

TopYacht – Adds a new Time based HC method for Pursuit Racing. 20110409

Background

Currently TY allows for manual pursuit HC updates and for auto updated pursuit HCs based on corrected time.

This second alternative has been very successfully used by a number of clubs. It provides sensible HC updates irrespective of race conditions as the update is based on HC corrected time. It is based on boat TCFs and the estimated time of the slowest boat around the nominated course. This method is very useful if you wish to run a Series with some pursuit races and some standard HC corrected time races.

New method introduction

The key problem with the TCF based approach, is that a number of sailors can not grasp the concept that place (ie based on finish time not HC corrected time) does *not* directly impact the HC for the next race.

After exploring a number of possible alternatives the following method has now been implemented in the TYAphaApha test. It uses a time HC in minutes.

Example using exponential HCing with a gain of 2.

$$T_{chc} = T_{ahc}/2 + T_{bch}/2.$$

Where..

Tchc is the Time based Calculated HC for the next race.

Tahc is the Time based HC Allocated for this race

Tbch is the Time based HC a boat needed to be equal winner for this race.

With a gain of 2 the ratio of Tahc and Tbch is as shown above. This can be altered to other values if desired.

Initial experiments show that this provides very sensible results for existing race data. And, the HC adjustments are (to a greater or lesser degree) affected by place. If you do well your time HC will probably increase, if you do poorly then it will probably reduce. See example below.

| Div No | Place | Sail No | Boat Name | Skipper | Fin Tim | Elapsd | T ahc | T bch | T chc |
|--------|-------|---------|-----------------|------------------|----------|----------|-------|-------|-------|
| 1 | 1 | G601 | FABULOUS ACTION | Jonathan Apted | 19:34:47 | 01:18:47 | 16 | 21.3 | 19 |
| 1 | 2 | H2002 | LEETO | Kevin Bell | 19:35:06 | 01:19:06 | 16 | 20.9 | 18 |
| 1 | 3 | G12 | GREAT OCEAN | Tony Hobba | 19:35:45 | 01:24:45 | 11 | 15.3 | 13 |
| 1 | 4 | G105 | MCKENZIE COMPO | Tony McKenzie | 19:37:02 | 01:17:02 | 20 | 23.0 | 22 |
| 1 | 5 | 8118 | CITY LIMITS | Richard Ince | 19:39:25 | 01:23:25 | 16 | 16.6 | 16 |
| 1 | 6 | G5038 | CINQUANTE | Ian Murray | 19:39:36 | 01:16:36 | 23 | 23.4 | 23 |
| 1 | 7 | G328 | VALIANT | Gerard O'Brien | 19:40:02 | 01:21:02 | 19 | 19.0 | 19 |
| 1 | 8 | G2377 | OCEAN ROAD | Russell Gray | 19:40:21 | 01:24:21 | 16 | 15.7 | 16 |
| 1 | 9 | G1111 | LARRIKEN 2 | Darren Pickering | 19:40:23 | 01:23:23 | 17 | 16.7 | 17 |
| 1 | 10 | G77 | BAD INFLUENCE | Bakker Wolff | 19:40:34 | 01:22:34 | 18 | 17.5 | 18 |
| 1 | 11 | G3 | VICSAIL GEELONG | Malcolm Eaton | 19:41:00 | 01:21:00 | 20 | 19.0 | 20 |
| 1 | 12 | G351 | INSPIRATION | Peter Cameron | 19:41:51 | 01:31:51 | 10 | 8.2 | 9 |
| 1 | 13 | G99 | HAPPY HOUR | Brendon Lee | 19:42:35 | 01:27:35 | 15 | 12.5 | 14 |
| 1 | 14 | G37 | SNOWBIRD | Terry Reichl | 19:46:11 | 01:34:11 | 12 | 5.9 | 9 |
| 1 | 15 | G98 | LADY BAY | David Radbourn | 19:48:57 | 01:39:57 | 9 | 0.1 | 5 |
| 1 | 16 | G16 | BUNDABERG | John Kint | 19:59:18 | 01:36:18 | 23 | 3.7 | 16 |
| 2 | 1 | G1259 | WEREWOLF | Fraser Rudland | 19:12:42 | 59:42 | 13 | 17.3 | 15 |
| 2 | 2 | G34 | LIQUID ASSET | Paul Smedley | 19:13:39 | 58:39 | 15 | 18.3 | 17 |
| 2 | 3 | 5877 | HYDRO THERAPY | Mike Trickey | 19:14:46 | 57:46 | 17 | 19.2 | 18 |
| 2 | 4 | G276 | BILLYCART | Jock Forbes | 19:15:52 | 57:52 | 18 | 19.1 | 19 |
| 2 | 5 | G1125 | FLEURIEU WARRIC | Trevor Brown | 19:16:09 | 59:09 | 17 | 17.8 | 17 |
| 2 | 6 | G224 | CHAMPION | Steve Williams | 19:16:59 | 01:06:59 | 10 | 10.0 | 10 |
| 2 | 7 | G1256 | TIME OUT | Lovro Ljubanovic | 19:17:05 | 01:02:05 | 15 | 14.9 | 15 |

Green Background is HC Reference Boat

This Group ALL Groups Close

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Changes in HC set Up to suit the PursuitTimeHC method

You can now use the new “Time (pursuit)” Handicap Option.

Once this is set then you can choose a HC maths, clamps etc.

Important Note: The clamps etc are set in minutes if you select this Handicap Type.

Expansion of new method

In the simple example above the maths was set to Exponential with a gain of 2. As most clubs want their pursuit to alter very quickly this is a good option particularly if you set suitable clamps and limits.

If you wish to provide a larger change for the front runners and the tail end Charlies then you could use the Place Biased Exponential. This changes the boat's HC by a factor depending on their place as well as their Tbch. You could use the “20] Add Place Penalty” but this suffers from the major deficiency that the penalty is fixed irrespective if a boat won by 1 second, 1 minute or 1 hour. *Such an approach seems totally unfair.*

Importance of Pursuit racing

Pursuit racing is a very popular format for twilight racing and, in some clubs, for weekend racing as well. To keep the faith of these sailors and to provide fair and exciting racing I believe it is very important that the race committee put considerable effort in providing racing that meets the requirements of pursuit racing. I am not sure that all race committees understand the requirement of fair pursuit racing. See the next section.

Very Important Notes!!!

*Any form of pursuit racing **must** be based on a nominal race time for the slowest boat.*

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The **initial time HCs** must be calculated by some sensible maths that starts with one fundamental fact – the anticipated time for the slowest boat to complete the nominated course. Once this value is settled upon, then the offset for other boats can be calculated.

No matter how the Hcs are then adjusted, the results and the HC adjustments are nonsense unless significant effort is made to have the race finish at the anticipated time. ***This becomes a race management issue not a HCEr issue.***

It cannot be emphasised enough - a pursuit race must finish at approximately the nominated race time or the race HCs become nonsense as does the adjustment of HCs for the next race – irrespective of how the HC are adjusted!

Unlike the auto adjusting HC corrected time option in TY, this new system does not require you to input an estimated elapsed time for a nominate TCF (AHC). While this may appear to be an advantage, it also means you do not have the facility to adjust this on a race by race basis so it is up to race management to manage the race duration either by nominating or setting a suitable course, or shortening the race if the wind is unkind and dies during the race. If the wind actually increases then?????

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