



# AMATEUR BOAT BUILDERS' ASSOCIATION

October November 2014

## NOVEMBER TOOLBOX — MARINE ELECTRONICS

Our toolbox visit on Saturday 1<sup>st</sup> November was hosted by Peter Turner of Maritime Electronic Services, a company specialising in marine electronics and located in Fremantle at the Fishing Boat Harbour. Maritime Electronic Services is a family business which has been providing marine electronics equipment and support services to WA's recreational and professional boating sectors for over 40 years. The company sells, installs, services and repairs an extensive range of marine electronic and electrical equipment including, amongst others, marine radios, EPIRBs, depth and speed instruments, GPS chart plotters, autohelms, magnetic compasses, radars and navigation equipment. Peter is the owner and Managing Director of Maritime Electronic Services and has been with the company for almost 16 years.



Peter kindly provided us with a 'tech meeting in a toolbox' and began by explaining each component of entry level equipment that he had laid out on the bench and how it was wired together in a system suitable for small powerboats and yachts. He began by explaining how the main cabling or 'backbone' of the system had changed over recent times. Older equipment was wired with power cabling to each component and a two separate wires for the signal. The modern arrangement is based on what he called the NMEA 2000 standard and comprises a five

pin connector and back bone system that fits together in a 'plug and play' way like a meccano set — and looks more like a plastic pipe system than a wiring system. The system carries both the power and the signal wiring and needs only the addition of a resistor component (or terminator) at the blank ends of connectors to complete the circuits. It is also interchangeable across manufacturers with some providing their own adapters to interface with the standard NMEA 2000 system. Coming off a 'T' in the backbone, there can be a maximum of five metre spurs and pre terminated backbone cabling is available from half a metre and in increments of half a metre. The whole system assumes a digital environment but some older equipment can be connected via an analogue signal converter.



### Marine Radios

The most recent marine VHF radios are fitted with 'digital select calling' (DSC) which requires a GPS input and an ID number called the MSI number. In an emergency situation, the DSC facility potentially allows vessels nearby to provide a 'DSC response' more quickly than might be achievable via more formal means (eg activating an EPIRB).

### Instrumentation

Peter showed us several brands of instrumentation in which the primary sensor is connected to the receiver and readout screen via wireless technology. This is particularly useful for wind instrumentation mounted on the top of masts which has to date been hard wired back to the screen. Wireless technology uses a receiver unit as close as possible within the hull which is then hard wired back to the screen. Peter showed us a Raymarine Tactic and a Garmin Nexus — both of which use this approach.





### Transducers

Older style miniature paddle wheels are still used but these are now combined into one unit with the depth sounder sender. Depth sounder transducers are also now available with a mobile sending element internally mounted so that it counteracts any out of vertical mounting of the main housing in the boat. In this regard, Peter pointed out that some units have the ability to dial in an offset to allow for known factors that may impact the accuracy of the readings. Nevertheless, it is important to mount the housing where the signal can get clear to the bottom.

New technologies are also available that transmit over a bigger cone width which enhances information for such things as fish finders.



Plastic transducer mounting blocks are available that can be sliced to suit the angle and curvature of the hull with one 'half' of the slice then mounted on the inside of the hull and the other 'half' mounted on the outside so that the actual transducer remains vertical.

### Chart Plotters

Peter then moved on to explain the features available in entry level chart plotters using Raymarine equipment on functional display in his showroom to demonstrate their various functions. Five and seven inch plotters can split their screens into four and have some touch screen facilities that appear to operate in a similar manner to mobile phones. These screens are of the order of \$700 for the basic screen only.

These unit can be built up over time to ultimately provide readout for fish finding, radar, speed, depth, man overboard as well as the normal waypoints, anchor alarms and shallow water alarms. The screens can be customized to the user—for example so that the screen shows course up or north up.



In addition to chart plotters, separate readout display units are available in various configurations for all areas of instrumentation — either in a square or a rectangular format — and to read single or multiple sensor feeds eg speed only or speed and depth.

### Auto Pilot

An example of the small compass driven auto pilot is the Raymarine Tiller Pilot which Peter also had displayed in the showroom. These types of units are available for either tiller or wheel steering systems and can be remote controlled. They will interface with chart plotters to automatically steer to waypoints. Several capacities are available and range in price from around \$800 to \$2000.



### Communications

The afternoon closed out with a short wrap of communications for off shore applications. Peter pointed out that demand for HF radios (around \$5,500) is now decreasing in favour of Iridium (Motorola) or internet SAT phones which are about the same cost overall but have access to a much wider range of information.

This was a very informative afternoon on a subject that we have not previously engaged in. ABBA thanks Peter Turner for preparing a very appropriate range of equipment to brief us on and for taking time out on a Saturday afternoon to share his considerable knowledge with the small group of members who attended.

## OCTOBER TECH MEETING — THREE SHOW 'N TELLS

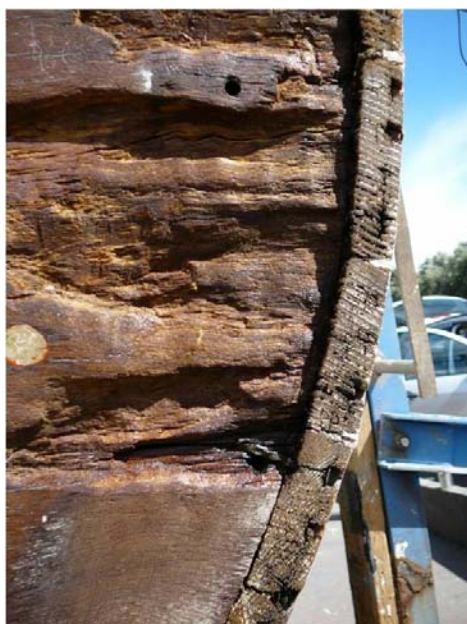
Our October tech meeting commenced with a short Annual General Meeting which is briefly reported in the Admin Notes page of this newsletter.

By far the more interesting part of the night was three members who addressed us on their boats, projects and adventures in a Show 'n Tell format which we have not had at ABBA for some time. Hon Treasurer Bruce Cadee led off, followed by Committee member Rosemary Nayler and the night was closed out by yours truly President/Editor Chris Davis.

### Taurus — Bruce Cadee



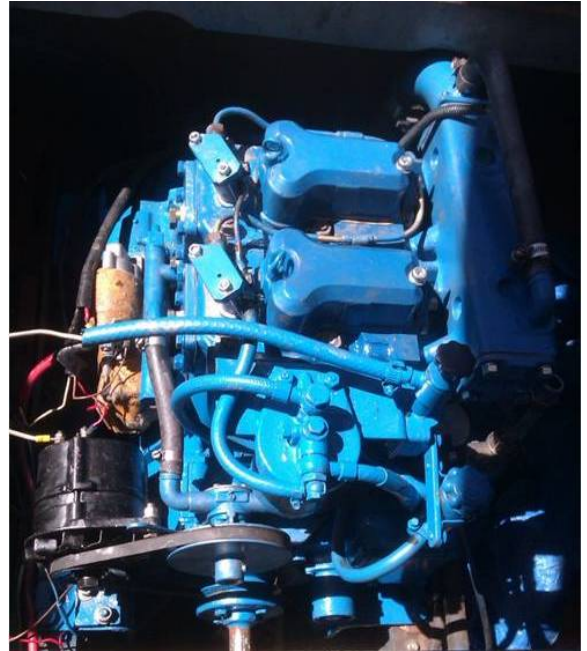
Bruce's project is a 23 ft jarrah and Baltic pine motor sailor which was designed and built in East Fremantle by Ken Crabbe in 1952. Under sail it has a jib and mainsail and the power plant is a two cylinder, 23 hp Arona diesel. When Bruce purchased it in 2011 from a Mandurah seller, the advice was that everything was in good condition — So WHY Bruce are you restoring it? You can work that out yourselves from a small sample of the before and after shots that follow.



Rot in the transom and aft plank ends



Rot in the cabin sides being cut out and replaced



Engine dismantled and completed rebuilt



Bruce's pride and joy—the helm, looking a whole lot better

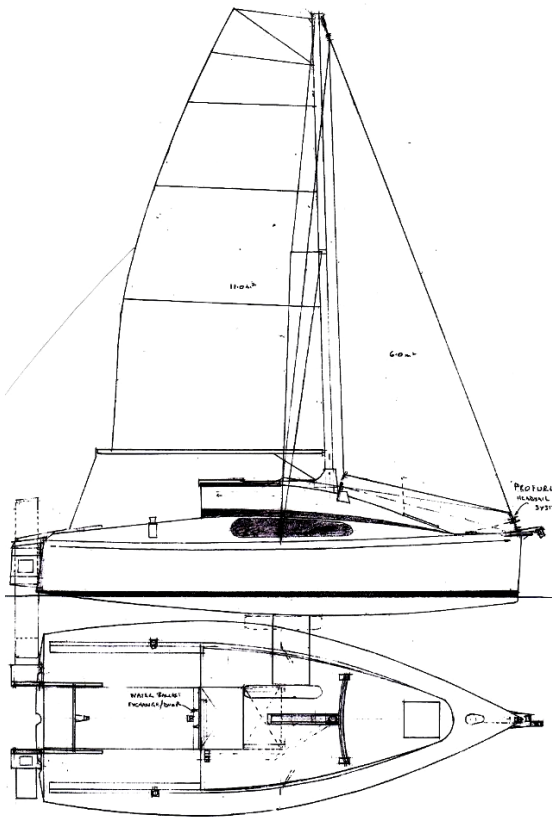
## SOON V — Rosemary Nayler

(With acknowledgment of Soon V's designer and builder Eric Sabin)

Rosemary and Paul have recently made the difficult decision not to proceed further with the restoration of their 30 ft Van de Stadt Dogger class yacht and to search out a suitable smaller vessel that is 'sail ready'. In their search for that boat one might say that they have hit the jackpot as Rosemary further presented to us on the night. The boat they have found and purchased is a trailerable 6.6m (approx 22 ft) yacht built using the foam cored composite construction technique by Eric Sabin, a well known identity in Perth/Fremantle sailing circles and a very accomplished amateur boat builder. Eric designed Soon V himself and built her in twenty months at the age of 84 years. She was launched in December 2008 and Eric sailed her for some years before the previous owner to Rosemary and Paul purchased her. Her vital statistics and some photos follow.

Length Overall 6.6 m	Displacement 750 kg
Length Hull 6.1 m	Ballast Lead Bulb 300 kg
Length Waterline 5.8m	Water Ballast. 90 kg
Beam Max 2.5 m	Sail Area
Beam Waterline 1.62m	Main 10.5 sqm
Draft Keel up 0.42m	Self tacking jib 6 sqm
Keel down 1.3 m	Motor 5 HP O/B

A particularly unique feature is that her mast and sail plan have been specifically designed so that she can sail under the Fremantle bridges without lowering the mast.





### **CHRIS and DON - A LIFE IN BOATS - Chris Davis**

Chris took a slightly different approach to the other two speakers in that he gave a presentation on the various boats that his father, member Don Davis, and he had built or been associated with over a period from pre 1930 to the present. The story commenced in the mid 1920's with Don learning to row on a model fettle's trolley built by his father, a fitter and turner at the Midland Railway Workshops.

Later, pre WWII, he acquired his first two yachts, Bluebird and Bluebird II, which were made from galvanized sheet metal and sealed with road tar. Both were the means to a



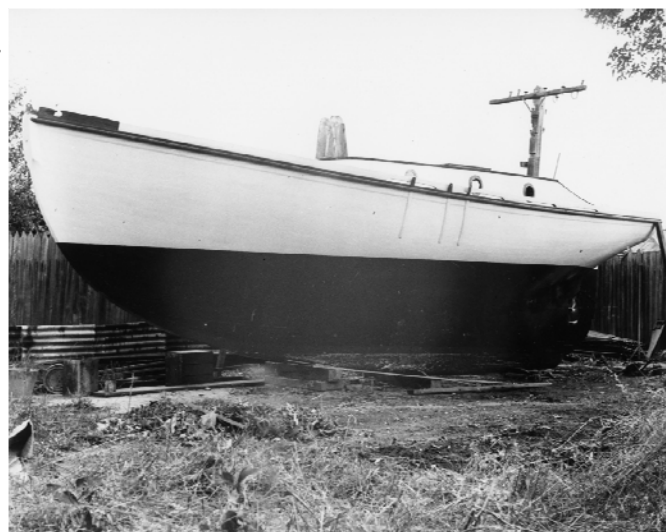


The building of the third Rainbow class yacht (named Mystic) followed, achieved not via plans but by measuring from the first yacht of this now popular design built by the designer Ron Hill who happened to live a few doors up the road in Fairway Nedlands. The immediately pre WWII, Don was a keen crewman on 16 foot skiffs, which were a big class on the river at that time sailing from Mounts Bay and Mosman Bay Sailing Clubs. He sailed on Noreen pictured below.



When the war was over, Don and his mates got going again. This time building a 28 foot Voyager class yacht — a class designed and built in some numbers by respected local boat builder Arthur Bishop.

So Don was an experienced amateur boat builder by the time Chris helped his father build a heron dinghy at age twelve in 1965.



And so Chris, having commenced his boat building journey continued with a number of dinghies. A second heron followed the first—this one purchased as a half complete project requiring a deck, fit out and rigging. A move to the 14 Ft Dinghy Club with the heron fleet led to a stint in 14 Ft dinghies and the conversion of a plain painted 14 into a varnished cedar masterpiece. It didn't sail any better though!



Somewhat uncompetitive in 14's, Chris and his skipper (brother Brian) decided to move to the bigger brother of the Heron—the GP14. Chris purchased new fiberglass hull and fitted a cedar deck with all the trimmings. This boat, named Mystic II after Don's Rainbow, crossed the Nullabor and came third in the National Championship on Port Phillip Bay at the end of 1975.



Over the years, Chris had sailed socially on larger vessels at RPYC and spent some years 'boatless' in the early 1980's before the attraction of a character vessel crying out for restoration got the better of him in 1987. Argosy, a jarrah plank gaff cutter, was (and still is) the next major project.



More about Argosy can be found on the ABBA website [www.abba.org.au](http://www.abba.org.au), Library, Newsletter Oct Nov 1999 and Sept Oct 2007



Along the way, member Mike Igglesden regained ownership of Merry Jest, a timber GP 14 that he had built in 1965 and skippered to a win in the National championships the next year. Having sold his Mystic II some years before, Chris contributed his boat trailer and some storage space by way of a caretaker role for Merry Jest. Chris subsequently completely stripped the external hull and refinished the varnish work - for much of the hull still nearly looking as good as it did when new almost 50 years ago.

As time moved on, kids got older and time got shorter it became apparent that getting kids onto the water in Argosy wasn't going to happen. Whilst keeping a weather eye out for a small motor sailor or similar to fill the gap, Chris became aware of a yacht with shoal draft and a steel center-board for sail in a pen at RPYC. The family didn't take much convincing and the 28 ft round bilged Boro designed Sequana has now served his family well for the past nine years on the river and to Rottneest. See the Toolbox write up on the ABBA website [www.abba.org.au](http://www.abba.org.au) , Library, Newsletter July August 2012.



## ADMINISTRATION NOTES

### EDITORIAL PIECE

A couple of items that have not found a place in this or the previous newsletter.

Firstly, thank you to committeeman Rob Bingham for his rigorous review/rewrite of the ABBA Constitution and to those who attended the September Toolbox at Ed Essers workshop and coincidentally attended the Special General Meeting and voted in favour of adopting the new Constitution. Your Committee is now taking the necessary steps to have this put on the official record with the relevant Government authority.

Secondly, whilst the AGM was held as a very short event at the commencement of the most recent tech meeting at SoPYC, I would like to thank Alun Dufty for his support on Committee over the past few years. Alun indicated that he would prefer not to re nominate and Ed Essers has kindly stepped up to fill the vacancy — Thanks Ed

### ABBA COMMITTEE

President/Editor	Chris Davis	9387 5042
Sec/Treasurer	Bruce Cadee	9259 0844
General Committee	Rob Bingham	9246 0202
	Ed Essers	
	Harry Speight	9295 4518
Library	Rosemary Nayler	9455 1470

### DECEMBER TECHNICAL MEETING

ABBA Life Member Kim Klaka will be making the next technical presentation on Wednesday 3rd December at South of Perth Yacht Club at 8.00pm. Kim is a naval architect with 40 years' experience in yacht design. He holds a Master's degree and a Doctorate in sailing yacht performance and has lectured on the topic for over 30 years. He has sailed over 30,000 miles offshore and dragged anchor in ten different countries. Hence he's well qualified to discuss our topic for the meeting; anchors, tackle and anchoring. His talk will consider both monos and multis and will include anchor types, size and performance; rope and/or chain and rode length; anchoring techniques, and negotiating all the conflicting advice thrown at us.

### JANUARY (NOW DECEMBER) TOOLBOX VISIT

The Toolbox in the next cycle falls in early January 2015 which is a somewhat inconvenient time for most of us. We have therefore resolved to reschedule this toolbox to Saturday 13th December when we will meet at the usual time of 2.00pm for an informal Toolbox afternoon at Maylands shipyards. Member Peter Russell has kindly obtained agreement from the shipyard for us to have a Christmas sausage sizzle afternoon tea and Peter will arrange the necessary infrastructure and supplies. We can then spend time looking at the projects currently on the go around the yard.

### SPECIAL NOTE -- SHIRTS & ABBA LOGOS

Don't forget — if members wish to bring along their own shirts to the next meeting then Bruce Cadee can arrange for logos to be embroidered. Members can bring as many shirts as they like but the club will pay for up to 2 logos. If we could do this in batches if at all possible this would be best for our supplier.

## ADMINISTRATION NOTES (Cont'd)

### **ABBA LOGO**

Members are reminded that Bruce Cadee has made arrangements with Shaun Luong of Image Embroidery at 26 Tulloch Way, Canning Vale (Phone 9456 2324 Mobile 0403 250 389) for an embroidered ABBA logo. The logo can be applied to your own clothing (assuming it can be accommodated in their equipment) or to shirts, caps or hats purchased through Image Embroidery. Feel free to call in on Shaun to look at the limited range of clothing he has on site or visit the following web sites to choose your preferred style, size and colours. The weblinks below are only examples of the wide range available. Half chest measurements are included on the web sites to help ensure you select the correct size. Ladies styles are also available.

### **Clothing (excluding Logos)**

**Style 1300** – Aussie Pacific Mens Murray Polo, Navy/White/Ashe or White/Navy/Ashe - **\$20.00 + GST each**

**Weblink:** [http://www.aussiepacific.com.au/the-murray-polo-navy-white-s?color=Navy%2FWhite%2FAshe&primary\\_color=Navy&secondary\\_color=White](http://www.aussiepacific.com.au/the-murray-polo-navy-white-s?color=Navy%2FWhite%2FAshe&primary_color=Navy&secondary_color=White)

**Style 1304** – Aussie Pacific Mens Eureka Polo, Navy/White/Ashe or White/Navy/Ashe - **\$21.00 + GST each**

**Weblink:** [http://www.aussiepacific.com.au/mens/polos/eureka-polo-sky-navy-s?color=Sky%2FNavy%2FAshe&primary\\_color=Sky&secondary\\_color=Navy](http://www.aussiepacific.com.au/mens/polos/eureka-polo-sky-navy-s?color=Sky%2FNavy%2FAshe&primary_color=Sky&secondary_color=Navy)

### **Hats/Caps (excluding Logos)**

**Style 4199** – Headwear Brushed Heavy Cotton Cap, White/Navy (many other colours available too) - **\$6.50 + GST each** **Weblink:** <http://au.headwear.com.au/productDetails.cfm?&prodID=53&prodCatID=2&pageNumber=1>

(Also refer poly/cotton legionnaires hats Styles 4057 or 4126 for maximum sun protection under website sub heading 'Hats, Visor & Beanies' <http://au.headwear.com.au/productList.cfm?&pCategoryID=7>)

**Style 4199** – Headwear Brushed Heavy Cotton Cap, White/Navy (many other colours available too) - **\$6.50 + GST each (includes poly/cotton legionnaires hats for maximum sun protection under website sub heading 'Hats, Visor & Beanies')**

**Weblink:**

**Style 4223** – Brushed Sports Twill Bucket Hat, White/Navy (many other colours available too) - **\$8.00 + GST each**

**Weblink:** <http://au.headwear.com.au/productList.cfm?&pCategoryID=7&page=2>

To make your annual membership even more value for money, ABBA will pay for up to 2 logos per financial year to be applied to your items of clothing. The current cost to ABBA is \$7.15 per logo. There is no intention for this to be an ABBA uniform so the choice of style and colour is totally yours. If you are seen wearing the logo while building, working on or using your boat or anywhere for that matter it might get people asking questions and wanting to join our association. You are free to deal direct with Image Embroidery but please ensure you get an itemised invoice showing a separate price for the logo and present this to Bruce Cadee for reimbursement. Bruce Cadee is happy to take orders and liaise with Image Embroidery if you so wish.