

KEELBOAT PERFORMANCE HANDICAPS RULES 2008/2009

THE USE OF PERFORMANCE BASED HANDICAPS

Performance based handicaps may be used to allow boats of different designs and ages to compete together on an equitable basis.

This handicap system will function properly if the configuration of the boats and the majority of the crew remain unchanged between races.

Thus under Performance Handicap Racing Rules such systems as canting keels, water ballast and powered drives for winches, keels and the like are acceptable if used on a regular basis.

Thus Rule 51 of RRS 2005-2008 is modified to allow the use of canting keels and water ballast.

Rule 52 of RRS 2005-2008 is modified to allow powered systems for the adjustment and operation of sails or the adjustment of moveable hull appendages, excluding autopilots.

Autopilots may be used if permitted in NOR or SI (for example in 2 handed racing)

PERFORMANCE BASED HANDICAPS - YV

YV handicaps are based on analysis of performance in accordance with an agreed set of rules. The main characteristics of the YV system are -

- a. It's free and requires no measurement
- b. It requires constant administrative support by analysis of race results and adjustment of the individual boats handicap.
- c. It only remains valid on an interclub basis if club fleets mix on a regular racing basis, otherwise the handicap relativity from club to club may vary and results in open competition becoming inconsistent.
- d. A change of skipper, crew or equipment can cause significant fluctuation in results.
- e. The validity of the handicap system relies on the honesty of skippers to inform Handicappers of equipment changes.
- f. Most handicaps are generated from circuit races (same start and finish) with significant windward components, thus purely off wind courses will give significantly different results.

YV Handicapping Rules - by relative performance

1. Divisions

- 1.1** Performance handicap racing will be divided into three divisions depending on the performance of boats and may be reviewed and revised periodically.

Div 1 0.880 & above
Div 2 0.800 to 0.879
Div 3 0.799 & below.

- 1.2** The above break points will not be changed before the start of season 2009/2010.

- 1.3** Boats in the handicap ranges 0.870 to 0.890 and 0.790 to 0.810 at the beginning of the new season may choose which division they race in for that season and must remain there for the season even if the handicap moves above or below the divisional break point during the season.

This choice to be made by the owner and Club Handicapper before the start of the season and must be at the request of the owner.

If no request is made by the owner then the boat will be allocated a division based on the start of season handicap.

If the owner and handicapper cannot agree then the matter is to be resolved as per Para 12.3.

- 1.4** Boats outside this range cannot choose to sail in a higher division, even if they agree to sail on the minimum for that division unless they sail as a class (see Para 1.5).
- 1.5** Five or more boats of a recognised class (eg S80's, Diamonds, Adams 10's) may race as a class in a selected division. The selection of which division the class will race in will be a decision of the Handicap Committee and it will usually be in the lower division alternative. Boats with handicaps above the divisional maximum will sail on their actual handicap, whilst those below the divisional minimum will be included on the condition they start on the minimum handicap for that division (0.870 and 0.790).

2. Conditions for the Issue and Maintenance of an YV Handicap

- 2.1** The YV Handicap is the measure of performance achieved by a boat/crew combination. To qualify for a YV Handicap, the boat concerned must have finished in five races with a fair result, and with her hull, rig and crew substantially unchanged.
- 2.2** Any substantial change in hull, rig or crew combination, which is likely to change performance, must be notified to the Club Handicapper at least 24 hours prior to the race.
- 2.3** Interpretation of such substantial changes will include:
- change of helmsman
 - more than half of crew who have not competed in past 5 races
 - hull or rig changes
 - new sails
 - changes to ballast
 - Changes to powered systems
- 2.4** Failure to notify of such changes may be considered to be “unfair practice” and may result in protest and subsequent disqualification.
- 2.5** The host club may require owners/skippers to declare that these requirements have been met.

3. Abbreviations

AH	Allocated Handicap	(Handicap allocated for a race)
BCT	Base Corrected Time	
BCH	Back Calculated Handicap	
LBCH	Limited Back Calculated Handicap	
LBCHU	Limited Back Calculated Handicap Upper	(105% of the Allocated Handicap)
LBCHL	Limited Back Calculated Handicap Lower	(96% of the Allocated Handicap)
LBCHD	Limited Back Calculated Handicap Discard	(Discard results less than 90% AH)
CH	Calculated Handicap	
IPH	Initial Provisional Handicap	
P	Provisional Handicap for explanation see paragraph 8.	
L	Local Handicaps - for explanation see paragraph 9.	
LDH	Long Distance Handicaps. - for explanation see paragraph 10.	

4. YV Handicap

- 4.1** Handicaps are issued and updated by the YV Handicapper of each club.

5. Method of Calculation of YV Handicap

5.1 Select the Corrected Time of the boat positioned 45% of the way down the fleet from the winning boat on Corrected Time. This then becomes the "Base Corrected Time" for that particular race.

5.2 Back Calculate the handicaps for each boat by dividing the Base Corrected Time by the boat's Elapsed Time: viz:-

$$\text{BCH} = \text{BCT} / \text{Elapsed Time (for each boat)}$$

5.3 Discard BCH values that are less than LBCHD (i.e. 90% of the Allocated Handicap).

5.4 Apply Limited Back-Calculated Handicaps

- If the BCH is between 90% and 96% of the Allocated Handicap then the recorded LBCH shall be LBCHL (i.e. 96% of the Allocated Handicap).
- If the BCH is above 105% of the Allotted Handicap then the recorded LBCH shall be LBCHU (i.e. 105% of the Allocated Handicap).

5.5 All other BCH values to be recorded as calculated without applications of limits (i.e. between 96% and 105%), in these cases BCH=LBCH.

5.6 Maintain a record of the BCH's and LBCH's achieved by each boat on the Club Register.

5.7 From the last 5 valid LBCH values recorded for each boat, calculate the new handicap by averaging these 5 values.

5.8 This new handicap is the Calculated Handicap.

5.9 At the discretion of the Handicapper, the Calculated Handicap becomes the new Allotted Handicap.

6. Alterations to a YV Handicap

6.1 A boat may cease to qualify for a YV Handicap and revert to a Provisional Handicap at the Handicapper's discretion if the boat has less than five YV Handicap analysed results in the preceding 12 months.

7. Class Marks

7.1 A list of Class Marks shall be kept by the YV Handicap Committee and the list is to be updated by the Handicap Committee prior to the beginning of each season. Class Marks are to be based on the performance of the boats racing on the waters of Port Phillip Bay during the previous summer season.

8. Provisional Handicaps

8.1 An Initial Provisional Handicap will be allocated at 1.5% above the YV Handicap Sub-Committee's list of class marks and may be adjusted at the Handicappers discretion.

8.2 The Provisional Handicap will be recalculated during the boat's first 5 races, using its valid BCH's as follows:

- After the boat's first race the Provisional Handicap shall be recalculated by averaging its recorded BCH and its IPH x4.

- After the boat's second race the Provisional Handicap shall be recalculated by averaging its two recorded BCH's and its IPH x3.
- After the boat's third race the Provisional Handicap shall be recalculated by averaging its three recorded BCH's and its IPH x2.
- After the boat's fourth race the Provisional Handicap shall be recalculated by averaging its four recorded BCH's and its IPH x1.
- After the boat's fifth race the Calculated Handicap shall be the average of its five BCH's.

8.3 A win or a discard for a boat on a Provisional Handicap should be reviewed by the Handicapper and the Provisional Handicap changed if required.

9. Local Handicaps

9.1 Handicaps that may not be calculated according to the complete application of the foregoing rules and band limitations shall be designated "Local" handicaps. (These would chiefly be used for social type races within a single club).

9.2 Local handicaps shall not be used for inter-club racing.

10. Long Distance Handicaps

Long Distance Handicaps are separate handicaps that may be used for circuit races greater than 20nm or passage races. Handicaps to be calculated as per Para 5, but the 5 races may be taken over a 24 month period.

11. Recalculation of Performance Handicaps at Regattas

When a yacht club runs a Performance Handicap Division in a Regatta, the Performance Handicaps shall be established and then recalculated as follows.

11.1 The race committee shall establish initial handicaps for the Regatta based on available Established Handicaps for boats with current YV Handicaps, and handicaps established by the Club handicapper from the best available information for other boats. This handicap is then the Allocated Handicap for the first race.

1. The Allocated Handicaps shall then be used for calculating the results of the first race.
2. Limited Back Calculated Handicaps should then be calculated from the first race.
3. The Allocated Handicap for the second race shall be calculated by taking the average of 3 values of the initial Allocated Handicap plus 2 values of the LBCH of the first race.
4. This Allocated Handicap is then used for calculating the results of the second race.
5. Limited Back Calculated Handicaps should then be calculated from the second race.
6. The Allocated Handicap for the third race shall be calculated by taking the average of 1 value of the initial Allocated Handicap plus 2 values of the LBCH of the first race and 2 values of the LBCH of the second race.
7. This Allocated Handicap is then used for calculating the results of the third race.
8. Limited Back Calculated Handicaps should then be calculated from the third race.

9. The Allocated Handicap for the fourth race shall be calculated by taking the average of 1 value of the LBCH of the first race plus 2 values of the LBCH of the second race plus 2 values of the LBCH of the third race.
10. This Allocated Handicap is then used for calculating the results of the fourth race.
11. Limited Back Calculated Handicaps should then be calculated from the fourth race.
12. The Allocated Handicap for the fifth race shall be calculated by taking the average of 1 value of the LBCH of the first race plus 1 value of the LBCH of the second race plus 1 value of the LBCH of the third race plus 2 values of the LBCH of the fourth race.
13. For all further recalculations of handicaps, a single value of the LBCH of the last 5 races should be used for recalculation of the new Allocated Handicap.

12. Query on YV Handicap

- 12.1** If a handicap is queried then it is to be resolved by the club Handicapper and if necessary referred to the Sailing Committee of that club.
- 12.2** In the event of one Club having reason to question the validity of a YV Handicap of a boat from another Club, resolution should be between the Handicappers of the Clubs concerned.
- 12.3** Should agreement not be reached in 12.1 and 12.2, the Chairman of the Handicap Sub-Committee is to be contacted for a ruling.

RECOMMENDED ALLOCATION OF CLASSES INTO DIVISIONS

When the NOR specifies that boats may sail as a Class, the recommended division allocation is as follows.

Boats that have handicaps close to the divisional break points may choose which division to sail in (see para 1.3), or may sail with their class in the class's allocated division (divisional handicap limits apply see para 1.5).

Beneteau 40.7	Division 1
11m OD	Division 1
Sydney 38	Division 1
Adams 10	Division 2
Young 88	Division 2
Diamond	Division 2
Farr 1020	Division 2
S80	Division 3