

## AUSTRALIAN SAILING YARDSTICKS - CATAMARANS

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### INTRODUCTION

Australian Sailing (AS) Catamaran yardsticks are prepared to provide the fairest possible calculation of results for mixed fleet "Off the Beach" catamaran racing. The yardsticks for the 2018/19 season have been broadly reviewed, considering class open regatta performance and SCHRS measurement data. This review has indicated that only very minor adjustments for a small number of classes from last season's review is warranted.

The aim of the AS Catamaran Yardsticks Table is to provide a basis for numerous classes and class variants of catamarans to compete fairly when sailed well. The yardstick is not intended to compensate for differences in skills, competence or talent of individual crews (that is a handicap). The yardstick is calculated and maintained on a measurement and/or performance based statistical basis and, within broad limits, remains valid for a variety of wind strengths and courses sailed. Comparison of catamarans of various classes sailing different courses is outside the scope of the current AS yardstick system.

### SMALL CATAMARAN HANDICAP RATING SYSTEM (SCHRS)

World Sailing has adopted the SCHRS (Australia is represented on the World Council of the SCHRS) as the preferred system of rating (or allocating yardsticks) for small "off the beach" (OTB) racing catamarans. This system has significant merit in simplifying, improving and reducing the time and effort required in the calculation/validation of yardsticks for small OTB catamarans. However, earlier versions of the SCHRS formulae/class measurement system had several problematic anomalies when calculating ratings (yardsticks) for some popular Australian classes, especially for smaller, light weight cat rigged versions of some popular classes, as well as problems assessing the performance differential of spinnaker boats and, more lately, lifting foils. Indications are that the generally greater average wind strengths on Australian coastal waters (compared to Europe/UK) may be a prime driver behind some of these anomalies, as well as "average" crew weights adopted across all classes, irrespective of boat size/design. There is also an issue with course configurations. Where regattas in Australia are more often around triangular and/or in combination with wind/leeward courses, in Europe course marks of major catamaran regattas can be fixed geographical points, irrespective of wind direction.

The SCHRS ratings formulae are extensively reviewed each year, to address these and other issues identified during debate by the SCHRS World Council and Technical Committee. Some of the anomalies regarding Australian classes were addressed, in whole or part, by the adopted 2013 and 2014 amendments. However, more recent reviews (there was no review for calendar year 2018) were not as helpful and could be considered regressive in this respect. There still remains, at time of this publication, several issues in respect of some variants of Australian classes as well as questions surrounding the performance benefits of spinnakers, not to mention foils, which precludes full adoption of the SCHRS ratings system in Australia.

## REVIEW METHODOLOGY - AUSTRALIAN SAILING CATAMARAN YARDSTICKS

Yardsticks published over past seasons for the more popular classes, with reliable high quality race results data, were predominantly derived using a “performance” based system, with data sourced and statistically analyzed from published results of major mixed fleet regattas, mixed “Class Championships” and to a lesser extent mixed fleet club racing. This methodology or “Performance” based analysis for these “popular” classes has been maintained for the current review. However, consistent with previous recent reviews, an additional check or validation against the World Sailing (previously ISAF) Small Catamaran Handicap Rating System (SCHRS) was undertaken on all listed classes.

Disappointingly, with the exception of several well supported and popular classes, reliable and good quality race results data continues to be difficult to source (with some notable exceptions) and/or assessing the quality of various competing crews has been challenging. Furthermore, under a strictly performance based system only, new and/or modified classes cannot realistically be allocated a yardstick (even tentatively) in a timely manner, until club/regatta race results from at least several boats with well performed crews are assessed. This has frustrated many owners of new and/or modified classes where, in some instances, such classes have been refused entry to one or more major regattas. A classic Catch-22 situation.

The solution to this predicament is to, in the first instance, determine an Australian Sailing Catamaran Yardstick, based on the SCHRS rating, for all classes. This provides a “reality check” on existing Australian Sailing yardsticks, highlighting potential anomalies for further investigation/analysis. Consequently, through a lack of quality race results data for a majority of listed classes (refer above), many class yardsticks have been determined entirely from (and others with a considerable weighting to) SCHRS ratings. However, original SCHRS formulae are adjusted to reflect, amongst others, optimal crew weights of Australian classes, given typical wind/wave conditions on Australian coastal or estuary waters. The performance differential attributed to spinnakers and foils, under SCHRS formulae, was not further adjusted for this review from that which occurred under the 2017/18 and earlier reviews.

The issue of quantifying the increased performance of spinnakers and foils remains a controversial topic within SCHRS circles. There remains, at the time of this review, further investigation/analysis required. Notwithstanding the above, the calculated SCHRS ratings (when converted to AS yardsticks) have been “revised”, when necessary, where there is overwhelming and statistically valid data from recent (up to the past 5 years) regatta results.

The 2018/19 Australian Sailing Catamaran yardsticks are still calculated/validated with a significant weighting to SCHRS ratings for many classes. It is probable that this current “hybrid” performance + measurement SCHRS/AS yardsticks system will remain the predominant catamaran yardstick system for use at Australian sailing venues/clubs for the immediate future.

The “base” class for conversion of SCHRS ratings to Australian Sailing Yardsticks remains the F18. The F18 class is well represented in large numbers with reliable, validated mixed fleet race data across Europe, USA, UK and Australia. The F18 presents as an ideal class to standardize on for conversion between various yardstick systems.

Generally, yardsticks have remained unchanged from the 2017/18 review for the vast majority of classes, with those few movements limited to no more than  $\pm 0.5$  points. The exception is the Nacra 15/17 variants (refer “Class Developments” following), where listed

yardsticks may change at short notice, especially for the full foiling variants, if and when updated SCHRS measurement and/or reliable performance data becomes available.

## CLASS DEVELOPMENTS

The Nacra 15/17 classes are currently trialing full foiling ("J", "L", "Z" shape or similar) centreboards, in lieu of the original design "C" shape foils. These 2 classes are the World Sailing Youth Multihull and International Olympic Committee (IOC) mixed crew Multihull.

Information to hand is that the Nacra 15 with "C" Foils is the approved class variant for the World Sailing Youth (mixed crew) multihull 2018 World Championships and the Nacra 15 with "J, L or Z" Foils as the approved class variant for the 2018 IOC Youth Olympics (mixed crew) Multihull class. The Nacra 17 with "J", "L", or "Z" (subject to class rules) foils has been approved by the IOC as the 2020 Olympics mixed crew Multihull.

The Nacra 15/17 classes, with either variant of foils, are shown separately in the table and referenced as such in the Notes.

## NEW OTB CATAMARAN CLASSES - PROVISIONAL RATINGS

For new OTB Catamaran Classes, a rating under SCHRS is calculated, based on published class rules/restrictions and/or supplemented by measurements taken from available prototype (or preferably production) boats for input to SCHRS. The SCHRS rating is then converted to a "Tentative" Australian Sailing yardstick. Existing validated class measurement data from International SCHRS measurers is used where available (provided the International class is demonstrably the same as the Australian variant – this is not always the case).

Similarly, where an existing class modifies class rules/restrictions, and these changes potentially have an effect on performance (and can be readily input under SCHRS), a revised (or additional) Australian Sailing yardstick has or can be calculated (e.g. - square top mainsails, total weight and/or sail area reduction/increases, changes to centreboards/rudders measurement/design, addition of spinnaker in class rules etc).

Note: All such new and/or modified yardsticks are regarded as "Tentative" until verified and/or amended by subsequent consistent and extensive mixed fleet regatta race data.

Manufacturers and/or Australian distributors and/or Class Associations of new and/or modified catamaran classes are encouraged to submit relevant measurement data to Australian Sailing for consideration. Please refer to [www.schrs.com](http://www.schrs.com) for measurement data required and/or email queries to [sailingservices@sailing.org.au](mailto:sailingservices@sailing.org.au).

## APPLICABILITY OF CATAMARAN YARDSTICKS

Yardsticks for OTB Catamarans have been determined, for most popular classes, based on results of mixed fleet racing at major regattas and/or club racing, generally over a wide range of wind/wave/tidal conditions, but predominately in moderate to fresh winds on coastal and/or estuary waters (i.e. - typical average conditions at most coastal Australian sailing venues/waters). Under these wind/wave conditions (say consistently 12-15 knots+ with a short chop, moderate tidal influences and limited swell), sloop rigged (2 up) variants of some classes (e.g. Taipan 4.9, Mosquito et al) typically outperform the cat rigged (1 up) variant, whereas in light/moderate conditions (say consistently under 10 knots and

smoother waters) the 2 variants are much closer or equal in performance. Race Officers at inland waters clubs and/or other sailing venues with smooth waters and generally light/moderate winds, may wish to modify Australian Sailing yardsticks for these or other classes, based on observed performances between racing crews of similar skills across various classes. All such "locally derived" yardsticks are to be referred to as "Club" yardsticks or some other similar term. Race Officers should be alert for and not permit regatta/club entrants "cherry picking" race conditions and sailing cat and/or sloop rigged to suit conditions vs yardstick, with results then aggregated under 1 entrant. Sailing Instructions should be worded to prohibit such actions.

## REVISION OF RATINGS

Yardsticks are based on the current design of a class or class variants, unless noted otherwise. Where recent design changes have occurred within class rules/restrictions, the Class Association/Manufacturer should inform the Yardstick Coordinator of these changes and provide the necessary rules/restrictions and/or measurement data to enable a review of the Class yardstick to be undertaken in a timely manner.

Class Associations/Manufacturers wishing to query "Reliable and/or Probable" class yardstick(s) must ensure that Australian Sailing receives sufficient quality race data to undertake a review. This involves ensuring that Clubs/Associations organising multi-class OTB catamaran events (in particular Regattas and Class Championships), where several classes sail the same course, forward the results to the Australian Sailing Yardstick Co-Coordinator in the required formats.

Class Associations/Manufacturers may also request a review of "Tentative" yardsticks, should they believe that SCHRS measurement data is in error. Class measurement data must be provided by reference to Class measurement rules and restrictions (which take precedence) or by measurement of an existing class example that has been sailed at or near the top of the national fleet. Generally, such measurements taken from an existing boat refer to SCHRS measurements not covered by Class rules/restrictions.

Typically: "all up" sailing weight or sail area measurements (including mast area and supported by a written/signed confirmation from a recognized sailmaker). Weight measurements must be provided by and signed by the current respective National/State measurer. The total "all up ready to sail" weight must be given to the nearest kg. Measurement of the respective components: rigging, sails, mast, rudders etc, may be calculated individually to the closest 0.1kg, then totaled and rounded to the nearest kg. Class Associations are responsible for providing adequate data to allow any review to be undertaken.

## USE OF THE AUSTRALIAN SAILING CATAMARAN YARDSTICKS

A club intending to conduct a race series or event under the Australian Sailing Catamaran Yardstick system should include in the Notice of Race, and/or Sailing Instructions, clauses based on the following:

- 1** The version# of the AS Catamaran Yardsticks that is used in calculating the mixed catamaran class/fleet racing results.
- 2** The AS Catamaran Yardstick used for each class, adjusted as per Notice of Race and/or Sailing Instructions for variations from optimal design crew weights (refer crew weight adjustment table below).

- or

**2** The AS Catamaran Yardstick numbers will be those published by the Race Committee 'n' minutes prior to the start of the first\*/each\* race. (\* choose one)

- or

**2** AS Catamaran Yardstick numbers will be those listed hereunder or published on Club Notice board etc:

**3** Class entries without a AS Catamaran Yardstick published in the current listing will be allocated an estimated "tentative" Yardstick.

- or

**3** Class entries without a AS Catamaran Yardstick published in the current listing will not be included in yardstick adjusted results.

**4** Whether or not AS Catamaran Yardstick numbers may/will be adjusted during the series.

## ONGOING VALADITY OF YARDSTICKS

In order to assure the continued validity of yardsticks, mixed fleet race result returns (especially for major regattas and/or mixed class State/National Championships) must be submitted to the Yardsticks Coordinator. Electronic submission of race results containing the information set out below is encouraged and preferred.

Yachting Administrators/Race Officers are asked to submit race results as soon as possible and are reminded of their responsibility to ensure that sufficient data is provided to validate the yardsticks of various classes. To ensure the ongoing reliability of Australian Sailing yardsticks for all forms of interclass racing at club and regatta level, a consistent and steady supply of results is required.

Race Officers are encouraged to submit data to the Australian Sailing Yardsticks Coordinator electronically via: [sailingservices@sailing.org.au](mailto:sailingservices@sailing.org.au)

Sailwave or excel files may be attached "as is". Results from other race results programmes such as Top Yacht etc may be submitted as csv files, together with a pdf or doc/docx format results file. In all cases, a copy of the Sailing Instructions in pdf or doc/docx format must also accompany the results files.

The following relevant data should be included, where not already defined in the Sailing Instructions or Sailwave file:

Date and location of the event.

Contact details of results officers.

Event Status:

- National/State/Club Championships or open interclass regatta.
- Whether crews are current/past National, State or Club champions.

Conditions:

- Wind strength/variability (gusty, shifty, etc.)

Course sailed by each Division (mandatory). This needs to include:

- Course angles (relative to wind direction)
- Course configuration – Mandatory (W-L; Triangle, W-L; etc.)
- Number of legs sailed

Race results for each entry, including:

- Class
- Sail number, boat name, skipper's name
- Elapsed times (or start times and finish times) or code (DNC, DNF etc) for all competitors

Other information:

- Suggested review of ratings for specific classes.

## DEFINITIONS

**Elapsed Time (ET)** is the time taken (in minutes and decimal minutes or 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

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

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

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

Further assistance with regard to handicapping on a club basis may be obtained by contacting the Yardstick Co-Ordinator c/o AUSTRALIAN SAILING or via Email at [sailingservices@sailing.org.au](mailto:sailingservices@sailing.org.au)

## CATAMARAN YARDSTICKS 2018 - 2019

	RELIABLE *	PROBABLE *	TENTATIVE *	Design Crew Weight (kgs)	NOTES
△ Class (Flying) Θ			63.0	75	*** Includes all △ Class catamarans ( <u>with a valid current measurement certificate</u> ) that do not comply with the restrictions of the Classic or Vintage Divisions.
△ Class (Classic)		65.5		75	*** All hull designs inclusive of foils that are <u>straight</u> , parallel or canted or with a constant curvature or "C" shape (other foil designs, including but not limited to "J", "L" or "Z" shapes, are not permitted), with or without "T/L" rudder winglets or similar.
△ Class (Vintage)	71.0			75	*** Vintage hull designs – typically, but not necessarily exclusively, pre 2000 designs. Club ROs should apply a degree of common sense and experience in determining individual A Class divisions. However, "Vintage" division would generally apply to hulls inclusive of straight low aspect foils (think Taipan/Cobra etc) as compared to high aspect (think F18/Viper etc). <u>No</u> curved or lifting foils, "T/L" rudder winglets or similar.
Arafura			101	64	1 up trap (+3 no trap) Class approved Square Top Main, +1 for Pin Head Main
Arrow		89		73	1 up trap (Class approved Square Top Main, +1 for Pin Head Main)
Capricorn (AHPC) Φ		66.5		150	Sloop - 2 up trap (F18 compliant)
Cobra Cat			83.5	75	1 up trap (Class approved Square Top Main, (+1 for Pin Head main)
Cobra Sloop			80	130	2 up trap (Class approved Square Top Main, (+1 for Pin Head main)
Dolphin			85	75	1 up trap
F16 Cat			70.5	80	(F16 Box Rules)
F16 Sloop			67.5	141	(F16 Box Rules)
F18	65			150	Standard Class for SCHRS/YV conversions (F18 Box Rules)
Flying Phantom			56	160	Sloop - 2 up trap ("L" foils and "T" rudders)
Hobie 14		96.5		67	1 up (trap -2)
Hobie 14 Turbo		90.5		72	1 up trap
Hobie 16		80.5		133	Sloop - 2 up trap
Hobie 16 Spin			75.5	143	Sloop - 2 up trap (Spin of 17.65 m <sup>2</sup> )
Hobie 17			80	75	SE - 1 up trap: cat rigged with "wings"
Hobie 18		76		148	Sloop - 2 up trap
Hobie Getaway			88	132	Sloop - 2 up, 1 trap (wings and front tramp removed)
Hobie T2			86.5	129	Sloop - 2 up trap
Hobie Tiger Φ		67		150	Sloop - 2 up trap (F18 compliant)
Hobie Wave (Cat)			104	64/113	1 up (no trap) +6 for 2 up
Hobie Wave (Sloop)			99	113	2 up (no trap)
Hobie Wave (Turbo)			97	69	1 up (jib + trap)
Hydra 16			82	132	Sloop - 2 up trap

## CATAMARAN YARDSTICKS 2018 - 2019

	RELIABLE *	PROBABLE *	TENTATIVE *	Design Crew Weight (Kgs)	NOTES
Maricat 4.0 Sloop			94	69	1 up (-2 trap)
Maricat 4.3 Cat	96			68	1 up (+1 for GRP Hulls **)
Maricat 4.3 Sloop		91		119	2 up (+1 for GRP Hulls **)
Maricat 4.3 Super Sloop		89		73	1 up trap (+1 for GRP Hulls **)
Maricat 5.0			81	133	Sloop - 2 up trap
Mosquito Cat (Mk1)	82.5			75	1 up trap
Mosquito Cat Spin	77			80	1 up trap – (Spin of 14.1m <sup>2</sup> )
Mosquito Sloop (Mk11)		79		128	2 up trap
Mosquito Sloop Spin			75	138	2 up trap – (Spin of 14.1 m <sup>2</sup> )
Nacra 14 sq		84.5		71	(Class approved Square Top Main, +0.5 for Pin Head)
Nacra 15			69.5	134	Sloop + Spin - 2 up trap with "C" shaped foils (World Sailing (ISAF) Youth Multihull – mixed crew)
Nacra 15 (Flying)			66.5	134	Sloop + Spin - 2 up trap with "J, L or Z" shaped foils (IOC Youth Olympics Multihull – mixed crew)
Nacra 16 sq		79.5		75	(Class approved Square Top Main, +1 for Pin Head)
Nacra 16 sq Spin			75	80	(Class approved Square Top Main, +1 for Pin Head main)
Nacra 17			63.5	140	Sloop + Spin - 2 up trap with "C" shaped foils
Nacra 17 (Flying)			61	140	Sloop + Spin - 2 up trap with "J, L or Z" shaped foils (IOC Olympic Multihull – mixed crew)
Nacra F20 Carbon			56	160	Sloop - 2 up trap
Nacra F20 FCS			53	160	Nacra 20 Carbon with "J/L" foils and "T" rudders (Flight Control System)
Nacra 350 Sloop			107	101	2 up – 1 trap
Nacra 350 Super Sloop			105	63	1 up trap
Nacra 430 Sloop			95	118	2 up – 1 trap
Nacra 430 Super Sloop			91.5	72	1 up trap
Nacra 430 Super Sloop Spin			86.5	77	1 up trap
Nacra 4.5 Sloop			90.5	120	2 up – 1 trap
Nacra 4.5 Super Sloop			87.5	75	1 up trap
Nacra 4.5 Super Sloop Spin			81.5	80	1 up trap
Nacra 5.0 Cat			84	75	1 up trap (Class approved Sq Top Main, +1 for Pin Head)
Nacra 5.0 Sloop			79	133	2 up trap (Class approved Sq Top Main, +1 for Pin Head)
Nacra 5.2			77.5	140	Sloop - 2 up trap
Nacra 5.8		73.5		157	Sloop - 2 up trap (Small jib/no foil bridle)
Nacra 5.8NA		71		157	Sloop - 2 up trap (Class approved Square Top Main + Large jib/foil bridle, +0.5 for pin head main)
Nacra 5.8NA Spin			66	157	Sloop - 2 up trap - Spin of 24m <sup>2</sup> ) (Class approved Square Top Main + Large jib/foil bridle, +0.5 for pin head main)
Nacra F16 Cat			71.5	80	1 up trap (F16 Compliant)

## CATAMARAN YARDSTICKS 2018 - 2019

	RELIABLE *	PROBABLE *	TENTATIVE *	Design Crew Weight (Kgs)	NOTES
Nacra F16 Sloop			68	141	2 up trap (F16 Compliant)
Nacra F17 Cat			72.5	80	1 up trap
Nacra F17 Sloop			68.5	142	2 up trap
Nacra Inter 17 Cat			73	80	1 up trap
Nacra Inter 17 Sloop			69	142	2 up trap
Paper Tiger	92.5			68	1 up
Prindle 15			89	71	1 up trap
Prindle 16			83	128	Sloop - 2 up trap
Prindle 18			79	148	Sloop - 2 up trap
Stingray Mk11			72.5	149	Sloop - 2 up trap with wing mast + Sq top main (+2.5 for Mk1 rig)
Taipan 4.9 Cat	76			75	1 up trap
Taipan 4.9 Cat Spin			72	80	1 up trap - (Spin of 17.5 m <sup>2</sup> )
Taipan 4.9 Sloop	72.5			130	2 up trap
Taipan 4.9 Sloop Spin			69	140	2 up trap - (Spin of 17.5 m <sup>2</sup> )
Taipan 5.7			69.5	154	Sloop - 2 up trap
Taipan 5.7 Spin			64.5	154	Sloop - 2 up trap (Spin of 23 m <sup>2</sup> )
Tornado International			64	160	*** Post 2001 Class Rules Amendments
Tornado Classic			64.5	160	*** As above but no carbon spars
Tornado Vintage		72		160	*** Pre 2001 sail measurements – No spin, 1 trap
Viper Cat			71.5	80	1 up trap (F16 Compliant)
Viper Sloop		68		141	2 up trap (F16 Compliant)
Weta 4.4 Trimaran (SQ Foam)			86	NA	1 up (+3 for 2 up) 8.3 m <sup>3</sup> Pin Head Main +3 GRP Hulls +2 Provided for Race Officer's guidance only. Tentative rating based on limited data – use with caution. SCHRS measurement data is not applicable. Observation of data suggests that there is a wide disparity between light and moderate/heavy air performance, relative to most catamarans
Windrush 4.3 Cat	94.5			68	1 up (Class approved Square Top Main, +0.5 for Pin Head main)
Windrush 4.3 Sloop		90.5		119	2 up (Class approved Square Top Main, +0.5 for Pin Head main)
Windrush 4.3 Super Sloop	88			73	1 up trap (Class approved Square Top Main, +0.5 for Pin Head main)
Windrush 4.3 Super Sloop Spin			84.5	78	1 up trap (Class approved Square Top Main, +0.5 for Pin Head main)
Yvonne 20			77	160	2 up 1 trap

\* The validity of yardsticks is divided into three categories, which are of statistical and/or historical significance only. Yardsticks within any category should not be

altered by Club Race Officials without reference to the Yardsticks Coordinator and submission of all relevant data, accompanied by a reasoned fact based argument in support of any suggested alteration(s).

**RELIABLE:** At least several years of extensive, good quality race data is available from major regattas over a wide range of wind/wave conditions and the SCHRS rating is within  $\pm 1.5\%$  of assessed race data.

**PROBABLE:** As for "RELIABLE", but the race data may be of lesser quality/quantity and/or there is a significant discrepancy between the SCHRS rating and assessed race data. There may be a significant bias towards the SCHRS rating.

**TENTATIVE:** The class is new/revised and/or race data is nonexistent and/or unreliable or of questionable quality. The yardstick is largely determined based on SCHRS measurement data.

**\*\*** Where there is any doubt, Foam Sandwich Hulls are assumed.

**\*\*\*** The A Class and Tornado classes have been divided into multiple divisions, as defined in the respective notes. This has been provided primarily for racing at Club level, to reflect that many older examples of these classes, uncompetitive with contemporary designs, or made so as a result of changes to class rules/restrictions, are sailing at some clubs in significant numbers.

The "guidance" in the comments section in respect of the A Class "Vintage" division has been updated and clarified following representations from club ROs.

*These Class Divisions are advisory only.* However, should Race Officers elect to treat these class divisions as one single class, the lowest yardstick typically applies. Notwithstanding the above, in respect of the A Class, should a single division be required, Race Officers are encouraged to consider whether it may be more appropriate (considering respective divisional numbers and/or relevant local conditions or for any other measured reason) to adopt the yardstick of the "Classic" Division. (eg: All boats entered are Classic or Vintage divs)

Race Officers requiring more information/advice and/or guidance in respect of A Class divisions are encouraged to contact the:  
Yardstick Co-Ordinator c/o AUSTRALIAN SAILING at:

[sailingservices@sailing.org.au](mailto:sailingservices@sailing.org.au).

❶ Refers to one of 2 recognised "Vintage" F18 designs (generally uncompetitive with more contemporary F18 designs) which have been rated separately under SCHRS measurement data as a "one design" class. Race Officers may elect to enter these classes as an F18 for club or open mixed fleet regatta racing at their discretion.

e The International A-Division Catamaran Association (IACA) continues to preside over a major "development" design phase, following the introduction of "Foiling" hull designs at the 2014 World Championships. "Foiling" hull and sailplan designs are evolving rapidly and the listed A Class (Flying) yardstick is rated as "tentative", as designers continue to explore and challenge the limits of the technology within class rules and crews adapt to the physical and technical challenges.

The "Flying" and "Classic" divisional terminology under Australian Sailing Yardsticks is consistent with that of SCHRS for the A Class.

## CREW WEIGHT ADJUSTMENT TABLE

The following table of adjustments, first introduced in the 2013/14 review, is provided for the guidance of Race Officers for mixed fleet racing at Club level only.

Australian Sailing does not support adoption of the Crew Weight Adjustment Table for National/State/Regatta level Championships/events.

The total weight of crew(s) refers to the "ready to sail" weight, including all mandated and typical (at Race Committee's discretion) sailing equipment including, but not necessarily limited to, wetsuit, buoyancy vest, trapeze harness, gloves, booties, spray jacket. Adjustments are in multiples of 0.5 yardstick points. The adjustment refers to the total (1 or 2 up) crew weight. The table has been prepared based on the adjustment provided by the SCHRS ratings formulae, for the stated increase in the design or optimal total crew weight, as shown in the AS catamaran yardstick table above. Adjustments may be extrapolated above the ranges in the table. There is no adjustment for total crew weights under the stated design or optimal crew weight.

Class LOA/Configuration/Crew #	Total Crew Weight Increase over Design Weight	Yardstick Points Adjustment
Up to 4.8 metres Cat or Sloop rigged – 1 or 2 crew	Up to 4 kg	zero
	Up to 8 kg	0.5
	Up to 12 kg	1
	Up to 16 kg	1.5
	Up to 20 kg	2
4.9 – 5.5 metres Cat rigged – 1 crew	Up to 5 kg	zero
	Up to 10 kg	0.5
	Up to 15 kg	1
	Up to 20 kg	1.5
4.9 – 5.2 metres Sloop rigged – 2 crew	Up to 7 kg	zero
	Up to 15 kg	0.5
	Up to 22 kg	1
Greater than 5.2 metres Sloop rigged – 2 crew	Up to 10 kg	Zero
	Up to 20 kg	0.5
	Up to 30 kg	1

## NEW AND ARCHIVED CLASSES

The Weta Trimaran (although not a catamaran) remains in this review, after introduction in 2015-16, with a yardstick based on limited race data from USA and Australian clubs and an archived RYA Portsmouth number. The yardstick remains very "tentative" and should be treated with caution, as trimarans cannot be rated under SCHRS measurement rules and available race data is very limited and of questionable quality. The manufacturer has also adopted a new Square Top Mainsail with a 12% increase in sail area and hulls are now 9% lighter, and presumably stiffer, using foam sandwich construction techniques. This class also has an unusually wide disparity between light and moderate/heavy air performance, compared to most catamaran classes, although the re-designed main may correct this, at least in part. More race data from mixed fleet regattas etc is urgently required.

The Dolphin, a 4.9m, 1 up cat rigged class, will be archived at the next review unless information is received that the class is actively sailed at an Australian club.

Please contact the Yardstick Coordinator, as below, should you have relevant information re the Dolphin. The only club known to sail Dolphins over recent seasons is Elwood SC, on Port Phillip Bay, VIC.



Should Club Race Officers and/or Class Associations or individual boat owners be aware of a new class or class formerly listed that is currently raced actively at club or regatta level, please contact the Australian Sailing Yardstick Coordinator at:

[sailingservices@sailing.org.au](mailto:sailingservices@sailing.org.au).