

ORC / SETTING THE COURSE – COURSE DISTANCE

ORC International and ORC Club certificates with an optional second page show time allowances for pre-selected course types as follows:

Time allowances are shown in s/NM that allows easy calculation of length of the course needed to achieve target time for finishing. For example, if there is a windward/leeward race planned with a target time of 01:15:00 hours, the length of course is calculated as:

Target time = 01:15:00 = 4500 s

Observed wind speed: 10 kts, Time allowance at TWS of 10 kts = 529.9 s /NM

Length of the course: Target time / Time allowance = 4500 / 529.9 = 8.49 NM

Using the same calculation method for wind of 12 kts and same target time length of the course would yield a result of 9.12 NM. Using this approach, it is easy to build a table of length of the course as a function of wind strength as shown in the example below for a Target time of 01:15:00.

Wind speed (kts)	6	8	10	12	14	16	20
Time Allowance (s/NM)	749.0	606.1	529.9	493.4	468.9	442.4	397.2
Length of the course (NM)	6.01	7.42	8.49	9.12	9.60	10.17	11.33
Length of the 1st leg (NM)*1.55		1.91	2.17	2.33	2.45	2.59	2.88

* Assuming 2 laps course with 2 windward and 2 leeward legs and the leeward gate at **about 0.1 NM windward for the starting line**

Once the total course length is calculated it is easy to divide it by the number of leg/laps and give this information to the mark set boat on where to set up a windward mark.

Source: ORC Race Management Guide'20