

Mark	Distance From To	Naut Mi	TRUE Bearing	Opposite Bearing
1	2	0.3	320	140
1	3	0.7	290	110
1	4	1.1	260	080
1	5	1.3	230	050
1	6	0.7	240	060
2	3	0.5	270	090
2	4	0.9	250	070
2	5	1.3	220	040
2	6	0.7	210	030
3	4	0.5	230	050
3	5	1.0	200	020
3	6	0.6	170	350
4	5	0.6	180	000
4	6	0.5	120	300
5	6	0.6	050	230

Formula for race time prediction: (2W + L) ws = Race Duration .

"W" = Windward course, doubled for tacking allowance. "L" = Leeward leg, (add both legs of reaching course, etc..)

"ws" = windspeed *expressed in terms of boat speed* with three options, 1. Light = 30 (min./mile), 2. Moderate = 15 (min./ mile), 3. Good = 10 (min./ mile)

Light breeze..2 knots = 30 minutes / nautical mile

Moderate wind speed ...4 knots = 15 minutes / nautical mile

Good breeze ...6 knots = 10 minutes / nautical mile

For a 6 2 3 course, as raced Wednesday, 07/05/06 in good breeze, race lasted < 30 minutes...add 30 minutes for last place = one hour max.

(2 x 0.6 miles + 0.7 + 0.5)30 = 2.4 x 30 = 72 minutes(Light air) / 2.4 x 15 = 36 minutes (moderate) / 2.4 x 10 = 24 minutes (good air.)

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RACE COMMITTEE GUIDE TO RACE DURATION

To determine approximate race duration, decide which course fits the prevailing wind best, bearing in mind the first mark should be into the wind. Using this chart you can create a race of the desired length, hopefully about an hour.

You may choose to use a course as listed, or add two courses together, ie, add a 6 2 3 and a 6 3 for a course of 63 minutes, (36 + 27), in moderate air, etc.

"Light " Boats are moving, but without enthusiasm. Flags are moving but not in a way which will wear them out.

"Moderate " Boats are sailing comfortably and everyone's smiling. Flags are waving like in the pictures.

"Good " Boats are heeling and some crews are grinning broadly while others seem to be doing a lot of shouting. Flags are earning their keep.

Remember, the race will last no longer than thirty minutes after the first boat in that fleet finishes.

Course	wind condition		
	light	moderate	good
1 3			
1 5			
1 - 2 - 4			
1 3			
2 5			
2 5 6			
2 3 5			
3 5 6			
4 5 6			
4 6 2			
4 5 6			
5 2			
5 6 2			
6 -2- 3	1 hr 12 min-	36 min	25 min.
6 - 3	54 minutes	27 min	18 min
6 3 4			

Of course winds are capricious, but if we're shooting for one hour races, based on the breeze at the starting time, a dying wind can still get us home before dark. And the rare occasion when it fades to zero is not worth planning all our races for thirty minutes!