

# AUSTRALIAN NATIONAL SABOT COUNCIL MEASURERS' MEETING

Saturday 29 December 2012

Olympic Room, Royal Brighton Yacht Club

## MINUTES

### AGENDA

1. Apologies
2. Adoption of Minutes from 2011/12 ANSC Measurers Meeting (Southport)
3. National Measurers report
4. Measurement issues from 2012/13 regatta
5. General Business

Meeting opened at 6:30pm by Mitch Galland

### Attendees:

Paul Summerell	NNSW
Jim Barsi	NQ
Ian Smith	SQSA
Peter Robba	SQSA
Ray Lambourne	SQSA
Eric McCormack	TSSA
Shane Quinlan	VSSA
Neil Teverner	SNSW
Simon Barrington	SNSW
John Hillcoat	TSSA
Rob Bridge	SQSA
Mitch Galland	VSSA

### 1. Apologies

NNSW – no measurer present at meeting

### 2. Adoption of Minutes from 2011/12 ANSC Measurers Meeting (Southport)

Minutes from 2011/12 ANSC Measurers Meeting (Southport) were reviewed and accepted.

### 3. National Measurers Report

Report from Mitch Galland (see Attachment A to these minutes)

### 4. Measurement issues from 2012/13 regatta

Reported by Mitch...

- No major problems experienced
- Lucky to have great team of volunteers who ensured everything ran very smoothly
- General consensus that measurement at Brighton was extremely well run and ANSC to extend vote of thanks to RBYC for its volunteers, facilities which made this possible.

**Action:**

Mitch Galland (ANSC measurer) to ensure letter of thanks written to RBYC

- One centreboard didn't conform to centreboard thickness template, which required sanding to conform. Board was measured back in zone. Suggestion made that all zones should check their copy of this template as it may not be consistent across all zones to prevent re-occurrence at next Nationals.

**Action:**

All Zones to check centreboard thickness template to ensure still accurate (20 mm).

- Sail tack measurement point (which determines sail luff length and foot length) is somewhat difficult to determine under current rules. A clearer, more precise definition and how to determine this measurement point would assist the measurement process and remove any differences in interpretation by measurers and sail makers
- The ANSC own equipment which is used during each Nationals measuring (sail template, mast/boom jig, hull/foil templates). This equipment needs to be transported between zones to each Nationals venue. Need to ensure zone holding next Nationals is aware in advance, so that arrangements can be made to transport equipment.

**Action:**

Neil Taverner (SNSW measurer) to arrange transportation of ANSC measurement equipment from Brighton to Drummoyne.

## 5. General Business

### **Fibreglass/carbon Mast Development**

Rob Bridge and SQSA have continued the development of composite mast since presented at last meeting (Southport), with changes to mast stiffness to make more comparable to existing aluminium mast. Sample mast was available at meeting, and several more available for purchase.

General consensus was that mast is technically ready, we now just need to work out best way to control their introduction and changes to constitution.

Things to be considered:

- Who can supply masts? Possibility of ANSC supplying masts to ensure ANSC retain control of what masts can be used. This would allow ANSC to oversee/certify any new masts that get developed to avoid any "arms race" scenario and ensure costs remain under control.
- In what state can masts be purchased? Completed state (ready for use) versus selling in kit form. Suggestion was that mast track needs to be attached by experienced rigger rather than individuals.
- What changes to measurement rules are needed for new mast?
  - Minimum weight (2600g)?

- Maximum height for centre of gravity?

Draft rule changes were tabled by SQSA (refer Attachment B to these minutes). Each zone needs to review and provide feedback to SQSA on these draft rules. Once all feedback has been received, a set of official rule changes are to be issued by SQSA for vote. Final proposed rule changes are hoped to be issued by March 31 2013.

**Action:**

All zones to review draft mast proposal and provide feedback to SQSA

**Action:**

SQSA to issue final mast proposal for vote by March 31 2013

**Mast height measurement**

Current measurement rules determine the overall mast height based on a measurement from deck level to top of mast. This measurement cannot be checked using the spar jig, and can only be checked with mast rigged on hull.

**Carbon Tiller extensions**

Discussions occurred around the fact that current rules do not allow for composite/carbon in any part of a sabot (including tiller extensions). We already have certain fittings (eg cleats) that are carbon. Carbon tiller extensions are common place and restricting their use doesn't make any sense.

Agreement reached that measurement rules should be changed to allow carbon tiller extensions (at least), and to consider wording change to allow carbon/composite materials in other fittings (e.g. cleats), but to NOT allow carbon in hull or foil construction.

**Action:**

SQSA to include/consider rule changes to allow carbon tiller extensions /fittings as part of proposal to be issued for carbon/fibreglass mast.

Meeting closed at 7:30pm

## **Attachment A - ANSC National Measurers Report 2012 – Mitch Galland**

Dear ANSC Members,

After the role of National Measurer was somewhat thrust upon me (unexpectedly) at last year's ANSC AGM, I am happy to report that the job has not been all that onerous.

Most activity has been around processing measurement forms associated with older boats moving to the 7000 National numbering series (approx. 6 in past 12 months – no new boats built), and even that process has been made pretty easy thanks to the great job of Nigel Markey (National Registrar) – Thanks Nigel!

On becoming National Measurer I didn't know too much about the Sabot Class Rules but have over the year become quite familiar with them. My thoughts (for what it's worth) are that whilst there are always things to improve, in general the measurement rules are in quite good order. The few areas that spring to mind that the Class might consider are:

Masts – allowance for fibreglass/carbon construction to drive down costs. Rob Bridge and SQSA have already created proto-type, so this just need this to be progressed and motion for change put forward.

Tiller extensions – current rules do not allow for carbon fibre ones. These are common place these days.

Mainsail tack measurement point – current rule is too loose around how this point is determined, which can cause confusion during measurement process. An explicit definition would assist greatly.

All other measurement activity this year has been centred round preparing for these Brighton Nationals. I would like to take the opportunity to thank the other Zone Measurers (some current, some from last year) who have provided valuable guidance and feedback to me in preparing things for these Nationals. Special mention to Peter Coleman from RBYC (and his merry band of helpers) for their hard work, smarts and sense of humour that has made the measurement process here at Brighton run smoothly and painlessly for one and all.

Special mention also to Bob Little (from Queensland) who minded the ANSC measurement equipment left at Southport YC last year and packaged it all up for shipping down to Victoria for us. Hopefully the equipment can make its way to Sydney for next year's Nationals with far less pain.

With my son Josh growing fast (too fast) and the lack of interest shown by my daughter to date in taking up sabot sailing, this looks to be my last year as a sabot parent (for now at least) and last year as National Measurer.

Thanks to one and all. Good luck for the future.

Regards

Mitch Galland

ANSC National Measurer 2012.

## Attachment B – Fibreglass/carbon Mast Proposal - SQSA

### SABOT FIBRE-GLASS MAST DEVELOPMENT AND PROPOSAL

BY SQSA

#### BACKGROUND

Fibre-glass masts have been considered way back in 1992 where at least 2 proto types were built. It was not accepted back then for what ever reason and those involved in the development moved out of the class and did not pursue the issue as they had no further interest in the class. Since 1992 the cost of fibreglass products have come down while the cost of aluminium masts have gone up. The main cost coming from producing the taper in the top section and mast makers are reluctant to do the odd one or two masts. There are also some aluminium mast around that are not readily available to all.

The aim for the introduction of the fibre-glass masts is to:-

1. Reduce costs of the class to sustain its future.
2. A mast available to all and more easily obtainable.
3. Produce a mast that is comparable to what is currently being used. Ie. Displaying no advantage or disadvantage.

#### DEVELOPMENT

A round mast profile was chosen with an external plastic track as this is the cheapest to produce. The tip was made with sufficient diameter to take a filed down Goldspar Goldilock to utilise existing fittings on the market. The mast base had to be manufactured as there was no production item available.

Mast bend measurements were taken from a Bavestock masts to try to produce a good all-round performer.

The first pro-type was made of all fibreglass but was not stiff enough therefore would not satisfy point 3 and to make stiffer in fibre-glass would have resulted in it being too heavy and also not satisfying point 3. It was decided to add carbon fibre which increased the price by \$40.

The mast is in two pieces joined at the hounds with the bottom being a straight tube section and a tapered top, similar to other mast currently in use. The join is like a sail board mast and can be glued or left as 2 piece. The manufacturer for the section was Exel Composites in Brisbane, who produce game fishing poles, kayak paddle shafts, tiller extensions for skiffs and cats. They are happy to do small quantities for anyone.

The mast bases have been made to fit Riley mast step fitting.

#### Testing

After a year of using fibre glass mast there have been no failures. The feedback by various sailors was that it was easier to sheet on indicating that it was softer which was confirmed by the numbers which is why the second proto type with the carbon fibre layer was made. All the sailors who used the mast were competitive but showed no advantage.

#### COSTING

SQSA members assembled 6 carbon/fibre glass masts that cost \$420 each in materials. Break down as follows based on order of six:-

Mast Sections	178.09
Plastic mast track (Goldspar)	83.20
Halyard lock (Goldilock used as they are readily available and just required filing down to fit)	28.50
Freight & packing of mast tracks & goldilocks (\$93.50 for 6)	15.58
Glue - Plexus (\$60 per tube does about 7 – 8 masts)	8.57
Gooseneck (Ronstan RF2527)	50.00
Nylon mast base	50.00
Halyard release rope – 4m of spectra	6.00
Rivits	1.00
Other fittings not included:-	
Hound fitting (Riley) & bolt	15.00
Bolt, S/S band (mast base)	5.00

#### **Cost to produce**

Ideally it would be best if a mast maker/sail maker/ or boat builder takes on the assembly for ease of purchase. They would do it in a couple of hours due to better tooling and skill than amateurs plus they could purchase the materials at trade price. This will add more to the cost. Assembly could still be done by the individual if desired. Further savings could also be made by sourcing the plastic mast track directly from manufacturer or finding an alternative cheaper product.

#### **Progression from here**

The SQSA have 5 masts available for purchase at cost for anyone interested to take away and test prior to making a commitment and form their own conclusions.

The following is a proposal to be put forth by way of postal ballot in the early part of the 2013 with the aim of acceptance by next Nationals. The proposal is being circulated to measurers now to obtain comments and feedback before sending out for voting.

**Proposal 1.** To allow fibre glass/carbon fibre composite masts rule 4.1 be amended as follows:-

##### **4.1 Allowable materials**

Spars may be constructed of timber, aluminium alloy, fibre/glass/carbon fibre, timber-aluminium alloy composite, or a composite of timber-aluminium alloy reinforced (1992) with fibreglass.

They may be hollow, and if of timber the laminates shall be continuous for the full length of the mast, splices accepted. If of aluminium alloy or fibre/glass/carbon fibre, they may be filled with a flotation type material.



**Proposal 2.** In order to contain the costs of fibreglass/carbon fibre masts they need to have an external mast track as an internal track will push the cost of production upwards. It is proposed to amend rule 4.1 paragraph 2 as follows:-

The spars shall incorporate a sail track. The track may be internal for timber and aluminium alloy masts only or attached externally. Fibreglass/carbon fibre masts may only have an external sail track. The track may be timber, aluminium alloy, aluminium or plastic.

**Proposal 3.** Once again to contain the costs of fibreglass/carbon fibre masts the shape needs to be controlled so the door is not left open for pear shape masts. Rule 4.2.2 needs to be altered as follows:-

4.2.2 The mast height above the deck including all fittings except wind indicator: max 3785  
~~The mast~~ Timber and aluminium alloy masts only may be of any shape section, Fibreglass/carbon fibre masts must be circular in shape sections. provided that  
~~its~~ The minimum dimension ~~is~~ to be not less than 30 at the hounds. Aluminium and Fibreglass/carbon fibre masts must be of parallel outside dimensions from gooseneck to the hounds and may have a taper to any diameter above this point. Timber or composite masts if tapered shall be at 30 minimum. (1987)

**Proposal 4.** To allow various combinations of Aluminium alloy masts and fibreglass/carbon fibre such as an aluminium bottom section and a fibreglass top to repair or revamp an existing mast, rule 4.2.2. should be altered as follows:-

#### 4.1 Allowable materials

Spars may be constructed of timber, aluminium alloy, fibreglass/carbon fibre, timber-aluminium alloy composite, or a composite of fibreglass/carbon fibre-aluminium, timber-aluminium alloy reinforced (1992) with fibreglass. They may be hollow, and if of timber the laminates shall be continuous for the full length of the mast, splices accepted. If of aluminium alloy or fibreglass/carbon fibre, they may be filled with a flotation type material.

**Proposal 5.** To allow the sleeving of masts to stiffen them which is a cost effective fix for growing sailors to keep them competitive without the need to upgrade. The aim of this proposal to minimise costs for the class members which may keep the price of second hand boats down.

1. Add to 4.2.2. "Masts may be sleeved internally".