



## Calculation method used in the web site ranking table

### 1. Definitions.

*Note - distances* are taken as rhumb line or where appropriate, great circle.

*Course Distance* CD = the shortest distance from the start line, round each of the rounding marks and passing each of the passing marks, to the finish.

*Distance to Finish* DTF = the distance from a boat's given position to the next rounding mark, plus the course distance from that rounding mark to the finish.

*Distance Travelled* DT = (CD – DTF)

*Elapsed Time* ET = time elapsed since start until time at boat's given position (time units used in the web site calculator are seconds)

*Corrected Time* CT = ET \* TCC for the given boat

TCC = IRC time corrector (printed on the IRC rating certificate)

### 2 Calculation.

$((CD/DT) * ET) * TCC = CT$

The boats are then ranked with the smallest CT first.

The calculation for each boat in effect finds the average speed to cover distance travelled DT then applies that average speed to the entire course and produces a corrected time CT.

### 3 Observations

3.1 The method integrates classes starting at different times because it takes each individual boat's elapsed time ET combined with her distance to finish DTF (then projecting her average speed to the finish). For the same reason the method works just as well when boats' reports come in at different times.

3.2 The expression "distance travelled" DT is notional and may not be the same as the actual distance along her track travelled by the boat from the start (for example, if the boat has taken a detour to find wind or to find a favourable current).

3.3 The method is only an approximation best understood by remembering that it has to assume that *if all boats maintained to the finish, the average speed they got up to now, this would be the result.* In real life much can change between where boats are now, and the finish!

Alan Green Race Director HSH NORDBANK blue race 27/6/07 v 2.1