

For Off Soundings Club

The Off Soundings Club awards a handicap penalty to prior 1st, 2nd or 3rd place finishers in a Race Series, to a maximum of 45%. The process is to adjust the PHRF rating by subtracting twice the value of the percentage awarded and to use the resulting new rating in the calculation of Time Allowance (in Time-on-Distance), and now in the calculation of Time Correction Factor (in Time-on-Time), as:

$$\text{newRAT} = (\text{PHRF}) - [(2) * (\text{PE})]$$

For example, a yacht having a PHRF = 72 and carrying a 15% penalty would have a newRAT of  $72 - [(2) * (15)] = 42$ .

For Time-on-Time, the standard expression:

$$\text{Time Correction Factor} = \text{TCF} = \frac{600}{480 + \text{PHRF}}$$

then, for Off Soundings, becomes:

$$\text{Time Correction Factor} = \text{TCF} = \frac{600}{480 + \text{newRAT}}$$

Time-on-Distance

Clock Time - Start Difference = Elapsed Time

X Elapsed Time X Time Allowance = Corrected Time

$$\text{Time Allowance} = \frac{(f) * (\text{Distance}) * (\text{PHRF})}{60}$$

f = factor (usually 1.00; sometimes 1.3 for Cruising Canvas Class)

### Time-on-Time

Clock Time - Start Difference = Elapsed Time

(Elapsed Time)\*(Time Correction Factor) = Corrected Time

$$\text{Time Correction Factor} = \text{TCF} = \frac{600}{480 + \text{PHRF}}$$

TCF Examples:

1.1321	(@ PHRF = 50)
1.0000	(@ PHRF = 120)
0.8219	(@ PHRF = 250)

Note that the 30-minute penalty for being up to 5 minutes over early and failing to return for a proper start is added on to the Corrected Time, as the final step, in Time-on-Time.