

8/26/93

**OFF SOUNDINGS CLUB - SCORING SYSTEM STUDY
TIME ON DISTANCE (TOD) VS TIME ON TIME (TOT)**

PHRF- Single handicap typically represents speed potential of a boat at approximately 10 knots wind, Olympic course or one with approximately 30% beat.

TIME ON TIME SCORING- This system has the potential to correct the handicap differences due to course content and wind speed but will not correct for boat design. Generally, in heavy conditions to weather and in light conditions larger boats have the advantage while in races sailed predominately off the wind smaller boats have the advantage under time on distance scoring. Time on time scoring is recommended when PHRF rating spreads are 30 or greater especially when courses around fixed marks may result in course content differing greatly from Olympic conditions or base wind speed conditions.

FORMULA - TIME ON TIME (TCF - TIME CORRECTION FACTOR)

$$TCF = 600/480 + PHRF$$

Modified for Off Soundings penalties the formula would be:

$$TCF = 600/ 480 + [PHRF -(2*Penalty \%)]$$

ENTRY LISTING (SCRATCH SHEET) - For time on time scoring the D1 and D2 allowance notations on our entry listing would be replaced with a Time Correction Factor (TCF). This TCF would be the product of the formula:

$$TCF = 600/480 + [PHRF -(2*Penalty \%)]$$

An entrant's elapsed time, less the time from the timing clock's start to the entrant's class start, is multiplied by the resulting TCF to obtain Corrected Time.

DATA PRESENTATION - Attached sheets represent three (3) classes over six (6) historical Club races comparing results of our usual time on distance calculation vs what would result with a time on time calculation with penalties removed. The classes are A-2, C-4 and Cruising. The races are Spring and Fall of 1992 and Spring of 1993.

RACE CONDITIONS - Weather conditions and course lengths are briefly described for better analysis of data presentation.

Spring 1992 - Long and short course boats sailed their respective courses both Friday and Saturday. Friday's start was in 5-6 knots of breeze continuing light during the second leg. Wind developed into a 12 - 15 knot breeze by the finish. (Summary - light to medium day). Saturday was judged to be a medium breeze for the entire race.

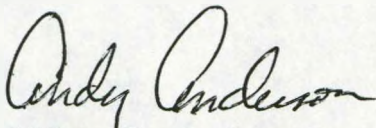
Fall 1992 - Long and short course boats sailed their respective courses both Friday and Saturday. Friday's start was in light variable air with holes on the first leg. In Gardiner's Bay for the finish the winds were in excess of 15 knots. Saturday's start was in over 18 knots of air but died during the race so that boats finished in 12 down to 8 knots for the late finishers,

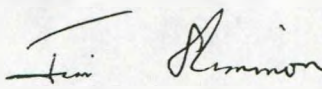
Spring 1993 - Long and short course boats sailed their respective course Friday and all classes sailed the short course Saturday. Winds of 15 - 20 knots existed for the entire race Friday with no windward work. Very light air produced a slow windward first leg on Saturday. The breeze increased during the day but never got much over 12 knots.

CONCLUSION AND RECOMMENDATION -It appears that time on time does a better job than time on distance of compensating for varying course, current and wind conditions. We believe that the Race Committee, Race Secretary and Measurer can assimilate this revised scoring system without appreciably more difficulty than they experience with the current system.

Based upon the above, we would favor installing the time on time system in 1994 and evaluating it at the end of 1994 for future use. However, others have to make this system work.

Therefore we recommend that the Race Committee Chairman, Race Secretary and Measurer review this information and conclusions and recommend to the Board whether Off Soundings should stay with time on distance or use time on time for the 1994 season and evaluate it for future use.


Allen N. Anderson


James B. Slimmon, Jr.

August 26, 1993

CHANGE in COURSE ON SITE
2 YR TROPICS?