

YACHTING VICTORIA YARDSTICKS

INTRODUCTION

These yardsticks are prepared to provide the fairest possible calculation of results for mixed fleet racing. New and modified classes appear every year and it is important to gather information and review results as quickly as possible. It would be of great assistance in this electronic age for clubs to either email results to TBA or at least send the address of their website where they post this information.

VALIDITY OF YARDSTICKS

Return of results by Class Associations and clubs has been falling over the last few years. In order to assure the continued validity of yardsticks these returns must be received. Electronic submission of results containing the information set out below is encouraged as it enables processing of the information in a timely manner.

In this seasons list several class yardsticks have been marked indicating an urgent requirement for more results to be submitted these are either new classes where the tentative yardstick needs to be confirmed or classes whose yardsticks are going to be archived due to lack of results for review. Sailors sailing any of these classes are encouraged to ensure that results are submitted as soon as possible

Again the status of several yardsticks for prominent classes has had to be down graded this season as insufficient results have been provided to maintain their status. Class Association are reminded that it is their responsibility to ensure that sufficient data is provided to YACHTING VICTORIA to validate the yardsticks of the classes. Class associations should Title and other event results in the required form and encouraging their members to ensure that regatta and other results are provided. This is essential to ensure the ongoing reliability of YACHTING VICTORIA yardsticks for all forms of interclass racing at club and regatta level a consistent and steady supply of results are necessary. The data must be supplied for all boats competing in each heat of the event and MUST include the following:-

- Date and location of event.
- Course sailed by each division ie. Leg length, course angles and number of legs sailed, shown on a diagram for each division.
- Class, sail number, helmsman's name and elapsed time in minutes and decimal minutes or in whole seconds.
- Wind strength, wave height, temperature.
- National Champion, State or Club champion should be noted.

Class Associations should also forward the results of National and State Titles provided the data is set out above. Data which does not conform to the above cannot be used to revise the ratings.

In 1990 yardsticks were grouped into four categories. These categories are based on individual results for each class in the previous season in all events where several classes sail the same course. The categories are:

Reliable

Classes with thirty or more results in the current season proven to be consistent over many years. Should not be altered by club handicappers.

Probable'

Classes with fifteen to twenty-nine results in the current season. May be adjusted by club handicappers only if a gross mismatch is apparent over a series.

Tentative

Classes with less than fifteen results in the current season. May be altered by club handicappers at their discretion.

Archival

Classes with no results for two consecutive seasons. Based on obsolete data and published for guidance of club handicappers. After two consecutive seasons on the archival category the yardstick may be deleted.

Enquires with regard to new classes or classes not listed should be directed to the Yardstick Co-Ordinator c/o YACHTING VICTORIA. Urgent enquires can be made by initially getting in touch with YACHTING VICTORIA who can put you in touch with the Yardstick Co-Ordinator. Email Inquiries may be sent to Yachting Victoria

REVISION OF RATINGS

Class Associations wishing to change their ratings must ensure that YACHTING VICTORIA receives sufficient data in both number and condition range to conduct that review. This involves ensuring that clubs organising events (in particular Regattas and Class titles), where several classes sail the same course, forward the results to YACHTING VICTORIA Yardstick Co-Ordinator in the required format. Where a rapid review is required the Class Association should forward sufficient data (proforma is available from yardstick Co-Ordinator - not selective data) to allow that review to be conducted. No correspondence will be entered into where insufficient data is provided.

It must be emphasised that it is the responsibility of associations to ensure that their members know what class they sail so that unintended "new" classes do not appear due to errors in data provided.

USE OF THE YARDSTICK

The aim of the yardstick is to provide a basis for yachts of different ratings to compete fairly when sailed well. The yardstick is not intended to compensate for differences in skills or competence of individual sailors. The yardstick is calculated and maintained on a statistical basis and within broad limits remains valid for a variety of wind strengths and courses sailed. Comparison of yachts of different classes sailing different courses is thought to be outside the scope of the current rating system.

Yardsticks are based on the current design of a class unless otherwise noted. It normally takes 12 months for a major change in class rules to be incorporated into the yardstick as results have to be gathered and assessed. For example the current yardsticks for Cherubs and Javelins are for boats with an asymmetric kite not for the previously standard symmetrical kite. Where major changes are occurring within class design the associations should inform the yardstick co-ordinator of these changes and try and ensure that results submitted indicate the boats sailing under the changed design.

DEFINITIONS

Elapsed Time (ET) is the time taken (in minutes and decimal minutes, or in seconds) for a boat to sail a proper course.

Corrected Time (CT) is the elapsed time divided by the boat's class yardstick (YS) and multiplied by 100

Standard Boat Time (SBT) is the corrected time for the first boat on corrected times to sail a proper course. Alternatively consistently sailed boat finishing in the top five of the fleet, on corrected time, can be taken as the standard boat

Back Calculated Yardstick (BCYS) is the corrected time divided by the standard boat time and multiplied by its own yardstick.

Performance Factor (PF) is the BCYS divided by the boat's class yardstick This is used to rate the class yardstick

$$CT = \frac{ET \times 100}{YS}$$

$$BCYS = \frac{CT \times YS}{SBT}$$

$$PF = \frac{BCYS}{YS}$$

FURTHER HANDICAPPING

Further assistance with regard to handicapping on a club basis may be obtained by contacting the Yardstick Co-Ordinator c/o YACHTING VICTORIA or via Email at vicyardsticks@gmail.com

TRAILABLE YACHT CONVERSION FACTOR

The Class Basic Handicap system (CBH) is recommended for trailable yachts. For occasions when trailable yachts compete with off-the-beach yachts, it is possible to convert CBH to Tentative Yardstick by the formula:

$$\text{Yardstick} = \frac{K}{CBH}$$

For 2005/06 season K = 80.30

When using K to create tentative yardsticks for trailable yachts the result should be rounded down to the **nearest 0.1** to preserve the differential between trailables given by their CBH's

MIXED CLASS RACING

The best racing occurs when the fleet consists of only one Class, as in State Titles. So, whenever possible, clubs should arrange for a Class to race separately if there are sufficient numbers. For other yachts, divisions should be formed by grouping yachts as shown below:

First preference

Monohulls

Catamarans

Trailable yachts

Sailboards

This may be subdivided into fast and slow divisions related to yardsticks or if sufficient yachts of a class are present they may form a separate division.

Second preference

Monohulls / trailable yachts

Catamarans

Sailboards

In this case it will be necessary to apply the Tailable Yacht conversion factor to obtain tentative yardsticks.

Third preference

Fast monohulls and sailboards

Slow monohulls and trailable yachts

Catamarans

Where fewer than four sailboards compete in an event, they may be grouped the monohulls. Owing to the many types of sailboards and whose performance varies with sail area and wind strength their yardsticks should be treated as tentative.

MIXED CLASS CORRECTION FACTOR

The Mixed Class Correction Factor (MCCF) applies to fleets containing multihulls and monohulls or sailboards and monohulls. The MCCF is derived by dividing the sum of the 5 lowest corrected times for monohulls by the sum of the 5 lowest corrected times for the multihulls or sailboards.

The corrected time for each multihull or sailboard is now further corrected by multiplying it by the MCCF

Notes:

- 1. *Where the fleet contains multihulls, monohulls and sailboards 2 separate MCCF's must be calculated***
- 2. *MCCF's will give extraneous results with very small groups. They should not be used where there is less than 5 of either of the groups under consideration.***

YARDSTICKS 2005 – 2006

MONOHULLS

	RELIABLE	PROBABLE	TENTATIVE	NOTES
125		123.00		
12 ' Skiff			92.00	
14 ' Skiff	86.50			
16 ' Skiff			86.00	
145		113.00		
29er			95.00	New Class more results required
420			112.00	
470			101.00	
49er		84.00		
505			97.00	
5/50			99.00	New Class more results required
ACCESS 2.3 DINGHY			175.00	New Class more results required
ACCESS 303 DINGHY			166.00	New Class more results required
ACCESS Liberty			132.00	New Class more results required
B14			97.00	
BANSHEE			113.00	
CADET INTERNATIONAL			153.00	
CADET 12'			127.00	
CHERUB		106.00		
CONTENDER		107.50		
CORSAIR			119.50	
E CLASS (LAZY E)			113.00	
EUROPE DINGHY			120.00	
FIREBALL			101.00	
FINN			113.50	More results required
FLYING ANT			136.00	More results required
FLYING 11			131.00	
FLYING DUTCHMAN			92.50	More results required
Formula Fifteen			92.00	New Class more results required - major rig change
HARTLEY TS 16 W/O MOTOR			125.00	
HERON			145.00	
IMPULSE	118.50			
JAVELIN			97.00	
JUBILEE			129.00	
JOLLYBOAT			106.00	
LASER	113.00			
LASER RADIAL	116.00			
LASER 4.7			122.00	More results required
LEADER CAT			117.00	
MANLY GRADUATE			106.00	
MICRON 3			128.00	
MINNOW		168.50		
MIRACLE			130.00	
MIRROR	143.50			
MOTH FOILER			83.00	
MOTH SKIFF			103.00	More results required
NS14		108.00		
OK DINGHY		115.50		
Optimist			164.00	More results required
PACER		127.00		
SABRE		126.50		More results required
SPARROW			145.00	More results required
SOLO		125.00		
SABOT		160.50		
SABOT Junior (2 UP)			167.00	
SHARPIE			95.00	
SPORTSKIFF			105.00	New Class more results required
SPIRAL			125.00	
TASER	107.50			
VEE ESS			102.00	To be archived more results required
VEE JAY			135.00	To be archived more results required

*** Where any doubt exists as to which type the boat is. The Lower Yardstick for the class **MUST** be used**

YARDSTICKS 2005 – 2006
KEELBOATS

	RELIABLE	PROBABLE	TENTATIVE	NOTES
DIAMOND			103.00	
DRAGON			107.00	
E22			93.00	
FLYING FIFTEEN **	109.00			
FLYING FIFTEEN Mk 1 Hull**			112.00	To be archived more results required
SOLING			97.00	
STAR			98.00	
YNGLING			103.00	

**** Where any doubt exists as to which type the boat is. The Lower Yardstick for the class **MUST** be used**

YARDSTICKS 2005 – 2006
CATAMARANS

	RELIABLE	PROBABLE	TENTATIVE	NOTES
A CLASS	71.00			
ALPHA OMEGA 4.3			88.00	To be archived more results required
ALPHA OMEGA 5.0			82.00	To be archived more results required
ARAFURA		113.00		
ARROW		91.00		
AQUAKAT			87.00	To be archived more results required
CALYPSO 14A			93.00	
CALYPSO 14R			92.50	
CALYPSO 16			85.50	
CALYPSO 4.4			85.00	
CAPER CAT			103.00	
COBRA		84.00		
DOLPHIN		85.00		
F14			77.00	
F16			71.00	
F18			70.00	New Class more results required
HOBIE 14			94.50	
HOBIE 16	81.50			
HOBIE 17		82.50		
HOBIE 17 Sport			79.00	To be archived more results required
HOBIE 18			78.50	
HOBIE 20			73.00	To be archived more results required
HOBIE TURBO			88.50	
KITTY CAT			99.00	more results required
MARICAT 4.3 CAT			94.00	
MARICAT 4.3 SLOOP			92.00	
MARICAT 5.0			80.00	
MOSQUITO (ALL)	84.00			
MOSQUITO - With Spinnaker			80.00	New Class more results required
NACRA 14 sq		84.50		
NACRA 16sq		79.50		
NACRA 5.0		81.00		
NACRA INT 17			72.50	
NACRA 5.8		72.00		
NACRA 5.8 with Spin			70.00	
PAPER TIGER		91.50		
SCAT			96.00	
TAIPAN 4.9 CAT		76.50		
TAIPAN 4.9 SLOOP	73.50			
TAIPAN 5.7	70.00			
TAIPAN 5.7 with Spin			67.50	
TORNADO Post 2002			65.00	New Class more results required
YVONNE			85.50	Major Rig change more results required

The following table of adjustments is provided for the guidance of handicappers. Any resulting yardsticks must be regarded as tentative and should be further adjusted in the light of race results. If a boat is entered and a claim is made to use one of the following adjustment factors which increase the yardstick of the boat, it is recommended that contravening these requirements should be regarded as a breach of **Fundamental Rule 2** and be indicated as such in the sailing instructions. All adjustments are made on the current yardstick for the rig defined in the yardstick list.

Change to Rig	Adjustment to Yardstick
Non Asymmetric to Asymmetric Spinnaker	- 1.5%
Asymmetric to Non Asymmetric Spinnaker	+1.5%
Spinnaker to No Spinnaker	+2.3%
No –Spinnaker to Spinnaker	-3.1%
Reduction in crew size	-2.0%
Sloop rigged cat sailed 1 up	-4.5%
Single hander sailed 2 up Base yardstick 140+	+4.2%
No Trapeze to Trapeze	-3%

ARCHIVAL YARDSTICKS

The archival yardsticks listed below are ratings recorded for each class. The year indicates when the last information was recorded. This is a partial list, a complete list was published in Boating '94 this list is also available on [To be Advised].

MONOHULLS

Class	Handicap	Year
AVENGER	134.00	2003
Byte	122.00	2003
CANOE INTERNATIONAL	94.00	2003
FAIRY PENGUIN	156.00	2003
HOBIE HAWK	152.00	2003
MOTH SCOW	115.00	2003
SPLASH	134.00	2003
THORP 12	119.00	2003
Vagabond(Mk1)No Spinnaker**	140.00	2003
Vagabond(Mk2)No Spinnaker**	135.00	2003
X3 RESORT	164.00	2005
X3 ED	161.00	2005
X3 FUN	147.00	2005

CATAMARANS

Class	Handicap	Year
GEMINI	88.00	2003
HYDRA	85.00	2003
IMPARA	113.00	2003
QUEST B2	80.50	2003
QUEST B3	74.00	2003
MARICAT 4.0 CAT	111.00	2003
NACRA 4.5	88.00	2003
HURRICANE 5	76.00	2003
NACRA 5.2	79.00	2003
NACRA 5.5	73.50	2003
WINDRUSH 14 CAT	92.00	2003
WINDRUSH 14 SLOOP	90.50	2003
WINDRUSH 14 SUPER SLOOP	87.50	2003
NACRA 18 sq	73.50	2003
TORNADO - Pre 2002	69.00	2005
STINGRAY MK2	74.50	2005
SUNDANCE 5.0	84.00	2005

SAILBOARDS

The following yardsticks are provided for guidance for handicapping sailboards in mixed fleet racing. Mixed fleet results involving sailboards are urgently required, as these yardsticks have not been reviewed for many years.

Class	Sail Area sq.m.	Yardstick Lightweight	Yardstick Heavyweight
International Raceboard(Flat bottom planing boards)	7.5 max	97	99
Division II Round bottom, displacement boards open class	7.3 max	102	104
Division II Funboards pre 1987	7.3 max	107	110
Open Class			93
Windsurfer one design	6.5 max	112	116
Junior under 16 any board	6.5 max	115	
Under 13 years any board	5.5 max	127	

Weight is the sailor's dry weight fully equipped including harness and safety gear. Heavy weight is greater than 81 cgs. In wind strengths consistently over Force 4 (15 knots) the yardstick for heavyweight sailors shall be the same as the yardstick for lightweight sailors.