesses including hypothermia, so the swimmer needs to communicate the symptoms to the kayaker and watch for other signs.
- 6. **Shivering**. Shivering is an early sign of hypothermia. Sometimes it can be put off by raising the stroke count and swimming harder for several minutes. If stroke count goes down, and the shivering stops, the swimmer has transitioned from mild hypothermia to moderate hypothermia, a life-threatening condition that calls for the removal of the swimmer from the water.
- 7. **Reduced Stroke Count**. Distance swimmers can keep a very steady pace up for hours, seldom varying by more than a stroke or two per minute. (A "stroke" is one arm stroke; a "stroke cycle" is left-right). The hourly reporting form has a place to record strokes. After the first half-hour, when they might be stroking fast to warm up, stroke count should not fall more than about 10% (six per minute for somebody who was maintaining 60 strokes per minute).



- 8. **Failure to urinate**. Swimmers should report urinating every two hours. If they have gone four hours and they are feeding and drinking water they could be getting low in salt concentrations in their blood.
- 9. **Coughing**. Everyone can catch a mouthful of water or choke on feed and cough. If the coughing persists, if it sounds crackly or rattling, and especially if any frothy or pink-tinged bloody material is brought up, consider this an emergency.
- 10. **Shortness of Breath, Chest Pain**. This could be an emergency, so treat it so. If the swimmer is known to be an asthmatic and has an inhaler, it can be brought to the swimmer. However, chest pain and difficulty breathing are symptoms of serious heart and lung conditions that require immediate evacuation.
- 11. **Drowning.** All the swimmers are great athletes and accomplished swimmers, but even among this elite group drowning is a possibility. Signs of drowning include rotating toward the vertical, mouth coming above and below the water, head tipped back, gasping. In the final seconds the victim may even appear calm. The thrashing and yelling for help seen in movies does not happen. The kayaker should maneuver to the victim. If they can, they should grab the bow or the stern of the kayak, but this might be a time when the kayaker goes in the water with a PFD on to support the swimmer until the support boat can maneuver to help.

What to do? Of course if a swimmer is ready to call it over, their decision should be supported and evacuation should proceed. Captains need to tell the Pod Leader where they want to go. Once the swimmer is ashore and with a support person the Referee or another event official MUST be notified. The Pod Leader will coordinate with Anne Green, our emergency coordinator, who will organize emergency medical services. **Do not drop the swimmer off on shore alone!** Swimmers can become hypothermic AFTER they stop swimming and their core is no longer generating as much heat. Swimmers need to be monitored during the half hour after the event until all shivering has stopped, they have had some warm liquids, and they report feeling alright.

If the swimmer wants to continue, but the crew has made the decision that it would be dangerous to continue, the swimmer must exit the water and follow the evacuation procedure described above.

Medical Considerations

We will have about 220 people on the water. Although emergency services are available through the Pod Leaders, each boat crew must be able to take care of themselves and evaluate when outside help is needed. This begins with the crew and swimmer or swimmers meeting before the event and disclosing to each other any medical conditions that may be relevant. Conditions like arthritis or joint prostheses



that can make climbing into or out of a kayak challenging, need to be shared. If you have a rescue inhaler, insulin pump, or other device the crew needs to know where it is stowed. Let your crew know if you have a disease that can lead to syncope (fainting). Also let the crew know if you have any special training, including current CPR, advanced first aid, etc. Despite your training, do not try to diagnose or treat any ailment beyond stabilizing the person, providing CPR when indicated, and calling for help to your Pod Leader or Anne Green (518-796-6405), the EMS Coordinator.



Quiz

The Lake George Marathon Swim is the longest sanctioned group swim in the world in 2016. It is a complex event, with over 80 swimmers in the water and 120 people on boats and kayaks. It will run all night, and will require navigating through channels and around islands. The swim will encounter abundant non-participating boat traffic. The length of the swim and the wide field will spread swimmers out over up to ten miles along the course.

An understanding of the safety procedures and rules of the swim is required for all participants. Swimmers need to know that their crew will help them to finish the swim, manage their safety, and help them to conform to the few simple rules of the swim. Everyone needs to know their roles and responsibilities and trust their teammates to be able to fulfill their responsibilities.

A safety briefing is required as part of our USMS sanction. Since safety briefings right before an event are sometimes missed by participants, are hard to hear, are conducted in uncomfortable settings (e.g. in the rain), or are glossed over, we want most of the briefing material to be perused in this guide, in the comfort of your home. Providing a detailed Participants' Guide and confirming that important safety sections were read via an online quiz will save us from trying to hold a meeting to go over all of this with 200 people in a very narrow time window. The final safety briefing will be for last-minute questions and for updates.

The purpose of the Quiz is to ensure that the basic Safety and event Rules have been read by everyone. It's an "everybody is a winner" test. If you miss a question, you can go back and correct your answers until you get 100%. It is an "open book" test, with all the answers in this Participants' Guide.

Completion of the quiz is required for everyone who will be on the water.

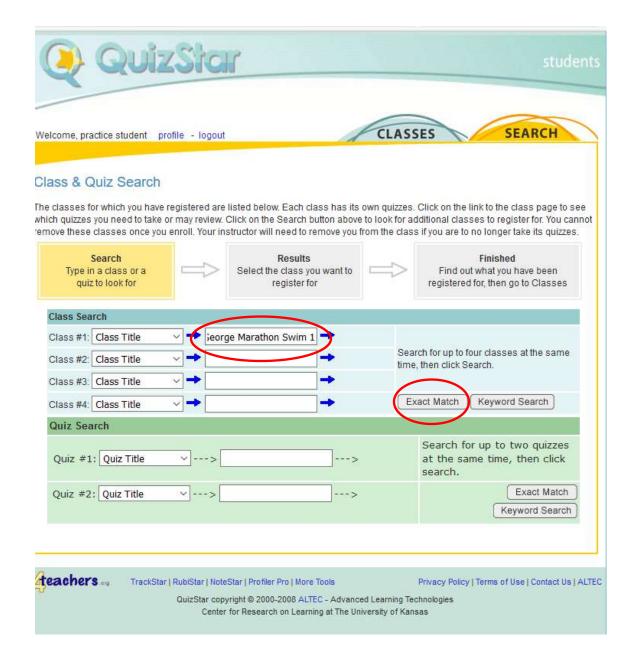
To take the Quiz, open your browser to http://quizstar.4teachers.org/indexs.jsp

Click the Sign-Up arrow for first time users or the login box if you have not entered before. Set up an account. In the box below the "Search for the Class" title search for: "Lake George Marathon Swim 1."

You have to enter "Lake George Marathon Swim 1" exactly. Click on Exact Match. Note that sometimes the server seems slow—wait a minute if you don't get a hit right away.

See the screen shot.

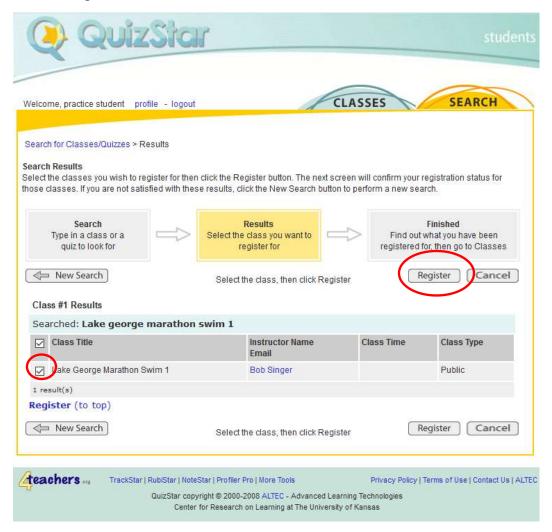






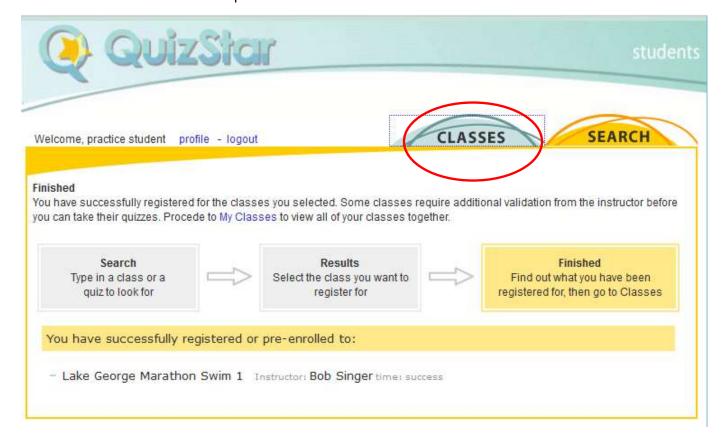
Check the box to the left of Lake George Marathon Swim 1

Click on Register





Click on the Classes Tab at the top of screen



From here it's just a matter of clicking on the "One untaken quiz" text.

Under "Safety Quiz 1" (on the left side), Click on the link "Take Quiz," which is on the right.

Submit the quiz. A small grey arrow points to the correct answer. If you have any wrong answers, read the feedback and take the quiz again.

When you are done, you can go back and change answers.

If you don't like written material, or if you have any questions or problems with this quiz, please contact Bob Singer (n5442t@gmail.com or 518-791-1295) or Deb Roberts (DebARoberts@gmail.com or 518-796-9156). We will talk through the questions and answers with you to assure your success with this.

You are welcome to do this quiz with other participants, but it is imperative that you work on the answers together so that you <u>learn the rules</u>, <u>especially the safety rules!</u>

To repeat, you cannot participate as a swimmer or volunteer until you complete this quiz. It provides scenarios to make sure you think through the proper responses to potential problems.



Local Logistics

Travel

Lake George is 55 miles north of Albany, NY, on Interstate 87, at Exit 21 or Exit 22. The Lake is 32 miles long, so points north of Lake George Village may be accessed from different exits. The closest commercial flights are to Albany. The nearby Glens Falls Airport does not have commercial service.

Lodging

The official hotel for the Lake George Marathon is the Comfort Inn, 1533 State Route 9, Lake George, NY 12845. Call 518-761-0001 for reservations. This hotel is about three miles south of the Lake on Route 9. Rooms are \$130/night for Friday and Saturday, \$109/night on other nights. One of the owners is on a swim relay team and is very enthusiastic about helping us out.

Other housing options abound in this resort town, from very inexpensive to luxury (see the Sagamore http://www.thesagamore.com/). September is past peak season, but early reservations are still advised. A good option for swimmers is to rent an entire home for the whole crew. You can look into https://www.homeaway.com/ or https://www.airbnb.com/ as well as some of the resorts that book on

their own. The most convenient housing will be close to Lake George Village, but less expensive housing will be available farther away from the Village. Beware of travel times. It takes an hour to drive from the south end of the Lake to the north end. It's a pretty drive, but it can be very slow with winding roads and heavy traffic on the weekends.

Camping is also an option:

http://www.lakegeorge.com/camping/. The State-run campgrounds are in some of the nicest settings and have full amenities. The closest one is the Lake George Battleground Campground, http://www.dec.ny.gov/outdoor/24453.html

Food

We assume that you will arrive with feed for the swimmer, and just need to mix it after you arrive. If you are traveling by plane and want to ship a box of bottles and feed, send it to yourself, c/o Bob Singer, 273 Haviland Road, Queensbury, NY 12804.



Diane Struble, 1960, showing off her feeding technique



You are all well traveled and know how to search through Yelp or other sites. There are plenty of bars with good food, and a few good restaurants in Lake George. More options and wider variety are available if you drive to Queensbury or Glens Falls. If you are a foodie, stop off in Saratoga Springs on the way to or from Albany. There are dozens of really good restaurants there. We encourage you to come on the Dinner Cruise with us Friday night, and we will arrange a group place Sunday night if there is interest.

To stock up on food for the boat, there is Price Chopper grocery store in Lake George, at 49 Amherst St., a Price Chopper just west of Exit 23 off the Northway (187), and Topps Market in Bolton Landing. There is also a Walmart Supercenter at 1134 Wicker St Ticonderoga NY. There are large modern Hannaford stores in Queensbury, one 2 miles east of Exit 19, the other about 2 miles east of Exit 18.

Communications

Cell coverage is good in Lake George Village, Bolton Landing, and Hague. It is spotty to non-existent elsewhere. The hotels and campgrounds all have WiFi. Arguing over which service has the best coverage is a common local pastime.

Parking

Parking Friday night for the Dinner Cruise is described under "Dinner Cruise" on page 67. Parking for the event depends on where we start and finish, where your powerboat needs to get picked up, and whether or not you are launching a boat.

Parking near the shoreline in Lake George Village on Saturday-Sunday will be tough. The 43rd Annual Antique Boat Show (page 63) will be going on all weekend. We suggest leaving your car by your boat pickup, and driving to pick up people at the finish. If you do park in the Village, there are several municipal lots west of Canada Street, and public parking is available on West Brook Road. The meters are enforced after 8 AM.

Parking is available at all the public boat launches and at Snug Harbor South if you are renting a boat there. If you are renting a boat at Snug Harbor you will be in Silver Bay, about 2/3 of the way up the Lake. You will want to leave a car near the boat launch. The swimmers and some crew can wait at the Finish while the boat is returned or loaded onto its trailer.

See the following section for parking a car during the event

Managing Kayaks/Crew/Swimmers/Boats/Cars at the Start and Finish

Each team (crew plus swimmers) may have a different solution to the challenge of getting the swimmer and the kayak (or kayaks if you have two) to the start on time, and then getting everybody and



everything picked up at the finish. Everyone will want to get packed up and assembled quickly at the end, but the boats all need to go to their docks, or trailers. Since the start location is 32 miles from the Finish, the boats will have to deadhead either at the start or finish.

Here's some general advice.

- Use the boat pickup/drop-off point as your staging area. Leave a car where the boat comes from, so you can motor back, drop off or load the boat and drive off. Depending on which side of the Lake we finish on, and where your boat comes from, you may have a long deadhead back. If the weather is ok your whole crew can huddle in the boat and stay together, but plan to leave the swimmer and a crew member at the finish if it is anything but warm and sunny. It takes almost as long to drive (an hour) as it does to motorboat the length of the lake. Be sure your swimmers have warm clothes!
- Transport of kayaks via boat, at the start or finish, can be difficult. Kayaks do not tow well at high speed. They can bury their bows in the waves, swamp, and get damaged. Either tow at slow speed or bring the kayaks aboard. You may be able to lash them onto the dive platform. DO NOT tie them on top of a bimini cover—one good wave will bend the frame of the bimini.
- Parking your cars for the event will be challenging. If you are renting a boat at Snug Harbor South, there is room for only one car per boat. A solo swimmer with four crewmembers can travel together, get a parking sticker, and park in the lot across the road. Relay swimmers will need two cars. We recommend parking at the Mossy Point boat launch. Overnight parking is \$10 there. If you are launching a boat elsewhere, most of the launch sites allow overnight parking, but check first that you can retrieve your car during non-business hours on a Sunday. Do not plan on parking a car near the waterfront. Meters are limited to 12 hours. If a tired swimmer wants a ride to the hotel in Lake George Village we will try to arrange a ride, but they should be accompanied by a crew member. The rest of the crew will have to take the boat back and retrieve all their cars.
- Expect problems driving to Beach Road in Lake George Village. The Antique Boat Show (page 63) will be going on all weekend. One lane of traffic will be closed and the nearby parking lot will be filled with boat trailers.
- Travel times need to be factored into your planning. Allow at least an hour and fifteen minutes to
 drive from Lake George Village to Ticonderoga. Bolton Landing is about 20 minutes from the
 Village, and Hague is about 20 minutes from Bolton. Travel times are about the same on either
 side of the Lake. Motoring the 32 miles between the start and the finish also takes about one
 hour to one hour, 30 minutes, depending on the boat speed and waves.



Entertainment for Non-Swimmers

This is a big resort town, so there is everything available that you might expect for families. The Great Escape theme park will provide rides and thrills for roller coaster fans. The Adirondack Extreme is a 20 minute drive with zip lines through the treetops; we have seven miniature golf places, the Lake George Water Park, go-carts, laser tag, parasailing, whitewater rafting on the Schroon and Hudson Rivers (check to see if they are running) and other organized venues for families. The best attraction is the 6 million acres of the Adirondack Park, with wonderful hiking, camping, fishing, canoeing, and of course, swimming. Lake George Village is the tourist center. It has a lot of ice cream shops, souvenir stores, tacky t-shirt stores, craft shops, and a beautiful walkway along the Lake. We encourage swimmers to bring families and friends, and of course have them on the water with you during the swim as volunteers.

Lake George Antique Boat Show

Lake George is always heavily booked. The pace of events slows down after Labor Day, but there is a major event taking place on September 16-18 with which the Marathon Swim will be competing for waterfront space.

This event's 2015 description is here: http://www.lakegeorge.com/event/boat-show-51985/. 2016 will be the 43rd annual show. A link to a video showing their use of the waterfront is here: https://www.youtube.com/watch?v=3hlLutfE4E4. Please look at the first minute of the video. It shows the docks and waterfront area where we will finish our swim. They are giving up one of these docks for us. Our Event Tent and Warming Tent will be on the grassy area where people are milling around. Swimmers and crew need to be aware of the potential for boat traffic during the finish. The challenge of getting a car in and out will be a factor too. It makes us almost hope for rain.

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Bringing Your Own Powerboat

All trailered boats (kayaks and canoes are exempt) need to be registered with the Lake George Park Commission (http://www.lgpc.state.ny.us/boat_registration.html). Registrations may be purchased at the Lake George Park Commission office at 75 Fort George Road, Lake George, NY or at 40 vendor locations around the Lake (see http://www.lgpc.state.ny.us/vendor.html). One-day registrations expire at midnight, so you will need a one-week registration, which costs \$11.25.

Species of invasive weeds, including water milfoil, and invasive Asiatic clams and Zebra mussels have been introduced into Lake George, but largely contained. A very active program (http://www.lgpc.state.ny.us/PDF/LGP%20-%20Revised%20regs%2012-12.pdf) to contain invasive



species requires that all motorized boats that are launched must be power washed and tagged. All boats launched on Lake George must comply with the boat inspection program

(http://www.lgboatinspections.com/). The boat launches will check to see that your boat or trailer is displaying a Vessel Inspection Control Seal (VICS) as part of the invasive species control program. You can get a VICS at the Village launch site east of Million Dollar Beach on Beach Road, at Rogers Rock Campground, or at Mossy Point. In addition, there is an off-site inspection station west of Exit 21 of the Northway. This station tends to be quicker than the stations on the Lake, and once tagged, your boat can be quickly launched at any of the boat launches. Complete this power wash and inspection on the Friday before the event or allow at least an hour for this inspection on Saturday, September 17.

If you rent a powerboat from Snug Harbor or are using a boat that is based on the Lake, boat inspection requirements are waived.



Fun Swim

Friday, September 16 11:00 AM -12:30 PM Location West of Million Dollar Beach

Marathon swimmers will want to stretch out on Friday, and for the rest of us, we want to get in the water and feel what swimming in Lake George is like. This is a "Fun Swim" for all <u>USMS-registered</u> swimmers, volunteers, crew, family and friends. Beach Road, Lake George, NY. We will swim a few laps of a 650-yard course along the beachfront in Lake George. There will not be any organized starts or distances to swim. We will put out some buoys to keep us from crashing into each other. Swim clockwise (like in a pool). Kayaks can launch from the beach and practice with their swimmers. A pedestrian gate will be open on the west side of Million Dollar Beach.

Olympic Swimmer Alex Meyer will run a brief clinic and demonstration of some open water swimming techniques. See the aerial photo below for details.



Swimming Forum Friday 3:00 -4:30 PM

Marathon Swimming Forum

Friday, September 16 3:00 – 4:30 PM

Location: Lake George Historical Association 290 Canada St, Lake George, NY

Since 1875, when Matthew Webb first swam the English Channel, marathon swimming captivated the public. It is sport that doesn't take extreme skill, or a Superman (or Wonder Woman) body. It seems almost accessible to anyone—anyone who can put in the training and has the incredible mental toughness to overcome the pain of fatigue, cold, and the voices that creep into your head telling you to stop. The world was completely won over by Trudy Ederle, who in 1926 was the first woman and fastest Channel swimmer. Her ticker-tape welcome in Manhattan rivaled Lindbergh's, with hundreds of thousands of spectators.

The next year, in 1927, a \$10,000 purse was raised for the 24-mile swim between Hague Beach and Lake George Village. The only finisher and winner of a field of 150 entrants was Joseph Keating. After that several attempts at the whole length of Lake George were made, but the Lake was not conquered until Diane Struble swam from Ticonderoga to Lake George Village in 35 hours and 30 minutes, to the cheers of at least 10,000 spectators who lined the shoreline.

Today, 58 years later, we are posed with 14 individual and 14 relay teams to repeat that epic swim. Our panelists and many in the audience understand how commitment, training, support from family and friends, and mental fortitude can achieve amazing goals.

Panel Discussion and Press Conference Featuring:

Alex Meyer Olympic 10K Swimmer at the 2012 London games and Gold medalist at the 2010 FINA World Open Water Swimming Championships in the 25K. Former college swimmer at Harvard University. Alex was a youth swimmer with the Glens Falls YMCA Gators swim team and is a Co-Director of Lake George Marathon Swim.

Bridgette Hobart Janeczko 2015 World Open Water Swimming Association "Woman of the Year." Triple Crown Swimmer and 2015 swimmer of nine Finger Lakes over 157 miles. Successful entrepreneur and consultant. Event Director of Lake Hopatcong (NJ) Charity Swim

Marcella MacDonald, DPM – Completed fifteen crossings of the English Channel, including three double crossings. Completed the Triple Crown of Swimming. Swam the 22.5 mile length of Loch Ness in 51F water in 2015. Practicing podiatrist and public speaker.



Dinner Cruise Friday 9/16/16 5:00 -7:30 PM

Dinner Cruise

Friday, September 16 5:00 PM -7:30 PM The *Adirondack*, Shoreline Cruises

3 Kurosaka Ln, Lake George, NY 12845 <u>lakegeorgeshoreline.com</u>

Swimmers like to swim, but they really like to hang out and talk about swimming. Here's your chance!

We have arranged special pricing and a custom route that will preview at least half of the 32-mile swim, including a foray into the southern part of the Narrows.

The 115-foot, three-deck *Adirondac* is the showcase of Lake George. Built in 2004 with an aluminum hull, it looks like a 19th Century cruise ship, but with natural cedar highlights, ultramodern quiet engines, heat on the first deck, and air conditioning on the first and second decks. The upper deck is open for exceptional views. Toilets are modern.

A buffet dinner, coffee, tea, and cash bar are included. The menu includes fresh salad, choice of two entrees, fresh seasonal vegetables, garlic potatoes, and a desert of assorted brownies and cookies.

Live music will be provided by CTB, led by "Smoke on the Water" relay team member Rich Starace.

Sign up by mailing a check for \$37 for each participant payable to "Lake George Marathon Swim":

Marathon Swim 273 Haviland Road, Queensbury

Or going to the "Store" at

NY 12804

https://runsignup.com/Race/Store/NY/LakeGeorge/LakeGeorgeMarathonSwim.



LG Cruises, Inc. has made this special cruise possible at a deeply discounted rate by generously donating services valued at \$3,450





You may board at 4:30 PM.

We sail promptly at 5:00 PM



Parking for the Cruise

Parking will be challenging Friday evening. The local antique boat show will be setting up on Beach Road (our Finish line) and they will be staging in the Village parking lot across the street. This lot will be closed to us for the whole weekend. Alternatively, you can park at Million Dollar Beach and walk half a mile.

Car Pool, please! Shoreline Cruises is providing additional parking at 75 Dieskau St., Lake George.

You may board at 4:30 PM. We sail promptly at 5:00 PM. Allow time for parking!

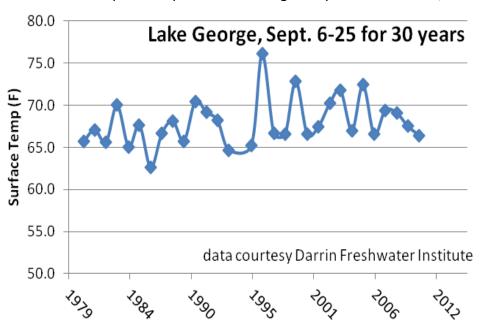


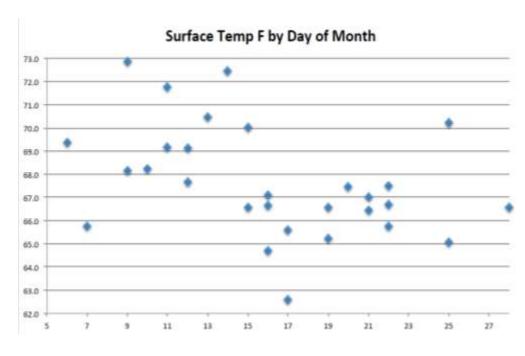


Appendix A Historic Water and Air Temperature Data

Appendix A: Historic Water and Air Temperature Data

The Darrin Fresh Water Institute compiled 30 years of surface (1 m depth) readings for us. During the two-week mid September period the average temperature was 68F, with a range from 62-70°F.





When plotted by day of the month, the data show a decline in temperatures as the month progresses. However, there is so much variability, the best we can predict is that temperatures on September 17-18 are likely to be in the mid to high 60's. During periods of strong winds, it is also possible for upwelling of cold water, in the 50's. Swimmers, Observers, and kayakers need to be familiar with the signs and symptoms of hypothermia, and to be ready to extract the swimmer.

Appendix A Historic Water and Air Temperature Data

Average air temperatures in September for the period 1981-2011 are shown in the graph below. These data are copied from http://www.ncdc.noaa.gov/cdo-web/datatools/normals, and were recorded from the nearby (8 miles) Glens Falls Floyd Bennett airport. The average high on September 18 was 70°F, and the average low was 46°F.

GLENS FALLS FLOYD BENNETT MEMORIAL AIRPORT, NY US



NOAA Climate Data On-Line. 30-year average air temperatures, °F by day of the month. The blue line is September 17.

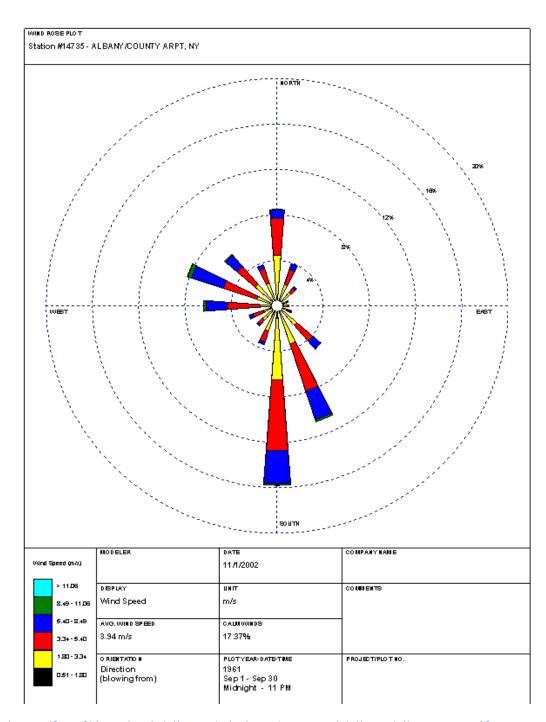
These are averages, not records. The record high was 91 in 1891 and the record low was 32 in 1986, so don't dress or pack for average conditions. Crew needs to bring a sun hat and sunscreen for the day, but also bring long underwear and rain gear with a wool cap and gloves for night



Appendix B: Wind and the Direction of the Swim

Swimming into swells is difficult and can promote shoulder injuries. Kayaking into strong headwinds can be difficult and potentially dangerous. Swims have been cancelled because kayaks cannot maintain station with swimmers. The "wind rose" averages all of September, 24 hours a day, for 30 years.

1 m/s = 2.2 mph, so the blue polygons exceed 12 mph, a wind speed at which we might consider turning the course around. Winds this strong from the south occur about 10% of the time in September.



http://www.wcc.nrcs.usda.gov/ftpref/downloads/climate/windrose/new_york/albany_albany_sep.gif



Appendix C Reporting Forms

		Team		
	Gender	Age	Н	ome Town
		Home Home		
	Hom	Home		
	Hom	Home		
	Hom	Home		
		Lake Geor	ge, NY, U	SA
Ticonderoga to	LG Village	LG Villa	LG Village to Ticonderoga	
32.2 miles, 51.8	km			
Finish Time		Elapsed	d Time	
oliance with USM	S and MSF I	Rules. No n	nodificat	tions to MS
	Ticonderoga to 32.2 miles, 51.8	Hom Hom Hom States at LG Village 32.2 miles, 51.8 km	Gender Age Home Home Home Home Home Home Home Ho	Home Home Home Home Home Home Home Home

edit date 7/9/16 Page 72

Signature

I witnessed this swim in its entirety, start to finish, and

attest that it was conducted in strict accordance with the rules and spirit of traditional marathon swimming



Appendix C Reporting Forms

Solo Swimmer Reporting Form	Time	Latitude	Longitude	Weather Wnd/Tmp	Stroke Rate	NOTES (distances, feeds, incidents, etc.)
Date						
Swimmer						
Observer						
Lake George Marathon Swim,						
September 17-18						
2016						
Page of						



Appendix C Reporting Forms

Relay Team Reporting Form	Time	Swimmer OUT	Swimmer IN	Longitude	Longitude	Weather	NOTES (distances, incidents, etc.)
Date							
Team Name							
Observer							
Lake George Marathon Swim,							
September 17-18							
2016							
Page of							





Pod Leader Hourly Report

Pod Leaders shall report to the Event Director hourly, after logging the following information from	each
Boat Captain (or designated crew member). Pod Leader enters status and location	

Pod Lead	ler Name:			Pod:		
	Swimmer or Team Name:	Swimmer or Team Name:				
Time						
Status						
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Appendix C Reporting Forms

Safety Director Hourly Report

Pod	Leaders	chall re	nort status	to the	Event	Director	approximately	y hourly	
rou	Leaders	Shan re	port status	to me	Event	Difector	approximater	y mounty.	

Safety Director	•		Signatu	ıre	
	Red Pod	Green Pod	Blue Pod	Orange Pod	White Pod
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Status					
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Appendix D: Lighting / Marking for Swimmers and Kayaks

Swimmers

Keeping the swimmers visible is of critical importance. Since all lighting systems can fail, a swimmer must be illuminated by at least two independent means from dusk to dawn. If one light fails, the swimmer must stop and clip on a new light. If the kayak or support boat does not have a spare, contact the Pod Leader immediately. If a second light is not available, the swimmer must leave the water.

Each swimmer must supply their own lights. Generally a light or two on the goggle strap and one or two clipped or tied to the back of the bathing suit provides good visibility no matter which way the swimmer is breathing.



Note the swimmer has two e-Gear Guardian lights, one on the goggle strap and one clipped to his suit. A bright cap helps visibility too!



Three lights that survived a waterproof test: Left, clip on pet light: Middle, eGear Guardian: Right, Frog Silicone Light.

Three brands of lights are illustrated in the picture above and to the right. They are all available in multiple colors and have blinking modes to signal emergencies. All these use small watch batteries, last over 12 hours on a battery, and have been tested for waterproofing. They are:

Clip-on Pet Lights, \$2.99 at MiniInTheBox:
 http://www.miniinthebox.com/led-waterproof-clip-on-pet-safety-light-assorted-color_p398250.html. We haven't tested them swimming yet but they are waterproof and bright enough. They dangle from a clip, which may be annoying. The light only projects on one side, and their waterproofing has not been confirmed after a battery change.





eGear Guardian lights \$15.99 from Amazon:
 http://www.amazon.com/eGear-Guardian-Function-Signal-Light/dp/80009NDV0Y. These are our favorites. We have used them in Lake George for years. They last a long time. We change batteries and silicone the o-rings annually. They clip securely onto goggle straps and can be seen for a mile.



- Frog Silicone lights, \$1.99 from MiniInTheBox, http://www.miniinthebox.com/figxz-waterproof-rubber-cycling-frog-tail-light-p2696794.html?pos=ultimately-buy-3&prm=2.3.5.0 These lights are bright, and come with two lights in a single silicone rubber harness through which a goggle strap can pass. They are a little bigger than the others, and could also be adapted as kayak running lights with a bungee wrapped around the kayak. We ordered some in red, green, and white and they were delivered in about four weeks as ordered, but some reviews indicate that the order is not always filled with the
- Electric LED Glo Sticks, \$2.99 from NiteIze or other sources, https://www.niteize.com/product/LED-Mini-Glowstick.asp.

 These are bright, long-lasting, and very reliable. Easy to pin onto a suit or hang from a kayak. A brighter, longer lasting alternative to chemical sticks.

color that was ordered. For \$1.99 you can afford to order several.

Chemical Light Sticks, \$14.29 for 12 (\$1.19 each) from
 Amazon, or other sources,
 https://www.niteize.com/product/LED-Mini-Glowstick.asp.
 Not as bright as the battery sticks above, but they are bulletproof and cheap. Hanging different colors from a bathing suit makes it easy to distinguish one swimmer from another. We will give a few of these out as backup/emergency lights.

Kayaks

Kayaks need to be visible by the swimmers and by powerboats. They are not required by law to carry Coast Guard approved lighting, but our Safety Plan requires at least one white light. Kayakers need to



understand that the swimmers eyes are dark-adapted, and a flashlight in the eyes or a very bright light on a boat will not be appreciated.

We have had good luck with a flashlight in the bow or stern of a plastic kayak. The light is diffused and largely directed underwater, making it easy for the swimmer to see the kayak without being blinded. If the flashlight is in the stern it will not affect the kayaker's night adaptation. See the picture on page 18 and below. The eGear Guardian stern (white), port (red) and starboard (green) lights were affixed with stick-on Velcro. This system was augmented with a fourth light on bill of the kayaker's baseball cap.

If you are using a borrowed kayak or trying to provide temporary lighting, several quick options are available for outfitting a kayak and are pictured in the following pages. Links to purchase these lights are on the preceding page.



This kayak is illuminated with four lights. First, a big flashlight is in the bow. This provides a diffuse glow visible from underwater for the swimmer. Swimmers report that this light is not annoying (unlike spot lights or any focused beam). One kayaker commented that the light is better if placed in the stern, as it does not interfere with the kayaker's night vision. However, the swimmer may prefer the placement in the bow. Practice various configurations, if possible. There are two eGuardian bow lights (red, port; green starboard) and one white eGuardian light on the stern. These eGuardian lights are fixed with press-apply Velcro. The Velcro may require solvent to be removed from the kayak, which is not recommended for a painted or varnished wooden kayak





The eGuardian lights are completely waterproof, provide at least 20 hours of illumination, and can be clipped to swim goggles or a bathing suit too. For this application pressapply Velcro was applied to the boat and to the back of the lights. They can take a splashing but they have not been tested with waves crashing over the bow...yet.







Another temporary solution to lighting of kayaks is illustrated by this pair of Frog Lights held onto the bow of a kayak with a bungee cord. This is a very sturdy mount, but the lights have a tendency to roll and direct their lights randomly. However, with two bulbs angled away from each other this is a good, cheap (\$3 each) solution. These lights are waterproof. The orange parachute cord is tied to the bungees and wrapped around the back of the cockpit rail. Without something to pull back, the bungee cord can roll forward and separate.



A general principle for lighting kayaks and swimmers is to add a lot of redundancy. Keep a few chemical glo-sticks on hand too. They are especially good for lighting the swimmer. Several of them hanging off the sides of the kayak help the swimmer to orient. Another advantage of multiple lights is that each kayak / swimmer combination will look differently, making it easier for swimmers to track on their kayak when passing occurs. It also helps Pod Leaders to identify a kayak.

Numerous commercial light systems are available for kayaks, but all require drilling of the kayak deck. Another temporary mount system was developed by Lake George Marathon Swim Kayaker Jeff Robbins. His detailed construction plans follow. He mounts all three lights on the stern to preserve his night vision. Bob Singer modified his design by using ½ X 1" couplings to rigidly make the transition in pipe diameters. An additional modification of this system would be to carry a signal flag on a wooden stick



Here a NiteIze light is clipped to the webbing behind the kayaker. This light only throws light backward. It can be augmented by a second light clipped to a baseball cap on the kayaker.

that can be dropped into the vertical post to enhance daytime visibility, when the risk of an unhappy encounter with a powerboat is highest. See the photos.

Thanks for sharing Jeff. Does anybody else have ideas?



Kayaks also need to display the orange signal flags the Marathon Swim is providing. These flags aid visibility during the daytime enormously. We have experimented with a number of clamps and devices. The PVC light standard described below can hold a flag (1" diameter pole). If you have another lighting plan, you will still need a way to hold the flag. We recommend the "Scotty 433 Coaming/Gunnel mount." This clamp is available at Amazon at https://www.amazon.com/Amazing-Quality-Scotty-Coaming-Gunnel/dp/B00UH1JLCU and elsewhere.



A Scotty 433 Coaming/Gunnel mount provides an out-of-the way secure means of displaying a signal flag, or a light on a pole



Note how much more visible the kayak with the orange flag appears than the kayak in the background, without a flag.



Light Mount for Stern of Kayak



This is a light mount that will make the kayak visible, and is fairly adjustable for different boats.

The red and green are 60 hour Nite Ize LED glow stick (\$4.97 per two at Home Depot) https://www.niteize.com/product/LED-Mini-Glowstick.asp

The white light is a 60 hour rated (tested to 24 hours) Fantasea Nano Spotter light. http://www.amazon.com/Fantasea-Spotter-Light-Diving-Torch/dp/800139CW44

Some of the parts should be glued together, and that should be done outside, in a breeze, unless you are into killing brain cells.

This is made with ½ inch PVC from a hardware store/ big box, and is pretty quick to make.

This can be made one of three ways,

Appendix D

Lighting

- 1) Model 1: A single mount for a white light
- 2) Model 2: A mount with a white light, and provision for running lights/light sticks
- 3) Model 3: Same as (2) except the ends of all three arms are enlarge for 1" pipes to accommodate the FantaSea lights.

Note: All models can be used to support a safety flag to enhance day-time visibility

Shopping list (single white light mount)

- 1 10 foot piece of ½ inch PVC pipe
- 1 2 foot piece of 1inch PVC pipe
- 2 45 degree ½ inch PVC joints (elbows)
- 3 Tee fittings ½ inch PVC
- 1 container PVC glue, you can use the clear stuff, and not the primer, and then glue.

If you are going to make the three arm Model 2 you will need to add

2 45 degree ½ inch PVC couplings 1 cross (4 way) ½ inch PVC coupling.

To convert Model 2 to Model 3 add:

3 1" connectors 3 ½" X 1" bushings

Cut list

The PVC pipe is easily cut by hand, (I use a cheap plastic miter box for square cuts) http://www.homedepot.com/p/Stanley-Deluxe-Miter-Box-with-Saw-20-600D/100034395

Part	quantity	part	length	location
Α	4	½ inch PVC pipe	6 inches	legs
В	2	½ inch PVC pipe	1.5 inches	Tee from legs



С	2	½ inch PVC pipe	Depends (this is for your boat) I am running 5 inches	Legs to upright
D	1	½ inch PVC pipe	12 inches if Model 1 6 inches if Model 2 or 3	vertical
E	1 for Model 1 or 2; 3 for Model 3	1 inch PVC pipe	12-18 inches	Vertical sleeve over ½ inch PVC to hold light, for Model 3 you need 3 of these
F*	1	½ inch PVC pipe	12 inches, 6" for Model 2 or 3	Vertical out of 4 way
G *	2	½ inch PVC pipe	3 inches	Horizontal out of 4 way
H*	2	½ inch PVC pipe	10 inches. Drill 4 % inch holes through hole mount. 5 inches for Model 3	Angled out to the side for marker lights.

^{*} E,F,G, H are all if you are making model 2 or 3

Instructions

Read through everything first, you have a short window to move parts after glue is applied

- 1) Cut all pieces and label as you cut with a sharpie
- 2) Through drill 4 % inch holes in each of part H if doing model two. It helps to clamp the pipe between two pieces of wood to keep the pipe from spinning
- 3) Glue a part A into each of the sides of a tee fitting. (see photo below)
- 4) Glue part B into the 90 degree leg, (see photo below)
- 5) Glue 45 degree elbow to part B it is important to make sure that it is 90 degrees to part A





- 6) Glue part C to part B
- 7) Repeat parts 3-6 for second leg
- 8) Glue both legs into last Tee fitting
- 9) Glue either a long or short D pipe to Tee fitting (if you are doing just a single light, glue the long pipe, slide on pipe E and you are done. (You can through drill both pipes and secure with a cable tie)



10) (for model 2) glue 4 way cross to top of D and add a second pipe D to the top

11) Glue G and H to 4 way cross



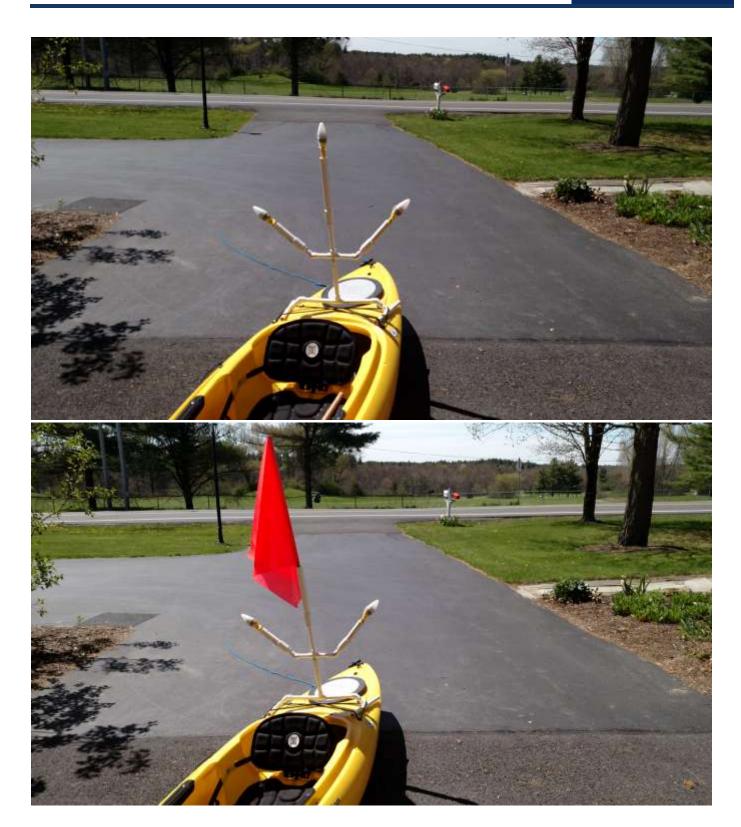


12) This can be secured to the boat by running cord or bungees through pipe A or via holes drilled in part A

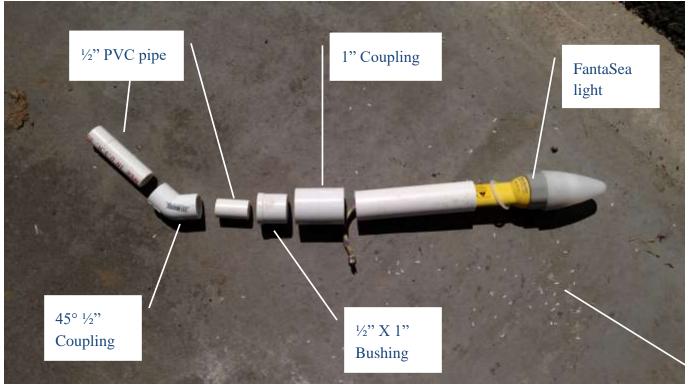
Model 3 uses all FantaSea lights, which can be wedged firmly into the end of a 1" pipe. These lights come with filters so it is easy to have a white one on top, red on the left (port), and green on the right (starboard). Making the top 1" pipe taller, and the $\frac{1}{2}$ " vertical pipe shorter allows us to drop in a flag for daytime visibility.

See the figures below.









A detail of one of the side arms, modified for the FantaSea lights, is above.

13) Crack open your favorite beverage, admire your work, and try to scrub the PVC glue off your skin.

1" PV pipe



Appendix E: Phone Numbers and E-Mails

In the Event of an Emergency (any situation where outside help is needed), **Call 911**. Then, as time permits, contact your Pod Leader.

Radio reception with our handheld radios will be effective for about five miles.

The following cell phone numbers are to be used to report problems, provide hourly reports, and for routine communications. During the Event, text messaging is more likely to go through with spotty phone communications than voice calls. When text messaging, be sure to list your name and pod.

Name	Role	Cell Phone	Pod Leader E-mails
Bob Singer	Red Pod Leader, Event Director	518-791-1295	N5442T@gmail.com
Deb Roberts	Blue Pod Leader, Event Referee	518-796-9156	debaroberts@gmail.com
Harrison Freer	Orange Pod Leader, Independent Safety Monitor	571-243-8239	hcfreer@gmail.com
Roy Ketring	Green Pod Leader	518-222-2593	Ketro@yahoo.com
David Dammerman	White Pod Leader	518-698-7838	dddammerman@gmail.com
Chris Bowcutt	Finish Area	917 371 1108	
Alex Meyer	Event Co-Director	607-319-9192	
Tim Ward	Medical Director / Warming tent	518-852-7111	
Anne Greene	EMS Coordinator	518-796-6405	



Appendix F: Checklists

Checklist for Swimmers

Bathing Suit, spares for relay swimmers
Goggles and spares, clear for night
Swim cap and spares
Ear plugs, if using
Sunscreen, Zinc oxide baby diaper rash crème (Desiten) will last through the night; also see http://marathonswimmers.org/forum/discussion/37/best-waterproof-sunscreen-sunblock-for-swimming/p1#Comment 432
Lube, anti-chafing for beard burn on shoulders, straps on woman's suits
Snacks, water
Warm clothes in a small duffel or dry bag
Cell phone in a ziplock
Cell phone charger, cord, battery
Lights (at least 3)
Glo-sticks
Necessary medications
Sleeping bag in plastic bag, dry bag, or 5-gallon bucket with lid





	Safety pins (to attach glow-sticks to suit)
	Towel, plus a throwaway towel to remove lube and zinc oxide
Additio	onal Checklist Items for Relay Swimmers
	Spare Bathing Suits
	Sunglasses, Sun hat
	Nausea medication



Checklist for Boat Captains and Observers

Confirm PFDs (life jackets) for each crew member AND swimmers are onboard
Confirm full fuel for boat
Clipboards* Loaded with
Emergency phone numbers (label on inside)*
Egress points document*
Hourly reporting forms*
Paper navigation chart*
Pencils*
Radio*
SPOT Tracker*
Signal Flag*
Flashlight* and / or headlamp
Trash bags, Gallon ziplocks for clipboards, tablets, etc.*
Parachute cord to lash items to boat, kayaks*
Zip ties* and knife





USB adapter for 12V receptacle*
Cell phone, charger cord, USB Battery
Watch or stopwatch to time kayak and swimmer exchanges
Warm clothes, rain gear, in a small duffel or dry bag
Meals, Snacks, water for 24 hours
Hot water / coffee thermos
Hat
A sheet and clothespins to rig a sunscreen
Port-a-Potty, toilet paper, enzyme package**
Necessary medications
Sunscreen and croakies
Stow the Swimmer's towel, phone, and dry clothes for the Finish
BE SURE THE CAR KEYS END UP WITH THE RIGHT PEOPLE AT THE RIGHT PLACE AT THE END
* Issued to Boat Captain and Observer Teams by LGMS

* Issued to Boat Captain and Observer Teams by LGMS

** Let LGMS know if you need help getting one of these



Checklist for Kayakers

Kayak and paddle (one for each pair of kayakers)
PFD (Life Jacket)
Flashlight* and / or headlamp
Signal Flag*
Lights for kayak
Warm clothes, rain gear
Full change of clothes
Hat, kayak gloves, neoprene booties
Sunscreen and croakies
Cell phone in ziplock, charger cord, USB Battery
Meals, Snacks, water
Hot water / coffee thermos
Sunscreen
Sleeping bag in plastic bag, dry bag, or 5-gallon bucket with lid (one for each pair of kayakers)

* Issued to kayakers s by LGMS





Checklist for Pod Leaders

PFDs (life jackets) for each crew member AND swimmer
Fuel for boat
Clipboards* Loaded with
Emergency phone numbers (label on inside)*
Egress points document*
Hourly reporting forms*
Paper navigation chart*
Pencils*
National Grid Pod Leader Radios*
Pod Radio*
SPOT Tracker*
Signal Flag*
Flashlight*
CPR kit*
Parachute cord to lash items to boat, kayaks*
"Space" Blanket, "Hot Hands"*
Zip locks (small and one-gallon)*





Trash bags*
Warm clothes, rain gear, in a duffel bag
Cell phone, charger cord, USB Battery
USB adapter for 12V receptacle*
Meals, Snacks, water
Hot water / coffee thermos
Hat
Sunscreen, sunglasses with croakies.
Port-a-Potty, Extra toilet paper, enzyme package**
Sleeping bag in plastic bag (for evacuations)
Spare batteries (AA, AAA)*
First Aid kit*
Simple tool kit / Sewing kit
5-gallon can of gas
Extra hot water
 * Issued to Pod Leaders by LGMS ** Let LGMS know if you need help getting one of these



Checklist for Finish Manager

Finish structure, floats, leaf blower
Banners, zip ties, knife
Ladder, rope to lash ladder
Clipboards* Loaded with
Emergency phone numbers
Egress points document
Start / Finish spreadsheet
Pencils
Computer, extension cord, power splitter, TV, support
Certificates, Awards, printer, envelopes
Warm clothes, rain gear, in a duffel or dry bag
Sunglasses, hat, sunscreen
Cell phone, charger cord, USB Battery
Pod Radio*
National Grid Pod Leader Radios*
Drinking Water, Coffee urns, Hot Water, Snacks, Food, Fruit, Coffee, Hot chocolate, Tea



Tents
Salamander heater
Tables, chairs



Appendix G: Emergency Egress Points



LAKE GEORGE VILLAGE



LAKE GEORGE EMERGENCY EGRESS SITES FOR RENDEZVOUS WITH LOCAL EMS AGENCIES

AGENCY	LOCATION	GPS	NOTES
Ticonderoga	Mossy Point State Boat Launch	43.822135	only east side location
	Black Point Rd. T	-73.427661	Detugen the two white
	Mohican Steamboat Landing	43.808599	Between the two white
	Baldwin Rd to Steamboat Landing Rd T	-73.444810	gazebos
Hague	Rogers Rock State Campground	43.792716	At boat launch, just north of
	9894 Lake Shore Dr. H	-	all kayaks on shore
		73.479803	
	Hague Town Dock	43.743721	24- hour lights
	9060 Lake Shore Dr. H	-73.498305	Dock for Fire Boat
			Watch for danger buoys
	Silver Bay YMCA	43.694428	S. of large white hotel
	87 Silver Bay Rd. SB	-73.504217	S. of swim area
	Snug Harbor South	43.675781	Marina
	7968 Lake Shore Dr SB	-73.509274	
Bolton	Green Island/DEC and LGPC Docks	43.561529	24-hour lights
	18 Boathouse Lane BL	-73.647269	Dock for Fire Boat
	Rogers Park	43.554449	24-hour lights
	4928 Lake Shore Dr. BL	-73.652662	Immediately North of gazebo
	Huddle Beach	43.541991	Single long dock, small
	across from 4689 Lake Shore Dr. BL	-73.664542	beach
	across from 4005 take shore br. be	75.004542	beach
	Treasure Cove Resort	43.494255	Way in the north corner of
	3940 Lake Shore Dr. DP	-73.676448	bay
	Diamond Point Beach	43.480432	White gazebo at end of
	after 3708 Lake Shore Dr. DP	-73.683946	dock
Lake George	Green Harbor	43.461868	Condo complex
Lake decige	after 3440 Lake Shore Dr LG	-73.688415	Docks way in north corner
	arter 5440 Lake Shore Dr Lu	75.000415	of bay
	Erlowest	43.447431	Resort – older dock
	3178 Lake Shore Dr LG	-73.693995	between big lawns
			_
	Lake George Park Commission &	43.425762	Docks behind Courthouse &
	LGA Floating Classroom Dock	-73.710526	south of Duffy's Restaurant
	Lower Amherst St		
	LGMS Medical Tent	43.421798	At finish buoys
	Town docks, Beach Rd LG	-73.711581	



TICONDEROGA EMERGENCY EGRESS POINTS



Mossy Point State Boat Launch

(only east side location)

Black Point Rd.

GPS: 43.822135 -73.427661







Mohican Steamboat Landing

Baldwin Rd to Steamboat Landing Rd

GPS: 43.808599 -73.444810











Rogers Rock State Campground

9894 Lake Shore Dr. Hague

Can also be dispatched to Hague EMS

GPS: 43.792716 -73.479803





HAGUE EMERGENCY EGRESS POINTS



Hague Town Dock

9060 Lake Shore Dr.

GPS: 43.743721 -73.498305











Silver Bay YMCA

87 Silver Bay Rd.

GPS: 43.694428 -73.504217







Snug Harbor South

7968 Lake Shore Dr

GPS: 43.675781 -73.509274







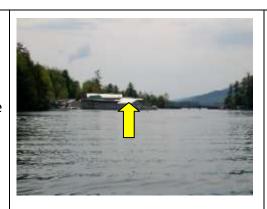
BOLTON EMERGENCY EGRESS POINTS

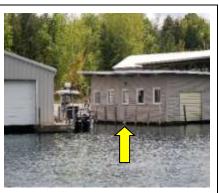


Green Island/DEC/LGPC Docks

18 Boathouse Lane

GPS: 43.561529 -73.647269





Green Island/DEC/LGPC Docks

18 Boathouse Lane

GPS: 43.561529 -73.647269









Rogers Park

4928 Lake Shore Dr

GPS: 43.554449 -73.652662







Huddle Beach

across from 4689 Lake Shore

GPS: 43.541991 -73.664542











Treasure Cove Resort

3940 Lake Shore Dr.

GPS: 43.494255 -73.676448







Diamond Point Beach

after 3708 Lake Shore Dr.

GPS: 43.480432 -73.683946







LAKE GEORGE VILLAGE EMERGENCY EGRESS POINTS



Green Harbor

after 3440 Lake Shore Dr

GPS: 43.461868 -73.688415







Erlowest

3178 Lake Shore Dr

GPS: 43.447431 -73.693995











Lake George Park Commission & LGA Floating Classroom Dock

Lower Amherst St.

GPS: 43.425762 -73.710526





Lake George Marathon Swim Medical Tent

Town docks, Beach Rd

GPS: 43.421798 -73.711581



