

# Harbor Island Yacht Club Nashville, Tennessee

## PHRF Rules

### INTRODUCTION:

Performance handicaps are not measurement ratings. Each reflects an estimate of a sailboat's speed potential determined as far as possible on knowledge of previous racing experience supported by a consensus of the effect of differential hull and rig parameters.

National PHRF handicaps are arrived at based upon observation and analysis of race results and HIYC-PHRF closely follows their lead. It is the intent of the performance handicapping process to produce a relative measure of speed such that any well maintained and well sailed boat has a good chance of winning a race. Therefore, handicaps are adjusted on the basis of the boat types performance so that each well sailed boat has an equivalent opportunity to win. This is the fundamental concept of performance handicapping.

Performance handicaps are not intended to reflect skipper and crew capability. Handicaps are not adjusted to encourage a poor or careless skipper, and conversely no handicap adjustment is made to penalize proficiency. Handicaps are assigned locally by the HIYC-PHRF committee whom issues and validates handicap certificates according to the rule and associated regulations described in this document.

### THE PHRF RULE:

The PHRF is an open rule. There are few national hull or sail restrictions other than those consistent with standards of safety for offshore monohulls or multihulls. This means that monohulls must be self-righting and multihulls must be positively self-buoyant. There are no other fundamental limitations on ingenuity other than those contained in the US SAILING rules. Class restrictions are applied locally.

Well designed and constructed boats are expected not to be made obsolete by newer designs under PHRF. PHRF does not use measurement to determine by formula base handicaps, because any formula once established can be beaten by a clever designer. As faster designs appear, they are handicapped accordingly. Therefore, the HIYC-PHRF committee discourages "rule beating". If a skipper modifies his boat, PHRF will attempt to compensate for the new speed potential. The use of taller mast, longer spinnaker poles, extra ballast, gutted interiors or other modifications intended to increase speed are compensated for by the rating assigned. Additionally, PHRF assumes that a boat is equipped to race. It does not attempt to rate a partially equipped boat and no time allowance will be given for

such.

PHRF ratings are expressed in seconds per nautical mile. The smallest increment of performance to be used by the HIYC-PHRF committee will be three seconds per mile. It is generally accepted that it is impossible to spot a boat's potential speed more accurately than this because of the multiple factors involved. Differences in skipper and crew skill represent a much larger factor than 3 sec/mi.

#### BASE HANDICAPS - SAIL AND RIG LIMITATIONS:

Normally, US SAILING and IOR limitations and restrictions apply regarding sails and methods of trimming.

Base handicaps are made on the assumption that:

1. the spinnaker pole length (SPL) is equal to "J", measured from pole tip to inside jaw,
2. the spinnaker maximum width is 180% of SPL,
3. the spinnaker maximum length is 95% of the square root of  $I^2 + J^2$ ,
4. the Genoa LP is between 150% and 155% of J,
5. the number of battens and length of battens are restricted by class rules or as permitted by PHRF fleet rules,
6. the boat is in racing condition,
7. the boat has a folding or feathering propeller, a two blade solid propeller in an aperture or a retractable outboard motor, and
8. the hull, interior, and appendages are unmodified from their original design and construction.

Base ratings may be changed at any meeting of the HIYC-PHRF committee, by a majority vote of the handicappers present. Any member of HIYC-PHRF fleet may appeal the base rating of any class of boat, in writing. Such appeals, when accompanied by supporting evidence will be considered at the first subsequent meeting of the PHRF committee, and decided by majority vote of the handicappers present.

#### CHANGES TO DESIGN OR EQUIPMENT:

A skipper may experiment with different ways of improving the performance of his boat. If there are changes to the hull, rig, sails, or other factors upon which the existing rating is based, they must be reported to the handicapper for evaluation. If possible deviations on the part of the owner become apparent, other contestants are urged to appeal to the handicapper.

Because headsail size has so much to do with boat speed, PHRF uses this factor as a means of handicapping. Boats are rated for use with small or large headsails with a 155% LP being the dividing line at HIYC. Once a boat is rated with a large headsail, this rating must be used, even though wind conditions may preclude use of the sail. A skipper is not allowed to have his boat re-rated frequently by choosing his headsail to fit expected conditions.

Penalties will be determined as follows with the appropriate adjustment being applied to the boat's base rating:

## HIYC PHRF Rules

1. Genoa LP - 3 sec/mile for each 10% of T or fraction thereof over 155% of «J»,
2. Rig Height - 3 Sec/mile for each 2% increase, or part thereof, in rig height and all appropriate sails. Proportional adjustments for changes in individual sails.
3. Spinnaker pole and width - 3 sec/mile for each 5% paired increase, or fraction thereof in pole and spinnaker width, (or either one alone).
4. Spinnaker Luff- 3 sec/mile for each 5% increase, or fraction thereof, above the rule formula. I.e..  $.95 \times (\text{sq. rt. of } I2 + J2)$
5. Modified Keels - 3-9 sec/mile penalty
6. Approximately 6-9 sec/mile difference in handicap between inboard and outboard configurations of the same class.

### RIG AND SAIL VERIFICATION:

Since ratings are based on "standard" rigs and sails, the verification of rig and sail dimensions by physical measurement is considered to be necessary to assure the uniform application of handicaps. The fleet will accept the following verification.

1. Any current or still accurate measurement rating certificate, such as IOR, IMS, MORC, or other.
2. Physical measurement by a fleet handicapper.
3. Physical measurement certified as accurate by the owner.

If sails or rig are protested through normal procedures, the fleet reserves the right to require actual measurement by a fleet handicapper.

### EXCEPTIONS:

PHRF ratings are intended to provide equitable time allowances for yachts of different designs racing against each other. Notwithstanding any of the foregoing rules, the fleet reserves the right to declare any yacht "exceptional" and either not provide a rating or rate it outside the normal class rules. Such a decision can be made only by the chief handicapper and a majority of the handicappers present at any meeting.

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