

# Introduction to Dual Handicap Rating System

- What is it?
- Why was it developed?
- How does it work?
- What are the plans for 2025?
- How can clubs help?

# 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 ECSA 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.

## Background

Performance Handicap Racing Fleet (PHRF) was established in Southern California in the late 1970s to handicap yachts when displacement boats incapable of prolonged surfing or planing dominated the racing scene.



## Background

PHRF used a single-number rating system, which worked well for many years, but has become inadequate given the wide variety of boat designs racing today.





## Background

Lighter boats with high-performance hulls and more recently sport boats did not exist when PHRF was developed.

These boats exhibit very different performance characteristics when compared to older displacement boats.



## Background

Today, wide-ranging designs with unique performance traits and wide-ranging PHRF ratings are racing head-to-head in the same class on all types of courses. The single-number ratings of the past no longer effectively address these variations for different types of courses.



Leading racing areas like Southern California and the Chesapeake Bay have developed multiple ratings to better accommodate this diversity.

Southern California offers three PHRF ratings for different course types: Windward/Leeward, Random Leg, and Downwind.



The Chesapeake Bay provides two ratings for Windward/Leeward and Random Leg courses. This multi-rating approach is well accepted and has proven more effective for mixed-class racing.

ECSA aims to implement a similar system to improve fairness and participation in its events.

# What is the Random Leg Handicap?

The RL adjustment is a sum of credits and penalties combined with the existing handicap, based on characteristics that reflect the different speed potentials and mitigate the inherent differences between boats.

- Waterline: Boats with longer waterline lengths sail faster on reaches.
- Upwind Sail Area/Displacement Ratio (UpSA/D): Heavier boats sail slower than lighter boats on reaches.
- Downwind Sail Area/Displacement (DnSA/D): Larger spinnakers provide more power on reaches.
- Sprit Boats with asymmetric spinnakers sail faster on reaches than those with symmetric spinnakers.

ECSA's PHRF council has analyzed and refined the rating system developed by the Chesapeake Bay area. We developed an algorithm that removes subjectivity and enhances the fairness of the handicaps for Random Leg races.

SPRIT					
UpSA/D	UpSA/D	DnSA/D	LWL	ADJ.	
>25				-6	
>23				-5	
>21				-4	
>19	> 27	> 70	>35	-3	
>17	24	>60	>32	-2	
>16	>21	>50	> 30	-1	
≤16	>18.5	≤ 50	>28	0	
	>16		>26	1	
	≤ 16		>24	2	
			≤ 24	3	



Under this system, each boat in the spinnaker class receives two ratings. One rating is for Windward/Leeward (**W/L**) courses, and the other rating is for Random Leg (**RL**) courses.

The windward/leeward rating is the same rating that racers have used for many years.

W/L Spin RL		Non-Spin
.9420	.9129	.9380
Time-On-Time Correction Factors Note: HRF = (650 / TCF) - 550)		
SA Handicap		
Handicapper Adjustments		
Boat Type:	CHANCE CSTM 32 (Arabesque as sailed)	J: 12.52
Handicap adjustments (+/- secs. per mile)		
	Spinnaker	Non-Spinnaker
Base Handicap	140	162
Excess Mainsail Girth	0	0
Actual E/Std E= 110.00	0	0
LP/J= 154.87	0	0
1.8*SPL/J or G/SPL or SMW/SPL= 1.80	0	
AMG/TPS=	0	
Deck-Tacked TPS/J= 100.00	0	
Mast Actual "I"/std. "I"= 100.00	0	0
Propeller:	0	0
Recreation Credits:	0	0
Misc.:	0	0
Above-Deck Headsail Roller Furling:	0	0
(B) A Handicap		3
W/L Handicap	140	162
RL Handicap	143	

## **Course Definitions:**

To be clear about which rating applies to the different types of courses, we have developed course definitions as a guide to determine the correct handicap rating to be used for Windward/Leeward and Random Leg courses:

## Windward/leeward Course:

The intent is a racecourse with multiple legs marked by fixed buoys or drop marks that involve sailing directly into the wind (windward mark) and then sailing with the wind at your back (leeward mark). There are no reaching legs in a Windward/leeward course. The race committee may include an offset mark and adjust the course marks to maintain a windward/leeward format before and during the race.

## Random/leg Course (RL):

An ordinary buoy racecourse with fixed and drop marks in a given sailing area. The course may include legs to windward, leeward, reaching legs, triangle courses, or random leg marks resulting in multiple wind directions throughout the course.



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

These changes aim to create a racing environment that minimizes perceived unfair advantages, leveling the playing field, and promoting fairer competition.

## Plans for 2025

ECSCA will continue using the traditional, single-number ratings (the W/L rating) for the 2025 season.

**Clubs will submit race results using the W/L handicap rating.**

## Plans for 2025

ECSA will rescore and analyze the results of each Random Leg race based on the appropriate rating for each spinnaker class race following each regatta. The results will be posted on the ECSA website for all to see and compare.



## Plans for 2025

The RL scoring will be used behind the scenes to evaluate the dual rating system.

The RL scoring will only be used for references. No prizes or awards will be associated with the RL scoring.

## Plans for 2025

This approach will enable us to review and, if necessary, adjust the random leg rating. Our plan is to adopt the dual rating system in 2026.

## Plans for 2025

For this to run according to plan, we need your help.

## Plans for 2025

### **Each Club is asked to:**

Identify each spinnaker-class race as either a Windward/Leeward or Random Leg race based on the definitions.



## Plans for 2025

**Each Club is asked to:**

Forward race information and results  
to Bill Tyler and Blake Marriner.

## Plans for 2025

Bill will post the official results on the ECSA website, as he has in previous years.

## Plans for 2025

Blake Marriner will rescore RL races using the RL rating and post the results on the ECSA website within a few days, allowing competitors and organizers to familiarize themselves with the new ratings and evaluate their impact on scoring.

## Plans for 2025

To do this, Blake will need the following:

1. Boat names and class of boats that participated in each spinnaker race.
2. Race results (from Yacht Scoring, Club Spot, or any other system)
3. Elapsed time for each boat completing the course (if not included in the race results)

Questions?  
Comments?  
Concerns?