

## **KURNELL CATAMARAN CLUB INCORPORATED YARDSTICKS**

Date: September 01, 2018

Version: 1.0

Source: KCC Race Secretary - <http://www.kcc.asn.au>

### **INTRODUCTION**

KCC 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 (refer Australian Sailing Catamaran Yardsticks 2018-19 documentation - <https://www.sailingresources.org.au/class-assoc/yardsticks-chb-handicap>) 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 KCC 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 KCC catamaran yardstick system.

### **AUSTRALIAN SAILING CATAMARAN YARDSTICKS**

As has been the case for the past few seasons, KCC yardsticks are identical to the Catamaran Yardsticks published on the Australian Sailing website for 2018-19. <https://www.sailingresources.org.au/class-assoc/yardsticks-chb-handicap>

### **APPLICABILITY OF CATAMARAN YARDSTICKS**

KCC 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 southeastern Australia coastal and/or estuary waters.

### **USE OF THE YARDSTICK**

The aim of KCC yardsticks is to provide a basis for various catamaran classes 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 yardsticks are determined 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 yardstick system.

## KCC YARDSTICKS 2018 - 2019

	RELIABLE *	PROBABLE *	TENTATIVE *	KCC Starting Division	NOTES
<u>A</u> Class (Flying) <b>Θ</b>			63.0	3	*** Includes all <u>A</u> Class catamarans (with a valid current measurement certificate) that do not comply with the restrictions of the Classic or Vintage Divisions.
<u>A</u> Class (Classic)		65.5		3	*** 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.
<u>A</u> Class (Vintage)	71.0			3	*** 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	1	1 up trap (+3 no trap) Class approved Square Top Main, +1 for Pin Head Main
Arrow		89		1	1 up trap (Class approved Square Top Main, +1 for Pin Head Main)
Capricorn (AHPC) <b>Φ</b>		66.5		3	Sloop - 2 up trap (F18 compliant)
Cobra Cat			83.5	2	1 up trap (Class approved Square Top Main, (+1 for Pin Head main)
Cobra Sloop			80	2	2 up trap (Class approved Square Top Main, (+1 for Pin Head main)
Dolphin			85	2	1 up trap
F16 Cat			70.5	3	(F16 Box Rules)
F16 Sloop			67.5	3	(F16 Box Rules)
<b>F18</b>	<b>65</b>			<b>3</b>	<b>Standard Class for SCHRS/YV conversions (F18 Box Rules)</b>
Flying Phantom			56	3	Sloop - 2 up trap ("L" foils and "T" rudders)
Hobie 14		96.5		1	1 up (trap -2)
Hobie 14 Turbo		90.5		1	1 up trap
Hobie 16		80.5		2	Sloop - 2 up trap
Hobie 16 Spin			75.5	3	Sloop - 2 up trap (Spin of 17.65 m <sup>2</sup> )
Hobie 17			80	2	SE - 1 up trap: cat rigged with "wings"
Hobie 18		76		2	Sloop - 2 up trap
Hobie Getaway			88	1	Sloop - 2 up, 1 trap (wings and front tramp removed)
Hobie T2			86.5	2	Sloop - 2 up trap
Hobie Tiger <b>Φ</b>		67		3	Sloop - 2 up trap (F18 compliant)
Hobie Wave (Cat)			104	1	1 up (no trap) +6 for 2 up
Hobie Wave (Sloop)			99	1	2 up (no trap)
Hobie Wave (Turbo)			97	1	1 up (jib + trap)
Hydra 16			82	2	Sloop - 2 up trap
Maricat 4.0 Sloop			94	1	1 up (-2 trap)

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Maricat 4.3 Cat	96			1	1 up (+1 for GRP Hulls **)
Maricat 4.3 Sloop		91		1	2 up (+1 for GRP Hulls **)
Maricat 4.3 Super Sloop		89		1	1 up trap (+1 for GRP Hulls **)
Maricat 5.0			81	2	Sloop - 2 up trap
Mosquito Cat (Mk1)	82.5			2	1 up trap
Mosquito Cat Spin	77			2	1 up trap – (Spin of 14.1m <sup>2</sup> )
Mosquito Sloop (Mk11)		79		2	2 up trap
Mosquito Sloop Spin			75	2	2 up trap – (Spin of 14.1 m <sup>2</sup> )
Nacra 14 sq		84.5		1	(Class approved Square Top Main, +0.5 for Pin Head)
Nacra 15			69.5	3	Sloop + Spin - 2 up trap with “C” shaped foils (World Sailing (ISAF) Youth Multihull – mixed crew)
Nacra 15 (Flying)			66.5	3	Sloop + Spin - 2 up trap with “J, L or Z” shaped foils (IOC Youth Olympics Multihull – mixed crew)
Nacra 16 sq		79.5		2	(Class approved Square Top Main, +1 for Pin Head)
Nacra 16 sq Spin			75	2	(Class approved Square Top Main, +1 for Pin Head main)
Nacra 17			63.5	3	Sloop + Spin - 2 up trap with “C” shaped foils
Nacra 17 (Flying)			61	3	Sloop + Spin - 2 up trap with “J, L or Z” shaped foils (IOC Olympic Multihull – mixed crew)
Nacra F20 Carbon			56	3	Sloop - 2 up trap
Nacra F20 FCS			53	3	Nacra 20 Carbon with “J/L” foils and ”T” rudders (Flight Control System)
Nacra 350 Sloop			107	1	2 up – 1 trap
Nacra 350 Super Sloop			105	1	1 up trap
Nacra 430 Sloop			95	1	2 up – 1 trap
Nacra 430 Super Sloop			91.5	1	1 up trap
Nacra 430 Super Sloop Spin			86.5	1	1 up trap
Nacra 4.5 Sloop			90.5	1	2 up – 1 trap
Nacra 4.5 Super Sloop			87.5	1	1 up trap
Nacra 4.5 Super Sloop Spin			81.5	1	1 up trap
Nacra 5.0 Cat			84	2	1 up trap (Class approved Sq Top Main, +1 for Pin Head)
Nacra 5.0 Sloop			79	2	2 up trap (Class approved Sq Top Main, +1 for Pin Head)
Nacra 5.2			77.5	2	Sloop - 2 up trap
Nacra 5.8		73.5		2	Sloop - 2 up trap (Small jib/no foil bridle)
Nacra 5.8NA		71		2	Sloop - 2 up trap (Class approved Square Top Main + Large jib/foil bridle, +0.5 for pin head main)
Nacra 5.8NA Spin			66	2	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	3	1 up trap (F16 Compliant)
Nacra F16 Sloop			68	3	2 up trap (F16 Compliant)
Nacra F17 Cat			72.5	3	1 up trap
Nacra F17 Sloop			68.5	3	2 up trap

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	RELIABLE *	PROBABLE *	TENTATIVE *	KCC Starting Division	NOTES
Nacra Inter 17 Cat			73	3	1 up trap
Nacra Inter 17 Sloop			69	3	2 up trap
Paper Tiger	92.5			1	1 up
Prindle 15			89	1	1 up trap
Prindle 16			83	2	Sloop - 2 up trap
Prindle 18			79	2	Sloop - 2 up trap
Stingray Mk11			72.5	2	Sloop - 2 up trap with wing mast + Sq top main (+2.5 for Mk1 rig)
Taipan 4.9 Cat	76			2	1 up trap
Taipan 4.9 Cat Spin			72	2	1 up trap - (Spin of 17.5 m <sup>2</sup> )
Taipan 4.9 Sloop	72.5			2	2 up trap
Taipan 4.9 Sloop Spin			69	2	2 up trap - (Spin of 17.5 m <sup>2</sup> )
Taipan 5.7			69.5	2	Sloop - 2 up trap
Taipan 5.7 Spin			64.5	3	Sloop - 2 up trap (Spin of 23 m <sup>2</sup> )
Tornado International			64	3	*** Post 2001 Class Rules Amendments
Tornado Classic			64.5	3	*** As above but no carbon spars
Tornado Vintage		72		3	*** Pre 2001 sail measurements – No spin, 1 trap
Viper Cat			71.5	3	1 up trap (F16 Compliant)
Viper Sloop		68		3	2 up trap (F16 Compliant)
Weta 4.4 Trimaran (SQ Foam)			86	1	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			1	1 up (Class approved Square Top Main, +0.5 for Pin Head main)
Windrush 4.3 Sloop		90.5		1	2 up (Class approved Square Top Main, +0.5 for Pin Head main)
Windrush 4.3 Super Sloop	88			1	1 up trap (Class approved Square Top Main, +0.5 for Pin Head main)
Windrush 4.3 Super Sloop Spin			84.5	1	1 up trap (Class approved Square Top Main, +0.5 for Pin Head main)
Yvonne 20			77	2	2 up 1 trap

\* The validity of yardsticks is divided into three categories, which are of statistical and/or historical significance only.

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 still sailing in significant numbers.

Φ 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.

⊖ The International A-Division Catamaran Association (IACA) continues to preside over a major "development" design phase, following the introduction of "Foiling" designs at the 2014 World Championships. . "Foiling" 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 KCC yardsticks is consistent with that of SCHRS for the A Class.