

SMBC Sailboat Race

The SMBC uses a modified Portsmouth Yardstick Handicapping System because of the smaller size of the club and the variety of boats that race in the Club's Series. The system employs the Beaufort Wind Scale in its handicapping system. The following formula is used to handicap the sailboats racing in the SMBC Racing Series:

$$\text{Corrected Time} = (\text{Elapsed Time} * 100) / \text{Handicapped Time}$$

To determine the corrected time, the actual "Elapsed Time" (recorded by the SMBC Committee Boat) is adjusted first by establishing the Beaufort Wind Scale. The wind is taken three times during the race: the beginning, midway and the end of the race. The three wind speeds are then averaged to determine the actual wind speed for the race. This wind speed is then identified on the Beaufort Scale and the corresponding number of the Scale is used in handicapping the boats for the race.

Beaufort Number	Wind Velocity		Seaman's Term	Sea Condition	Typical Wave Height Feet	Typical Condition Attainment Time
	(Knots)	(MPH)				
0	0-1	0-1.7	Calm	Glassy-smooth, mirror-like	Smooth	--
1	2-3	1.8-4.0	Light air	Scale-like ripples	Ripples	1-10 min
2	4-6	4.1-7.4	Light breeze	Small, short wavelets with glassy crests	1/3	5-15 min
3	7-10	7.5-12.0	Gentle breeze	Large wavelets, crests begin to break, occasional form	1-2	5-20 min
4	11-16	12.1-18.9	Moderate breeze	Small waves, some whitecaps, more frequent form	2-3	15-60 min
5	17-21	19.0-24.7	Fresh breeze	Moderate longer waves, better formed, many whitecaps, much foam, some spray	3-4	15-60 min

6	22-27	24.8-31.6	Strong breeze	Large waves form, many whitecaps, foam everywhere, more spray	4-5	1/4-2 hr.
7	28-33	31.7-38.5	Moderate gale	Sea heaps up, streaks of foam spindrift begins	5-6	1/2-3 hr.
8	34-40	38.6-46.6	Fresh gale	Moderately-high long waves, crests into spindrift, well-marked streaks of foam	6-7	1/2-3 hr.
9	41-47	46.7-53.9	Strong gale	High waves, sea rolls, dense streaks, spray affects visibility	7-9	1/2-4 hr.

The Beaufort Number is used to determine the proper column of the handicapping system for each boat raced. This handicap number is used to determine the "Handicapped Time." Knowing the handicapped time one can then use it with the elapsed time and the formula above to determine the corrected time.