AUSTRALIAN SAILING YARDSTICKS 2021-22 INTRODUCTION

These yardsticks are prepared to provide the fairest possible calculation of results for mixed fleet racing.

Catamaran yardsticks are contained in a separate document.

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 (that is a handicap). 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 outside the scope of the current rating system.

USE OF THE AUSTRALIAN SAILING YARDSTICKS

A club which intends to run a race or event under the Australian Sailing Yardstick system should include in the Notice of Race and in the Sailing Instructions, clauses based on the following:

- The version of the Australian Sailing Yardstick System that is to be used in calculating the mixed class fleet racing results.
- The Australian Sailing Yardstick numbers to be used for each Class, adjusted as necessary for variations from Base Rig.

Or;

- The Australian Sailing Yardstick numbers will be those published by the Race Committee 'n' minutes prior to the start of the first*/each* race.

Or;

- Australian Sailing Yardstick numbers will be those listed hereunder: -
- Boats without Australian Sailing Yardstick numbers published in the current listing will be allocated an estimated Trial Number

Or;

- Boats without Australian Sailing Yardstick numbers published in the current listing will be allocated numbers.
- Whether or not Australian Sailing Yardstick numbers will be adjusted during the series.

When deciding upon which of the Sailing Instructions listed above a Club should use, the Club should remember that the listed Australian Sailing Yardstick numbers are derived from Yardstick Returns of racing on all kinds of water: sea, estuary, river and lake. The Australian Sailing Yardstick numbers are therefore an average and thus, particularly with dinghies, may not necessarily be applicable to any one Club. Accordingly, if after racing, a listed Australian Sailing Yardstick numbers appears to be inequitable, a Club may consider a change to the Australian Sailing Yardstick numbers. All such changed Australian Sailing Yardstick numbers rank as Trial or Club Numbers.

REVISION OF RATINGS

Enquires with regard to new Classes, or Classes not listed, or Class Associations wishing to question their ratings should be directed to Australian Sailing at: sportservices@sailing.org.au

NEW INTERNATIONAL CLASS PROVISIONAL RATINGS

For new Classes that do not have a current Australian Sailing yardstick but have a yardstick under the UK Portsmouth (RYA) or US Portsmouth systems, a yardstick comparison is made with a base set of international classes.

The comparison classes are 470, 505, Contender, Fireball, Laser Radial, OK Dinghy and Tasar. This mix was chosen as it represents a good cross mix of International Classes sailed under the Australian Sailing system and has a consistent comparison between the three systems. Other Classes have not been chosen as they are not in the RYA and US systems or the variances were too great to be considered.

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, a 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

$$CT = \frac{ETxlOO}{YS}$$

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

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

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 Trailable 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 with the monohulls. Owing to the many types of sailboards, 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 MONOHULLS

CLASS	RELIABLE	PROBABLE	TENTATIVE	NOTES
125			123	
12 ‘ Skiff			91.5	
14 ‘ Skiff		84		Based on comparison with RYA yardsticks
16 ‘ Skiff			85.5	
18 ‘ Skiff			68	
145			113	
29er			96.5	Based on comparison with RYA yardsticks
420			115	Based on comparison with RYA and US yardsticks
470			101	
49er		77.3		Based on comparison with RYA yardsticks
505			97.5	Based on comparison with RYA yardsticks
5/50			99	
ACCESS 2.3 DINGHY			175	
ACCESS 303 DINGHY			166	
ACCESS Liberty			132	
B14			94	Based on comparison with RYA yardsticks
BANSHEE			113	
Byte			125.4	Based on comparison with RYA and US yardsticks
Byte CII			120.4	Based on comparison with RYA and US yardsticks
CANOE INTERNATIONAL		93.5		Nethercott rule - Pre 2008
CANOE INTERNATIONAL			92.5	Post Jan 2009 Design - Results Needed
CADET INTERNATIONAL			153	
CADET 12’			127	
CHERUB		100		Based on comparison with RYA and US yardsticks, further likelihood of downward review
CONTENDER			106.5	Based on comparison with RYA yardsticks
CORSAIR			119.5	
E CLASS (LAZY E)			113	
EUROPE DINGHY			120	Based on comparison with RYA yardsticks
FIREBALL			101	Based on comparison with RYA yardsticks
FINN			112	Based on comparison with RYA yardsticks
FLYING ANT			136	
FLYING 11			131	
FLYING DUTCHMAN			93	
Formula Fifteen			92	
HARTLEY TS 16 W/O MOTOR			125	
HERON			145	
IMPULSE		118.5		
IMPULSE 6.6			124.5	Smaller than full rig Impulse
International 2.4			137	
JAVELIN			97.5	
JUBILEE			129	
JOLLYBOAT			106	
LASER		114		Based on comparison with RYA yardsticks
LASER RADIAL		118.5		Based on comparison with RYA yardsticks
LASER 4.7			125	Based on comparison with RYA yardsticks
LEADER CAT			117	
MANLY GRADUATE			106	
MICRON 3			128	
MINNOW			168.5	
MIRACLE			130	
MIRROR		143		Gunter Rig
MIRROR			142	Bermuda Rig- Results needed
MUSTO SKIFF			91	Based on comparison with RYA yardsticks
MOTH SKIFF			103	
Moth Scow			115	

CLASS	RELIABLE	PROBABLE	TENTATIVE	NOTES
Moth - Foiler			60	Based on comparison with RYA yardsticks
NS14		108		
OK DINGHY		115.5		
O'Pen Bic			153.3	Based on comparison with IT yardsticks
Optimist			170	Based on comparison with IT yardsticks
PACER		127.5		
P class			157.7	Based on comparison with NZ yardstick
Rooster			110.7	Based on comparison with RYA yardsticks
RS 100 8.4			106	Based on comparison with RYA yardsticks
RS 100 10.2			103	Based on comparison with RYA yardsticks
RS 200			108.9	Based on comparison with RYA yardsticks
RS 300			103.4	Based on comparison with RYA yardsticks
RS 400			99.6	Based on comparison with RYA yardsticks
RS 500			102.7	Based on comparison with RYA yardsticks
RS 600			87.2	Based on comparison with RYA yardsticks
RS 700			89.8	Based on comparison with RYA yardsticks
RS 800			86.3	Based on comparison with RYA yardsticks
RS Aero 5			116.8	Based on comparison with IT yardsticks
RS Aero 7			112.5	Based on comparison with RYA yardsticks
RS Aero 9			109.3	Based on comparison with RYA yardsticks
RS Feva XL			130	Based on comparison with RYA and US yardsticks
RS TERA PRO			143.2	Based on comparison with RYA yardsticks
RS TERA SPORT			153.9	Based on comparison with RYA yardsticks
RS VAREO			113.1	Based on comparison with RYA yardsticks
RS VISION			119.8	Based on comparison with RYA yardsticks
SABRE		127		
SPARROW			145	
SOLO			123.5	Based on comparison with RYA yardsticks
SABOT		160.5		
SABOT Junior (2 UP)			167	
SHARPIE			95	
SKATE		97.5		
SPORTSKIFF			104.5	
SPIRAL			124	
TASAR		108		
Vee Jay			135	
Weta SQ (1 UP)			95	Weta yardsticks added in 2022. To be reviewed annually in September in consultation with the AUS Weta Class Assoc.
Weta SQ (2 UP)			99	
Weta PH (1 UP)			98	
Weta PH (2 UP)			102	

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

YARDSTICKS KEELBOATS

Diamond			103	
Dragon			107	
E22			93	
FLYING FIFTEEN **		109		
FLYING FIFTEEN Mk 1 Hull**			112	
Soling			97	
Star			98	
Yngling			103	

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

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.

MONOHULLS

Class	Yardstick	Year
X3 RESORT	164.0	2005
X3 ED	161.0	2005
X3 FUN	147.0	2005
Vee Ess	102.0	2007

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%

SAILBOARDS

The following yardsticks are provided for guidance for handicapping sailboards in mixed fleet racing. 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 kgs. In wind strengths consistently over 15 knots the yardstick for heavyweight sailors shall be the same as the yardstick for lightweight sailors.