

ECSA

Ratings for

**Windward/Leward
&
Random Leg***

**For Race Committees*

Background

Late in 2023, ECSA created a committee composed of 16 ECSA avid racers to develop recommendations about how ECSA could increase participation in ECSA offshore racing events.

Background

One of the key learnings was that there is perceived unfair competition in ECSEA events due to no rating differential for Windward/Leeward and Random Leg Courses. The subcommittee unanimously felt that addressing this would be a welcome improvement in PHRF racing.

PHRF Multiple Ratings

Several PHRF sailing organizations in the United States currently issue more than a single Spinnaker rating per boat to better reflect performance potential across different race types and conditions.

PHRF Multiple Ratings

PHRF of Southern California (PHRF SoCal, and West Florida PHRF (WFPHRF) assign three ratings per boat

Northern California PHRF: Has established Downwind Ratings for specific races

Gulf Yachting Association (GYA)
Offers multiple ratings - windward-leeward and random leg

PHRF Multiple Ratings

PHRF of the Chesapeake Bay

provides two spinnaker ratings: one for Windward/Leeward and one for Random Leg courses to level the playing field.

This multi-rating approach is objective, has been shown to be more effective for mixed-class racing, and is well accepted by racers.

That said...For 2026:

ECSA explored ways to enhance the system developed by Chesapeake Bay:

- The metric for sprit boats did not capture the value of different sprit lengths.
- D/L was missing as an important metric on boat performance.

Metric # 1 - TPS/J (sprit length)

In 2025 our Beta-test algorithm assumed that all sprits produced the same performance effect .

In 2026, using **TPS/J** as a metric, measures how far the spinnaker can be projected forward.

Longer sprits allow larger sails, deeper reaching angles and improved apparent-wind performance.

Metric # 2 - LWL

Provides a modest secondary correction.

Longer waterlines sustain higher speeds on reaches and runs, so they receive slightly larger adjustments.

Metric # 3 - AvPI

(Average Performance Index)

Is a widely used ratio that integrates both upwind and downwind sail power (SA/D) and hull form (D/L) into one metric. This eliminates redundant adjustments and ensures that each boat's performance potential is expressed in one clean, comparable number.

Transparency

The 2026 ECSA algorithm combines the 3 metrics.

TPS/J	LWL	AvPI	ADJ
> 1.6		≥ 0.7	-6
> 1.5		≥ 0.6	-5
> 1.4	≥ 48.00	≥ 0.5	-4
> 1.3	42.00-<48.00	≥ 0.4	-3
> 1.2	36.25-<42.00	≥ 0.3	-2
> 1.1	31.00-<36.25	≥ 0.2	-1
< 1.1	26.25-<31.00	≥ 0.15	0
	22.00-<26.25	≥ 0.10	1
	18.00-<22.00	≥ 0.03	2
	< 18.00	< 0.03	3

Random Leg Adjustment

Every boat in the ECSA database is defined by the 3 metrics.

The adjustment value for each metric is in the matching row of the grid.

TPS/J	LWL	AvPI	ADJ
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	18.00-<22.00	≥ 0.03	2
	< 18.00	< 0.03	3

Transparency

The 2026 ECSA algorithm is published both online and in the yearbook.

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> 1.6		≥ 0.7	-6
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Fairness Review

After applying the updated RL adjustment algorithm to approximately ninety boats, we conducted a comprehensive fairness review to verify that the adjustments behave as expected across all boat types, sizes, sail plans, and design generations.

Fairness Review

The results show that the 2026 model performs consistently, aligns with real-world performance patterns, and produces equitable outcomes for the full diversity of boats in the ECSA racing community.

SUMMARY

These changes create a racing environment that reduces perceived unfair advantages, levels the playing field, and promotes fairer competition.

Summary

The addition of the Random Leg handicap rating for spinnaker class boats will make racing significantly fairer than the previous single-number system, particularly in “mixed-class” races, where SB, HP, and C-class boats are racing head-to-head.

So...

What does the RC need to know?

and

What does the RC need to do?

Course Type Declaration:

Each race shall be designated as either **Windward/Leeward (W/L)** or **Random-Leg (R/L)** by the Race Committee before the start of a race.

Course Definitions:

Windward/Leeward (W/L) Course

The course consists predominantly of upwind & downwind legs, with little or no intentional reaching.

Marks may be fixed or constrained, movable or adjustable, so the Race Committee (RC) can realign the course if wind direction changes.

Course Definitions:

Windward/Leeward (W/L) Course

A course remains classified as W/L based on its intent and initial setup, even if subsequent wind shifts reduce alignment during the race.

It does not convert to a Random Leg race. If fairness or safety cannot be preserved, abandonment, rather than re-rating, is the appropriate remedy.

Course Definitions:

Random Leg Course (R/L)

The course includes a broad mix of points of sail, including significant reaching legs.

Course Definitions:

Random Leg Course (R/L)

Marks are often fixed or constrained (e.g., permanent buoys, geographic features), limiting the RC's ability to realign the course with changing wind direction.

An RL designation is based on course geometry and constraints, not on wind shifts or race-day conditions alone.

Course Type Declaration:

The designated course type shall be stated in the one or more of the following:

1. Sailing Instructions
2. On the course board*
3. verbally prior to the warning signal.

*ECSA Recommends using **W/L** and **R/L** placards on the course board

Scoring:

Windward/Leeward (W/L) races shall be scored using the boat's W/L handicap.

Random-Leg (R/L) races shall be scored using the boat's R/L handicap.

No Post-Race Reclassification

When practicable, the Race Committee may adjust movable marks to maintain the intended orientation of a **Windward/Leeward** course following a persistent wind shift.

Once the warning signal has been made, the declared course type **shall not be changed**, regardless of changes in wind direction, strength, or other conditions experienced during the race.

No Post-Race Reclassification

If, in the judgment of the Race Committee, a wind shift or other condition prevents the course from providing a fair or safe test of skill, the Race Committee may abandon the race in accordance with **Racing Rules of Sailing Rule 32.1.**

Sailing Instructions - Scoring

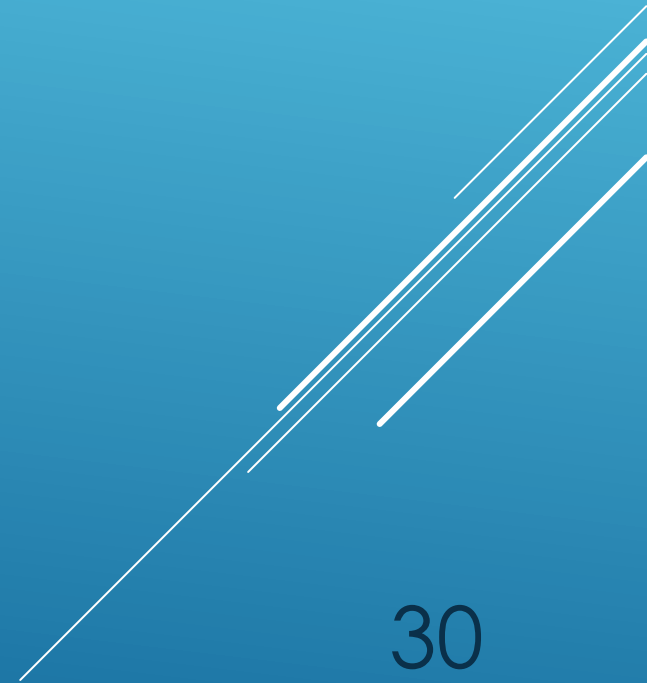
ECSCA recommends including a simple statement in your Sailing Instructions to make scoring designations clear to all racers.

This will help to avoid disagreement among racers and eliminate requests for redress based on scoring decisions.

SI Operative Clause

“The Race Committee's course designation at the starting area shall determine whether the W/L or RL PHRF handicap rating is used for scoring that race.”

Scoring the Race



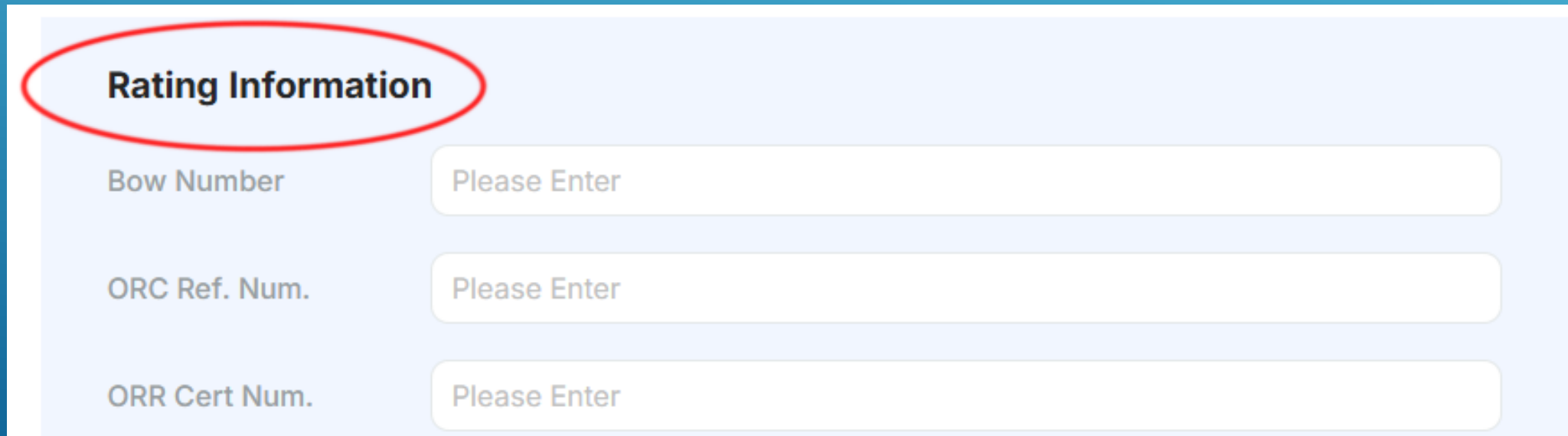
30

Yacht Scoring

Yacht Scoring has the ability to manage multiple handicap ratings.

For Yacht Scoring:

Scroll down to the bottom of the Owner/Skipper's Information column to the section on **Rating Information**.

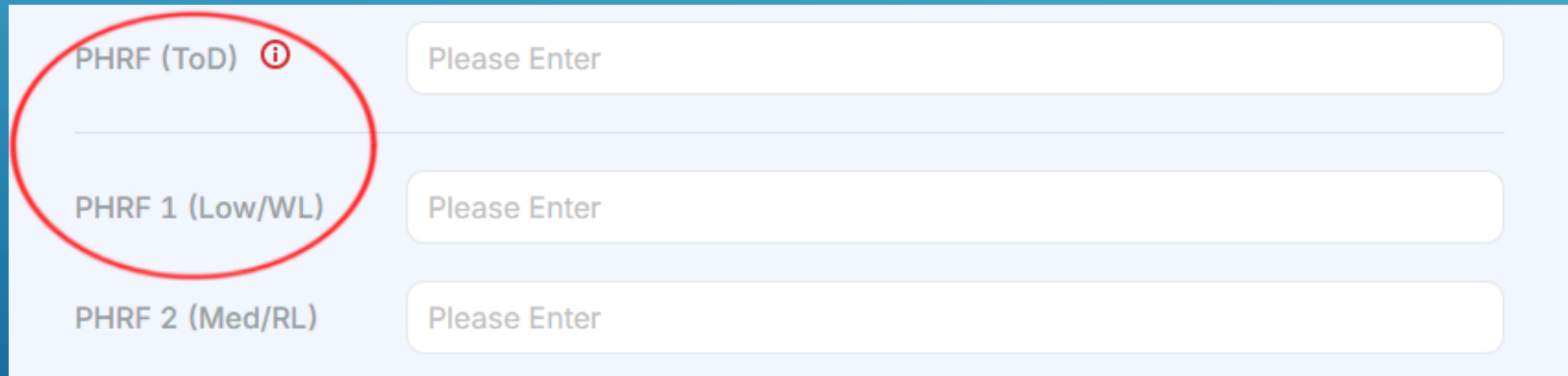


The screenshot shows a form section titled "Rating Information", which is circled in red. Below the title are three input fields, each with the placeholder text "Please Enter".

Rating Information	
Bow Number	<input type="text" value="Please Enter"/>
ORC Ref. Num.	<input type="text" value="Please Enter"/>
ORR Cert Num.	<input type="text" value="Please Enter"/>

For Yacht Scoring:

Racers should be instructed to enter their **W/L** handicap rating in both the **PHRF (ToD)** and **PHRF 1 (Low/WL)** spaces



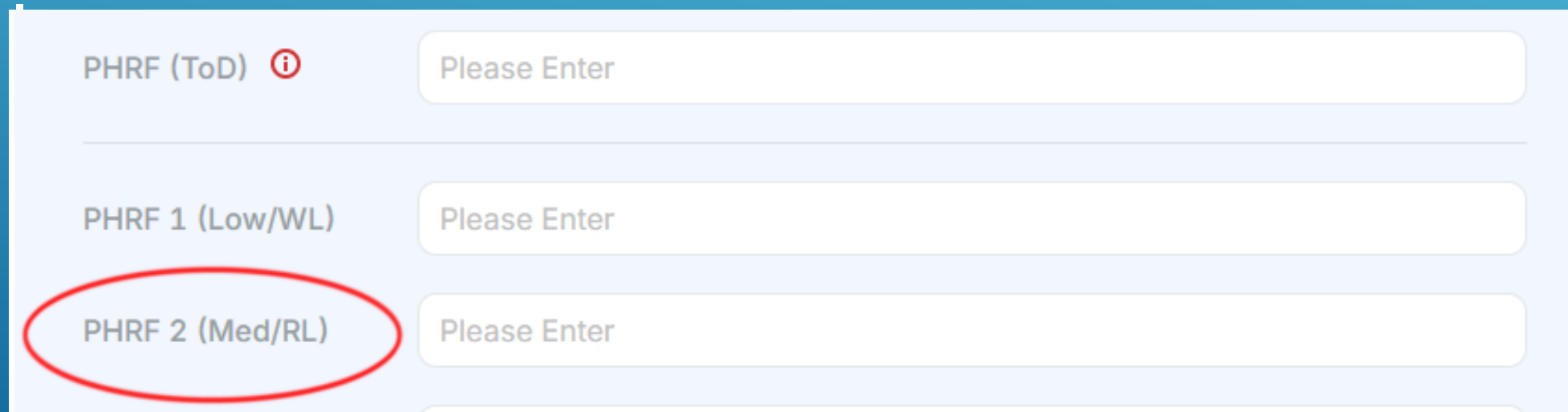
PHRF (ToD) ⓘ

PHRF 1 (Low/WL)

PHRF 2 (Med/RL)

For Yacht Scoring:

Instruct Racers to enter their **R/L** handicap rating the **PHRF 2 (Med/RL)** space.



The image shows a screenshot of a form with three input fields. The first field is labeled 'PHRF (ToD) ⓘ' and contains the text 'Please Enter'. The second field is labeled 'PHRF 1 (Low/WL)' and also contains 'Please Enter'. The third field is labeled 'PHRF 2 (Med/RL)' and contains 'Please Enter'. This third field is circled in red. There is a fourth field partially visible at the bottom, also containing 'Please Enter'.

For Yacht Scoring:

When scoring a W/L race, select either PHRF ToT"PHRF ToT" or Triple+ (2ToT) Low/WL from the drop down list.

The screenshot displays a web interface for managing race information. At the top, there is a header "Current Race Information for This Event" and a blue "Update All" button. Below this is a table with columns: Racing Circle, Division, Class, Class All, Weight, Starting Date, Starting Time, Timezone, Distance, Wind, Rating Selection, and Action. Two race entries are visible, both for "Bob McLellan Spring Series" in the "PHRF" division, "Three - Spinnaker" class, with a weight of 1. The first race starts at 13:00:00, and the second at 13:15:00. A red arrow points from the "PHRF ToT" dropdown menu in the first row to the "PHRF ToT" option in the expanded dropdown menu for the second row. The expanded menu includes options: PHRF ToD, PHRF ToT (circled in red), PHRF Triple+ ToD Low, PHRF Triple+ ToD Med, PHRF Triple+ ToD High, PHRF Triple+ ToD Dist, PHRF Triple+ ToD (2ToT) Low, and PHRF Triple+ ToD (2ToT) Med.

Racing Circle	Division	Class	Class All	Weight	Starting Date	Starting Time	Timezone	Distance	Wind	Rating Selection	Action
Setup For Race # 1											
Bob McLellan Spring Series	PHRF	3	Three - Spinnaker	1	4	7	2026	13:00:00	(GMT -5:00) Eastern Time (U...	PHRF ToT	Save Delete
Setup For Race # 2											
Bob McLellan Spring Series	PHRF	3	Three - Spinnaker	1	4	7	2026	13:15:00	(GMT -5:00) Eastern Time (U...	PHRF ToT	

For Yacht Scoring:

When scoring a R/L race,

select PHRF Triple+ToD (2ToT) Med/RL

Current Race Information for This Event Update All

Racing Circle	Division	Class	Class Alt	Weight	Starting Date	Starting Time	Timezone	Distance	Wind	Rating Selection	Action		
Setup For Race # 1													
Bob McLellan Spring Series	PHRF	3	Three - Spinnaker	1	4	7	2026	13:00:00	(GMT -5:00) Eastern Time (U...	NM	RTs	PHRF ToT	Save Delete
Setup For Race # 2													
Bob McLellan Spring Series	PHRF	3	Three - Spinnaker	1	4	7	2026	13:15:00	(GMT -5:00) Eastern Time (U...	NM	RTs	PHRF Triple+ ToD (2ToT) Med	Save Delete

RACE 2

- PHRF ToD
- PHRF ToT
- PHRF Triple+ ToD Low
- PHRF Triple+ ToD Med
- PHRF Triple+ ToD High
- PHRF Triple+ ToD Dist
- PHRF Triple+ ToD (2ToT) Low
- PHRF Triple+ ToD (2ToT) Med**

Enter Fir

For Yacht Scoring:

If two races will be run on race day, the scoring can be easily done by selecting the correct PHRF rating for each of the individual races.

For Clubspot:

Clubspot does not directly support multiple different PHRF ratings for boats within individual regattas.

But they offer the following workaround:

For Clubspot:

The work around is to create a **custom field** to collect a second PHRF rating as part of the registration.

For Clubspot:

Step 1

Access the Admin Dashboard: Log in as an administrator and select the specific regatta you are organizing.

For Clubspot:

Step 2

Navigate to Registration Settings: Look for the "Custom Form Fields" or "Registration" tab in the left-hand menu.

For Clubspot:

Step 3

Add New Fields:

- Click "Add a Field" or "Create Custom Field".
- Field 1 Label: "PHRF Rating (Random Leg)".

For Clubspot:

Step 4

Set Field Type: Choose "Decimal Number" or "Text" to allow for numerical input.

For Clubspot:

Step 5

Requirement: Toggle the "Required" switch to "Yes" to ensure racers don't skip these fields during registration.

Non-Spinnaker racers may need to enter N/A

For Clubspot:

Step 6

Verify on Entry Form: Use the "View Registration" or "Preview" link to ensure the fields appear correctly for the competitor.

For Clubspot:

To score the Random Leg race, the scorer needs to manually plug in the RL rating into the scores.

For that, download the registration list to retrieve that custom data. Then, for each boat, plug in the Random Leg rating in the scoring panel.

For Clubspot:

Access and export this data for the scorer to use.

- From the entry list select export in the top right
- Choose participants as the export type. That export will contain the secondary, R/L PHRF rating.

Questions?