SOUTH SHORE PERFROMANCE HANICAP RACING FLEET

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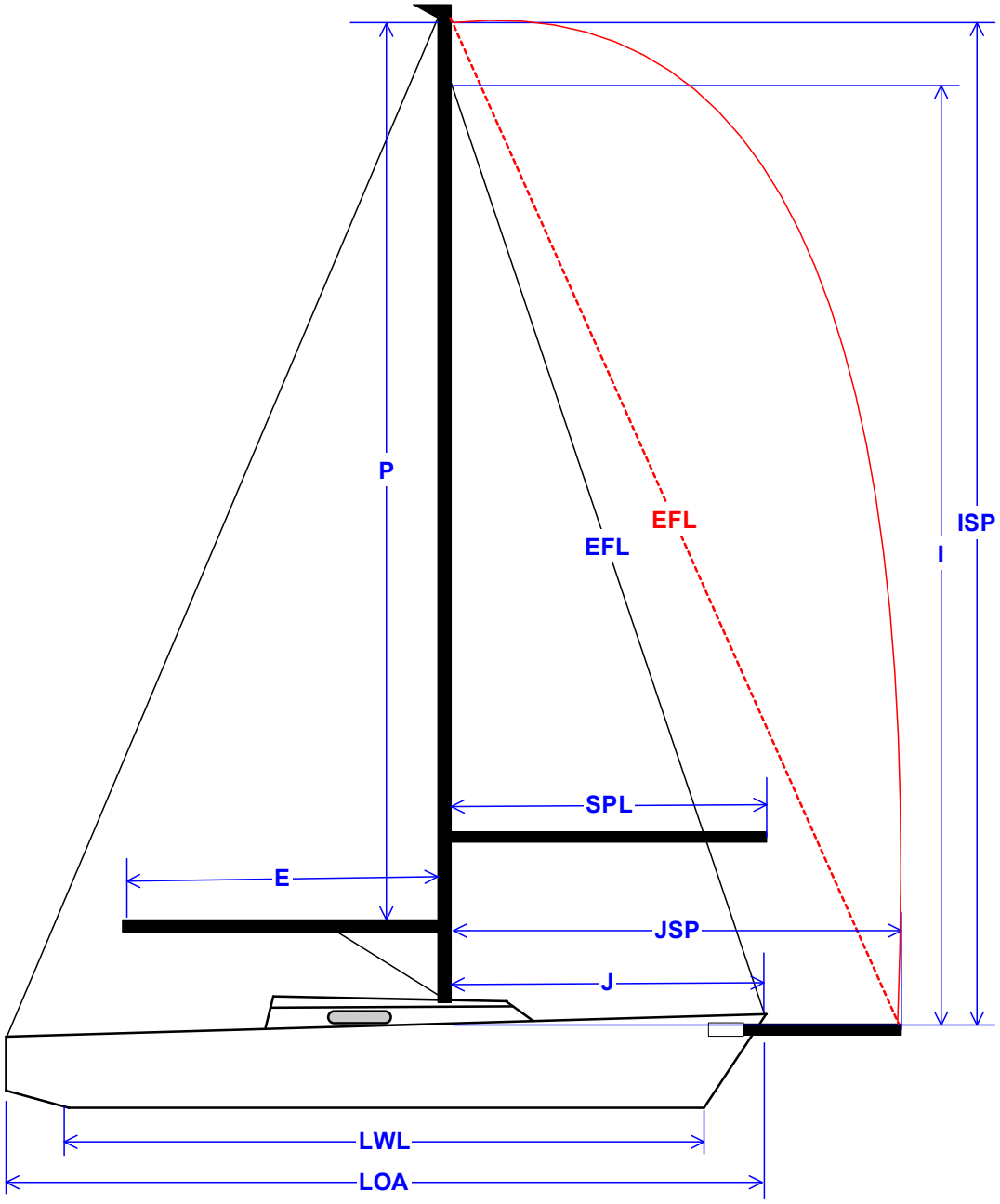
RULES and BY-LAWS



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1.0 OBJECTIVES

1.1 The South Shore Performance Handicap Racing Fleet, L.L.C, hereafter known as PHRF-SS is established to promote fair sailing and competition between dissimilar boats by serving as a regional handicapping authority.

1.2 It shall further maintain an association with US Sailing.

2.0 OVERVIEW

2.1 PHRF-SS is organized as a Limited Liability Company (LLC) in the State of Ohio.

2.2 Inter-Lake Yachting Association (I-LYA) in its capacity as a Regional Sailing Association (RSA) of US Sailing Association announced the charter of PHRF-SS on June 28, 2017.

2.3 PHRF-SS does not act as, nor represent any Organizing Authority (OA) and does not dictate which boats may or may not participate in any given event nor does it dictate which safety requirements a boat must meet.

2.4 A vessel's safety preparedness must conform to federal, regional, state, and local laws, rules, and regulations for the body of water on which it operates and the rules under which it is sailing. Safety requirements are not part of these rules and are the responsibility of the OA to specify.

2.5 PHRF-SS recognizes the differences in modern versus the more traditional boat designs and observes their performance differences in various wind and wave conditions. As a result, PHRF-SS has created three separate classes, preliminary (PRLM), displacement (DSPL) and high-performance (HPRF) to aid organizing authorities in managing their events and establishing divisions and/or classes. At the discretion of the organizing authority, these classes may be combined.

2.6 The effectiveness of rating rules to fairly handicap competition is reliant on the boats having similar performance characteristics. As new boats designs become more 'racer' and less 'cruiser', generations of comfortable racer/cruiser boats found they were at a disadvantage on the prevailing windward-leeward courses. In essence, PHRF ratings are a challenge to handicap a fleet of boats with the wide variety of designs, displacements, and sail plans that make up a Racer Cruiser fleet. For this reason, PHRF-SS has established a High-Performance (HPRF) classification to aid Organizing Authorities (OA) in placing boats in classes having similar design characteristics.

3.0 MEMBERSHIP

3.1 PHRF-SS members pay an annual membership/renewal fee which is principally used to offset administrative expenses.

3.2 The membership year runs from January 1st to December 31st and the certificate remains valid until March 31st of the ensuing year at which time they expire.

3.3 PHRF-SS maintains a website at https://phrfss.org. This site allows access to base handicap lists, valid rating lists and handicap certificates.

4.0 ORGANIZATION

4.1 PHRF-SS shall consist of an **Executive Committee (EXC), a Handicap Review Board (HRB) and a Technical Advisory Committee (TAC).**

4.2 The EXC shall consist of the Chairman, Vice-Chairman, Secretary, Treasurer and Chief Handicapper. The Secretary and Treasurer positions may be combined and represented by a single individual. The LLC owner is a permanent voting member of the EXC and serves no term limits. The EXC shall be defacto voting members of the HRB.

4.3 The HRB shall be established under the oversight of the Chief Handicapper and consist of a minimum of three active racing sailors at large with sufficient experience to be conversant in boat design and performance characteristics. The members-at-large of the HRB shall be elected/appointed by the Chief Handicapper subject to the acceptance of the EXC.

4.4 The TAC consists of subject matter experts and shall be formed to assist the HRB as required to evaluate measurement methods and techniques and to ensure alignment with industry standards. The TAC is a permanent non-voting member of the HRB.

4.5 A simple majority at any scheduled meeting is required to establish a quorum. Meetings are held monthly except June through August but may be held more often as necessary.

5.0 OFFICERS

5.1 The Chairman shall be the chief executive officer of PHRF-SS and shall preside at all meetings and represent PHRF-SS to other yachting organizations.

- 5.1.1 Only votes in the instance of a tie or the absence of an EXC or HRB member to achieve a quorum.
- 5.1.2 May appoint additional members of the HRB in consultation with the Chief Handicapper.
- 5.1.3 May direct and prepare information for distribution to the membership at large and/or other related PHRF-SS committees.

5.2 The Vice Chairman shall assist the Chairman in the discharge of his duties. In addition, the Vice-Chairman will in the Chairman's absence, act in his stead.

5.3 The Secretary shall act as the recording member of the Executive Board and PHRF-SS.

- 5.3.1 Maintain membership and fleet rosters.
- 5.3.2 Manage and support email communications generated by fleets,

5.4 The Treasurer shall be responsible for the funds of PHRF-SS.

- 5.4.1 Maintain a checking account for PHRF-SS expenses
- 5.4.2 Pay any bills as authorized by the PHRF-SS Chairman.
- 5.4.3 Recommend any changes needed in dues to offset increased expenses.

5.5 The Chief Handicapper maintains the performance handicapping records including the PHRF-SS database.

- 5.5.1 Recommends handicaps for newly registered yachts and handicap changes for yachts whose race results indicate a need for adjustment.
- 5.5.2 Conduct independent investigations of alleged measurement irregularities.
- 5.5.3 In the event of a vacancy in this position, duties will be assumed by the HRB.

6.0 ELECTIONS AND MEETINGS

6.1 A simple majority at any scheduled meeting is required to establish a quorum. Meetings are held monthly except June through August or more often as necessary.

6.2 PHRF-SS holds an annual meeting at the discretion of the Chairman open to all members.

6.3 Reports due at the annual meeting are State of the Fleet (Chairman), Balance Sheet (Treasurer), Proposed Bylaw and Certificate/Ratings Report (Chief Handicapper).

6.4 Election of Officers will be held in executive session between October 1 and November 1 annually. Voting members are limited to the HRB.

7.0 CERTIFICATE TYPES AND CLASSIFICATIONS

7.1 PHRF-SS issues two certificates, Standard and Club. Standard certificates are issued in one of three classifications, Preliminary, Displacement and High-Performance as described below.

7.1.1 **STND** (Standard) certificates are issued to displacement boats meeting the standard boat characterizations as enumerated in Section 8.0.

7.1.1.1 **PRLM** (Preliminary) classifications are issued to boats which have limited PHRF registrations and/or racing history. PRLM is monitored by the HRB Committee and adjusted as necessary as more performance data becomes available.

7.1.1.2 **DISP** (Displacement) classifications are issued to production class boats in their original as-built configuration conforming to the characterizations as specified in Section 8.0.

7.1.1.3 **HPRF** (High-Performance) classifications are issued to ultra-light boats with large sail areas and little or no accommodations. The type of spinnaker used is not relevant to this classification and the Chief Handicapper or the Handicap Review Board (HRB) reserve the right of a final classification decision.

7.1.2 **CLUB** (Club) certificates may be issued to boats which do not meet the standard boat characterization as stated in 8.0 and an unofficial CLUB certificate may be issued to support local yacht club racing programs. This classification is issued at the discretion of the Chief Handicapper and/or the HRB Committee. **CLUB certificates are not valid outside the Club racing program for which they were issued.**

8.0 STANDARD BOAT CHARACTERIZATION

8.1 There is no definition of standard, so the term applies to such vessels that have a cabin with amenities that accommodate overnight use. This classification typically includes self-righting (see 8.2) cruiser/racers which are a hybrid of the cruising boat built to accommodate overnight cruising but trimmed with the equipment for competitive racing. The average length of a standard boat in the PHRF-SS database is approximately 32 feet and weighs an average of 9,000 pounds. Standard boats are characterized by the following:

8.1.1 Standard hull, interior, keel, rudder, and rig as built.

8.1.2 Single hull with a self-bailing cockpit.

8.1.3 Auxiliary propulsion system capable of propelling the boat at hull speed.
8.1.4 Fuel capable of maintaining 90% hull speed for at least one hour.
8.1.5 Equipped with a proper marine toilet or portable toilet (porta-potti).
Note: Buckets are not a suitable substitute.
8.1.6 Spars banded for the proper P and E. Ketch and yawl rigs have Py and Ey banded.
8.1.7 Sails cut to conform with the latest IMS requirements.
8.1.8 Luff perpendicular (LP) of largest headsail less than 155% of J.
8.1.9 Spinnaker pole length equal to or less than J.
8.1.10 Fixed, folding or feathering propeller, outboard motor, or retractable propeller.
8.1.11 Hull and appendages are unmodified from the as-built configuration except the owner may fair the hull, keel, and rudder to original design specifications.

8.2 Self-righting refers to a vessel's ability to return to an upright position after being heeled by wind or waves.

9.0 HIGH PERFORMANCE (HPRF) CLASSIFICATION

9.1 There is an absence of an accepted high-performance definition. The nonconformity of high-performance boats with traditional designs and concepts has made their placement outside one design class races problematical.

9.2 High-performance (HPRF) boats are characterized by:
9.2.1 Historically large sail areas for a given length, especially downwind.
9.2.2 Light weight construction.
9.2.3 Heavy reliance on crew weight to counterbalance heeling forces.
9.2.4 Lifting keels for easy trailerability of a modern fin and/or bulb design
9.2.5 Planing hulls which are designed to rise up and glide on top of the water under certain wind and sea conditions.

9.3 A planing (PLNG) hull will typically have a flat or concave bottom contour and plane up on top of the water. A displacement hull on the other hand has a belly, or convex, bottom contour which does not ride high on the water like a planing hull, instead it is plowing through and parting the water.

9.4 PHRF-SS uses the following criteria to characterize a high-performance boat:
9.4.1 Sail Area to Displacement ratio upwind (SDRU) greater than 29
9.4.2 Sail Area to Displacement ratio downwind (SDRD) greater than 65
9.4.3 Displacement to Length ratio (DLR) less than 105
9.4.4 When SDRU and SDRD are combined and the sum is 94 or greater, then the boat is considered HPRF.

9.5 To be classified as high-performance (HPRF), at least two of the stated criteria in 9.4 must be met. These criteria are not absolute and there may be boats that are between two different states. In these cases, the Chief Handicapper and/or HRB Committee will make the final determination.

9.6 At the discretion of the Organizing Authority, Displacement (DSPL) and High-Performance (HPRF) classifications may be combined.

9.7 Asymmetric spinnaker credit does not apply to HPRF boats.

10.0 CLUB RATED BOATS

10.1 CLUB rated boats are non-conforming and do not meet the standard boat characterizations stated in 8.0. These boats may be issued a CLUB certificate to support local yacht club racing programs and **are only valid for that purpose**.

10.2 CLUB certificates are issued at the discretion of the Chief Handicapper and/or the HRB Committee. The decision to allow this classification to race in any organized PHRF event is the sole responsibility of the Organizing Authority (OA).

11.0 HANDICAPS

11.1 Handicaps are only issued to self-righting monohull sailboats. PHRF is an empirical rule and uses a numerical measure of a boats speed based on observed performance.

11.2 Handicaps are expressed in seconds per nautical mile (sec/nm) and assigned in three second increments. Designs with or without bow pulpits and/or lifelines are rated as built.

11.3 PHRF-SS references the US Sailing PHRF Handicap database as an aid in assigning handicaps which are adjusted as necessary by review of performance-based criteria and accumulated race results. Reviews of similar boats in other PHRF regions also aid in that effort.

11.4 Organizing authorities may assign temporary ratings but they must be made in consultation with the PHRF-SS Chief Handicapper or his designee.

11.5 In the absence of physical measurements, PHRF-SS uses the manufacturer's design plan specifications (I, J, P, E, etc.) as a default to calculate various parameters. These specifications are reflected on the handicap certificate and are not necessarily the true physical measure of a specific boat.

11.6 **Boats may carry both symmetric and asymmetric spinnakers**. The area of each sail will be evaluated independently. The sail with the greatest penalty will be used to adjust the boat's base rating in addition to any other penalties. **No asymmetric credit will be given when using both sails.** Asymmetric spinnaker credit, if any, is only given if the owner commits to the sole use of the asymmetric sail.

11.7 An asymmetric boat may add a symmetric spinnaker but will be evaluated as stated in 11.7. Should the boat be one design, it will be designated a PHRF only boat and **no boat shall concurrently have both ODR and PHRF ratings.**

11.8 **An asymmetric sail may never be flown from a standard spinnaker pole mounted in its normal position as would be used to fly a symmetric sail.**

12.0 BOAT MODIFICATIONS

12.1 PHRF-SS shall be notified in writing of any changes which modify a boat's design weight, trim, underwater shape of hull, keel or rudder and any modifications to the standing rigging, spars, or sails.

12.2 Work exempt from the reporting requirement is the repair of grounding damage or filling and fairing of the magnitude associated with batten sanding. Placement of deck hardware and other control or running rigging is unrestricted.

12.3 Boats shall race with at least all the equipment and furnishings supplied as standard by the manufacturer. Removal of a table, V-berth cushions, and one interior cabin door is permitted without penalty.

12.4 Drawers, headliners, cabinet and locker doors, steps, ladders, and engine enclosures shall remain in place as supplied. If they do not so remain, then the yacht shall be considered modified and rated accordingly.

12.5 Unreported changes in rig, sails, rudder, hull, keel, ballast, or spinnaker pole is a serious breach of the rules and will result in the immediate suspension of the PHRF-SS certificate.

13.0 PERFORMANCE PREDICATION FACTOR

13.1 The performance predication factor upwind (PPFU) and downwind (PPFD) are used to predict the potential performance of a boat. The PPF is based on sail area, displacement, and length at the waterline.

13.2 PPFU is only an estimate of potential performance and does not attempt to represent itself as a velocity prediction program.

PPFU = DLR/SDRU and PPFD = DLR/SDRD

13.3 PPFU is offered to the organizing authorities as an aid in creating class splits.

13.4 PHRF-SS recommends that the organizing authority consider placing boats into classes by PPFU, then using their respective handicaps because of the disparity in design variations. Class splits by handicap alone may not yield the best result.

14.0 HANDICAP ADJUSTMENTS

14.1 Any credits and/or adjustments must be requested by the owner in writing and verified by a PHRF-SS measurer and/or handicapper.

14.2 **PROPELLER (PROP)**

No credits are given for any propeller on a retracting outboard motor, retracting propeller shaft, or any 2 or 3 bladed feathering or propellers whether installed on an exposed shaft or in a hull aperture.

14.2.1 2-blade fixed in aperture (2BA).....no credit
14.2.2 3-blade fixed in aperture (3BA).....+3 sec/nm
14.2.3 2-blade fixed with exposed shaft (2BX) .....+ 6 sec/nm
14.2.4 3-blade fixed with exposed shaft (3BX) .....+9 sec/nm

14.3 **AUXILIARY POWER (PWR)**

14.3.1 Retractable Outboard ..... -6 sec/nm
14.3.2 Bow Thruster.....+3 sec/nm

14.4 **ROLLER FURLED GENOA (RFG)**

14.4.1 Above deck furling drum.....+3 sec/nm
14.4.2 Dacron sail with UV cover on leech & foot.....+6 sec/nm
(note: 14.4.1 and 14.4.2 are not additive. Only one may apply)
14.4.3 Below deck furling drum.....no credit
14.4.4 Standard production features.....no credit

14.5 **ROLLER FURLED MAINSAIL (RFM)**

14.5.1 Standard production feature .....no credit
14.5.2 In the mast with battens.....+3 sec/nm

14.5.3 In the mast without battens .....+6 sec/nm
14.5.4 No credit is given for roller furling in the boom.

14.6 **MAINSAIL**
14.6.1 One or more girth dimensions exceeded ..... -3 sec/nm
14.6.2 Up to 10% increase in sail area ..... -3 sec/nm
14.6.3 Each additional 10% increase in sail area ..... -3 sec/nm

14.7 **SQUARE HEADED MAINSAILS**
14.7.1 0.1% to 3% increase in sail area ..... -3 sec/nm
14.7.2 Every additional 3% increase ..... -3 sec/nm

14.8 **REDUCTION IN RIG MEASREMENTS (I, J, P and/or E)**
14.8.1 Up to 5%.....no credit
14.8.2 5% to 10%.....+3 sec/nm
14.8.3 Every additional 5%.....+3 sec/nm

14.9 **CARBON RIG REPLACING ALUMINUM RIG**
14.9.1 Boats 40 feet or less..... -3 sec/nm
14.9.2 Boats over 40 feet..... -6 sec/nm

14.10 **SPINNAKER POLE**
14.10.1 0% increase in SPL (J) ..... 0 sec/nm
14.10.2 100% to 110% of J ..... -3 sec/nm
14.10.3 110% to 120% of J ..... -6 sec/nm
14.10.4 Each additional 10%..... -3 sec/nm

14.11 **INCREASE IN SPINNAKER HOIST**
14.11.1 Each 8% increase over base boat dimension..... -3 sec/nm

14.12 **ASYMMETRIC SPINNAKER CONVERSION**
Applies only to heavy displacement boats that are converting from a symmetric to an asymmetric spinnaker with a fixed or extendable sprit permanently mounted on or near the centerline. See Section 20.0
14.12.1 100%-115%.....+6 sec/nm
14.12.2 115%-125%.....+3 sec/nm
14.12.3 125%-135%..... 0 sec/nm
14.12.4 135%-145%..... -3 sec/nm
14.12.5 145%-155%..... -6 sec/nm
14.12.6 > 155%.....HRB Committee Review

14.13 **INCREASE IN MAST HEIGHT**
14.13.1 I = 101% to 102% of design ..... -3 sec/nm
14.13.2 I > 102% to 104% of design ..... -6 sec/nm
14.13.3 Each additional 2%..... -3 sec/nm

14.14 **INTERIOR FIXTURES (IFR)**
14.14.1 Standard interior fixtures removed ..... - 3 sec/nm
(Refer to 12.3)

14.15 **UNDERSIZED SAIL PLAN**
14.15.1 Reduction from designed sail plan.....no credit

14.16 **INCREASE IN RIG MEASUREMENTS**
14.16.1 I & P increased 2% and each 2% increment..... -3 sec/nm
14.16.2 P increased 6% and each 6% increment ..... -3 sec/nm

14.16.3 I increased 5% and each 5% increment ..... -3 sec/nm
14.16.4 E increased 10% and each 10% increment ..... -3 sec/nm

14.17 **ADDING WEIGHT/BALLAST**

14.17.1 Changing the shape of the keel or adding weight ..... -6 sec/nm. (Appendage changes will be reviewed on an individual basis)

14.18 **CHANGING THE DRAFT**

14.18.1 Every 0.5 foot increase in draft..... -3 sec/nm
14.18.2 Every 0.5 foot decrease in draft.....+3 sec/nm
14.18.3 (Appendage changes will be reviewed on a case-by-case basis)

15.0 ONE DESIGN RATINGS (ODR)

15.1 To qualify for an ODR, the class must have a current and active one-design class association with a maintained web presence and an available set of current class rules.

15.2 The owner must certify that current class rules are being adhered to.

15.3 Assigning an ODR does not constitute certification by PHRF-SS that the boat is class legal.

15.4 Class designated crew weight limits do not apply for PHRF racing.

16.0 SCHELL HANDICAP (SHCP)

16.1 PHRF-SS uses the Schell Regression Formula to calculate a boats handicap (SHCP) based on the manufacturer's design plan specifications. The calculation is not used to assign handicaps but is used only as a guide. The formula assumes that boats are at rest and makes no attempt to account for wind and sea conditions or the variance caused by modern designs with planing hulls. The calculation is as follows:

$$SHCP = 610 - 8.36\left(\frac{SA}{\sqrt[3]{D}}\right) + 0.0000511\left(SA^2\right) - 55\,(P/J+E) - 30.8\left(\sqrt[2]{LWL}\right) - 602\left(\frac{DR^2}{SA}\right)$$

16.2 PHRF-SS uses only the observed performance to assign handicaps. The SHCP is used when no empirical data exists or when the boat presented has no observed performance data available. SHCP also facilitates a baseline comparison to assigned handicaps to evaluate differences.

17.0 NON-SPINNAKER HANDICAP (NSP)

17.1 Non-spinnaker (NSP) handicaps, also known as Jib and Main (JAM) are established to compensate boats that sail downwind using the same sails they use to sail upwind. These boats do not deploy spinnakers regardless of the point of sail.

17.2 The ratio (SR) of the headsail plus mainsail area to the spinnaker plus mainsail sail area is calculated. This ratio multiplied by a correction factor is then added to the base handicap which results in the non-spinnaker rating (NSP).

NSP = (SR * 14.68) + HCP

17.3 Free flying any headsail on a non-spinnaker boat is specifically prohibited. A free flying sail is a sail that is not attached to the boat's standing rigging. Instead, a specialized cable and furling system allows the sail to be raised on a halyard and tacked to the deck or a bowsprit.

17.4 A boat equipped with roller furling must always be in use. The headsail must be deployed and furled using the roller furling system.

17.5 Ketches and yawls may not fly staysails off the wind unless such sails are used when sailing upwind.

17.6 A spinnaker pole, or a whisker pole, neither of which may be greater than the J measurement may be used to extend the jib clew when sailing downwind. If an adjustable whisker pole is used, it must have the J dimension clearly marked on the extendable portion of the pole and may never extend beyond that mark.

18.0 ROLLER FURLING (RF) HEADSAIL CRUISNG CREDIT

18.1 The qualified RF headsail must be tacked above the RF drum and have the head, or pendant, secured to the bottom of the upper swivel at all times while racing except while changing the headsail. The changed sail must completely furl on the headstay between the drum and upper swivel.

18.2 The qualified RF headsail, once hoisted, shall not be changed unless conditions warrant switching to a heavy weather sail with an LP of less than 110% of J. The only two sails that can be used are the sails meeting 18.1 requirements and a heavy weather sail of less than 110%.

18.3 The headsail must remain on the furler except for sail changes.

18.4 The bottom of the roller furling drum must be above deck and it must be able to furl all qualified headsails between the drum and upper swivel.

18.5 Qualified roller furling headsails must be in the luff groove for the full luff of the sail, attached to a swivel at the head and to the drum swivel at the deck

18.6 No credit is given if the roller furled headsail was supplied with the original production yacht as equipped by the manufacturer.

19.0 MAXIMUM ALLOWED CREW WEIGHT

19.1 Each yacht shall be restricted to a maximum crew weight. It shall be the responsibility of the owner/skipper to ensure that the crew weight limit is adhered to.

19.2 Maximum crew weight for each yacht is calculated from the following:

$$CWT = 200\left(\frac{\sqrt{400 - HCP}}{4} + \frac{LOA^{1.25}}{17.6} + \frac{(I * J) + (P * E)}{1000}\right)$$

20.0 RIG AND SAIL MEASUREMENTS

20.1 Measurement may be required for obtaining a full basic handicap. PHRF-SS uses the manufacturer's design plan measurement data as the basis for calculations.

20.2 Sailmakers are familiar with the International Measurement System (IMS) rule concerning the design of sails. Sails used on PHRF-SS boats are expected to meet the IMS guidelines.

20.3 Mainsail battens may be any layout consistent with the IMS guidelines. Mainsail penalties shall be calculated where one or more of the following mainsail girth dimensions are exceeded (ref: ORC/IMS Rule "Part G - Sails"):

20.3.1 MHB>0.05E (headboard)

20.3.2 MUW>0.25E (7/8 girth)

20.3.3 MTW>0.41E (3/4 girth)
20.3.4 MHW>0.66E (1/2 girth)
20.3.5 MQW>0.85E (1/4 girth)

20.4 Mainsail sail area is calculated by the following:

MSA=P/8(E+2MQW+2MHW+1.5MTW+MUW+0.5MHB)

20.5 A jib is defined as any sail, other than a spinnaker, which is to be set in the foretriangle. In any jib the mid-girth, measured between mid-point of luff and leech, shall not exceed 50% of the foot length.

20.6 Luff Perpendicular (LP) of the headsail designates the shortest distance measured between clew and luff.

20.7 Effective Forestay Length (EFL) is a calculation based on the manufacturer's design plans of "I" and "J" and/or "ISP" and "JSP. EFL is used to establish the maximum allowed forestay length from which spinnaker luff lengths are calculated.

21.0 BLOOPERS

21.1 Bloopers are measured as headsails and must be included in evaluating the LP of the largest headsail for handicapping purposes. The blooper must have an LP no larger than the largest declared genoa LP and have a mid-girth no greater than 50% of the foot in length. A blooper cannot be flown in a non-spinnaker race as no free flying headsails are allowed.

21.2 Bloopers are only allowed on boats rated with a spinnaker pole, and not with a bowsprit.

22.0 SYMMETRICAL SPINNAKERS

22.1 All boats in the PHRF-SS database are assumed to have a base symmetrical spinnaker. This calculation is based on the manufacturer's design plan specifications. This parameter appears on the handicap certificate and is the maximum symmetrical spinnaker allowed without penalty.

22.2 Symmetrical Spinnakers shall comply with the following requirements:

22.2.1 The Area shall be calculated as:
AREA = (SLU*(SFL + 4*SHW))/6

22.2.2 Maximum luff length shall be $\leq 0.95*\sqrt{(I^2+JSP^2)}$

22.2.3 Maximum foot length and mid-girth shall be $\leq$ 1.8*(the greater of J or JSP).

22.2.4 The mid-girth shall not be less than 75% of the foot length.

22.2.5 The sail must be symmetrical about a line measured from the head to the center of the foot.

22.2.6 Spinnaker shall be sheeted from only one point on the sail.

22.2.7 Battens shall not be used in spinnakers.

23.0 ASYMMETRICAL SPINNAKERS

23.1 Asymmetric Spinnakers shall comply with the following requirements:

23.1.1 The Area shall be calculated as:
AREA = ((SLU+SLE)/2) *(SFL+ (4*SHW))/6

23.1.2 Maximum luff length shall be $\leq 1.01*\sqrt{(ISP^2+JSP^2)}$

23.1.3 Maximum foot length and mid-girth shall be $\leq$ 1.8*(the greater of J or JSP).

23.2 Code 0 sails are asymmetrical sails with a mid-girth of > 55% and < 75% of the foot length. The minimum penalty of a Code 0 asymmetric sail will be -3 sec/nm.

23.3 Sails classified as spinnakers shall be passed forward of the headstay during tacking and gybing maneuvers.

23.4 The sprit pole credits apply only to heavy displacement boats that convert to an asymmetrical spinnaker and not boats that were so designed and equipped by the manufacturer.

23.5 If an asymmetrical spinnaker with sprit credit is flown using a spinnaker pole, the spinnaker pole shall be touching the headstay and the deck at all times while the asymmetrical spinnaker is being set, flown and doused. The spinnaker pole must be fixed such that it cannot extend beyond J nor articulate.

23.6 If using a standard spinnaker pole as a sprit to fly an asymmetric sail, the structural integrity of such a configuration is the sole responsibility of the owner.

23.7 A sprit pole mounted on deck may be extendable. It must clearly be marked as to the maximum intended extension by a contrasting color tape no less than one inch in width. The length of extension under no circumstances may exceed 135% of J if using the asymmetric credit. If extended beyond 135%, the boat will receive a spinnaker pole penalty as stated in Section 14.10 in lieu of an asymmetric sprit credit.

23.8 **An asymmetric sail may never be flown from a standard spinnaker pole mounted in its normal position as would be used to fly a symmetric sail.**

24.0 HANDICAP CHANGES

24.1 Handicaps may be adjusted no less than annually based upon observed performance and/or analysis of available performance data by the HRB. In all cases, a simple majority of the HRB is required to approve any change.

24.2 If a change is made to a standard boat, then all registered boats of the same base configuration shall be adjusted. Under no circumstance will a rating change be applied to a single standard boat unless she is a custom or a one-off configuration. PHRF-SS will not, to the best of its ability, adjust any handicap based on skipper, crew, sails or lack of proper boat preparation.

24.3 The base boat rating will not be changed or reviewed unless a rating appeal is submitted in writing. Handicaps are not adjusted without actual results and the preference is for the results of as many standard boats as possible.

25.0 RATINGS APPEAL

25.1 The appeal process is initiated by completion of the Appeals Form which can be downloaded from the PHRF-SS web site. Members may appeal the rating of their own boat or the boat of a competitor. If an appeal is granted to a standard boat, all like standard boats shall be assigned the new rating. PHRF-SS attempts to objectively assess each rating change request and tries to avoid any circumstances where the result is handicapping the skipper or crew.

25.2 A rating appeal will not be accepted until results are available for at least (10) Invitational Races or fifteen (15) club races in the year which the appeal is made. No more than one rating appeal will be accepted per race season.

26.0 CLASS SPLIT GUIDANCE

26.1 At any event designated PHRF-SS, all registered boats should first be placed in the order of their performance predication factors (PPFU) and then separated in classes by the organizing authority. Because of the variance in design and performance characteristics, boats should never be divided into classes based solely on the handicap. PPFU is offered as a tool and not a requirement. The Organizing Authority is ultimately responsible for the final class splits.

27.0 ABBREVIATIONS

ASM – Asymmetric	ODR – One Design Rating
ASL – Average spinnaker luff	PHRF – Performance Handicap Racing Fleet
CLUB – Club level only certificate	PPFU – Prediction factor upwind
DISP - Displacement	PPFD – Prediction factor downwind
DLR – Displacement to length ratio	PRLM - Preliminary
FXD – Fixed	SHCP – Schell handicap
HCP – Handicap	SDRU – Sail area to displacement upwind
HRB – Handicap Review Board	SDRD – Sail area to displacement downwind
HPRF – High Performance Classification	SPL – Spinnaker pole length
JAM – Jib and main	STND – Standard certificate
OB - Outboard	TPS – Tack point of spinnaker

28.0 REVISION HISTORY

Revision 2.0

- Update rules for clarity language and remove redundancies
- Update asymmetric spinnaker conversion policy and adjust credits
- Allow use of both asymmetric and symmetric spinnakers with adjustments
- Add rule to prevent use of asymmetric sail flown from symmetric spinnaker pole
- Delete 2% roach requirement for furled headsail
- Update approved by PHRFSS Committee February 2025

Revision 2.1

- Add whisker pole rule 17.6
- Update approved by PHRFSS Committee November 25, 2025

Revision 2.1.1

- Add self-righting to standard boat configuration.
- New designs with or without bow pulpits and/or lifelines are rated as built.

Revision 2.1.2

- Correct publishing errors on self-righting