



# Time Limit Extensions - SI Guidance

## Time Limit Extension for Handicap Fleet Racing:

Sailing Instructions usually specify a time limit based on the planned start time and race duration. To ensure 'Fair Racing' as per the RYA Racing Charter, it is also normal practice to specify a time limit extension such that the slowest handicap yacht in the fleet, when sailed to its handicap, should be able to finish even if the fastest handicap yacht only just finishes within the primary time limit.

$$TLE = (TL - TS) \times [(HS/HF) - 1]$$

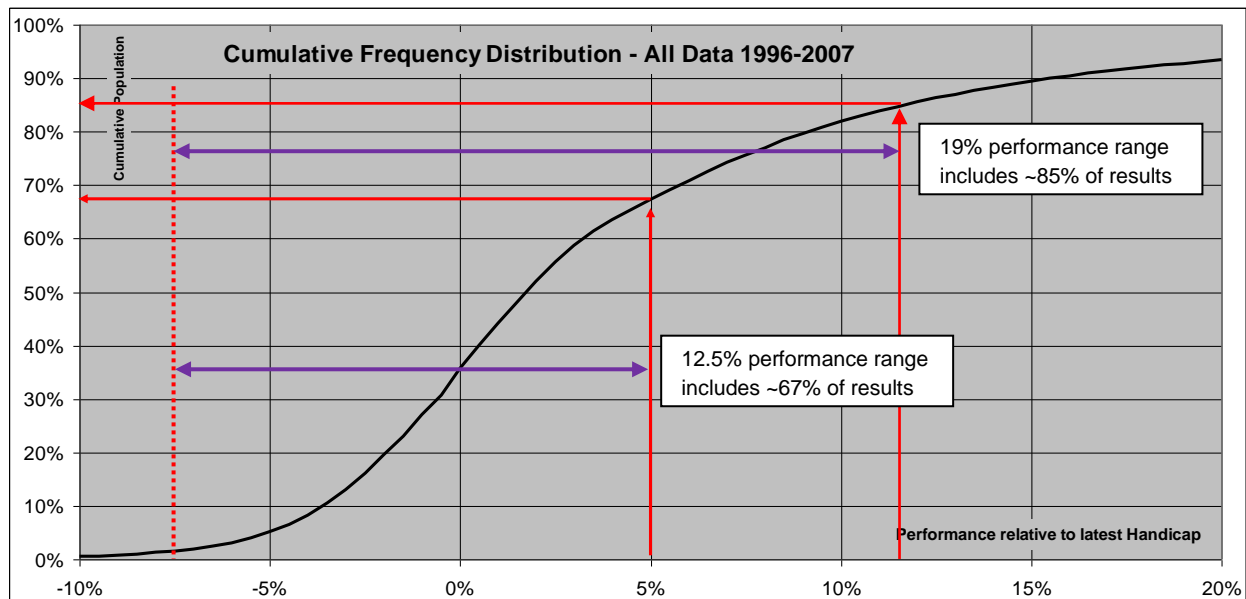
Where

TLE	=	Time Limit Extension
TL	=	Time Limit
TS	=	Start Time
HS	=	Slowest Handicap in fleet (PY)
HF	=	Fastest Handicap in fleet (PY)

Hence for a fleet with a Portsmouth Yardstick handicap range of say 120% (HS/HF), then the time limit extension should be at least 20% of the race duration (Start Time to Time Limit).

## Additional Performance Allowance:

For satisfactory racing, particularly at club level, an additional allowance to cover some proportion of the typical range of achieved performance across a fleet should be included. The FYCA yacht performance database, based on RYA YR2 assessments (32,000+ achieved performances over 20 years) shows a skewed distribution that is Log-normal, rather than Gaussian, because it is easier to make mistakes than to avoid them. On average, 67% of performances are faster than the SCT (Standard Corrected Time) +5%, which is the YR2 'poor performance' limit. Performances faster than SCT -7.5% are rare, only ~1.3% of the total. Hence an allowance of 12.5% for performance spread should cover about two-thirds of a fleet on average. The cumulative frequency graph below shows that to include, say 85% of a fleet, the allowance would have to be -7.5% to +11.5%, a total of 19%.



## Recommendation:

Time limit extensions must cover, at a minimum, the fleet handicap range. To be fair to the less skilled competitors, often sailing slower handicap yachts, a performance spread allowance should be added to provide an opportunity to finish. If the Sailing Instructions specify an extension that is added to a defined primary time limit, then allowing 10% for performance spread, on top of the handicap range, would be reasonable since the leading yacht will finish within the primary time limit. If the Sailing Instructions specify an extension starting from the first finisher, then the additional performance spread allowance should be larger.

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