HalSail FAQ

How does HalSail handle the National Handicap scheme for Cruisers (NHC)?

NHC is a scheme of progressive handicapping designed by the UK's Royal Yachting Association. It aims to improve the fairness of handicaps by gradually altering them based on each boat's performance. Details are available from the RYA.

HalSail implements this by calculating a new handicap for each boat after every race in a series for any class whose handicap type is NHC. The new handicap is used for the next race in the series, whereupon another new handicap is calculated for the race after that, and so on. Note that to generate new handicaps there must be at least three finishers. If a race has only one or two finishers the handicaps will remain unaltered for the next race.

The handicaps that are calculated during a NHC series are not entered into the Boat Register like other handicaps, they are recalculated every time the results are displayed and then discarded. Any handicaps in the *Boat Register* valid after the start of the first race in the series are ignored. The output of the result of any race in the series shows the handicap used in that race and the handicap to be used in the next race.

The RYA has issued a set of base numbers for the scheme that all boats should start on for their first series. These numbers are incorporated into HalSail so that when you enter a type in the Boat Register you are prompted to use the correct handicap for any NHC class.

Note that the base number should be the first handicap at the top of the list when you click the *class membership* entry in the *Boat Register*. It should be the entry that is set to start at the beginning. HalSail always assumes that the first entry in the handicap list is the base number you want to use.

What are realigned handicaps?

In any progressive handicap scheme there is a danger that the handicaps will over time drift away from the base numbers, not just for individual boats but for a whole fleet. NHC incorporates a method of realigning handicaps so that the average for the fleet remains constant even though individual boats may move away from their base numbers by a considerable amount. If this were not done new boats could not be brought in on their base numbers in a fair way.

Realignment is done after each race, so that the average of the handicaps for the next race is the same as the average of the base numbers. Note that all boats are realigned that have taken part in any race in the series, whether they took part in that particular race or not.

The realignment process can lead to some strange consequences. You might expect that roughly the same number of boats would have their handicap increased after a race as have it decreased. However that is not always so. If the finishers in a race are on average above their base handicaps, because there are other boats that have taken part in the series but are not finishers that are below theirs, then realignment will bring all the finishers down a bit. It can happen that realignment brings even the winner down by more than the increase in handicap from that race, so no boats increase their handicaps. They all decrease it, or stay the same if they are non-finishers.

Storing handicaps at the end of a series

As stated above, the handicaps that are applied to each race in a series are not stored in the *Boat Register*. They are calculated each time they are needed and then discarded. However you may want to carry over the handicaps from the end of one series to start the next series. You do this from the analyse results page. Go to *Results / Analyse handicaps* and select the series in question. At the bottom of the column giving the analysis of each race there is a button labeled *Save handicaps*. Click this link to store the handicaps calculated for each boat at the end of that race permanently in the *Boat register*. You will be asked when you want the realigned handicaps to start. Choose a time just before the start of the first race of the next series.

Taking a snapshot of NHC handicaps

As well as storing handicaps at the end of a series for use in the next one, you may want to take a snapshot of the current handicaps to use in another racing class. Perhaps you want to run a championship with non-progressive handicaps, taken from the current state of a NHC series. You can do that by setting up a plain TCF racing class with the boats that will be taking part in the championship, then using the above method to save the handicaps after any race in a NHC series, putting them into the boat register for your new class not the NHC class.

Must you always start on the base numbers?

The RYA recommends that you start on the base numbers when using the NHC scheme. However as far as HalSail is concerned you can start with any numbers you like. The base numbers are built into HalSail so that it is convenient to use them, but you can override them by setting other values in the Boat Register. So if your club has a good set of starting numbers, from previous experience or from another source, you can use them as the starting point if you like.

Details of the NHC algorithm

Details of the mathematics used in the NHC scheme are given in the NHC Explanation FAQ.

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