

About Time Correction Factor

TCF is a handicap that is displayed as a four decimal number, with the maximum TCF of 1.000. A handicap time is achieved by multiplying the boats scratch time by the TCF.

Calculating the handicap place

As mentioned before the handicap place in a race is achieved by multiplying the boat's TCF by their elapsed time. This in turn creates their handicap time. Of course the handicap time will be equal or less than the scratch time, because it is being multiplied by a number between equal to or less than 1.000

The boat with the lowest handicap time wins that race. This place is then put towards the overall handicap pointscores.

E.g. In the National Championships race 5, "Nick off" has a TCF of 0.8341 and an elapsed time of 1hr 3min and 56sec. Therefore the handicap time is calculated as followed;

$$\begin{aligned}
 &= \text{TCF} \times \text{Elapsed Time} = \text{Handicap Time} \\
 &= 0.8341 \times 1:03:56 = 0:53:20
 \end{aligned}$$

The winner on handicap in this race is the boat with the lowest handicap time.

Calculating the TCF for each race

The TCF used for each race, is the averaged TCF of the previous race. Meaning that every race a boat has sailed influences a TCF. A TCF for an individual race is found by dividing the best time in that race by the boats elapsed time. To best understand how it works I will use an example.

E.g. The TCF to be used at the National Championships for race 7 for "Nick Off" is found as followed;

Race 1		Race 2		Race 3		Race 4		Race 5		Race 6
Best Time		Best Time		Best Time		Best Time		Best Time		Best Time
	+		+		+		+		+	
Elapsed Time		Elapsed Time		Elapsed Time		Elapsed Time		Elapsed Time		Elapsed Time

*(What is mean by "best time" is the fastest elapsed time in that race.
While "elapsed time" is the boats time in that race)*

All of these are then divided by the number of races counted, i.e in this case 6. This gives the average TCF of the previous races. This number is then rounded to four decimal places and is used as the TCF to use for race 7. This is then multiplied by the elapsed time to find the handicap time for race 7.

As it can also be seen, the boats time in a race does not count towards that race. i.e. a TCF calculated for race 7 is not used at all to calculate the handicap time in race 7, rather in race 8 onwards.

If as a result of calculating the TCF above, a number is less than 0.6000 it is rounded to 0.6000. This prevents a boat being so far behind in handicap that it can't catch up. If a boat does not finish a race, the TCF is carried on from the previous race and not changed. This means that if a TCF before race 5 was 0.765 then in race 5 they are DNF their TCF to use for race 6 will also be 0.765. This is fair because it does not advantage nor disadvantage a boat that does not sail.

(What is mean by "best time" is the fastest elapsed time in that race.

While "elapsed time" is the boats time in that race)

Calculating the initial TCF

So what TCF is used for race 1? It is not fair to start everyone on a TCF of 1, so what happens is that we find the boats average TCF.

Therefore the initial TCF is achieved by averaging the TCF of races 1-3. This average TCF is then applied to race 1-3 to find the handicap place in these races.

Therefore don't expect to see handicap results in the individual race sheets for race 1 – 3.

If a boat does not race for race 1 – 3 their TCF is made to be 1.000 because there has been nothing to average off. Also if a boat only races for two or three of the races, their TCF is averaged for the number of races sailed.



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