GULF YACHTING ASSOCIATION, INC.

ORGANIZED 1901 – REORGANIZED 1920

PHRF
GYA PHRF By Laws Revised May 14, 2022

BY-LAWS

(Changes limited to addition of APPENDIX – E: GYA ORA-1 PHRF RULES, pages 21-23)

I. PERFORMANCE HANDICAP RATING SYSTEM

A. The intent of the Performance Handicap Racing Fleet (PHRF) is to provide a simple handicapping system that gives sailboats with different speed potential the same opportunity to win. Sailboat speed over a racecourse is dependent upon boat design (class), skipper skill, wind strength, and chance. Skipper skill includes crew selection, boat preparation, and racing technique. The PHRF Board of Handicappers assigns a rating to a sailboat class to compensate for speed difference due solely to sailboat design.

B. A PHRF rating is sailboat speed measured in seconds per nautical mile, thus faster boats have lower ratings than slower boats. Ratings are in increments of 3 seconds per nautical mile. The race committee records the elapsed time to sail the race course for each boat. The corrected time for each sailboat is its actual elapsed time minus the product of its NET PHRF rating multiplied by the race distance in nautical miles**,** rounded to the nearest whole second (.5 is rounded to 1). The sailboat that has the lowest corrected time wins the race.

C Performance handicaps are not measurement ratings. Each reflects an estimate of a sailboat's speed potential determined as far as possible through knowledge of previous racing experience, supported by a consensus of the effect of different parameters for hull and rig. Performance handicaps are arrived at through an empirical process based upon observation and analysis of race results.

D. As faster designs appear, they are handicapped accordingly. Therefore, one of the major benefits of the PHRF system is to provide handicaps such that older boats can race competitively with the latest designs.

E. PHRF discourages rule beating. If a skipper modified his boat, PHRF will attempt to compensate for the new speed potential. The use of taller masts, longer spinnaker poles, extra ballast, gutted interiors or other modifications intended to increase speed is compensated for by the rating assigned.

II. HANDICAPPING PROCEDURE

A. A new boat in an established class is given the rating for the class. Adjustment may be made for any deviation from the class. If adjustments are made, an indication is made in the handicap record that the boat is not a standard class boat.

B. For new classes and one-of-a-kind boats, the rating is determined on the basis of comparison with similar boats with established ratings. Comparison is made considering type of design and principal dimensions. The rating is assigned conservatively and is adjusted as performance data becomes available.

C. A provisional rating is given to all new classes of sailboat that enter the GYA PHRF system. The rating is provisional for the two years from the date the certificate was issued.

D. PHRF utilizes analytical methods to calculate race results and to collect statistics by boat class. Each class is handicapped against the performance of the fleet as a whole and the handicap raised or lowered as required for good racing. However, winning races does not automatically lead to an adjustment of the handicap.

E. PHRF ratings are based on potential boat speed over a wide variety of courses, including, but not limited to triangles, windward-leeward, Olympic, Gold cup, and government fixed marks, all sailed in varying wind conditions. Ratings are not based on strict triangle courses. Boats that excel on certain type of courses and/or in certain wind conditions are rated more towards their optimum conditions.

F. The PHRF Committee requests race results for input to the race results database for races within the GYA area. The type of races excluded from the GYA database are races in storm or drifting conditions, staggered start races, point A to point B races, races sailed at anytime in the dark, races that had to be shortened, and races for less than three boats.

G. The PHRF committee will review ratings at Board meetings based on requests for rating adjustments, the annual review of all ratings, or based on an Area Handicappers request for review. The Board will, in all cases, give careful consideration of the race data on file, a review of regional US-PHRF handicaps from selected areas, and other data, including on the water observations, where available. Any rating change made as a result of this review process will be made in a sincere effort to maintain equity to the best of the Board's ability between all yachts racing under the GYA-PHRF rating system.

III. PHRF COMMITTEE

A. The GYA-PHRF Committee functions as a committee of the Offshore Council of the Gulf Yachting Association. The GYA-PHRF committee and the Board of Handicappers are one and the same.

B. The four areas of the GYA for PHRF handicapping are Louisiana, Mississippi, Alabama, and Florida. Louisiana shall have two Area Handicappers on the Board.

C. Handicappers shall be appointed as follows: The PHRF Chairman shall be appointed by the Commodore of the GYA on the recommendation of the Chairman of the Offshore Council. The five Area Handicappers shall be appointed for a 3-year term by the Chairman of the Offshore Council on the recommendation of the Chairman of the PHRF committee.

D. Each Area Handicapper will serve a three-year term and may be extended by the PHRF Chairman for one successive two-year term. An appointment made to fill an unexpired term will be made by the PHRF Chairman for the balance of the unexpired term. Terms will expire after the annual review and prior to the next meeting.

E. The Board of Handicappers shall establish all PHRF ratings to be effective for the GYA.

1. The Board of Handicappers shall establish a valid list of all boats with PHRF handicaps and issue individual ratings to each PHRF boat upon application by the owner.

2. After receiving the application and recommendation from an Area Handicapper, the Chairman of the GYA Board of Handicappers will present the rating for consideration by the Board of Handicappers either by poll, or at the next meeting of the GYA Board of Handicappers. The rating recommendation will be reviewed by the GYA Board of Handicappers and either affirmed or changed by the decision of the Board of Handicappers.

3. The Board of Handicappers must review the valid list at least annually. Each rating change must be voted on separately. At the discretion of the Board of Handicappers, valid lists may be reviewed more often.

F. A handicap will be affirmed and established by a simple majority vote of the Board of Handicappers. The Chairman of the Board of Handicappers may only exercise a vote in the case of a tie decision on the handicap.

G. The Area Handicapper may send an assistant handicapper as his representative to a meeting of the Board of Handicappers provided the Chairman of the Board of Handicappers approves the choice of assistant. If an issue before the Board while such representative is present is decided by only one vote, the Area Handicapper must confirm the vote of his representative to the Chairman, and the vote will be considered pending until that confirmation is received

IV. PHRF SUB-COMMITTEE

A. Each Area Handicapper shall appoint assistant Handicappers from the local area PHRF sailing organizations to serve with him on a local handicapping committee. This committee should work with the Area Handicapper in establishing preliminary ratings for any new boats joining the area fleet. In consultation with this local area board, the Area Handicapper recommends initial ratings for consideration by the GYA Board of Handicappers.

B. When requested by the applicant (normally just prior to a race), a provisional rating may be issued by the Area Handicapper, or the Chairman, if (1) a completed, signed application has been received along with the appropriate fee and (2) a national rating for the boat has been published or is available through US Sailing. The Handicapper should use the national rating as a guide as different regions rate boats differently.

V. PHRF RATING CERTIFICATE

A. To obtain a PHRF certificate a boat must be a monohull with a self-bailing cockpit. Any boat that uses water as ballast, including using water as a means to reduce crew numbers and/or weight, must advise the PHRF committee via an addendum to the PHRF application and provide details of the water-based system.

A.1 Mono-hull Boats that do not meet the requirements in A. shall be assigned a SPECIAL PHRF rating certificate, designated X-PHRF. X-PHRF certificates are not valid for regattas where the NOTICE OF Regatta (NOR) and/or the Sailing Instructions (SI) require a valid GYA PHRF Certificate to enter and do not specifically accept X-PHRF certificates. X-PHRF rated boats must comply with all other provisions of these by-laws.

B. New rating certificates will be issued to expire on December 31 of the year following the year of issue unless terminated or changed by the Board of Handicappers. Each valid certificate must be renewed by its expiration date. Certificate fees for new issues, renewals, and changes that effect the PHRF rating are set by the PHRF committee.

C. Any Area Handicapper or the Chairman, may, for any reason, request the Board of Handicappers to review a rating. Such review may be by poll, conference call or at a meeting of the Board. Any adjustment in rating caused by such review will be issued in writing to the certificate holder within 10 days of the decision. Such decision will be effective when made except for changes made based on the Annual Review which will be effective 30 days from the date of the decision.

D. Rating changes based on an owner's appeal of his own boat will take effect immediately. A new certificate will be issued, and such certificate shall indicate the effective date of the new rating.

E. Changes to provisional ratings are effective when the decision is made. A new certificate will be issued, and such certificate shall indicate the effective date of the new rating.

F. It is the responsibility of the owner or skipper to notify the Area Handicapper or GYA PHRF Chairman of changes in the hull, appendages, interior, rigging, or sail dimensions that are different from the information on the boat's current rating certificate. The Board of Handicappers will notify the owner of the new rating if a change in rating is required, and the applicable fee for the change in rating. Failure to report a modification may result in suspension of the PHRF or X-PHRF certificate.

G. Anyone making a change to a boat's hull, appendages, interior, rigging or sails dimensions should anticipate a change in that boat's rating. Fairing the hull, keel, and rudder to design specifications is allowed. The committee may apply rating adjustments based on guidelines in Appendix B; however, such adjustments are at the discretion of the committee and will always be made to achieve an equitable performance rating between boats.

H. No change and/or modification that would affect the rating of a boat may be made by the owner or skipper until written notification is provided to the Board of Handicappers, and until receipt by the owner of the new rating certificate from the Board of Handicappers. Changes and/or modifications made without proper notification to the Board of Handicappers immediately invalidates the PHRF certificate.

I. All changes and/or modifications of a boat are subject to review by the Handicap Committee to determine if the modifications have created a new type Class for purposes of assigning a base rating.

VI. RATING APPEAL:

A. Any person holding a valid PHRF certificate issued by the Board of Handicappers of the GYA may request a rating adjustment of his boat or of another boat holding a valid PHRF handicap issued by the Board of Handicappers of the GYA. The requester, when requesting an adjustment of another person's boat, must mail a copy of the request to the other person at the same time it is submitted to the GYA PHRF Committee.

B. All requests submitted in proper form will be heard at the next meeting of the Board. Any person requesting a rating adjustment must submit a request by a date specified in the Minutes of the PHRF meeting held prior to the GORC, CHALLENGE CUP, and WFORC, or by December 1st for the Annual review, to be considered at the board meeting scheduled prior to these events.

C. Requests must be submitted in proper form to the Chairman of the PHRF Rating Committee, with a copy given to the Area Handicapper. Proper form is the approved GYA-PHRF Rating Adjustment Request Form, which may be obtained in pdf format from our web site: GYA-PHRF.com

1. Use of this form is mandatory for submitting a rating adjustment request. The details on the form provide the committee with specific information about your boat that the committee would not otherwise be aware of, such as age and condition of sails, type of bottom paint, how often applied, and how often cleaned before regattas, experience level of crew, etc.

2. The notice of request must contain (1) justification for the rating change requested based on specific data concerning the appropriate factors (waterline, sail area, age of each sail carried, displacement dates boat hauled and bottom repainted, etc.) that affect the performance of a boat compared to similar factors on other boats of a like nature, (2) appropriate data from actual races including corrected times, which would establish the validity of the appeal, and (3) any other pertinent data.

3. On the bottom of page 2 is a box to check if the appeal is to be reviewed by the GYA Offshore PHRF Appeal Committee because the PHRF Committee did not agree to an adjustment. If this box is not checked the appeal will end with the decision of the PHRF Committee. Refer to Appendix A for information about the GYA Offshore PHRF Appeals Committee.

4. In reviewing a request, the committee will also review race data recorded in the PHRF Race Results database, US-PHRF listing of ratings for the same boat class in other areas of the country as compared to reviewed boat class and similar classes rated in each area, and observations made by the Area Handicappers and their assistant handicappers. The PHRF committee is as thorough as possible, given the data provided and the activity of the boat. The review starts with the Rating Adjustment Request Form and other submitted supporting data.

B. Boats are required to sail in at least 3 races of at least a total of 45 miles after a rating change before they can appeal the change. This rule will not apply to changes made at the board meetings that are not based on an appeal, as well as changes based on an appeal where the person whose rating is being appealed was not notified. This rule is not applicable to boats that did not have an opportunity to present their position to the committee, either in writing or in person, prior to the change being made.

VII. STANDARD PHRF BOAT BASE HANDICAPS

A. PHRF assumes that a boat is equipped to race. It does not attempt to rate a partially equipped boat, or a boat which differs from others in its class, in that it is unusually heavy, out of balance, or has unusual windage (as from a dinghy on davits, radar antenna, etc.). However, if the basic hull and STANDING rigging, EXCLUDING backstays, differ from others in its class, it will, of course, be rated uniquely.

B. PHRF base handicaps are made on the assumption that the boat is in racing condition, the boat has an auxiliary propulsion system suitable for the boat's design that is either an outboard motor (which is permitted to be stowed for racing) or equipped with a folding or feathering propeller, and that the hull and appendages are unmodified from their original design. Any auxiliary propulsion system must be capable of producing a boat speed in knots equal to 1.0 times the square root of the length of water line in feet.

C. The term "class rules" as used in THE RACING RULES OF SAILING RULE 49 CREW POSITION; LIFELINES, under Rule 49.2, shall include the GYA PHRF By-laws as the "class rules" for all boats sailing under the GYA PHRF by-laws.

D. For production boats that are not rated as ODR to Class Association Class Rules, or UCAS to Designer/Manufacturer's specifications, the boat is rated based on the manufacturer's production setup except that the Base rating is with a standard

spinnaker pole and symmetrical spinnaker, the SPL is equal to the J dimension, the spinnaker maximum width is 180% of SPL, the luff limit of the Spinnaker is 0.95*(ISP^2 + J^2)^0.5, the genoa LP dimension is 155% of the J dimension, the sail dimensions conform to the IMS sail rules without regard to sailcloth material, the main sail battens can be full length. (Standing rigging, and spars are to Designer/Manufacturer's specifications. Hiking devises including hiking and anti-hiking lines, straps, trapezes and/or hiking boards/racks, movable athwart ship ballast, or other hiking devices are not permitted.

E. For production boats that are classified as "ODR", ODR is limited to Class Association class Rules as these class rules apply to hull, appendages, rig and sails. The Base rating includes the Class Association's boat setup for One Design Racing (including sail dimensions for the largest sails) except that ODR sail requirements are without regard to **number of sails or sail cloth material and the dimensions of all smaller sails must be within the maximum dimensions allowed by the class rules. There is no minimum dimensions even if class rules state otherwise.**

Where Class rules require less than 5 battens, 5 battens are allowed approximately equally spaced on the leech of the mainsail and may be full length. The boat may be sailed the way the boat was intended to be sailed by the manufacturer with factory installed and Class approved hiking devices per the Class Association rules, except that trapeze and/or hiking boards/racks are never allowed.

F. For production boats that are classified as "UCAS" (Unclassified Asymmetrical Spinnaker), UCAS is limited to Designer/Manufacturer's specifications as they apply to hull, appendages, rig, and sails. The Base rating includes the Designer/Manufacturer's boat setup for sailing (including sail dimensions for the largest sails, without regard to sailcloth material or dimensions of smaller sails that would fit within the dimensions of the largest sail rated for that sail category and would meet the legal definition for that sail category.

A maximum of 5 battens are allowed approximately equally spaced on the leech of the mainsail and may be full length. The boat may be sailed the way the boat was intended to be sailed by the designer/manufacturer with factory installed hiking devices, except that trapeze and/or hiking boards/racks are never allowed.

G. Boats that do not conform to D, E or F. above, the BASE rating will be for a Non-Production (NP) boat.

H. A boat may only have one valid certificate and it must be as documented on the official PHRF file. Where more than one certificate has been issued to document changes/modifications, they are not interchangeable. Owners are discouraged from changing/modifying their boat to meet certain race

conditions. Each change/modification that affects the boats rating will be charged a fee to be determined by the PHRF committee.

I. Spars must be banded (black band on white spars, etc.) for the proper P (mainsail luff) and E (mainsail foot) dimensions listed on the PHRF certificate. Ketch rigs will have Py and Ey banded. A skipper may experiment with different ways of improving the performance of his boat. Fairing the hull, keel, and rudder to design specifications is allowed. 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 area handicapper.

J. The GYA-PHRF uses the sail measurement rules in Appendix B. All new headsails, after January 1, 2014, over 135% must be marked for size by a sailmaker. A member of his firm can mark the personal sails of a sailmaker.

K. RECOMMENDED CREW LIMITS (NUMBER OR WEIGHT), based on a boats LOA as stated on the PHRF certificate: Maximum number of Crew: up to 22.5' (5); 22.51' to 25.5' (6); 25.51' to 28.5' (7); 28.51' to 31.5' (8); 31.51' to 34.5' (9); 34.51' to 37.5' (10); 37.51' to 40.5' (11); 40.51' to 46.5' (13); 46.51' to 52.5' (15); 52.51' and up (17). Maximum weight limits would be crew number limit times 180 lbs.

APPENDIX - A
GYA OFFSHORE PHRF APPEALS COMMITTEE

The Chairman of GYA Offshore will annually appoint a GYA Offshore Appeals Committee Chairman. The GOPAC Chairman, who will be non-voting, shall appoint a committee of three to hear any appeals that may come before him. The three voting committee members shall be selected from sitting members of the Offshore Council (OC). If the Chairman cannot fill his committee from this venue, he may then appoint from past Offshore Councils. If he' is still unable to fill the committee, the Chairman of GYA Offshore will select the necessary committee members at random. The only other restrictions on the selection of committee members are: (1) he must not be a member of any club(s) that the appellant belongs to, (2)' No current member of the GYA-PHRF Committee or current member of an area handicapper's advisory committee may be selected. The GOPAC Chairman is the only permanent member of the committee. The three voting members will be appointed on an appeal-by-appeal basis, although there is no restriction on a committee member serving on more than one appeal.

GOPAC will meet 4 times annually, those meetings being approximately 30 days after each regularly scheduled GYA-PHRF meeting. GOPAC is not required to meet if there are no appeals pending following that GYA-PHRF meeting. No appeals will be considered except at these scheduled meetings.

The circumstances under which a GYA-PHRF certificate holder may proceed to the GOPAC level are as follows: The certificate holder is denied a rating adjustment appeal by GYA-PHRF. He must meet all requirements stated on the GYA-PHRF appeals form and he must have checked off on the box that states that he will go forward to GOPAC if he does not get a rating adjustment based on his proper appeal to GYA-PHRF. The only requirement above the GYA-PHRF appeal requirements is that the base rating of the appellant's boat must be more than 4.5 seconds per mile off the arithmetic average of the base ratings assigned in at least two (but including all referenced areas providing a rating) from the following PHRF areas: Chesapeake Bay, New England, Southern California, Northern California, Lake Erie, Lake Michigan, YRALIS, Southeast Florida, Narragansett Bay, Galveston Bay, and Mid-Atlantic (NJ). Only those areas from this group having the particular boat class will be used for averaging purposes.

If the appellant does not receive any seconds per mile in rating adjustment and has indicated (by checking the box described above) that the appellant will go forward to GOPAC, GYA-PHRF will, within 10 days of the decision, forward the appeal and the GYA-PHRF basis for their decision to the Chairman of GOPAC. Concurrently, the basis for the GYA-PHRF decision will be forwarded to the appellant. The appellant will have two weeks from the date of the decision to the Postmark date of his response to submit to the Chairman of GOPAC and the Chairman of the GYA-PHRF, any rebuttal to the decision made by the GYA-PHRF, strictly limiting his response to the basis of the decision written by GYA-PHRF. The introduction of new data, such as race results not previously discussed by either the appellant or the GYA-PHRF, may be grounds for restarting the appeal process beginning with the GYA-PHRF's next scheduled meeting.

The appellant will be notified in writing of the decision by GOPAC within 7 days of the hearing. The names of the members of the committee will not be made public until this time. GYA-PHRF and the appellant will be bound by the decision for two years from the date of the hearing, unless the boat is modified during that period. There are no restrictions as to rating change if the boat is modified in any way. The rating change is effective upon notification.

If the appellant does not receive any additional seconds in rating from GOPAC, the appellant may continue forward in the process to the US-PHRF National Appeals Committee. Upon receiving written notification from GOPAC, the appellant must notify GOPAC within 14 days of the date of the notification that he intends to go forward to US-PHRF. The same eligibility restrictions and conditions apply to go to US-PHRF as apply to go to GOPAC. There is an additional fee of $25 to GOPAC plus the fee required by US-PHRF. The two-year rule and modification rule also apply to any decision made by US-PHRF.

APPENDIX – B
GYA PHRF SAIL RELATED DEFINITIONS

1. Jibs

a. A jib is any sail, other than a spinnaker, set in the foretriangle. In any jib the mid girth measured between the mid points of luff and leech, shall not exceed 50% of the foot length nor shall the length of intermediate girth at 25% and 75% of the luff and leech from the head exceed values similarly proportioned to their distance from the head. The distance measured on the surface of the sail, between the midpoint of the foot and the midpoint of the luff shall not exceed 0.55 of the length of the leech.

b. No jib may have a mid girth measured between the mid points of the luff and leech more than 50% of the foot length. Thus headsails with mid girths between 50% and 75% shall not be allowed without a rating review and/or adjustment on a case by case basis. Applications for a headsail whose mid girth is between 50% and 75% shall include dimensions for headsail luff, leach, foot and mid girth measured between the mid points of luff and leech, for the current largest rated headsail and any proposed headsail whose mid girth dimension is between 50% and 75% of the foot length.

c. J shall be the actual foretriangle base. It is measured horizontally from the foreside of the mast at it's lowest point above the deck or coach roof to the center line of the foremost stay on which jibs are set (the center line of the luff if the foremost jib is to be set flying), extended if necessary, to intersect the level of the shear line, or to a bowsprit if used.

d. The dimension I shall be the genoa height. It is measured from the point of attachment of the forestay to the mast structure, or the intersection of the centerline of the forestay with the foreside of the mast where the point of attachment is internal, to the level of the sheerline abreast the mast.

e. The LP of jibs shall be measured on the perpendicular from the luff (outside edge of the sail and/or luff rope) to clew (intersection of the lines of the foot and leech). A wrap-around jib shall be measured on the perpendicular from the line of junction of the wrap-around parts to the clew.

f. The length of the luff shall normally be the distance between the lowest part of the sail on the luff rope at the tack and the highest point on the sail on the luff rope at the head.

2. Spinnakers.

a. A sail shall not be measured as a spinnaker unless the SMG **(**max girth for symmetrical and mid girth for asymmetrical) is 75% or more of the foot length. A symmetrical spinnaker is a sail that is symmetrical about a line joining the head to the center of the foot. An asymmetrical spinnaker has a luff that is longer than the leech. Limiting the SMG to greater than 75% of the foot (SF) prevents an upwind jib being used on sprit poles for light air.

b. SPL shall be the length of the spinnaker pole when forced outboard in its fitting on the mast and set in a horizontal position athwarthships, measured from the center line of the boat to the extreme outboard end of the pole and any fittings used when a spinnaker is set.

c. ISP shall be the height of the spinnaker halyard. It shall be measured from the underside of the spinnaker halyard, when drawn horizontally forward from the mast to the level of the sheer line abreast the mast.

d. SMG shall be the spinnaker maximum girth for production boats without class rules, whether at the foot or across the body of the sail between points on the luff and leech equidistant from the head.

e. SL shall be the greatest length of spinnaker luff and leech measured around the edges of the sail.

f. SMG shall be the spinnaker mid girth for asymmetrical spinnakers and is the distance between the midpoints of the luff and leech measured in the shortest path on the surface of the sail.

g. JC for production boats rated without class rules, shall be the corrected base of the foretriangle taken as the greater of the three measurements J, SPL, or SMW divided by 1.80.

h. The sail area for both symmetrical and asymmetrical spinnakers is calculated by using the America's Cup formula:

AREA = [(SLU + SLE) * .25SF] + [(SMG - .5SF) * (SLE + SLU) * .33]
Where: SLU = luff, SLE = leech, SF = foot,
SMG = mid girth for Asymmetrical and SMG = maximum girth for Symmetrical

Symmetrical: SLU = SLE SMG > .75SF

i. For production boats rated without class rules the luff limit for symmetrical spinnakers shall be 0.95 * (ISP^2 + JC^2)^0.5. The spinnaker maximum width (SMG) shall be 1.8 * JC. It is the limit value of SMG for any symmetrical spinnaker carried on the boat.

3. Mainsail.

a. P shall be the measured length of the hoist of a jib headed mainsail. It is the distance along the afterside of the mainmast from the highest level to which the head of the sail, or any part of the headboard carriage abaft the track or mast grove, may be set to the lowest position on the track. PY is the measured length of the hoist of a jib headed mizzen sail. The method of measurement is that used for the hoist (luff) of the mainsail.

b. E shall be the length measured along the boom from the aft side of the mast including any external track or grove, or its fair extension parallel to the axis of the mast, to the aftermost position to which the sail is permitted to extend. EY is the measured length of the foot the mizzen sail. The method of measurement is that used for the foot of the mainsail.

c. Mainsail Headboard (HB) shall be the maximum fore and aft dimension from the luff of the mainsail, projected, if necessary, to the extreme aft edge of the leech measured across the widest part of the headboard. The HB limit for production boats without class rules is the larger of (0.04 * E) or 0.5 feet.

d. The mainsail shall be either fully secured at the foot or fully loose footed. Spare mainsails are permitted to be carried on board. For production boats without class rules,) battens must be equally spaced across the mainsail. For production boats without class rules: mainsail area formulas and limitations to the ¾ girth (MGU) and the ½ girth (MGM) dimensions in feet are: (IOR 848.2)

MGUL = Greater of 0.28*E + 0.016*P + 0.85 or 0.38*E

MGML = Greater of 0.50*E + 0.022*P + 1.20 or 0.65*E

e. The mainsail cross measurements shall be distance from the leech measurement points, to the nearest point on the fore edge of the sail including the boltrope. The points on the leech from which the cross measurements are taken shall be determined bridging any hollows in the leech with straight lines. The mid-point of the leech shall be determined by folding the head to the clew and the quarter and three-quarter leech points by folding the clew and the head to the mid-point leech.

APPENDIX - C
ADJUSTMENT GUIDELINES

1. Sails: For production boats rated without class rules:

   a. Headsail adjustment is based on the largest genoa and is determined by the LP/J ratio stated as a percent. From 136% to 155% requires no adjustment, 156% to 170% the adjustment is -3 seconds, 171% to 180% the adjustment is -6 seconds. Over 180% the adjustment is assessed at the option of the Board. Headsail credit is +3 seconds for 135% to 111% and +6 seconds for 110% and smaller.

   b. Spinnaker adjustment is based on the largest spinnaker and is determined by the girth/J ratio or girth/JC, stated as a percent. Up to 180% no adjustment, 181% to 190% the adjustment is -3 seconds, 191% to 200% the adjustment is -6 seconds, and over 200% the adjustment is assessed at the option of the Board.

   c. Boats that have an optional working Roller Furling in-mast mainsail system, a inboard or sail drive propulsions system, have a SA/DSPL less than 20.0, which may have no more than 5 vertical battens and that the roach of the sail does not extend past the backstay (or a line from the top of the mast to the deck edge of the transom if a back stay is not standard on the boat) and is furled vertically by rolling rather than flaking, may receive +12 seconds of rating adjustment. (See Appendix-E for instructions)

   d. No adjustment will be assessed for five (or less) tapered battens up to and including full length battens that are approximately equally spaced between the head of the sail and the clew. Each additional batten (over five) will be adjusted -3 seconds, unless considered a class standard.

   e. Production boats not rated to class rules may fly Asymmetrical spinnakers (including cruising spinnakers and gennakers) tacked to an adjustable lanyard which runs through a block attached to the tack point of a non-articulating structure, such as a bracket, pole, etc., extended parallel to the water at the same level above the water as the jib tack point, with the following limitations:

      1) For no change in rating, an asymmetrical spinnaker not greater than 114% of a standard J pole symmetrical spinnaker may be tacked to a sprit/structure not greater than J + 1.5'.

         1a) Boats that installed a sprit/structure prior to February 17, 2016 equal t J+ 10% that is greater than the J + 1.5' allowed in 1) above, will not be penalized for the difference.

      2) For -3 seconds adjustment a asymmetrical spinnaker not greater than 123% of a standard J pole symmetrical spinnaker may be tacked to a sprit/structure not greater than J + 2.5'.

3) The length of the tack point and the largest spinnaker dimensions (SLU, SLE, SF, SMG) in decimal feet must be stated on the PHRF certificate.

4) The SMG dimension must be equal to or larger than 75% of the SF dimension.

5) The sail area for both symmetrical and asymmetrical spinnakers is calculated by using the America's Cup formula:

AREA = [(SLU + SLE) * .25SF] + [(SMG - .5SF) * (SLE + SLU) * .33]
Where: SLU = luff, SLE = leech, SF = foot,
SMG = mid girth for Asymmetrical and SMG = maximum girth for Symmetrical
Symmetrical: SLU = SLE SMG > .75SF

6) The luff limit for the J Pole standard symmetrical spinnakers shall be 0.95 * (ISP^2 + J^2)^0.5. The spinnaker maximum width (SMG) shall be 1.8 * J.

7) For calculating the sq. ft. for the symmetrical spinnaker, the luff limit for the J Pole standard symmetrical spinnakers shall be 0.95 * (ISP^2 + J^2)^0.5. The spinnaker maximum width (SMG) shall be 1.8 * J.

f. A boat not rated as ODR to class rules and has a SA/DSPL value greater than 20.0, may carry symmetrical or asymmetrical spinnakers, not both, and choice must be declared on PHRF certificate, otherwise PHRF certificate will be for symmetrical only.

g. Boats that meet the provisions in 1. e. 1) above and have a SA/DSPL less than 20.01, may also include a standard symmetrical spinnaker and SPL equal to their J dimension and not be penalized for the addition. Only one type spinnaker can be used at a time except while changing from one to the other. The largest of both type spinnakers must be declared on their PHRF certificate.

h. The calculation of the area of asymmetrical spinnakers shall be computed by using the America's Cup formula.

i. Cat rigged boats not rated for carrying foresails, will have their rating adjusted a minimum of -15 seconds for any foresail up to 155% overlap, -18 seconds for a 170% overlap, and -21 seconds for a 180% overlap. Rating adjustments for overlaps above 180% will be at the option of the board. Foresails must have their tack set on the boat's centerline, aft of the bow. Overlap restrictions will be determined by the LP measurement of the largest foresail divided by the measurement from the aft most tack point on the boats centerline to the front facing of the mast, on a line that is parallel to the water.

2. Spinnaker pole for production boats without Class Rules:

a. A spinnaker pole, which exceeds the J dimension, is subject to a rating adjustment as follows: -3 seconds for up to a 10% increase over J. Increases greater than 10% but equal to or less than one foot, will only be assessed a –3 second change. Increases greater than 10% and greater than 1 foot will be assessed additional seconds on a case by case basis.

b. Boats rated with oversized spinnaker poles will use the JC dimension (spinnaker pole length) for computing the percent of maximum girth for spinnakers rather than J and will not be assessed a spinnaker adjustment unless they exceed the JC dimension by more than 180%

c. Spinnaker Hoist: for production boats rated without class rules:

Spinnaker hoists (ISP) modification to be greater than the productions boat's ISP dimension will be given a rating adjustment as follows: -3 seconds for up to 5% increase, -6 seconds for increases from 5% up to 10%. Increases greater than 10% will be assessed additional seconds on a case-by-case basis.

d. Pole sprits:

a. Modification of a stock boat rated without class rules to include a pole sprit (similar to J-80, Melges 24, etc.) requires that the PHRF committee be given complete details of the modification, including length of extended pole, is it retractable, the dimensions of the largest asymmetrical spinnaker to be flown, and the fact that the pole sprit will not be used for genoa headsails. Each request will be evaluated separately as the PHRF Committee observes the performance characteristics as compared to the stock boat of similar configurations.

b. Change from a pole sprit and asymmetrical spinnaker to a traditional spinnaker pole and symmetrical spinnaker: will be reviewed on a case-by-case basis. The boat will lose its one-design classification and all PHRF rating guidelines will be assessed as appropriate.

5. Mast and boom:

a. For every increase in the total change to any combination P and I, the adjustment shall be –3 seconds for up to 5% increase of the average of the I & P dimension combined. Increases greater than 5% will be assessed additional seconds on a case-by-case basis.

b. Increase to the E dimension will be assessed a rating adjustment as follows: -3 seconds for up to 10% increase in the E dimension. Increases greater than 10% will be assessed additional seconds on a case-by-case basis. Mainsail measurements based on the E, such as the Headboard, MGUL, MGML and

mainsail cross measurements, as described in Appendix –B, GYA PHRF SAIL RELATED DEFINITIONS, paragraph 3. b, 3.e, 3.d and 3.e must be complied with for the revised E dimension.

c. Carbon fiber mast in place of an aluminum mast that saves weight aloft and allows more sail area in stronger breezes, and carbon fiber booms in place of an aluminum boom that saves weight. Rating adjustments for these carbon fiber replacements will be at the option of the Board.

d. For each additional set of spreaders over original design number: -3 seconds.

6. Change the shape of the keel to elliptical, putting the weight lower, improving the sail carrying capability: -6 seconds. Appendage changes and modifications will be reviewed on an individual basis.

7. Change in the draft: -3 seconds for every 0.5 foot (or fraction there of) increase in depth of +3 seconds for every 0.5 foot decrease in depth. Appendage changes and modifications will be reviewed on a case-by-case basis

8. Boats that remove an auxiliary propulsion system will be assessed a rating adjustment as follows, subject to additional adjustments on a case-by-case basis:

a. Less inboard engine (shaft, strut and propeller in place) -3 seconds
b. Less inboard engine (shaft, strut and propeller removed) -6 seconds
c. Less outboard motor -3 seconds (removed from the boat)

9. Two-blade fixed props +6 seconds and three blade fixed props +12 seconds

10. Dry sailing:

a. A boat that does not have a permanent wet slip or does not have anti-fouling bottom paint, or a boat that has anti-fouling bottom paint but is normally kept out of the water the owner must have declared on their PHRF certificate DRY sailed. All other boats will have WET sailed declared on their PHRF certificates. The PHRF committee will decide whether or not the class's BASE rating is based on WET or DRY sailed and will, on a case-by-case basis, adjust the NET rating by +3 or -3 seconds for the boat(s) within the class that are different.

11. Production boats rated with Class Rules:

Adjustment Guidelines for Production boats rated with Class Rules will be on a case-by-case base and will use the Guidelines for Production boats without Class Rules as a general guideline in assigning plus or minus adjustments.

APPENDIX – D
ROLLER FURLING CREDIT

The PHRF committee may allow +6 seconds per mile in rating for a roller furling headsail and +12 seconds for an optional IN-MAST roller furling mainsail. Boats must have a SA/DSPL of 20.00 or less to be eligible for the roller furling headsail credit, and must have a SA/DSPL of 20.00 or less and a inboard or sail drive (non-retractable) engine to be eligible for the optional IN-MAST roller furling mainsail credit of +12 seconds. Boats rated as "ODR" (One Design) do not qualify for these credits. The attached form must be submitted to receive this credit.

1. Uses a working roller furling headsail attached to an above deck mounted roller furling system. Roller furling headsails must be tacked above the drum and may be interchangeable with other working roller furling headsails while racing. Possible +6 seconds!

2. Uses an optional working Roller Furling in-mast mainsail, which may have no more than 5 vertical battens and that the roach of the sail does not extend past the backstay (or a line from the top of the mast to the deck edge of the transom if a back stay is not standard on the boat) and is furled vertically by rolling rather than flaking. Possible +12 seconds!

3. a. For the Roller Furling credit(s) the boat must have a sail area/displacement of 20.0 or less. This value (SA/DSPL) is based on the following formula: SA/DSPL = SA / (DSPL/64)^2/3.

3. b. Sail area and light weight displacement values will be based on the dimensions for the boat class in the following order of precedent: (1) US Sailing (http://offshore.ussailing.org/phrf) Critical dimensions", (2) Manufacturer's published data for "light weight" displacement, "J", "I", "P" and "E" (and "PY" and "EY" if appropriate), and (3) research by the PHRF Committee. Discrepancies in dimension values between (1) and (2) above will be resolved by the PHRF Committee in (3) above. Sail area will be based on using 100% of the fore-triangle ((J x I)/2) and 100% mainsail and mizzen sail area ((P x E)/2) + (PY x EY)/2)"

4. Each boat has to apply for this credit individually, and the committee reserves the right to refuse the credit(s) to boats that they deem to be more racing than cruising. (Refer to GYA-PHRF.com for a copy of the form)

e. Will notify the PHRF Committee of any changes made to the above items.

APPENDIX – E
GYA ORA-1 PHRF RULES

The GYA ORA-1 PHRF Rules are abstracted from the ORRez Offshore Racing Rule found at https://www.offshoreracingrule.org/orr-ez/orr-ez-rulebook.

GYA ORA-1 PHRF rules Governing Handicaps and Certificates

1. Overview
2. Obtaining a Rating
3. Handicapping Procedure
    a. Standard Certificate
    b. One Design Class Certificate
    c. Crew weight
    d. Sail Limitations

4. Changes and Adjustments to Handicaps
    a. Request for Rating Adjustment
    b. Appeals

5. Definitions

1. Overview

GYA ORA-1 PHRF is the handicapping rule that has been created for regional or less intense racers. The initial expense for a 3-year GYA ORA PHRF certificate is significantly lower than for the annual ORRez certificate. Speed factors are determined from existing measurement databases of production boats and simple sail measurements. The data is run through the Velocity Prediction Program (VPP) to produce ratings. Initial GYA ORA-1 PHRF hull data that are not currently in the existing data base will have a provisional rating certificate issued based on factored data from same or similar hulls. Provisional certificates will be updated (at no expense to the owner) to a full released GYA ORA-1 PHRF certificate as specific hull data is generated into the measurement data base.

In this document the terms “handicap” and “rating” are used interchangeably. GYA ORA-1 PHRF handicaps are intended to reflect the potential speed of a boat. Conversely, handicaps are not intended to reflect the ability of skipper and crew. The ORA is the Rating Authority for administration the GYA ORA-1 PHRF ratings.

The GYA ORA-1 PHRF ratings are based on the 2022 version of the Velocity Prediction Program (VPP) that calculates the speed potential of each boat for Time on Distance (TOD) ratings. Ratings are developed for W/L and RLC courses for light and medium wind conditions. TOD ratings are developed for both Spinnaker and Non-Spinnaker classes. In addition, a single General-Purpose Rating (GPR) is developed for both Spinnaker and Non-Spinnaker classes. The VPP is a set of algorithms developed through systematic research that uses fundamental scientific methods

Safety requirements are not part of this GYA ORA PHRF Rule book.

2. Obtaining a Rating

To obtain a new GYA ORA-1 PHRF rating certificate, individuals must first complete an application for a GYA ORA-1 PHRF certificate. The PHRF committee will issue a PHRF certificate to expire 12/31/2024. The PHRF committee will complete the GYA ORA-1 PHRF application data and forward to the ORA for processing. After the GYA PHRF Committee reviews and approves the GYA ORA-1 PHRF rating information, the GYA ORA-1 PHRF certificate will be mailed by the GYA PHRF Committee, and the certificate will be published online by Regatta Management System's (RMS) link

https://regattaman.com/certificste_page.php

For boats with matching hull data in the measurement database the process is typically completed within a few days. Certificates for boats not in the database will typically take slightly longer.

3. Handicapping Procedure

In assigning a rating, Handicappers may use any data sources as deemed appropriate, including (but not limited to):

Measurements of the boat's sails and rig data as supplied by the applicant or sailmaker.

Hull file geometry as supplied from the ORA data base, a constructed hull file, or factors developed from similar hull data.

Lightship Displacement data as supplied by the manufacturer, contained in the ORA default data file, or researched through other means.

Observed performance and race results of the boat or other boats that are similar.

Boat configuration data maintained by Offshore Racing Association (ORA)

Ratings for the same or similar boats in other areas of the country

Handicaps assume a boat is equipped to race. There are no allowances made for boats in non-race configuration.

For those boats that have a 2022 ORRez certificate, the GYA PHRF certificate is processed using the same information, including the VPP generated 8 TOD ratings. (GPR Spin and Non-Spin ratings are the average of the W/L and RLC for medium wind). **ORRez 2022 TOD ratings have been adjusted to a J/105 OD Control boat's normal PHRF ratings as follows:**

	S W/L LGT	S W/L MED	S RLC LGT	S RLC MED	NS W/L LGT	NS W/L LGT	NS RLC MED	NS RLC MED
TOD								
J/105 OD ORRez	**941.7**	**692.8**	**754.1**	**561.9**	**1027.2**	**709.8**	**833.8**	**597.6**
LESS J/105 PHRF	**150**	**90**	**120**	**84**	**226**	**107**	**191**	**115**
TOD CONTROL #	**791.7**	**602.8**	**634.1**	**477.9**	**801.2**	**602.8**	**642.8**	**482.6**

Subtract the TOD Control # from any ORRez certificate, by above course and wind, to get the corresponding PHRF number for that boat.

One Design Templates used for ORRez rated one design boats, such as the Viper 640, Melges 24 and several others, produce the same information and 8 ratings for the GYA PHRF one design configured boats. GYA PHRF certificates will be updated for exact matched 2022 ORRez certificates as issued or updated.

A. All boats shall meet the following characteristics, or reported and rated modifications, for their certificate to be valid:

a. Moveable ballast boats are permitted.
b. Spars shall be banded (black band on white spars, white band on black spars) for the proper P (mainsail luff) and E (mainsail foot) dimensions listed on the GYA ORA PHRF certificate. Ketch and Yawl rigs will have PY, and EY banded; and, handicaps further assume that, unless reported otherwise:
c. For boats with symmetric spinnakers, the SPL is equal to J or manufacturers specifications. Spinnaker girths will be taken as 180% of SPL.
d. For boats with asymmetric spinnakers, spinnaker girths will be taken as 175% of TPS or manufacturer base boat specifications.
e. The default symmetrical spinnaker luff is taken as 0.95*(ISP^2 + SPL^2)^5
f. The default genoa LP dimension equal to 155% of the J dimension.
g. Using Whisker Pole tacked to mast centerline is allowed.
h. The hull and appendages are unmodified from the manufactured version, except that an owner may fair the hull, keel, and rudder to original design specifications without penalty.
i. Interiors are in the configuration that comes standard from the manufacturer.
j. The owner shall declare any sails or spars with larger dimension, smaller or retractable propellers or lightened interior.

B. One-Design Class Certificate.
ORA may, at its discretion, offer One Design certificates for both designs with current OD Class rules or a group of owners with boats with a given hull that they are willing to agree on the size of sails and other equipment required to compete.

C. Crew
The crew weight will be either the program default or declared. The VPP takes this crew weight into account. Where no declaration of crew weight has been made, a Default Crew Weight will be used. Boats rated to OD class rules will default to class rule crew weight where available. All crew weights will be recommended unless specified otherwise in NORs or SIs.

D. Sail Limitations
Boats are rated to their largest sails by category: headsail (the largest of genoa, reaching, topsail or Code 0 measured as a headsail, mainsail, spinnaker (the largest of Asymmetrical, Symmetrical, or both if rated together) mizzen, and staysails. Boats rated as OD to Class rules, will limit sails to class rules as to dimensions. There is no limitation on sail materials.

Note: boats that fly their largest headsail tacked in front of their measured J dimension, the corrected J (JC) must be given to include the J + the distance from J to the largest headsail tack

point. The distance from the standard I dimension (Jib hoist) to the new I (IC) corrected must also be given. If the boat is rated (or to be rated) and has both an asymmetrical and a symmetrical spinnaker, the dimensions of the largest of each type must be given, and both the SPL and TPS must be given. Dimensions of Code 0s measured as an asymmetrical spinnaker must be given if it is the largest asymmetrical spinnaker being rated.

It is recommended that applicants and certificate holders have their largest sails (above) measured by a sailmaker to the dimensions requested on the GYA ORA-1 PHRF application form (gya-phrf.com). Changes to the dimensions on issued certificates and applications must be reported and rated to validate the certificate prior to its next race.

4. Changes and Adjustments to Handicaps

A If there are changes to the hull, rig, sails, or other factors upon which a yacht' rating is based, they must be reported immediately to the GYA PHRF Rating Committee and rated to validate the certificate prior to its next race.

B. Appeals for certificates marked Provisional

Written appeal must be submitted to the GYA PHRF Committee on the standard PHRF form for Rating Adjustment Requests and follow the procedures included in the GYA PHRF by-laws. The appeal will be reviewed by the GYA PHRF Committee. Supporting documentation, including Copy of Race results must be included with the appeal.

C. Appeals for certificates marked Full Released:

Same as B. above, except the appeal must accompanied by a fee of $25 for review of the applicant's boat or $100 for review of another boat's data.

The appeal will be reviewed by the PHRF Committee and forwarded to the ORA along with the fee. The ORA will perform the final review.

For boats that are rated based on their ORRez certificate or an exact match to a boat with an ORRez certificate or an OD Template, must follow the appeal procedures listed in the ORRez Offshore Racing Rule found at https://www.ofshoreracingrule.org/orr-ez/orr-ez-rulebook.

5. Definitions – See Glossary (including Course & Wind Range definitions:

https://www.regattaman.com/certificates_page.php