



NEWPORT BERMUDA RACE 2020

SAFETY REQUIREMENTS FOR MULTIHULLS

Multihulls competing in the 2020 Newport Bermuda Race must comply with the safety standards outlined in this document. Every boat entered in the race is subject to inspection both before and after the race. Failure to be in compliance may result in invalidation of entry or protest. The Newport Bermuda Race Safety Requirements ("NBRSR") are a version of US Sailing's United States Safety Equipment Requirements ("USSER"), which can be found on the US Sailing website (ussailing.org).

1.0 GENERAL REQUIREMENTS

- 1.1 Purpose: The Newport Bermuda Race Safety Requirements establish uniform minimum equipment and training standards for Multihull vessels entered in the Newport Bermuda Race. These Requirements do not replace, but rather supplement, the requirements of the US Coast Guard, the Racing Rules of Sailing (RRS), the rules of Class Associations and all applicable rating rules. Use of the NBRSR does not guarantee total safety of the boat and her crew.
- 1.2 Responsibility of Person-In-Charge: The safety of a boat and her crew is the sole and inescapable responsibility of the "person in charge," as per RRS 4 and 46, who must ensure that the boat is seaworthy and manned by an experienced crew with sufficient ability and experience to face bad weather. S/he must be satisfied as to the soundness of hull, spars, rigging, sails, and all gear. S/he shall ensure that all safety equipment meets the Newport Bermuda Race Safety Requirements; is at all times properly maintained and safely

Inspection Checklist

Instructions: This checklist is intended to aid the Race Entrant and Inspector during the Newport Bermuda Race pre- and post- race inspections (NOR §6.2).

Prior to the inspection, the Captain should verify all items are ready for inspection and initial in the space provided.

**THE COMPLETED
VESSEL
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REMAIN ON THE
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BERMUDA.**

stowed; and that the crew knows where it is kept and how it is to be used. The person in charge shall also assign a person to take over his responsibilities in the event of his incapacitation (“Reserve Person In Charge”).

1.2.1 Neither the establishment of the NBR SR, nor their use by Bermuda Race Organizing Committee, nor the inspection of a boat under the NBR SR, in any way limits or reduces the complete and unlimited responsibility of the Person in Charge.

1.3 Inspections: A boat may be inspected at any time by an equipment inspector or measurer appointed for the event. If she does not comply with these requirements, her entry may be rejected or she will be subject to a protest filed by the Technical Committee. A violation of the Safety Equipment Requirements may result in disqualification or a penalty other than disqualification.

1.4 Equipment Maintenance and Performance: All equipment required shall function properly, be regularly checked, cleaned and serviced, and be of a type, size and capacity suitable for the intended use and size of the boat and number of crew. The crew shall have practiced with the equipment. This equipment shall be readily accessible while underway and, when not in use, stowed such that deterioration is minimized.

1.5 Heavy Items: A boat’s heavy items – such as batteries, stoves, toolboxes, anchors and chain, and internal ballast – shall be secured.

1.6 Strength of Build: A boat shall be strongly built, watertight and, particularly with regard to hulls, decks, and cabin trunks, capable of withstanding solid water and boarding seas. A boat must be properly rigged, be fully seaworthy and shall meet all standards set forth herein. A boat’s shrouds and at least one forestay shall remain attached at all times.

1.7 Watertight: A boat’s hulls and amas, including deck, coach roof, windows, hatches, 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 and the like

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drain. The bilge pump shall not discharge into a cockpit unless that cockpit opens aft to the sea.

2.5.2 Second Bilge Pump: A boat shall have a portable manual bilge pump of at least 10 GPM capacity capable of dewatering any part of the boat. The handle shall be securely attached to the pump via a lanyard or catch. When not in use, the pump shall be attached to the boat.

2.5.3 Trimaran Pumps: Each ama of a trimaran shall have a minimum of three independent compartments of significant volume, completely separated by watertight bulkheads, such that flooding of one section does not jeopardize flooding in the others. Alternatively, a trimaran shall have plumbing permanently installed in each ama allowing provision to pump out all compartments in the ama without having to open an access hatch in the ama.

2.7.1 Mechanical Propulsion: A boat shall have a mechanical propulsion system that is quickly available and capable of propelling the boat at a minimum speed in knots equivalent to the square root of LWL in feet (1.81 times the square root of the waterline length in meters) for 20 hours.

2.7.3 Engine Installation: A boat's engine and generator installation (if so equipped), shall conform to ABYC, ISO or U.S. Coast Guard standards or manufacturer's recommendations.

2.8 Multihull Nets or Trampolines: Multihull nets or trampolines shall be:

2.8.1 Essentially horizontal.

2.8.2 Made from durable woven webbing, water permeable fabric or mesh with openings not larger than 2" (5cm) in any dimension. Attachment points shall avoid chafe and the junction between net and boat shall present no risk of foot trapping.

2.8.3 Solidly fixed at regular intervals on transverse and longitudinal support lines.

2.8.4 Able to carry the full weight of the crew either in normal working conditions at sea or when the boat is inverted.

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FAQ – indicates more information can be found about this requirement in the FAQ section of bermudarace.com.

3.0 SAFETY EQUIPMENT:

Portable and affixed safety gear shall include:

3.1.1 Lifejackets: Each crew member shall have a life jacket that provides at least 33.7 lbs. (150 N) of buoyancy, intended to be worn over the shoulders (no belt packs), meeting either U.S. Coast Guard or ISO specifications. Life jackets shall be equipped with crotch or leg straps, a whistle, a waterproof light, be fitted with marine-grade retro-reflective material, and be clearly marked with the boat or wearer's name, and be compatible with the wearer's safety harness. Each life jacket intended for regular use while racing (one per crewmember) shall have a knife suitable for cutting through the trampolines on the boat. If the life jacket is inflatable, it shall be checked for air retention regularly. Alternatively, each crewmember shall have a U.S. Coast Guard approved inherently buoyant offshore life jacket that provides at least 22 lbs. (100 N) of buoyancy equipped with crotch or leg straps, a whistle, a waterproof light, a knife suitable for cutting through the trampolines on the boat and retro-reflective material, marked with the boat or wearer's name, which is compatible with a safety harness.

3.1.4 Safety Harness: Each crew member shall have a safety harness and compatible safety tether not more than 67" (2.m) long with a breaking strength of 4,500 lbs (20 kN). The tether shall have a snap hook at its far end and a means to quickly disconnect the tether at the chest end.

3.2.1 Jack Lines: A boat shall have jack lines with a breaking strength of at least 4,500 lbs. (20 kN), that allow the crew to reach all points on deck and are connected to similarly strong attachment points.

3.2.2 Trimaran Clipping Points: A trimaran with a rudder on the outriggers must have clipping points available for a crewmember to repair the steering mechanisms while clipped in.

3.2.3 Underside Jack Lines and Nonskid Pathways: Boats shall have jack lines with a breaking strength of at least 4,500 lbs. (20 kN), running the length of the underwing deck adjacent to the escape hatches, which allow the crew to clip in before

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exiting the hull. On a trimaran, these shall be around the central hull. In addition, the underwing deck (if there is one) should be outfitted with nonskid pathways suitable for crew to cross between hulls and to access safety equipment while remaining clipped in.

3.3.1 Navigation Lights: A boat shall have navigation lights that meet U. S. Coast Guard requirements and are mounted above deck level in such a way that they will not be obscured by the sails.

3.3.2 Spare Navigation Lights: 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.

3.4 Fire Extinguishers: A boat shall carry fire extinguisher(s) that meet U.S. Coast Guard requirements.

3.4.1 Fire Blanket: A boat shall carry a fire blanket in the vicinity of every cooking device with an open flame.

3.5 Horn: A boat shall carry a sound making device that meets U.S. Coast Guard requirements.

3.6 Flares: A boat shall carry:

3.6.1 Two (2) SOLAS orange smoke flares not older than the expiration date.

3.6.3 Four (4) SOLAS red hand flares not older than the expiration date.

3.6.5 Flares stored inside of life rafts may not be used to satisfy the flare requirement.

3.7.1 Lifesling: A boat shall carry a Lifesling® or equivalent man overboard rescue device equipped with a self-igniting light and stored on deck ready for immediate use.

3.7.2 MOB Pole: A boat shall carry a man overboard pole and flag with a lifebuoy, a self-igniting light, a whistle, and a drogue attached. A self-inflating MOB module, Dan-Buoy or similar device will satisfy this requirement. Self-inflating apparatus shall be tested and serviced in accordance with the manufacturer's specifications. These items shall be stored on deck, ready for immediate use, and affixed in a manner that allows for "quick release".

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3.11.3 is operable below deck using a mounted external FAQ antenna;		
3.11.4 shall remain “on” and ready to accept incoming voice calls, except when making necessary intermittent data connections while underway; and		
3.11.5 shall have a telephone number that is provided to the BROC via the race website before close of Newport Check-in. If the method of complying with this requirement depends on the use of a smartphone, the handset shall be securely mounted in the living quarters of the boat via a docking station connected to the boat’s electrical system; shall remain continuously connected to the satellite communication system during the race; and shall be set at a ringer volume sufficient to be heard over other ambient noise while at sea.		
3.14 <u>Global Positioning System</u> : A boat shall carry a GPS receiver.		
3.15 <u>Man Overboard</u> : A boat shall be equipped with an electronic FAQ means to record the position of a man overboard within ten seconds. This may be the same instrument used to comply with 3.14.		
3.16.1 <u>Emergency Position Indicating Radio Beacon</u> : A boat shall carry a 406MHz EPIRB that is properly registered to the boat. Boats with more than one life raft must carry at least one EPIRB meeting the requirements of this section per life raft. All EPIRBS purchased after 1/1/2016 must be equipped with an internal GPS.		
3.17 <u>Distance Measuring</u> : A boat shall be equipped with a knot meter and/or distance measuring instrument separate from the GPS.		
3.18 <u>Depth Sounder</u> : A boat shall be equipped with a permanently installed depth sounder that can register to a depth of at least 200 ft. (61 m).		
3.19.1 <u>Steering Compass</u> : A boat shall have a permanently mounted magnetic compass independent of the boat's electrical system suitable for steering at sea.		

- wearer's name. The exception would be for new equipment or rented equipment (e.g. life rafts) that would require the unpacking of sealed equipment in order to meet this requirement. The boat's name shall be marked on such gear during the first servicing.
- 3.32 Knife: A boat shall carry at least one strong, sharp knife, sheathed and securely restrained, which is readily accessible from the deck and/or cockpit. In addition, a multihull shall carry a second knife meeting the requirements above which is accessible from the underside of each trampoline.
- 3.33.1 Reefing: A boat shall have well-reinforced mainsail reef points with installed reef lines capable of reducing the area of the sail by an amount appropriate for the weather conditions possible on the race course.
- 3.33.2 Storm Trysail: A boat shall carry a storm trysail, with the FAQ boat's sail number displayed on both sides, that can be set independently of the main boom, has an area less than 17.5% of "E" x "P", and which is capable of being attached to the mast. Storm sails manufactured after 1/1/2014 must be constructed from a highly visible material. A boat with a mainsail reefing capable of reducing the luff length by at least 60% shall be deemed to meet this requirement.
- 3.33.4 Storm Jib: A boat shall carry a storm jib not exceeding 5% of the boat's "I" dimension squared, and, if dependent on a luff groove, equipped with an alternative means of attachment to a stay. Storm sails manufactured after 1/1/2014 must be constructed from a highly visible material. FAQ
- 3.33.5 Mainsheet Release: The crew of a multihull must be able to manually release sufficient mainsheet or traveler to cause the end of the boom to move at least fifteen (15) degrees in arc in under two (2) seconds from all steering or any consistently manned trimming station while racing. Hydraulics manufacturer design specifications or video are acceptable means of demonstrating compliance with this requirement.
- 3.34 Search and Rescue Visibility: All multihulls must display a one square meter area of highly visible pink, orange or yellow showing when the boat is inverted.

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- 3.35 Halyards: A single roller-furling headsail of no larger than 125% LP may be lashed to a swivel at the top of the forestay. No other sail (mainsail or headsail) may be rigged so that a person must go aloft to hoist or drop it.
- 3.36.1 Preventer or Boom Restraining Device: A boat shall have a preventer or boom restraining device, shall practice rigging it and shall be prepared to demonstrate its use to the satisfaction of BROCC.
- 3.36.2 Boom Support: A boat shall have a means to prevent the boom from dropping if support from the mainsail or halyard fails.
- 3.37 Emergency Drinking Water: A boat shall carry 1 gallon (3.785 liters) per crewmember of emergency drinking water in sealed containers in addition to any other water carried aboard the boat, and it shall be aboard after finishing.
- 3.39 Inflatable Life Raft(s): A boat shall carry adequate inflatable life raft(s) designed for saving life at sea with designed capacity for containing the entire crew. The raft(s) must be of proper design and construction for the conditions potentially faced on the ocean racecourse. Each raft shall be stored in such a way that it is capable of being launched within 15 seconds. Each life raft shall hold a current certificate of inspection. A boat shall have the life raft(s) stowed in a deck mounted rigid container or stowed in watertight or self-draining purpose built rigid compartment(s) opening adjacent to the cockpit or working deck. A multihull may alternatively stow the life raft in a valise not weighing over 88 lbs. securely below deck adjacent to the escape hatch(es) so long as the valise fits through the escape hatch without force. The end of a life raft painter shall be securely fastened to the boat. The life raft(s) shall be readily deployable whether or not the boat is inverted.
- 3.40 Grab Bag(s): A boat shall have a grab bag with a lanyard and clip for each life raft. The grab bag(s) shall have inherent flotation and be of a bright fluorescent color, and each grab bag shall contain a handheld VHF radio, either watertight or fitted with a waterproof cover. At least one VHF radio stored in a grab bag shall be DSC/GPS equipped. The VHF radio need not be in addition to the other requirements contained herein.

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FAQ – indicates more information can be found about this requirement in the FAQ section of bermudarace.com.

4.0 TRAINING AND SKILLS

4.1 Steering in an Emergency: 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 and be prepared to demonstrate it while sailing both upwind and downwind.

4.2 Annual Man Overboard Training: 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 re-boarding the crewmember.

4.3.1 Safety At Sea Seminar Attendance: At least 30% but not fewer than two members of the crew in addition to the Person-In-Charge (PIC) and for multi-hulls the Reserve Person-in-Charge (RPIC) must hold a World Sailing Approved Offshore Personal Survival Course Certificate earned by attending (1) a two-day US Sailing approved "International Offshore Safety at Sea course with Hands-on Training" course (the first day may be online training), or (2) a World Sailing approved "Offshore Personal Survival Course". A certificate will be honored for the purposes of this paragraph for the three Newport Bermuda Races that occur after the date that the certificate was issued. For the 2020 race only, if a crew cannot meet this requirement due to the "International Offshore Safety at Sea with hands-on training" course not being available, the requirement may be met by completing either (1) the US Sailing "Online Offshore Safety at Sea" course or (2) the one day in-person classroom only "Offshore Safety at Sea" course.

5.3 Routine Training On Board: The Captain and not less than 80% of a boat's crew shall, prior to the start of the race, participate in on-board training, including man overboard practice (including reboarding), use of AIS and AIS personal crew overboard beacons, sailing with the storm trysail, use of the life raft, lifejackets, safety harnesses, main boom

preventer, communications equipment, pyrotechnics, EPIRB(s), fire prevention, firefighting and the procedures for abandoning ship, dismasting and rudder/steering loss or failure. **All participating crew shall sign and date the On Board Training Certificate.**

5.4 Safety Demonstration: A boat's crew shall be able to demonstrate, to the satisfaction of the BROCC, an ability to return to a man-overboard in a reasonable amount of time and the gear used to recover the victim aboard.

5.5 Digital Selective Calling (DSC): All crew shall review the emergency features of DSC, including the response to a DSC Distress Call.

5.6 CPR and First Aid: Two crewmembers must have current CPR certificates completed within the past two years and valid First Aid certificates completed within the past five years. For the 2020 race only, if a crew cannot meet this requirement due to hands-on training not being available the requirement may be met by completing online courses. Acceptable online First Aid and CPR courses are offered by the National CPR Foundation and the American Health Care Academy. The American Heart Association and the American Red Cross offer "blended" courses that have an online course followed by a classroom course. If a sailor takes the online portion of the American Heart Association or American Red Cross course and cannot find an in-person course to finish the certification, the race will accept the certificate of completion only of the online portion of the course.

5.7.1 The Person in Charge, Reserve Person in Charge, Navigator and Watch Captain(s), must have participated in a documented offshore race of longer than 250 nm on a multihull at least 58ft Length on Deck during the last 5 years.

5.7.2 In addition, at least 80% of the crew shall have competed in an overnight passage aboard the specific boat entered in the NBR.

Captain Inspector

ACKNOWLEDGEMENT:

Captain or Designated Representative's Name: _____

Signature: _____

Vessel Name: _____ Date: _____

**THIS COMPLETED INSPECTION CHECKLIST MUST
REMAIN ON THE BOAT PER THE NOTICE OF RACE
AND MAY BE RE-EXAMINED IN BERMUDA.**

APPENDIX 1

HULL CONSTRUCTION STANDARDS (SCANTLINGS)

1.2. Multihulls shall have been designed, built, maintained, modified or repaired in accordance with the requirements of:

- c) the EC Recreational Craft Directive for Category A having obtained the CE mark, or
- d) ISO 12215-7 Category A¹, with written statements signed by the designer and builder confirming that they have respectively designed and built the boat in accordance with the ISO standard,
- e) and have written statements or approvals in accordance with c) or d) above for all significant repairs or modifications to the hull, deck, coach roof, keel or appendages, on board, except:
- f) a race organizer or class rules may accept, when that described in c), d) or e) above is not available, the signed statement by a naval architect or other person familiar with the standards listed above that the boat fulfills these requirements

¹ NOTE: For the purposes of Appendix 1, §1.2 (d), ISO 12215 will apply to all multihulls, irrespective of their designed purpose or crew.

FAQ – indicates more information can be found about this requirement in the FAQ section of bermudarace.com.

APPENDIX 2

MULTIHULL STABILITY

2.1. Multihulls shall demonstrate compliance with the requirements of ISO 12217-2:2015(E), paragraphs 7.8, 7.9, and 7.10, for Design Category A. All methods and values used in calculations shall be as specified in these paragraphs and as referenced therein.

2.2. Definitions of relevant terms may be found in ISO 8666: Small Craft-Principal Data.

2.3. Required calculations shall be performed by the boat's designer or builder, or by another recognized authority with the approval of the Organizing Authority. Calculations shall be presented to the Organizing Authority for review.

2.4. The person completing the calculations shall supply a signed declaration that all calculations are performed using required methodology and data relevant to the specific boat.



2020 NEWPORT BERMUDA RACE®

DEFERRED INSPECTION CHECKLIST

Yacht: _____

Captain: _____

The following items may not be compliant at the time of the pre-race inspection. For each item indicated below, the Captain agrees that he will ensure compliance prior to the June 19, 2020 start. Should any of the following items be found not in compliance with these Newport Bermuda Race Safety Requirements and/or the Notice of Race during a post-race inspection, the Captain understands that the yacht will be subject to protest and penalties up to and including disqualification.

(Circle One)

NOR 6.2 (d)/NBR SR 5.3 On Board Training Certificate: Compliant / Not Compliant

NBR SR 3.1.1 Lifejackets: Compliant / Not Compliant

NBR SR 3.1.4 Safety Harnesses: Compliant / Not Compliant

NBR SR 3.10 Personal AIS Beacons: Compliant / Not Compliant

NBR SR 3.11 Satellite Phone: Compliant / Not Compliant

NBR SR 3.39 Inflatable Life Raft (if rented): Compliant / Not Compliant

NBR SR 3.11 Steering in an Emergency: Compliant / Not Compliant

By my signature below, I attest that the above-noted inspection deficiencies will be corrected prior to Newport check-in. I understand that I may be re-inspected upon completing the race in Bermuda.

Signature: _____

Date: _____

Name: _____

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