

Minimum Equipment and Safety Recommendations of the YRA of Long Island Sound

It is the purpose of these recommendations to establish a uniform minimum equipment and accommodation standard for yacht racing on Long Island Sound. These recommendations are intended to supplement rather than replace government requirements and the Racing Rules of Sailing. The responsibility for providing and maintaining a safe and seaworthy vessel rests entirely on the owner. The establishment of these recommendations, their use by race organizers, or inspection of a boat under these recommendations do not in any way limit or reduce the complete and unlimited responsibility of the owner or owner's representative. The recommendations are offered as an aid to race organizers at YRA of LIS member clubs running events on Long Island Sound. Race organizers are free to add, delete, or alter any of these recommendations to meet the requirements of a particular race. The membership of the YRA of LIS is reminded that possession of a YRA of LIS PHRF rating does not mean that the boat meets the applicable equipment specifications for an event, be they the PHRF Minimum Equipment Recommendations of the YRA of LIS or any other specifications. Boat owners and their representatives are urged not to seek entry in a PHRF event unless their boat meets the applicable equipment specifications for the event, and they are reminded that it is their responsibility to see that their boat does meet the applicable specifications.

To assist race organizers, the YRA PHRF application now includes a check box where a boat owner is asked whether or not the boat meets Category C Minimum Equipment Recommendations. If the boat does not, the resulting certificate will so note. The response to this question does not affect the assigned rating.

One-Design Minimum Equipment Recommendations

One-Design classes are expected to provide their own equipment recommendations in their respective class rules.

IRC & PHRF Minimum Equipment Recommendations

Race Category Definitions

- Category A- Races in which any part of the course is outside Long Island Sound
- Category B- Distance and overnight races run wholly within Long Island Sound
- Category C- Races in Long Island Sound intended to start and finish during the day.

Race Category/Recommendations

1. General

- ABC 1.1 All recommended equipment shall function properly, be readily accessible and shall be of a type, size and capacity suitable and adequate for its intended use and the size of the boat.
- ABC 1.2 Inboard engine installations shall be such that the engine can be securely covered when running and that the exhaust and fuel supply systems are securely installed.
- ABC 1.3 All heavy items including ballast and internal fittings such as batteries, stoves, gas bottles, tanks, engines, outboard motors, anchors and chain shall be securely fastened so as to remain in position should the boat be heeled to 180 degrees.
- ABC 1.4 Sea cocks and valves shall be fitted on all through hull openings below the water line (WL) except integral deck scuppers, shaft log, speed indicators and the like. However, a means of closing such openings must be provided.
- ABC 1.5 Soft wood plugs, tapered and of various lengths to fit all through hull openings must be attached with a length of line to the appropriate fitting.
- ABC 1.6 Sheet winches shall not be mounted in a way that requires an operator to be substantially below deck.
- ABC 1.7 A boat may be inspected at any time by an inspector or measurer of the Organizing Authority. If she does not comply with these regulations, her entry may be rejected, or liable to disqualification, or such other penalty as may be prescribed by the race protest committee.
- A 1.8 The boat must have a stability index greater than or equal to 103 or meet the requirements of ISO 12217-2B.
- A 1.9 A boat shall have a mechanical propulsion system that is quickly available and capable of driving the boat at a minimum speed in knots equivalent to the square root of LWL in feet (1.8 times the square root of the waterline in meters) for 4 hours.

Race Category/Recommendations

2. Structural Features

- ABC 2.1 The hull, including deck, cabin top and all other parts shall form an integral, watertight unit and any openings in it shall be capable of being immediately secured to maintain this integrity. Centerboard and daggerboard trunks shall not open into the interior of the hull.

- ABC 2.2 Companionways, if extended below the sheerline, shall be capable of being blocked off to the level of the local sheerline. When such blocking arrangements are in place, the companionway (or hatch) shall continue to give access to the interior of the hull.
- ABC 2.3 Cockpits shall be structurally strong, self-draining and permanently incorporated as an integral part of the hull. They must be watertight; that is, all openings to the hull below the main deck level must be capable of being strongly and rigidly secured.
- ABC 2.4 Pulpits and stanchions shall be through-bolted or welded, and the bases thereof shall not be further inboard from the edge of the working deck than 5% of the maximum beam or 6 inches, whichever is greater. Stanchion bases shall not be situated outside of the working deck.
- ABC 2.5 Taut single wire or high molecular weight polyethylene (HMPE) line lifelines shall be installed at a height of not less than 24 inches above the working deck for boats over 28 feet LOA and 18 inches for boats 28 feet LOA and less. These lines shall be permanently supported at intervals of not more than 7 feet. If HMPE line is used, it must have spliced terminations or terminals specifically intended for the purpose. A multipart lashing segment not to exceed 4" per end termination for the purpose of attaching lifelines to pulpits is allowed. When HMPE is used the load-bearing portion (core) minimum diameter shall be; 1/8" (3mm) for boats 28 feet LOA and less, 5/32" (4mm) for boats over 28 feet to 43 feet LOA, and 3/16" (5mm) for boats over 43 feet LOA.
- ABC 2.6 A fixed bow pulpit must be installed. Lower lifelines need not extend through the bow pulpit. Upper rails of pulpits must be at no less height above the working deck than the upper lifelines, except that in the case of sprit boats, the upper rail forward of the forestay may be up to 10 inches lower than the upper lifelines. Upper rails and bow pulpits shall be securely closed while racing. The bow pulpit may be fitted abaft the forestay with its bases secured at any points on deck, but a point on its upper rail must be within 16 inches forward of the forestay on which the foremost headsail is secured. Bow pulpits are not required on catboats, but lifeline protection must extend as far forward as the mast.
- ABC 2.7 Stern pulpits or lifelines arranged so as to adequately substitute for a stern pulpit shall be installed.
- ABC 2.8 All lifelines shall be taut and inelastic. Intermediate lifelines, if installed, must be at least 9 inches above the main deck.

Race Category/Recommendations

3. Equipment to be carried aboard

- ABC 3.1 Fire extinguishers to be readily accessible and of the type and number required by the U.S. Coast Guard.
- 3.2 Bilge Pumps:

- A 3.2.1 Two bilge pumps, one of which is manual and operable with all cockpit seats, hatches and companionways closed.
- B 3.2.2 One manual bilge pump operable with all cockpit seats, hatches and companionways closed.
- C 3.2.3 One manual bilge pump
- AB 3.2.4 Two buckets of stout construction each with at least two gallons capacity and each to have a lanyard.
- C 3.2.5 One bucket of stout construction with at least two gallons capacity with a lanyard.
- 3.3 Crew overboard equipment
- C 3.3.1 At least one USCG approved type IV throwable horseshoe buoy, ring buoy or buoyant cushion device within reach of the helmsperson and ready for instant use.
- ABC 3.3.2 A Lifesling or equivalent crew overboard recovery equipment that is secured to the vessel by a floating line with a minimum length of 100 feet. The equipment shall be within reach of the helmsperson and ready for instant use.
- AB 3.3.3 One of the following:
- (a) A "MOM 8" or "MOM 9" or equivalent equipment and at least one USCG approved type IV throwable horseshoe buoy, ring buoy or buoyant cushion device both within reach of the helmsperson and ready for instant use.
 - (b) A USCG approved type IV throwable horseshoe buoy equipped with a drogue, whistle and a self-igniting light attached by floating line to a crew overboard pole with a flag, all within reach of the helmsperson and ready for instant use.
- ABC 3.3.4 A boat shall have a throwing sock-type heaving line of 50' (15m) or greater of floating polypropylene line readily accessible to the cockpit.
- 3.4 Personal flotation devices.
- A 3.4.1 For each crewmember aboard there shall be a life jacket that provides at least 33.7 lbs (150N) of buoyancy, intended to be worn over the shoulders (no belt pack) and meeting either U.S. Coast Guard or ISO specifications. Life jackets shall either be equipped with crotch or leg straps, or shall be appropriately fitted to prevent their buoyancy from lifting the jacket above the mouth of the wearer. They shall have a whistle, a waterproof light, be fitted with marine-grade retro-reflective material, be clearly marked with the boat's or owner's name, and be compatible with the wearer's safety harness. If the life jacket is inflatable, it shall be regularly checked for air retention. Alternatively, each crewmember shall have a U.S. Coast Guard approved Type 1 life jacket equipped with crotch or leg straps, a whistle, a waterproof light,

retro-reflective material, marked with the boat or owner's name, which is compatible with a safety harness.

- BC 3.4.2 Each crewmember shall have a U.S. Coast Guard approved Type III or Type V life jacket intended for small boat sailing or other active boating, or an inflatable life jacket as described above.
- AB 3.5 Two flashlights
- ABC 3.6 Compass
- AB 3.7 Spare Compass
- AB 3.8 Emergency Tiller
- ABC 3.9 Suitable anchor and rode
- A 3.10 A second suitable anchor and rode.
- ABC 3.11 Foghorn
- AB 3.12 Heavy weather jib and reefable mainsail or storm trysail, such that the yacht may be worked to windward in heavy weather.
- A 3.13.1 At least one of the following:
- (a) A life raft or inflatable dinghy, both of which must have bottle inflation and be capable of carrying the entire crew.
 - (b) A survival suit for each member of the crew
- A 3.13.2 At least one of the following after 1/1/15:
- (a) A boat shall carry either a 406MHz EPIRB which is properly registered to the yacht, or a floating 406MHz Personal Locator Beacon, registered to the owner with a notation in the registration that it is aboard the boat. This device shall be equipped with an internal GPS.
 - (b) A boat shall have a permanently installed 25-watt VHF radio connected to a masthead antenna by a co-axial feeder cable with no more than a 40% power loss. All radios shall have DSC capability, have an antenna of at least 15" in length, be connected to or have an internal GPS, and have the assigned MMSI number (unique to the boat) programmed into the VHF.
- 3.14 Pyrotechnic Signals
- A 3.14.1 A boat shall carry one SOLAS orange smoke flare, two SOLAS red parachute flares, and two SOLAS red hand flares not older than the expiration date.

- BC 3.14.2 A boat shall carry U.S. Coast Guard flares meeting day-night requirements not older than the expiration date.
- 3.15 VHF radio.
- AB 3.15.1 A boat shall have a permanently installed 25-watt VHF radio. After 1/1/15 this radio shall have DSC/GPS capability.
- AB 3.15.2 A boat shall have a watertight handheld VHF radio or a handheld VHF radio with waterproof cover. After 1/1/15, this radio shall have DSC/GPS capability.
- C 3.15.3 A boat shall have either; a permanently installed 25-watt VHF radio, a watertight handheld VHF radio or a handheld VHF radio with a waterproof cover. After 1/1/15, all radios shall have DSC/GPS capability.
- ABC 3.16 A radar reflector with a 12 inch diagonal minimum dimension or equivalent echoing area of not less than 6 square meters.
- ABC 3.17 Navigation lights: to be shown as required by current governmental regulations and mounted so as not to be masked by sails or the heeling of the yacht.
- A 3.17.1 A boat shall have a second set of navigation lights that comply with U.S. Coast Guard requirements and which can be connected to a different power source than the primary lights.
- A 3.18 A boat shall carry jacklines with a breaking strength of at least 4500 lb. (20kN) which allow the crew to reach all points on deck, connected to similarly strong attachment points, in place while racing.

4. Safety equipment to be worn

- AB 4.1 A personal flotation device and safety harness shall be worn whenever one of the following conditions exist:
- a. between the hours of sunset and sunrise.
 - b. when alone on deck.
 - c. when the true wind speed is 25 knots or above.
 - d. when the mainsail is reefed.
 - e. when visibility is less than one nautical mile.
- A 4.2 Each crewmember shall have a safety harness and compatible safety tether not more than 7 feet (2.13m) long with a minimum tensile strength of 4500 lb. (20kN). The tether shall have a snap hook at its far end and a means to quickly disconnect the tether at the chest end.

5. Skills

- AB 5.1.1 Annually, two thirds of the boat's racing crew shall practice man-overboard procedures appropriate for the boat's size and speed. The practice shall consist of marking and returning to a position on the water, and demonstrating a method of hoisting a crewmember back on deck, or other consistent means of reboarding the crewmember.
- C 5.1.2 Annually, the skipper/owner shall practice man-overboard procedures appropriate for the boat's size and speed. The practice shall consist of marking and returning to a position on the water, and demonstrating a method of hoisting a crewmember back on deck, or other consistent means of reboarding the crewmember.
- A 5.2 At least 30% of those aboard the boat, but not fewer than two members of the crew, unless racing single-handed, including the person in charge, shall have attended a half-day, one-day, or two-day US Sailing Safety at Sea Seminar within the last five years, or other courses as accepted by US Sailing (required after 1/1/ 15).
- A 5.3 A boat's crew shall be aware of multiple methods of steering the boat with the rudder disabled, and shall have chosen and practiced one method of steering the boat with the rudder disabled and be prepared to demonstrate said method of steering both upwind and downwind.

Safety Recommendations

The YRA of LIS also wishes to direct the attention of all competitors to the following provisions of the ISAF's Racing Rules of Sailing, 2013-2015 concerning the safety of crews while racing:

Fundamental Rule 1-Safety

1.1-Helping Those in Danger

A boat or competitor shall give all possible help to any person or vessel in danger.

1.2-Life-Saving Equipment and Personal Buoyancy

A boat shall carry adequate life-saving equipment for all persons on board, including one item ready for immediate use, unless her class rules make some other provision. Each competitor is individually responsible for wearing personal buoyancy adequate for the conditions.

Fundamental Rule 4-Decision to Race

The responsibility for a boat's decision to participate in a race or to continue racing is hers alone.

