

A photograph of a sailboat race. In the foreground, several sailboats with white sails are visible, some with numbers like 74, 6, 15, and 22. The sails have yellow and green accents. The boats are on a body of water, and there are trees in the background. A blue rectangular box is overlaid on the image, containing the text '10 raters' and '2014 Australian update' in white, italicized font.

# *10 raters*

*2014 Australian update*

*A short update to the article published this time last year, on 10rater development in Australia, based primarily around the activities at the Nationals, held in January. I have taken the lazy way out and put this report in front of the 2013 edition, rather than update the report from last year.*

## The Boats

### 1 - TRANCE



**O**bviously we need to start with Trance, the new 10rater designed by Brad Gibson and built and sailed by Scott Condie, who won the 2013 Nationals sailing an Aero. Brad has kindly put together his experiences and thoughts on the 10rater class that have led to the Trance.

“I borrowed Bill Wright's immaculately prepared NRWb to win the 2003 Nationals in WA and again in 2004 in VIC. From this, new boats were built by Bill to the deck level, and which I rigged and completed for both Alan Bicknell and Maurice Fletcher in NSW, of which Maurice still sails today. Working with Bill we looked at strengthening the boat's lower rig performance through minimal weight optimisation, shortening the foot of the lower jibs and a slight revision of rigs heights. A pocket luff C rig in 2006 saw the boat dominate in these conditions at a NSW open water event at Kogarah Bay that year reflecting its progress in lower rigs conditions without harming the boats dominant light air performance.



“In 2004 I was handed a hull shell and a plan of a Frank Russell P3 by Chris Stokes and asked to complete it for him. After some thought it was decided to go with the same fin and rudder sections as used on the NRW as they were far superior to the thick sharp nosed sections then used on that design, along with the significant stiffness advantage. The deck layout was similar to the plan and incorporated more accurate mast adjustment and support through using Bantock deck blocks. For the rigs I decided on 4, all set on Bantock tubes using compression goosenecks with adjustments that could be made easily as per the Wright/Bantock rigs on the NRW and long used Marblehead setups, which for some reason had taken quite a while to catch on in NSW in 10s. I completed the A Rig to plan and then Chris built the lower rigs with my sails.

“When launched, the boat on it designed weight was less than flattering against the dominant NRW, yet very strong in lower suits. After a few months sailing the boat was then altered to reduce weight overall. The bulb came down to near 3.8kg, the fin shortened a little and a new larger modern aspect profiled sail plan fitted. The result was a National’s win for Chris over the NRW’s of Bill Wright and Greg Willis at the 2007 event in QLD. Our work with this design can be attributed for bringing a somewhat overlooked older boat up to speed and competitive again by using up to date solutions. The successful P3 sailed in recent years by Owen Jarvis is also based on the Stokes boat which is still being raced by Allan Roberts in NSW.

“The Aero. Working with Scott for his sail plans we believed the waterline length at test measurement for the given displacement to be on the long side. Reports from Scott mentioning that the design had a weak spot in light airs supported our initial thoughts on this. Quite simply, we needed to reduce the waterline to a length that would give us sufficient sail area for light airs. Bulb weight was reduced by 200g and sufficient sail was gained. No rocket science on that one but a move that quickly took care of a perceived weakness in that design. It is testament to Steve’s design that the boat still performs so strongly in lower rig conditions to this day.

“I could add that I have duel rated many RM’s in this time also for myself, including one with a clip on bow and transom to place 2nd a point behind the NRW in a light air NSW championship, along with adding a full area rig to place 3rd in the 2006 UK Nationals won by a prism in light airs in London.





“Scott has done a fantastic job on the build of Trance, with it coming in lighter and just as strong as anything we could compare it to by using the same wrap around method I used to build my BritPOP and Grunge prototypes, a method I do credit David Creed with.”



*Scott Condie with his 2014 championship-winning Trance*

## 2 – BLADE 3

**G**lenn Dawson reports: “The Blade Mk3 turned in a terrific performance at the 2014 Nationals in Melbourne, finishing in second place just 5 points off the winner. The biggest advantage of going to Melbourne with the boat, was allowing Lincoln McDowell (the designer) to have a good look at the boat in the water. As my boat is the first hull from the mould, and at that time the only one on the water, Lincoln hadn’t seen how they went.



*The Blade 3 which Glenn Dawson sailed to second place overall at this year's Nationals*

“Following the regatta, we had a discussion about some of the things that were needed to improve the performance. The fin was left in Melbourne for the bulb to be moved, and a decision to amend the sail plan was made. The boat was hobby horsing quite a lot when travelling upwind, as the balance of the boat wasn’t right. Also, the boat would generate a lot of weather helm when coming out of tacks. The fairly large roach on the mainsail tended to hook once the pressure came off it, and generate the helm. Once the sail was back under pressure, the balance corrected and it was neutral to sail. So the plan is for a larger jib, less roach in the main and a re-configured fin.

“So far, Dave Thomas has altered the position of the bulb on the fin and the jib has been lowered further towards the deck. The new sails are a work in progress. The first Ten Rater regatta back home was a successful outing, with 11 heat wins from 20 races. The boat certainly looks better in the water, and sails very smoothly, without the fore-aft hobby horsing it had before.

“The emergence of pocket-luff sails is something I will need to investigate more closely, as they are certainly proving to be fast”.





*Glenn Dawson and his Blade 3*

### 3 – DIAMOND

**Y**es – Graham Bantock’s Diamond continues to be the benchmark at the front of the fleet and made up almost 50% of the entry list for the 2014 Nationals in Australia. Phil Page sailing a Diamond finished 3<sup>rd</sup> overall in 2014, after finishing 2<sup>nd</sup> overall the previous year. Jeff Green and Owen Jarvis were 4<sup>th</sup> and 5<sup>th</sup> overall, also sailing Diamonds.



*Owen Jarvis leading with his Diamond, from another Diamond and Scott's Trance*



*Two Diamonds; Owen Jarvis (5<sup>th</sup> overall) just ahead of Phil Page (3<sup>rd</sup> overall)*



## The Aero 3 update

Steve Sedgmen, the designer, reports that the design has been competing well throughout 2013 with many wins and podium finishes in various events such as the 10R GP rounds and the NSW and ACT state titles. A few boats have been sold in NSW, Qld and WA as well as one going to the UK which won its maiden event over there.

Steve is about to trial a new keel design and has been refining sails and rigs. See the next section for more details



*Selwyn's Aero 3 (6<sup>th</sup> overall) just behind Jeff Green's Diamond which finished 4<sup>th</sup> overall. The Diamond has its #2 rig up, whilst the Aero 3 has its A2 rig up, a bit bigger than the #B rig and smaller and more controllable than the A rig*

Steve and Selwyn Holland have been separately experimenting with sail design, mainly centred on the luff pocket style which appears to be more efficient. Steve's are very fast and proving a good benchmark for further experiments. Selwyn did a lot of trialing against another Aero 3 at his club before coming to the Nationals in January and has made a number of changes. The other one had Steve's sails on it. Selwyn reports: "What I found in wind tests was that my A2 (bigger than the #2) was more powerful than the A above 10 k/h. On the first day of the Nationals I started with it and the first 2 races were great (should have been 2nd and then 1st, but got taken out in the first race) but had winch problems after that then trapped in lighter breeze with the wrong rig in the boat."



## SAIL DEVELOPMENT

More from Selwyn: "I have been experimenting with two piece 'wrap around' pocket sails using different varieties of film over the last few months. After an interesting start it all seems to be coming together now particularly my understanding of how to shape the sail using the ram, backstay etc.. I am also experimenting with a wrap around jib. Each time I sail the wrap around mainsail it seems to get a bit faster. Except for drifters (where I think luff tie sails are superior), they certainly are showing some very encouraging potential in both pointing and speed.... enough to keep me going. For those who can make sails this is an interesting adventure. These sails like a bit of depth to heel and go. A big advantage is if you use sticky back to attach the end of the wrap around bit, you can unstick at will and change the configuration in a few minutes and have a new sail shape. They are relatively easy to make from rudimentary materials and can be constructed on a flat table anywhere. I mostly use a straight luff which will become obvious when you eventually hang it on the mast.



*Selwyn Holland with his Aero 3 and a suit of Sedmen sails, using the wrap around mainsail constructed with a single sheet of material behind the pocket*

“I was very encouraged at my relative speed at the Nationals, considering they were still in their early stage of development. I feel the current crop are now faster and point better. But they still need a tad of breeze to set and I won’t be using them in drifters from here on.”



*An early image of Selwyn's first prototype with the wrap around jib.*

**Frank Russell** has also been experimenting with pocket luffs. Frank has been using them for a few years now and they are a totally different from the Bantock style sails. Frank tells us “I feel they set better with a cleaner shape and don’t slow the boat during tacking as they don’t flap. The photo attached here is the very first sail of the type on a P4 and has a battened pocket and full length battens. In total 15 battens. The type is still undergoing development and I have started experimenting with a pocket jib on my P5 to see if a rounder luff profile is faster or slower”.



*Above: A Frank Russell pocket luff mainsail on a Phoenix 4*



## What else is happening? The P5 and GothiX – Frank Russell



*Both photos on this page are of the GothiX 10r*

The P5 is still being built, in small numbers and there will be boats sailing in Australia in 2014. The P5 is also being built from plans in China and Germany. The GothiX is part of a series of free plans based on the Goth IOM shape and is available on Frank's website. The only other free 10r plan currently available is the Bantock IONA design which is quite old now. The Gothix is a free plan but is still a serious racing 10r. Boats are being built most notably in Germany. There is a plug in Newcastle and boats will be sailing in NSW this year. Frank expects the boats under construction to be sailing soon.



*Above: A new GothiX hull built in Germany from the plans on Frank's website*

## Footnote

Austin Lakes in WA is the venue for the 2015 Nationals. It is a new lake near Mandurah, some 50 minutes drive south of Perth, and offers good racing for all wind directions.



*Above and below: 10rs at Austin Lakes. Number 86 is a Carbonic Boats Rubicon design*







*Glenn Dawson's Blade 3 ahead of Jeff Green's Diamond*



We'll do another update on 10 rater development as and when there is more to report. Something along the lines of the pics below maybe. Until then . . .





# previously . . . 10 Raters in Australia – the original article

A brief summary of some of the activities and developments in the  
class

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**Disclaimer;** this little article is by no means a comprehensive overview of all activities. I am based in WA and do not travel to East Coast events, where I know the class is stronger. However, hopefully there is enough information here to enable you to find out more information where I have not covered the boat that interests you. The links provided through the article and at the end are specifically there to assist Europeans find supplies not readily available in the UK or close by.

**Credits:** a number of builders and designers have contributed to this article and I would like to thank Stephen Sedgman, Frank Russell, Lincoln McDowell, Cameron Sloey, Roger Paul, Jeff Byerley, Glenn Dawson, Dave Thomas and Dave Creed for their frank and open descriptions of their boats and ideas. The photos from the 2013 Australian Nationals are a compilation taken by John McLachlan and Bruce Mathers

March 2013 Ian Holt

# 1 2013 Australian Nationals

So, starting with the Nationals this year, here are details of the boats entered, and their results

| FullName        | Sail | Design      | Overall position | Points | # race wins | Worst discard |
|-----------------|------|-------------|------------------|--------|-------------|---------------|
| Scott Condie    | 6    | Aero 2      | 1                | 38.0   | 11          | 7             |
| Phil Page       | 50   | Diamond     | 2                | 55.0   | 10          | 23            |
| Frank Russell   | 5    | Phoenix 5   | 3                | 85.0   | 2           | 9             |
| Owen Jarvis     | 82   | Phoenix 3   | 4                | 88.0   |             | 10            |
| Jeff Byerley    | 14   | Dreadnought | 5                | 100.8  | 2           | 14            |
| Ian Hayden      | 19   | Diamond     | 6                | 148.0  |             |               |
| Allen Roberts   | 69   | P3          | 7                | 170.0  |             |               |
| John Musgrave   | 77   | Muzzie      | 8                | 179.0  |             |               |
| Michael Austin  | 35   | Paterson    | 9                | 180.9  | 1           |               |
| Selwyn Holland  | 56   | Aero 1      | 10               | 188.0  |             |               |
| Phil Lawson     | 90   | Diamond     | 11               | 192.0  |             |               |
| Ross Capper     | 52   | RC          | 12               | 267.7  |             |               |
| Adrian Banwell  | 47   | JAB         | 13               | 276.0  |             |               |
| Alex Toomey     | 79   | Mule        | 14               | 278.0  |             |               |
| Ben Downey      | 164  | P4          | 15               | 284.8  |             |               |
| Jeffrey Watt    | 811  | Paterson    | 16               | 290.8  |             |               |
| Chris Percy     | 68   | muzzi       | 17               | 329.0  |             |               |
| Garry Bromley   | 41   | Peter Cole  | 18               | 336.0  |             |               |
| Rob White       | 99   | Phonix 3    | 19               | 368.0  |             |               |
| Roger Margot    | 78   | Muzzie      | 20               | 378.0  |             |               |
| Graham Sherring | 21   | Phonix 3    | 21               | 394.0  |             |               |
| Andrew Sands    | 43   | NRW 10a     | 22               | 404.0  |             |               |

An almost random selection of photos from the Nationals is included overleaf.



*Photo from ARYA Website – John McLachlan*



*Photo from ARYA Website - John McLachlan*





*Aero 2 leading Dreadnought leading Phoenix 5. Photo from ARYA Website - John McLachlan*



*JAB. Photo from ARYA Website – Bruce Mathers*

*Australian Nationals 2013*



*Phoenix 5 and a Diamond, 3<sup>rd</sup> and 2<sup>nd</sup> overall respectively. Photo from ARYA Website - John McLachlan*





*Aero 2. Photo from ARYA Website – Bruce Mathers*



## 2 Some designs of interest

### AERO 2 and AERO 3 - Both designed and built by Stephen Sedgman

The Aero 2 is the design Scott Condie won the nationals with but there is also an Aero 3 design which is performing well (current A.C.T champion, 3<sup>rd</sup> N.S.W State Titles). Both designs utilise the same deck layout, the main difference being the Aero 3 having more rocker and therefore a shorter waterline. Another noticeable difference is the very flat aft planing area on the Aero 3. As far as performance goes there doesn't appear to be a lot in it with perhaps the A2 slightly better off the wind and the A3 a touch quicker up wind.



*Aero 2 – Nationals winner 2013. Photo from ARYA Website – Bruce Mathers*

The Aero 2 has a waterline of 1268mm and the Aero 3 1211mm. Both have been measured with a bulb weight of 3.75 kg and close to max draft. Stephen thinks that a bulb weight of around 3.55 kg would be better.

Stephen is selling the boats either as a kit or partially completed. A partially completed boat includes a joined hull/deck with keel case , mast tube, mainsheet post tube , rudder tube , mast ram and eyebolt points installed with the boat being almost ready for paint. Also included will be a fin and rudder with titanium 4mm diameter stock and a rig plan for rigs A, B, C, and D. Price for this option is not finalised but it will be somewhere around the \$2000 mark. Delivery at the moment is around 3 to 4 weeks.

All the mouldings for both Aeros utilise CNC technology and are vacuum or compression moulded in carbon fibre epoxy.



*The new Aero 3*

Stephen can be contacted at [sksedgmen@grapevine.com.au](mailto:sksedgmen@grapevine.com.au) though he does not currently have any experience of exporting hulls overseas. You might need to twist his arm if you want it exported!



## Phoenix 5 – Frank Russell



*Phoenix 5*

The hull shape of the Phoenix 5 (P5) is similar to the P3, but is more powerful. It has less topside flair and is flatter on the bottom and has a wider stern. It is short on the waterline - 1200mm - carrying 4–4.2kg ballast, and is designed for moderate to strong winds but is still quick in the light stuff too.

The P5 hull and foredeck moulds are almost ready and Frank intends starting doing moldings non-vacuum bagged, with vacuumed foam sandwich decks and then try hulls as well. No plans for a specific fin at this stage, Frank is specifying the Tony O fin (<http://ultralite-radioyachting.net/>), but he will be doing rudders.

Frank has additional info on his website and will add more as progress is made. He will be supplying boats from bare hull to completed, available about April this year. Currently there is one order for a completed boat which he will have to finish before any other assembled boats are started.





*Phoenix 5 hull mould*

Frank will also be putting out the hull lines for the P5 in about a year or so. Although he is not yet selling plans for the P5 he has had some enquiries from Oz, China and Germany and has sold basic drawings. If anyone overseas wants a set of lines they are \$40.

Frank uses 3.75kg on his P4. He started with 3.8kg on the P5 but the waterline was under 1200mm so he changed up to 4kg to achieve a 1200mm waterline. The boat is much faster, tacks better, has heaps of power upwind. It can be bit sluggish sometimes but can also be very fast. The production boats will be lighter construction which will allow up to 4.2kg. The Diamond's strength is upwind and it carries a lot of lead, so the P5 is an experiment in heavier weight ballasts. The P5 waterline is narrow, probably about the same as the Diamond, with hull flair, but not as much as the P3. Frank is using a full length fin so has around 8% more righting moment than the Diamond. So far Frank is pleased, believing that the P5 is also faster downwind.



*A Phoenix 3 at Champion Lakes*

*Frank provides updates on his facebook page:*

<http://www.facebook.com/FrankRussellDesign>

**Blade** – Lincoln McDowell

The winning design at the 2012 Nationals. Lincoln is a designer who is quite innovative. He designs IOM's, M's and 10R's. He started in 10 raters after watching a couple of dual rated Marbleheads out in front at a 10 rater National Championship. He thought that there ought

to be a big advantage in boat speed with the longer LWL, and started with a beamy 10R which Patrick Parisienne sailed in the Nationals in Melbourne into 3rd place.



*Glenn Dawson's Blade*

Lincoln never sits still with his designs for long, constantly coming up with new ideas to try. The Blade was his second attempt at a Ten, and it has gone through a couple of minor adjustments. Lincoln won the Ten Rater nationals with it in Hobart (15 months ago), but was unable to defend his title this year, as he works offshore, and was at sea during the last Nationals.





*Glenn Dawson's Blade (#76)*

Lincoln is fortunate to have a terrific workshop on the boat he works on, as well as a good relationship with Dave Thomas, who also has a great workshop, with lots of toys. He is very computer literate, and designs his boats on the screen.

The Blade is very narrow, with LWL of 1233mm. There are soft chines in the aft 30% of the hull. It is currently the only design to be seen in Perth with a skiff-style aft deck, permitting the winch to be mounted low but have the drum above deck

Lincoln has a new design called "Prototype" out this year. This is a narrow design like the Blade, but with some more volume in the bow and has tumblehome like some of the modern One Meter designs.

Lincoln and Dave Thomas used to make moulds and Vacuum infuse the mouldings. They were getting some great results but, with newer designs with tumblehome they started making split moulds and joining two halves after moulding . But that proved difficult with the flat hulls, getting a join nice etc, so now they CNC the plug, and mould hulls over them. With careful wetting out and right peel ply they have found that only a short time is needed for finishing the outside of the hulls.





*Blade 3. Three of these have been built*



*Glen Kinsella's Blade 3. Three of this design have been built. The owners are happy with them, but Lincoln believes the design is too extreme*

Lincoln's new design - Prototype - is more conventional than Blade 3, being more like his Blitz IOM. Lincoln tends to go for 3.6 to 3.8 kg for bulb weights.

With his narrow designs the bilges get square or hard bilge so that as hull heels the boat sinks in the water getting the full waterline length. However, on the original Blade, the bow stayed down too much and as gusts hit the boat it lost height. Lincoln was able to counter this on the Blades he raced with rig tune. but the new one will be easier to sail for everyone even if not 100% tuned right. Well that is the plan . . .

Contact details:

Lincoln McDowell: [lincolnjji@hotmail.com](mailto:lincolnjji@hotmail.com)

Dave Thomas (builder of the Blades): [joscelle@bigpond.net.au](mailto:joscelle@bigpond.net.au)



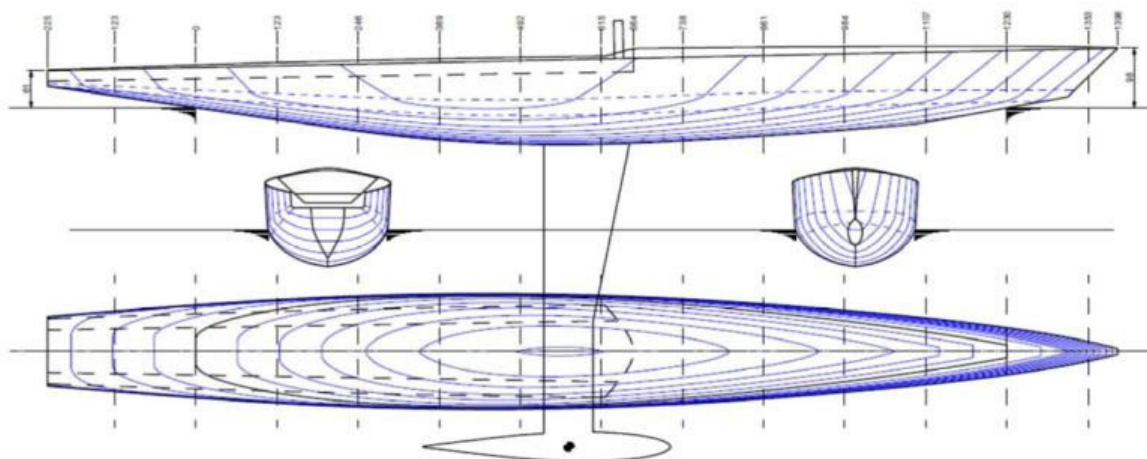
## Raptor V – Cameron Sloey

RAPTOR V was designed by Stuart Friezer, a Naval Architect with whom Cameron has been working for 10 years, building his high performance racing skiff designs. Cameron has provided me with the following details:

“The plugs were built using computer technology and laser cut frames for accuracy. The moulds were manufactured using an ATL Composite epoxy moulding resin and then post cured in a computer controlled oven to reach the design properties to allow the mould to go through a heating and cooling cycle without losing any structural properties. The manufacturing process we decided on is called Vacuum Infusion. This method of construction not only uses vacuum to consolidate the laminate but also draws the resin thru the laminate thus eliminating any air voids that may be left with other manufacturing processes. I have built boats up to 38 foot catamaran hulls using this manufacturing process. The product is then post cured in our controlled environment so as the resin reaches its operating parameters for strength and durability.

All design work has been carried out using computer programs specifically for the design of sailing vessels. Our rig design has been developed by Gary Wogas, who has many years of experience in the design and manufacture of all types of sailing vessels and he has used his vast experience to design rigs for the boat. We have designed 5 rigs. Rigs 1 & 2 are stayed rigs, the other rigs are free standing with pocket luff mainsails

At present we are currently building the first boat, We hope to have this boat sailing mid-April.”



|                   |                    |
|-------------------|--------------------|
| Length overall:   | 1623mm             |
| Length waterline: | 1230mm             |
| Sail area:        | 1.02m <sup>2</sup> |
| Max beam:         | 190mm              |
| Draft:            | 590mm              |
| Displacement:     | 5.9kgs (approx.)   |

The hull features an AC-inspired double knuckle bow which helps get the best possible underwater shape while minimising measured length. The aft bow knuckle is below the waterline, the intention being to minimise wavemaking and give the bow some bite when

going to windward. The hull sections are flattish forward and more Vee aft. The V aft also gives greater tracking while the flatter forward sections mean that the bow will turn easily. The BWL amidships is almost full beam and this combined with a firm turn of the bilge will give good initial stability, which is important for model yachts as their ability to accelerate is just as important as speed. The Raptor V will soon be launched by "Stormwatch RC Yachts"

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*First Raptor V in the mould*





*Raptor V – Flat aft sections*



*Raptor V: Not easy to see but there is a flat forefoot to the bow*

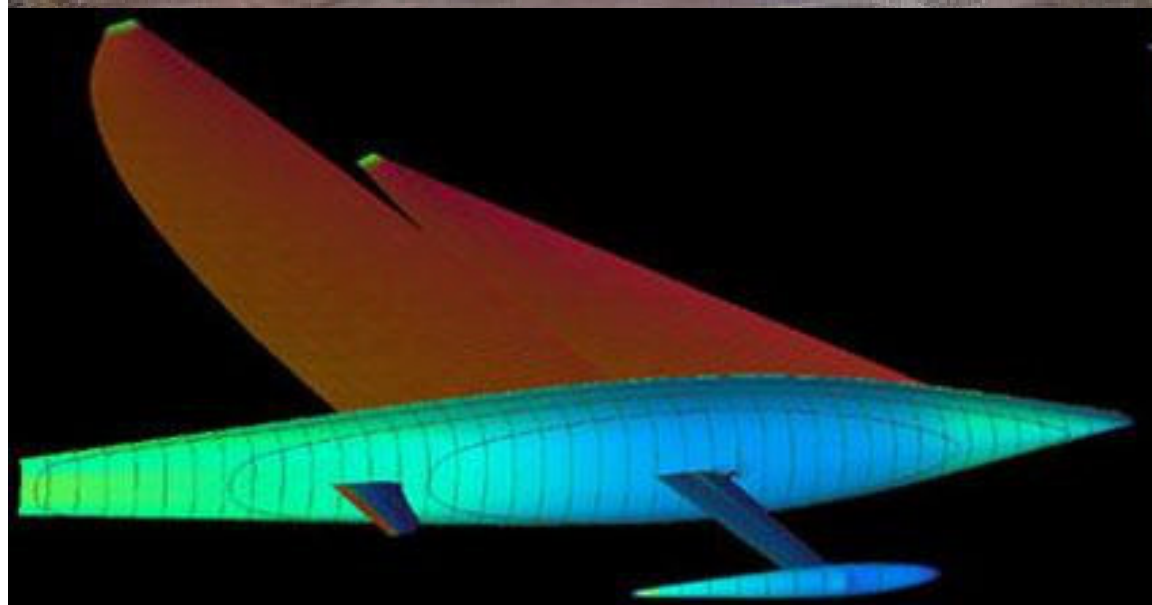


## Other Designs - Rubicon – Carbonic Boats

Chris Woods and Roger Paul here in Perth have been building the latest incarnation of the Carbonic Boats *Rubicon* 10 Rater under license and have modified the design to include a raised foredeck. This is another design with a long aft overhang; the waterline length should be around 1080mm with an overall length of 1670mm, and 200mm beam.

The first 2 boats are getting close to completion and we're expecting to see these on the water in Perth soon. Both will have Jeff Green sails, with a conventional fractional rig, 60/40 main/jib area ratio. Depending on how these go, they may be taking orders for others!

Chris Woods email address; [chdw@iinet.net.au](mailto:chdw@iinet.net.au)





*The Mk1, sailing in USA*

**Other Designs - JAB** – a multi-chine design by Jeff Byerley at Mirage Yachts



*Photo from ARYA Website – Bruce Mathers*

Hasn't been seen on the West coast so I cannot comment



*Dreadnought - Photo from ARYA Website- Bruce Mathers*



Also by Jeff Byerley is the Dreadnought Marblehead (similar concept this IOM design Destroyer). Jeff raced the Dreadnought at the 2013 Nationals as a Marblehead and did not have a full size rig due to lack of time. Jeff's aim was to try and prove that a Marblehead could hang in with the 10's and believes he proved the point by finishing second to Scott on points for the last day, in 5 – 14 knots of wind. Jeff felt the Dreadnought was as fast upwind as any but suffered downwind with lack of sail area!.

Jeff will be producing a new 10 this year, (when he gets time), the design having been completed for some time.

Contact: [miragej@bigpond.com](mailto:miragej@bigpond.com)

## **“Foreign” Designs**

### **Prizm and Diamond – Graham Bantock**



*Diamond*

Yes I know, nothing to do with Australia, but have included here to help make this into a compilation of all current modern designs. As the Prizm dominated in the early 2000s so the Diamond has been the benchmark for the class in the past 5 years or so, and new designs are usually compared to the Diamond, as indeed has happened when compiling this document. Whilst Graham no longer produces the Prizm, I believe it can still be obtained through Marc Pomarede in France. The Diamond can be sourced directly from Graham at Sailsetc.

And just in case you are one of the few people in this sport who is not aware of Graham Bantock, the website you need to go to is [www.sailsetc.com](http://www.sailsetc.com). This website has a wealth of information about the development of the Diamond design



*Above: Phil Page's Diamond leading a race at this year's Nationals – John McLachlan*



*Above: 99 and 97 are Prizms, 95 is a Diamond*





*Above; A Prizm with a Walicki rotating mast*

## Partner – Janusz Walicki

The Janus Walicki Partner 10rater is usually the one that you see on the shore with more gizmos on it than you would believe possible. Backstay adjustment, clew tensioning adjustment and the famous “butterfly” that flicks the radial jib boom into the goosewing position, they are a masterpiece in model technology. Refer to the History section for some background here. Some of the Phoenix designs raced in Perth have Walicki fittings and rotating masts

The web site for Walicki boats can be found here:

<http://www.walickiboats.de/>



Contact Janusz at

[Janusz.Walicki@t-online.de](mailto:Janusz.Walicki@t-online.de)



*A Partner running downwind, with the radial boom goosewinged by the butterfly fitting located on the hull just in front of the mast*



## Dave Creed 10 (there are 3 of these in Australia now)



*A Creed leading from a Diamond at Champion Lakes*

A big decision with the 10 rater design concept is whether to go for the fastest boat in a straight line on a long course – which will result in a long hull that will take a while to accelerate to top speed - or go for “squirty” boats with lots of stability to accelerate faster to a lower top speed. Dave Creed has opted to go down the latter route.

Dave’s new 10 is a bit lighter than the Diamond and has a very “mobile centre of buoyancy” (to use Dave’s own words) so is designed to accelerate well. The Diamond’s great strength is that it becomes a very long" boat as it heels and the square stern comes into play but Dave’s philosophy is that the lighter weight, allied with greater form stability to compensate for the shorter length is the essence of lively performance – with a good downwind performance as well coming from the lighter weight . It is designed to be OK on LWLs between 48 and 50 inches without upsetting hull balance.



*Two views of the Creed 10rater hull shape*

If you want a Creed 10, email Dave at: [david.creed5@tiscali.co.uk](mailto:david.creed5@tiscali.co.uk)

(and good luck, because you'll have to get him to cancel all his orders for boring Lintel One Metres first)



### 3 A bit of History

Some background info on other designs, supplied by Glenn Dawson who knows much more about the local developments than I do!

Janusz's Ten Rater is called the Partner. He came to Perth in the mid-1990's to do some development work, but that was on Marbleheads. The Partner was already in production at that time. Janusz designed the Partner for the 10 Rater Worlds which were held at Barmera (South Australia) in the early 1990s. Quick story about that - Janusz won many races, and was trying to convince skippers that it was his boat that was superior - not necessarily his skills. In one race, he rounded the windward mark in first place, set his sails (using his profile adjustment), put his hand set on the ground and walked away from it. As his boat neared the wing mark, he picked the transmitter up, gybed around the mark, re-set his sails and did the same thing nearing the leeward mark. His only comment was "it won't turn the mark by itself". He managed to get his usual increase in his lead, despite not touching the controls!



*The R-10-6*

Alan Robinson - a Perth Radio Sailing Club member, and ex-New Zealand America's Cup Operations Manager - designed the R-10-4 and R-10-6 hulls. The R-10-6 was a downwind flyer designed for the World Championships in Singapore in the late 1990's. Jeff Green sailed one for many years, and a couple have found their way to the Eastern States and one to the Netherlands. Alan has a R-10-8 on the drawing board, but never quite got around to building one. Alan also designed a range of Marbleheads - M1,M3,M5 and M7. The M7 became the Skalpel 2, which he gave to Janusz, who has sold them very successfully around the world for the past 18 years.

The other Ten Rater which has had a great deal of success in Australia is the NRW10B, designed by Billy Wright from Queensland. It is a real light wind flyer, and has won a couple of National Championships. Rob Mews now owns that boat, but there are only a few of them ever built. It has exceptionally long overhangs, and a massive sail area. It needs to come down



in sail area much earlier than most other Tens, but in capable hands, remains competitive. Chris Stokes won the 2007 Nationals with a Phoenix 3, and He had a 3rd in the 2011 Nationals and a win in the 2011 NSW State Championships with the NRW10B

## 4 Perth



*Jackadder Lake, home of PRSC*

We sail 10s at two clubs in Perth:

- Perth Radio Sailing Club (PRSC)
- Champion Lakes Radio Sailing (CLRS)

PRSC is just north of the Central Business District, at a park that has a decent sized lake. Very pleasant location, but unfortunately it has trees on the bank that can play havoc with the sea breeze that usually arrives around 2.00pm. And when it doesn't rain, we suffer from islands appearing in the middle of the lake...

CLRS is some 20 minutes south of Perth, located at the artificial lake created for the rowers. Fortunately we don't sail in the lanes but on the side where they launch some of the boats. No trees in sight, but no grass either. Usually has a good breeze in the afternoons

Link to a 10r club race at Champion Lakes can be found here

<http://www.youtube.com/watch?v=fbSfvfB-q8Y&list=UU0Ol6vZzdP4D2yPJ85jS1A&index=10&feature=plcp>

Perth Radio Yacht club races:

[http://www.youtube.com/watch?v=lgGdm\\_Ww9yM&list=UU0Ol6vZzdP4D2yPJ85jS1A](http://www.youtube.com/watch?v=lgGdm_Ww9yM&list=UU0Ol6vZzdP4D2yPJ85jS1A)

and

<http://www.youtube.com/watch?v=WTguFPLZnXY&list=UU0Ol6vZzdP4D2yPJ85jS1A>



*Two photos of Champion Lakes*





*Above. One of the two Creed 10s in Perth, to windward of Rob Mews' NRW10B, racing at Champion Lakes*



*From left; Creed (mine), NRW10B and Creed*



*Above; My Creed (right) next to a Diamond*





*Above and below: Perth Radio Sailing Club*



*One of the joys of Perth: Not many places have Pelicans and 10s mixing it*

## **5 The other side of Australia**

*Selwyn Holland* tells me that .... “we (meaning NSW skippers) have a strong class of mixed 10rs with sailors mostly prepared to travel to the various regattas up and down the coast of



NSW from Foster in the north to Sydney, Wollongong and Canberra. Our club (Wollongong Model Yacht Club) has only recently entered the 10R sphere but now have an Aero, 4 new Blades from Lincoln (made by Dave) and a locally built Graffito (Bantock design). Having a load of fun building them up to being "bullet proof". Some have "commercial sails" but most have owner designed and built sails (a lot of competent sailmakers in our club) that seem to be nice and fast. After an initial battering from the weather over here in the last month, we are looking forward to a big season learning the ropes. Steve Sedgmen's new design (Aero 3) certainly goes very well and looks like a sensational all-round regatta boat. He also makes high quality sails. "

## 6 Crazy Ideas section:

If you are still reading this article, then this part is dedicated to the experiments that have been seen in Perth recently – mainly mine!!! Well I am writing this so you'll have to suffer my ideas and experiences here.

Dave Creed has some interesting views of model yacht designs. His thoughts are as follows:

*"The rigs are very interesting: high aspect square top main, possibly a mastheaded jib, no need to go too high if we lose the inefficient narrow triangle at the top of the main*

*Walcki's rigs are wonderful things but very difficult to get right all the time and in my opinion their Achilles heel is that they can't twist the rotating mast anywhere near as much as required, if they could set that rig right nobody would get near either his 10 or his M. One idea we have is to use his mast the wrong way round, encased in a double luff sail to give the sharp Leading Edge to the rig, and over-rotate the mast so at least it's at the right angle near the top of the rig where it really matters.*

*The deck of the boat is flat to allow a deck skimming rig, closing the gap almost entirely between the sails and the deck surface The idea is to make the step from something that looks like a fishing boat rig to something that looks like an aerodynamic device and it's only the 10s that provide this chance."*

So, with that background, my Dave Creed 10r started life with a masthead rig, with a curved deck-sweeping main boom that had an adjustment for clew tension at the outboard end of the boom. The rationale being:

- Masthead jib to give better flow round the mainsail
- Deck sweeping mainsail to get a "slot effect" at the bottom of the mainsail



*My Dave Creed 10 as launched, with David Potter sails from the UK*



*The radial jib fitting that was installed 6 months later*



*Close-up of the deck sweeping mainsail*



*My Dave Creed 10 as launched – deck sweeping mainsail foot is visible*

The ideas were good, and when the rig was set up correctly it was fast, but it was very difficult to set up the leach twist in the jib for variable wind strengths. This was compounded by the fact that the mast fits into a fixed tube in the hull, it cannot be raked and there is no mast ram. Simple, but it hindered tuning a radical rig.



The next step was to try a radial jib boom, but retrofitting such a fitting to a boat is not easy, and I failed to eliminate twist in the fitting, so every time a gust hit the rig, the deck flexed and the jib leach tension eased far too much. In the bin....

The masthead rig was a good concept, but needed a tame sailmaker on the bank to make adjustments to the sails between weekends to sort it out, plus the ability to rake the mast until the correct set-up was established. Would I try it again? Yes, but would need more adjustment for mast rake and bend..

Its first ever sail was with the B rig, here:

<http://www.youtube.com/watch?v=7VZYsEhJyTo&list=UU00lp6vZzdP4D2yPJ85jS1A>

A rig sailing;

<http://www.youtube.com/watch?v=op3vf4BSmeU&list=UU00lp6vZzdP4D2yPJ85jS1A>

... And now it has a conventional fractional rig on it from Bantock and goes just fine! The fixed mast rake is not a problem as the  $\frac{3}{4}$  rig allows mast bend to be controlled with the backstay, something not possible with the masthead rig



*My Creed in its current set-up*

## More crazy ideas

I designed and built my own 10 last year, just for fun. Dave Creed's design is excellent in a breeze, it's wider beam than other 10s, combined with a lighter bulb than most (3.45kgs), works well in a breeze but it struggles in the really light stuff when both chines sit in the water. So I decided to design a hull aimed at light winds that might hang on when it blows. It ended up as an exercise in taking overhangs to the extreme: A long stern overhang to increase waterline length when heeled, and a long bow overhang to prevent nose-diving when going downhill in a breeze with too much sail up, a common occurrence here, as the sea breeze frequently arrives just after we start sailing and no one wants to change rigs!



*My own design, Offbeat, built over a plug whilst my wife was out of the country! An exercise in massive overhangs – it's 181cm long!*

The hull beam is narrow, but has a chine running from the transom to just forward of the mast. The bow overhang creates a bluff entry at waterline. Having raced it so far on two occasions it is fast in light winds and fast downwind in anything, but the boat is too twitchy and does not track at all well upwind. Not sure why this is, but could be linked to the bluff entry to the waterline at the bow, which results in too much buoyancy forward when heeled, possibly the chine should have been extended to the bow. Mark 2 is on the drawing board but won't get built until my wife lets me back into the garage....



*Offbeat again. The bow-up attitude indicates it needs more weight in the bulb, but I am reluctant to get the scissors out just yet*



## Fat Heads / Square tops



*The IACC120 Class in Italy – Fat heads everywhere*

The craze for square tops on mainsails has been a steady movement that has stemmed from large racing multihulls that want to cram as much sail area onto a rig whilst keeping the centre of effort as low as possible. The trick has always been to make sure the top batten(s) flick across when tacking in light winds, yet make the roach stand up in a breeze and not flog off, not only losing sail area but also causing extra drag.

Some of the nicest model yacht square top mainsails I have seen have been on the Italian IACC120 class, where the sailmakers appear to have cracked the problem. The problem I have is that the sailmakers don't appear to speak English!

Go here for more info:

<http://iacc120cup.altervista.org/Main0.html>



*Very nice square top mainsail on an Italian IACC120 Class model yacht*

In the Mini40 class I have had my fair share of experiments but have never found a solution that works for a top suit



With this intro, now come some photos of Glenn Dawson's square top 10rater mainsail. And I should hasten to add that it was Glenn's suggestion to include this in the Crazy Ideas section of this article, not mine!



*Glenn Dawson's Blade with the experimental square top mainsail*





*Nicely made by Jeff Green, the mainsail had a shorter foot than the conventional sail and no roach. Glenn's original rig was slightly under size in area, so no reduction in mast height was needed*

Does it work? Let's just say Glenn is using his original mainsail these days! My personal observation of the rig was that it was behaving just like my mainsails on my Mini40, ie very difficult to control through the wind ranges

*And that's it for this edition! Hope you have found it informative. If I have made any errors in facts and statistics, my apologies, they were not intentional. If anyone wishes to correct or add to the document I will be happy to re-issue or alternatively someone else can have a go!*

Ian

March 2013

## 7 Some Web sites and contact details

Australian Radio Yachting Association has a link to suppliers – here:

<http://www.rudiosailing.org.au/suppliers.htm>

Frank Russell – designer of the Phoenix range

[http://www.frankrusselldesign.com/ten\\_rater1.htm](http://www.frankrusselldesign.com/ten_rater1.htm)

An extremely good compilation of 10rater links and contacts (best I have seen) can be found here in Frank Russell's website

<http://www.frankrusselldesign.com/suppliers.htm>

A highly regarded supplier of fins and rudders and tapered masts is

Tony Oudshoorn

Ultralite Radio Yachting

Ph (09) 4416522

New Zealand.

[www.ultralite-radioyachting.net](http://www.ultralite-radioyachting.net)

Plugging our local suppliers, our local sailmaker in Perth is Jeff Green who races a Diamond

<http://www.jgsails.podserver.info/>

One more section to come.....

## 8 One last thought for you

*What is the average age of the sailors at your club? 45? 50? More?*

I lived in Shanghai for two years before moving to Australia. Through the expat community I discovered a couple of others with similar interests in model yachting and for a year I thought it was just us sailing model yachts until one day I asked a Chinese colleague at work to google “model yachting” in Chinese, and bingo! I found the E Class! This is essentially an IOM, but with differences: same sail plan and same hull rules but no minimum weights, the spars can be carbon and the fin is 2cm deeper. Don’t ask me why, but the class is administered by NAVIGA\*\*.

And there was another class – the S class, with rules that encourage you to compete with a boat such as the Robbe Sirius (see photo below), an out-of-the-box ready to sail boat, 90cm long, just needing better sails.



*\*\* For those of you who are curious about such things, Graham Bantock informed me at the time that NAVIGA is a 'world' organisation for models (boats, planes etc) and includes radio sailing. It exists in competition with the RSD to which authority over rc sailing is delegated by ISAF which asserts world authority over various sailing related activities. Before RSD was so delegated it was more loosely attached to ISAF and before that it went through a period where it attempted to merge with NAVIGA rc sailing to form one body. That could not be accepted by NAVIGA, the story goes, so the idea was for both bodies to dissolve and to form a new body that would be attached to ISAF. This did not happen.*

Anyway, the point I am leading up to is this. When I turned up at the first regatta with a modified Squiggle One Metre, I was astonished to find that the average age of the skippers was probably around 15! Don’t believe me? Look at the photos below





*Competitors at a Chines Model Yacht regatta (I am in back row, centre). The man on the right is the Chinese national coach for model yachting!*



*And look at the fan club! The mums and dads and uncles and aunts and passer-bys were always there*

From what I understood China promotes model yachting at school/college level and students are encouraged to build their own boats. This may be why they have opted to remain with the E Class rather than move on to the now more expensive IOM. Asking Chinese people simple questions was often anything but simple (!) but from what I worked out someone in China turns out runs of keels, bulbs, kicking strap assemblies etc and sells them once a year to the schools to make up the kits for the boats. It also looked like there are 3 basic moulds for the locals, with a fourth design coming out from Janusz Walicki. The Walicki link is important here I think – I have no idea how long the relationship goes back in time, but the Chinese have clearly latched on to his ideas – and this may all come from a “Mr Xuan”, who by all accounts

is “Mr China” for model yachting. That summer there was been a week-long training camp session for the students at the Olympic rowing base outside Shanghai. We went there on 18th July to have a look, and when they saw me rigging my aging Peter Wiles 10Rater, they opened the rear doors of a van and brought out 2 brand new Walicki 10Rs – which we were not allowed to photograph (so naturally I did!) Later at lunchtime Mr Xuan took us to his campus bedroom (!) which had in it a brand new Walicki Marblehead, a brand new Walicki E, and a brand new TS2. These were all for his campaign on the NAVIGA championships in Hungary in August (2009), for the 10R , M and E classes.

**So – having digressed left, right and centre, here’s the point of all this:  
can we get model yachting into schools?**



*One of Mr Xuan’s Walicki 10rs*

**THE END**