2018 SSS Singlehanded TransPacific Yacht Race Safety Equipment Requirements (SER)

Rev 1.1 17 Jan 2018

Adapted from SSS Offshore Rule Set, & US Sailing Safety At Sea Requirements (US Ocean Rev. 2017.10.16)

Section Name	#	Requirement	Y/N	Inspector Comments
Definition	1.0.1	Long distance races, well offshore, where rescue may be delayed		
Overall	1.1	The Minimum Equipment Requirements establish uniform minimum equipment and training standards for a variety of boats racing in differing conditions. These regulations 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.		
Overall: Responsibility	1.2	The safety of a boat and her crew is the sole and inescapable responsibility of the "person in charge", as per RRS 46, who shall ensure that the boat is seaworthy and manned by an experienced crew with sufficient ability and experience to face bad weather. S/he shall be satisfied as to the soundness of hull, spars, rigging, sails and all gear. S/he shall ensure that all safety equipment is at all times properly maintained and safely stowed and that the crew knows where it is kept and how it is to be used.		
Overall: Inspections	1.3	A boat can be inspected at any time by an inspector or measurer of the Organizing Authority. *Specific to 2018 SHTP; Each Boat is required to be inspected by June 7, 2018. Each vessel is subject to a final inspection within 36 hours of the start date and time.* If she does not comply with these regulations her entry may be rejected, or will be liable to disqualification, or such other penalty as may be prescribed by the race protest committee. ***SSS Change***		
Overall: Equipment and Knowledge	1.4	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 the size of the crew, who will have practiced with the use of equipment. This equipment shall be readily accessible while underway and, when not in use, stored in such a way that deterioration is minimized.		
Overall: Secure Storage	1.5	A boat's heavy items such as batteries, stoves, toolboxes, anchors, chain and internal ballast shall be secured.		
Overall: Strength of Build	1.6	A boat shall be strongly built, watertight and, particularly with regard to hulls, decks and cabin trunks, capable of withstanding solid water and knockdowns. A boat shall be properly rigged and ballasted, be fully seaworthy and shall meet the standards set forth herein. A boat's shrouds and at least one forestay shall remain attached at all times.		
Overall: Watertight Integrity	1.7	A boat's hull, 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.		
Hull and Structure: Hull Openings	2.1	A boat's companionway(s) shall be capable of being blocked off to main deck level. The method of blocking should be solid watertight and rigidly secured, if not permanent.		
Hull and Structure: Hull Openings	2.1.1	A boat's hatch boards, whether or not in position in the hatchway, shall be secured to the boat (e.g. by a lanyard) for the duration of the race to prevent their being lost overboard. *All Companionway boards (washboards/dropboards) shall be capable of being secured in position with the hatch open or shut. Hatches shall be able to be secured in position by the crew whether inside the yacht or on deck.* ***SSS Change***		
Hull and Structure: Hull Openings	2.1.2	*Storm coverings for all windows more that 2 square feet in area, unless all the windows are constructed of a material at least as strong as the surrounding superstructure.* ***SSS Change***		

Hull and Structure: Cockpit	2.1.3	A boat's entire cockpit shall be solid, watertight, strongly fastened and/or sealed. Weather-tight seat hatches are acceptable only if capable of being secured when closed.		
Hull and Structure: Cockpit	2.1.4	A boat's cockpit drains shall be capable of draining six inches of water in 5 minutes. One square inch (645mm2) of effective drain per eight square feet (0.743 m^2) of cockpit sole will meet this requirement.		
Hull and Structure: Through Hulls	2.1.6	A boat's through-hull openings below the waterline shall be equipped with sea cocks or valves, except for integral deck scuppers, speed transducers, depth finder transducers and the like; however a means of closing such openings shall be provided. *Soft Wooden "bung" plugs of appropriate size for each thru-hull opening shall be stowed within easy reach of each opening and secured in such that they won't be dislodged from this area.* ***SSS Change***		
Hull and Structure: Stability	2.2.3	A boat with moveable or variable ballast (water or canting keel) shall comply with the requirements of Appendix B. ***SSS Change***		
Hull and Structure: Stability	2.2.4	If yachts are fitted with fresh water or fuel tanks to port or starboard, such tanks will be considered part of the transferable ballast system and must be completely full or empty during any inclining test .APPENDIX B (g) ***SSS Change***		
Hull and Structure: Accommodations	2.3.1	A boat shall be equipped with a head or a fitted bucket.		
Hull and Structure: Accommodations	2.3.2	A boat shall have bunks sufficient to accommodate the off-watch crew. *Bunks Shall be suitable for use in an active seaway and permit a prone sleeping position.* ***SSS Change***		
Hull and Structure: Accommodations	2.3.3	A boat shall have a stove with a fuel shutoff.		
Hull and Structure: Accommodations	2.3.4	*A boat shall carry water containers, securely installed, capable of holding a total of at least the amount of freshwater cited in #3.37 , in two or more separate containers. No more than half the water supply shall be carried in any one container. Containers to be filled, stowed and secured at the time of final inspection.* ***SSS Change***		
Hull and Structure: Accommodations	2.3.5	A boat shall have adequate hand-holds below decks.		
Hull and Structure: Lifelines	2.4.1	A boat's deck including the headstay shall be surrounded by a suitably strong enclosure, typically consisting of lifelines and pulpits, meeting the requirements in 2.4.2 to 2.4.8.		
Hull and Structure: Lifelines	2.4.2	A boat's stanchion and pulpit bases shall be within the working deck. Stanchions used with HMPE shall have rounded openings to reduce chafe.		
Hull and Structure: Lifelines	2.4.3	Bow pulpits may be open, but the opening between the vertical portion of stanchion pulpit and any part of the boat shall not exceed 14.2" (360mm).		
Hull and Structure: Lifelines	2.4.4	Lifelines may be either uncoated stainless steel wire *or high molecular weight polyethylene (HMPE) line with 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. Lifelines shall be taut (see appendix for requirements). *When HMPE is used, the load-bearing portion (core) shall meet or exceed minimum diameter requirements. HMPE Lifelines should be carefully inspected at least twice per year.* ***SSS Change, US Sailing & NCORC do not allow HMPE. If you are changing lifelines in 2018, be aware that NCORC will require stainless steel lifelines.***		
Hull and Structure: Lifelines	2.4.5	The maximum spacing between the bases of lifeline supports (e.g. stanchions and pulpits) shall be 87" (2.2m).		
Hull and Structure: Lifelines	2.4.6	Boats under 30 feet (9.14m) shall have at least one lifeline with 18" (457mm) minimum height above deck, and a maximum vertical gap of 18" (457mm). Taller heights will require a second lifeline. The minimum diameter shall be 1/8" (3mm).		

Hull and Structure: Lifelines	2.4.7	Boats 30 feet and over (9.14m) shall have at least two lifelines with 24" (762mm) minimum height above deck, and a maximum vertical gap of 15" (381mm). The minimum diameter will be 5/32" (4mm) for boats to 43' (13.1m) and 3/16" (5mm) for boats over 43' (13.1m).		
Hull and Structure: Lifelines	2.4.8	Toe rails shall be fitted around the foredeck from the base of the mast with a minimum height of 3/4" (18mm). *An additional installed lifeline that is 1-2" (25-51mm) above the deck will satisfy this requirement for boats without toe rails.* ***SSS Change***		
Hull and Structure: Lifelines	2.4.9	Multihulls: ***See Appendix A. SSS Change***		
Hull and Structure: Dewatering pumps	2.5.1	A boat shall have a permanently installed manual bilge pump of at least a 10 gallons per minute (GPM) capacity and which is operable from on deck with the cabin closed with the discharge not dependent on an open hatch. Unless permanently attached to the pump, the bilge pump handle shall be securely attached to the boat in its vicinity via a lanyard or catch. A bilge pump discharge shall not be connected to a cockpit drain. The bilge pump shall not discharge into a cockpit unless that cockpit opens aft to the sea.		
Hull and Structure: Dewatering pumps	2.5.2	A boat shall have a second *manual or electric* bilge pump of at least 10 GPM capacity, operable from below deck. *Portable pumps must have sufficient hose to discharge water directly from the cabin to the exterior of the yacht.* ***SSS Change***		
Safety Equipment: Personal	3.1.1	Each crewmember shall have a life jacket that provides at least 33.7lbs (150N) of buoyancy, intended to be worn over the shoulders (no belt pack), 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's or wearer'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 I 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. *If the life jacket includes a safety harness integral to its design, it may be used to satisfy the safety harness component of 3.1.4* ***SSS Change***		
Safety Equipment: Personal	3.1.4	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 Ib. (20kN). The tether shall have a snap hook at its far end and a means to quickly disconnect the tether at the chest end.		
Safety Equipment: Deck Safety	3.2.1	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. ***Jacklines shall stop short of the transom a distance at least equal to the length of the safety harness tether. SSS Change***		
Safety Equipment: Deck Safety	3.2.2	A boat shall have adequate clipping points or jacklines that allow the crew to clip on before coming on deck and unclip after going below.		
Safety Equipment: Deck Safety	3.2.3	*Multihulls must have jacklines or attachment points that are accessible when the vessel is inverted.* ***SSS Change***		
Safety Equipment: Navigation Lights	3.3.1	A boat racing between sunset and sunrise shall carry navigation lights that meet U. S. Coast Guard requirements mounted so that they will not be obscured by the sails nor be located below deck level. *A masthead mounted tricolor is recommended and will meet this requirement.* ***SSS Change***		
Safety Equipment; Battery Capacity	3.3.2	A boat shall have one or more batteries with a total capacity of at least *120* amp-hours, and a means of charging the battery(s) at sea at a rate that will allow the running lights to be used during the period of darkness each day. *Multiple batteries in separate banks are recommended.* ***SSS Change***		

Safety Equipment; Energy Budget	3.3.3	*An energy Budget that details all the storage, sources and uses of electricity while underway. Energy Budget shall be submitted at the time of inspection* ***SSS Change***		
Safety Equipment: Fire Extinguishers	3.4	A boat shall carry fire extinguisher(s) that meets U.S. Coast Guard requirements, when applicable. *Enough fire extinguishers located so as to have at least one available in the event of a galley or kitchen fire from any position on the boat are required. A fire blanket is recommended. If high capacity lithium ion batteries are installed (house bank) a class D fire extinguisher is recommended.* ***SSS Change***		
Safety Equipment: Sound Producing Equipment	3.5	A boat shall carry a sound-making device that meets U.S. Coast Guard requirements, when applicable.		
Safety Equipment: Visual Distress Signals	3.6.1	A boat shall carry **2** SOLAS orange smoke flares not older than the expiration date. *NOTE: Expiration date shall not be earlier than July 14, 2018 for 2018 SHTP.* ***SSS Change***		
Safety Equipment: Visual Distress Signals	3.6.2	A boat shall carry *the following* SOLAS day/night flares not older than the expiration date. *NOTE: Expiration date shall not be earlier than July 14, 2018 for 2018 SHTP.* *[i] Four SOLAS red parachute flares* *[ii] Four SOLAS handheld red flares* ***SSS Change***		
Safety Equipment: Visual Distress Signals	3.6.5	Flares stored inside of life rafts **may not** be used to satisfy the flare requirement. ***SSS Change***		
Safety Equipment: Man Overboard	3.7.1	***Remove Lifesling Requirement for Single Handed TransPacific Race SSS Change***		
Safety Equipment: Man Overboard	3.7.2	***Remove Man Overboard Pole / Module for Single Handed TransPacific Race SSS Change***		
Safety Equipment: Man Overboard	3.7.3	A boat shall have a throwing sock-type heaving line of 50' (15m) or greater of floating polypropylene line readily accessible to the cockpit.		
Safety Equipment: Man Overboard	3.7.4	A boat shall carry a Coast Guard approved Type IV "throwable device". If the device carried under 3.7.1 or 3.7.2 satisfies this requirement, then no additional device is needed.		
Safety Equipment: Communications	*3.8*	*Equipment to communicate the yachts position to the Race Committee at least once per day by means to be designated in the Communications Plan. This will likely include at least one of the following: Satellite Phone, Satellite Text Messaging [SMS], email, or SSB via a designated communications vessel.* ***SSS Change***		
Safety Equipment: Emergency Communications	3.8.1	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" (381mm) in length, be connected to or have an internal GPS, and have the assigned MMSI number (unique to the boat) programmed into the VHF.		
Safety Equipment: Emergency Communications	3.8.2	A boat shall have a watertight handheld VHF radio or a handheld VHF radio with waterproof cover. This radio shall have DSC/GPS capability with an assigned MMSI programmed into it.		
Safety Equipment: Emergency Communications	3.8.3	A boat shall have an emergency VHF antenna with sufficient coax to reach the deck, and have a minimum antenna length of 10" (381mm).		

Safety Equipment: Emergency Communications	3.9	A boat shall have an AIS Reciever, sharing a masthead VHF antenna via a low loss AIS Slitter. An acceptable alternative is a dedicated AIS antenna mounted with its base at least 6' above the waterline, and fed with coax that has a maximum power loss of 40%. *AIS receiver shall have a data display that indicates, at minimum, range and bearing to an approaching target. Though not required, an AIS class B transponder capable of transmitting the yachts position, course & speed to other AIS equipped vessels is recommended.* ***SSS Change***		
Safety Equipment: Emergency Communications	*3.10*	*A boat shall carry a cellular phone in a waterproof container. Batteries should be sufficiently changed, or have the means aboard to be recharged, to operate on arrival in Hawaiian waters. The intent is to ensure the yacht has an alternate means of communication with the race committee when approaching the finish if VHF communications are impaired.* ***SSS Change***		
Safety Equipment: Emergency Communications	3.14	A boat shall carry ***two*** GPS receivers, ***one of which must be operable independently of the yacht's primary electrical system. SSS Change***		
Safety Equipment: Emergency Communications	3.15	*It is recommended that* a boat carry an electronic means to record the position of a man overboard within ten seconds. This may be the same instrument listed in 3.14. *Note: Recommendation status is specific for Single Handed TransPacific Race only.* ***SSS Change***		
Safety Equipment: Emergency Communications	3.16.1	A boat shall carry a 406MHz EPIRB that is properly registered to the boat. This device ***shall have*** an internal GPS (***for self-location***) *The MMSI number for this device shall be supplied to the Race Committee. A Personal locator beacon [PLB] may also be carried and is recommended, but does not satisfy this requirement* ***SSS Change***		
Safety Equipment: Navigation	3.17	A boat shall have a knotmeter. ***SSS Change***		
Safety Equipment: Navigation	3.18	A boat shall have a permanently installed depth sounder that can measure to depths of at least 200 ft. (61m).		
Safety Equipment: Navigation	3.19.1	A boat shall have a permanently mounted magnetic compass independent of the boat's electrical system suitable for steering at sea ***with deviation card. SSS Change***		
Safety Equipment: Navigation	3.19.2	A boat shall have a second magnetic compass suitable for steering at sea which may be handheld.		
Safety Equipment: Navigation	3.20	A boat shall have non-electronic charts that are appropriate for the race area***, including NOAA Chart Numbers 530, 18022, 19004, & 19385. SSS Change***		Chart numbers specific for SHTP
Gear: Sail Repair	*3.22*	*A Sail Repair kit shall be carried.* ***SSS Change***		
Gear: Anchoring	3.23	A boat shall carry one anchor, meeting the anchor manufacturer's recommendations based on the yacht's size, *with suitable rode which is at least 150 feet in length which includes at least one-half of the boats overall length of galvanized anchor chain.* ***SSS Change***		Rode and chain requirements specific for SHTP
Gear: Lights	3.24.1	A boat shall carry a watertight, high-powered searchlight, suitable for searching for a person overboard at night or for collision avoidance, with a spare battery .		
Gear: Lights	3.24.2	A boat shall carry a watertight flashlight for each crewmember with spare batteries in addition to the searchlight in 3.24.1.		
Gear: Lights	3.24.3	A boat shall carry at least two watertight flashlights with spare batteries in addition to the requirement of 3.24.1.		
Gear: Medical Kits	3.25	A boat shall carry a first aid kit and first aid manual suitable for the likely conditions of the passage and the number of crew aboard. *For races exceeding 1 week in duration it is recommended that the boat carry a course of general purpose antibiotics for fighting infections and internal ailments.* ***SSS Change***		

Gear: Radar Reflectors	3.26	A boat shall carry an 11.5" (292mm) diameter or greater octahedral radar reflector or one of equivalent performance. Note that small cylindrical units do not typically exhibit equivalent performance ***This radar reflector shall be mounted a minimum of 13 feet above the waterline while racing. SSS Change***		
Gear: Dewatering	3.27	A boat shall carry two sturdy buckets of at least two gallons (8 liters) capacity with lanyards attached.		
Gear: Safety Diagram	3.28	A boat shall post a durable, waterproof diagram or chart locating the principal items of safety equipment and through hulls in the main accommodation area where it can be easily seen.		
Gear: Emergency Steering	3.29.1	A boat shall have an emergency tiller, capable of being fitted to the rudder stock.		
Gear: Emergency Steering	*3.29.2*	*A boat shall have an alternative method of steering the yacht in any sea condition in the event of rudder failure. The skipper shall have practiced one method of steering the boat with the rudder disabled and be prepared to demonstrate said method of steering both upwind and downwind. The Race Committee may require a demonstration. It is recommended that a cassette plus rudder be employed as they have been found to be the easiest system to install in a seaway.* ***SSS Change***		
Gear: Spare Parts	3.30	A boat shall carry tools and spare parts, including an effective means to quickly disconnect or sever the standing rigging from the hull.		
Gear: Identification	3.31	All lifesaving equipment shall bear retro-reflective material and be marked with the yacht's or wearer's name. The exception is 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 name shall be stenciled on during the first servicing of any new equipment.		
Gear: Cockpit Knife	3.32	A boat shall carry a strong, sharp knife, sheathed and securely restrained which is readily accessible from the deck and/or cockpit.		
Sails: Mainsail Reefing	3.33.1	*A boat shall have mainsail reefing capable of reducing the luff length by at least 40%* OR carry a trysail, with the boat's sail number displayed on both sides, which 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 01/01/2014 shall be constructed from a highly visible material. ***SSS Change***		
Sails: Headsails	3.33.3	A boat shall carry a heavy-weather jib (or heavy-weather sail in a yacht with no forestay) of area not greater than 13.5% height of the foretriangle squared. *Alternatively, A storm jib as described in 3.33.4 will meet this requirement.* ***SSS Change***		
Sails: Headsails	3.33.4	If the rig is such that a headsails is commonly used, A boat shall carry a storm jib not exceeding 5% of the yacht's I dimension squared, and equipped with an alternative means of attachment to the headstay in the event of a failure of the head foil. Storm sails manufactured after 01/01/2014 shall be constructed from a highly visible material. *Alternatively, A heavy-weather jib as described in 3.33.3 will meet this requirement.* ***SSS Change***		
Rigging: Halyards	3.35	A boat shall not be rigged with any halyard that requires a person to go aloft in order to lower a sail ***and a boat shall have no less than 2 halyards capable of hoisting sails and it is recommended that halyards be capable of reaching the water. SSS Change***		
Rigging: Boom Support	3.36	A boat over 30' LOA shall have a means to prevent the boom from dropping if support from the mainsail or halyard fails.		
Supplies: Water	3.37	*A boat shall carry 21 gallons of fresh water for each crew member at the start of the race.* **SSS Change**		
Supplies: Rations	3.38	A boat shall carry adequate food, energy bars, and snacks to maintain crew stamina ***for 30 days. SSS Change***		

Gear: Life Rafts	3.39	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 shall be SOLAS, ISAF, ISO 9650-1 or ORC approved. The raft shall be stored in such a way that it is capable of being launched within 15 seconds. The life raft(s) shall hold current certificate(s) of inspection that *do not exceed the end date of the race*. *A kit containing the following items shall be contained within the rafts packaging or attached securely to the raft in a waterproof container:* *[i] Two SOLAS orange smoke flares* *[ii] Four SOLAS red parachute flares* *[iii] Four SOLAS handheld red flares* *[iv] Bailer* *[v] Knife* *[vi] flashlight* *[vii] Water and emergency food for 4 days* *Raft inspection certificate, Flares, water and emergency food expiration dates shall not be earlier than July 14, 2018 for 2018 SHTP.* ***SSS Change***		
Gear: Life Rafts	3.40	A boat shall have a grab bag with a lanyard and clip for each life raft. The grab bag shall have inherent flotation and be of a bright fluorescent color containing at least an EPIRB, and a watertight handheld VHF radio. The VHF radio and EPIRB need not be in addition to the prior requirements. **An EPIRB in a sealed bag may be attached to this bag with a lanyard.** ***SSS Change***		
Skills: Man Overboard	4.2	*For single handed races it is recommended that the boat's skipper practice man-overboard procedures appropriate for the boat's size and speed. The practice would consist of approaching and stopping near a position on the water, and practising a method of hoisting a person in the water on deck, or other consistent means of boarding another person* ***The intent is that the skipper may be the closest available aid to a fellow competitor and skippers should be aware of how to effect rescue SSS Change***		single handed races only
Skills: Man Overboard	4.2.1	Singlehanded Skippers shall be aware of techniques and equipment for re-boarding the vessel without external assistance. ***SSS Change***		
Skills: Safety at Sea Training	4.3.1	Each skipper and crew shall have attended a one-day, or two-day US Sailing Safety at Sea Seminar within the last 5 years, or other courses as accepted by US Sailing *for offshore or near coastal races*. ***SSS Change***		

Appendix A. Multihull Requrements

Section Name	#	Requirement	Y/N	Inspector Comments
MULTI HULL ELIGIBILITY	5.1	Multihulled boats shall have the ability to float indefinitely in an inverted position, with essentially watertight enclosed accommodations and self-bailing cockpits.		
Dimensions	5.2	Muljtihull boats shall have a combined length and beam of at least 40 feet, with a minimum beam of one half the length.		
Watertight Bulkhead	5.3	Multihull boats shall have a watertight bulkhead within 15% of the boat's overall length from the bow of each hull and abaft the foreward limit of the waterline.		
Safety Harness Anchorage	5.4	Multihull boats shall have a safety harness point that is accessible in the event the boat is capsized.		
Access Hatch	5.5	Multihull boats shall have an access hatch to the living quarters in the event the boat is capsized.		
Sheet Leads	5.6	Sheets shall lead to quick release cleats or self-tailing winches.		
Backstay	5.7	No permanent backstay shall interfere with the boom's ability to jibe.		
Safety Netting	5.8	Adequate safety netting shall be install over open spaces between crossbeams.		
Survival Suit	5.9	A survival suit or full body wet gear shall be onboard for each crew member. Crew members shall practice donning this gear.		
Single Point Attachment	5.10	A single point attachment for safety harness and tethers will be considered by the Race Committee as an alternative to lifelines and jacklines. The skipper must obtain written permission from the Race Committee to utilize this alternative.		
Drogue	5.11	Multihull boats must carry a drogue capable of reducing boat speed.		

Appendix B. Transferable Ballast

In addition to those exceptions noted in the Notice of Race, the following exceptions to RRS are allowed:

(a) Boats may be fitted with transferable water ballast [this modifies RRS 51]. Such transferable water ballast shall have a density no greater than sea water. No form of solid or granular transferable internal ballast may be used. No ballast may be carried above the level of the working deck with the vessel in normal laden trim.
- (i) All tanks for transferable ballast shall be inside the hull(s) and below decks.
- (ii) Competitors shall be able to demonstrate an efficient and safe manual method of discharging, transferring, or taking on liquid ballast with the vessel at up to 50 degrees angle of heel port or starboard of the normal laden trim.
- (iii) Competitors shall be able to demonstrate that, with all such ballast transferred to its maximum possible extent, the static angle of heel of the vessel will not exceed 10 degrees port or starboard of the normal laden trim.
- (iv) If vessels are fitted with fresh water or fuel tanks to port or starboard, such tanks will be considered part of the transferable ballast system and must be completely full and empty on the appropriate sides during any inclining test.

(b) Owners intending to use other forms of transferable ballast not covered by these rules must clear this use in writing with the Race Committee.

[c] Transferable ballast systems must be declared on the yachts NORCAL PHRF certificate and accounted for in it's rating. ***SSS Change***

END.