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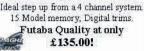
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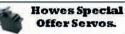


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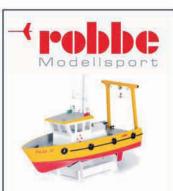
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Scale 1:25 Length 1170mm Comes Ready Built



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Scale 1:20 Length 900mm Comes Ready Built



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Includes 2.4GHz Radio **NEW LOW PRICE!** £135.00!



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Super Low prices on all MFA Motors!



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IUNE 2014 – ISSUE 327



#### **HOOKERS AND LONGLINERS**

These traditional inshore fishing craft were Britain's largest and most successful inshore fishing fleet that could venture into areas that the trawlers could not operate in without damage to their nets. Again, as with many traditional craft, these have now virtually disappeared. Tony James has built a static model of a Plymouth (UK) based Hooker called Dayspring, recreating the days when baiting many hundreds of hooks in an open boat was the normal method of inshore fishing.

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# MESSAGE

# FROM THE ENGINE ROOM

#### **EDITORIAL**CONTACT

MMI generally publishes commissioned articles, but will consider other contributions including news items and factual articles. It is important that contact is made with the editor before any material is written, as duplication of items may result in articles being rejected. Prospective contributors can email or write for a copy of the MMI Notes for Contributors via Traplet Publications Ltd.

#### HI EVERYONE.

The staff at Mid Glamorgan Goldsmiths have always taken an interest in my connections to this magazine and model boat building so it was not a surprise that they asked me to contact a friend of theirs who was having problems with a model boat he was building. It turned out that Clive was scratch-building a 2nd Rate Frigate from around 1775 and needed some advice on the organisation of the masts, yards and sails. Keen to help I visited him armed with all the books I could find relevant to ships of the correct period.

On entering the house the model was in pride of place and was remarkably put together. Clearly Clive had spent a great deal of time researching his subject and was skilled in fashioning both the hull and fittings. Problems had arisen when he had decided to use a cap-badge Royal Coat of Arms as an embellishment on the stern. Although this looked very good the transom had to be raised high to accommodate the large size of the badge. This left little room for the spanker and other fittings on the stern. A happy hour was spent looking at pictures of craft of the appropriate period and discussing solutions.

Just before I left, Clive asked if I would like a look at "The Engine." Intrigued I followed him up the garden to the greenhouse in which sat a beautiful 1:6 scale model of the American 440 steam train Washington, which makes it 6 ft long and 171/2" high. Built from a plan with almost everything being hand-made on a small lathe I had to ask what he did for a living. The response was, "A Milkman: I learnt how to build it with help of my neighbour, Russ, who instructed me in the use of the lathe." It seems that this wonderful model has languished in the greenhouse for years with only the

occasional visitor taking an interest.

It was clear to me that Clive was a skilled model maker who was almost totally self-taught and had little contact with other, similarly enthusiastic modellers. As a result I volunteered to take him to the next meeting of the Cardiff Marine Modellers and he jumped at the idea. Although the meeting itself was not the most exciting event it was clear that Clive had got a great deal out of chatting to members of the group. I was left wondering how many other 'Clives' are out there working in isolation when local clubs could be of a real help and interest. Maybe this is a topic for discussion at the next meeting of your club.



I know it's not a boat, but what a beautiful model of the Washington which lives in a greenhouse!

Our very varied offering this month has the final part on the construction of the yacht Alison M, the story behind the construction of a model of a Longliner & Hooker, a novel item is the Coklyn Fleet which gives details and a plan for the construction of small cork sailing boats, and the

building of a 1:9 scale Bermudan Sloop based on the Lake One-Design yacht called Kitty.

For those interested in naval craft we have an article on the construction of models associated with the Coastal Forces, the building of the Tehnoart Summer Class Destroyer, and a visit to the Tawara Class Ship, USS Belleau Wood just before she was decommissioned

For general interest we have an extension to the Waterlines article with pictures of the Princess Cruise Ships in UK waters. All of this together with an MMI visit to the Nelson Modellers in South Island, New Zealand, and the regular articles such as Scale Scene, Vintage Chatter, etc. makes this a very interesting read.

It is always worthwhile keeping an eye on the MMI website as there is more information available including a new editions of Waterlines Revisited.

Happy sailing to you all,

#### Chris Saunders MMI

# modelling INTERNATIONAL

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# MASTHEAD

#### LATEST MARITIME RELATED NEWS

#### SS SHIELDHALL

Heritage steam ship Shieldhall, the largest working steam ship in Britain, travelled from her homeport of Southampton on 7th April for dry docking in Falmouth. The inspection in the dry dock is essential for her to continue carrying passengers and was partially paid for by money from the Heritage Lottery Fund. Her stay at Falmouth is scheduled for 28 days so hopefully when you read this she should be back at her homeport with a clean bill of health ready to start the summer season of tours around the Solent.

For further details visit www.ss-shieldhall.co.uk

#### MILLBROOK MODEL MARINERS MBC RIVER **CHALLENGE**

Keith Richmond (Richie), the organiser of this event listed in May MMI has been in contact to say that due to some technical problems the river challenge on the River Tamar planned for Saturday 17th May will now take place on 1st June as the prime date and 15th June as a standby.

For further details contact Keith (Richie) Richmond, orkneymund@aol.com

#### REVELL GMBH HAS MOVED

Revell GmbH has relocated to new offices to accommodate the growing team and expansion into the Hobby RC business. The move has been made in part to accommodate new staff members to handle sales and marketing for the Hobbico product range. The company has recently hired Andrew Rawlinson for Product Marketing & Communications, Hobby RC; Peter Addyman as Regional Manager for the Midlands and south of England; and Stuart Bird as Sales Agent for the north of England, Scotland and Ireland.

Effective from 21st April 2014, the new address and contact details are as follows: Revell GmbH, Unit 10, Old Airfield Industrial Estate, Cheddington Lane, Tring, HP23 4OR. Tel: +44 (0)845 459 0747 (Revell), Email: ukbranch@revell.de (Revell), Tel: + +44 (0)845 459 1966 (Hobbico), Email: uk@hobbico.de (Hobbico)

#### HMHS BRITANNIC OR THE RMS AQUITANIA

If any reader has a model of either or both of these completed models and are willing for them to be put on display at a show later on this year could you please contact the editor.

#### PRODUCT RECALL ETRONIX ENERGY STATION POWER SUPPLY

Model number: ET0261 & ET0262

Type/number of model: Energy Station 220 & 330

Batch number/Barcode: 5055323947278 & 5055323947285

Recall date(s): 07/04/2014



Description: The power supply has a black case made from extruded aluminium, it has a large blue label on the top side with the Etronix Energy Station logo in white and red. The Etronix Energy Station is packaged in a box with Energy Station and Etronix logo printed on it.

The Energy Station 220 has a digital voltage display which is 3 digits and red in colour on the top right-hand side. It has a 3-pin AC plug input and has one output of 14 V DC 4 mm with bullet plug

The Energy Station 330 has a digital voltage display which is 3 digits and red in colour. It has a 3-pin AC plug input and has two outputs of 14 V DC with 4 mm bullet plug jacks.

Risk: Inadequate design and construction could pose a potential shock hazard to the user.

What to do: This product is dangerous, please stop using it immediately. The Electrical Safety Council recommends that anyone who discovers they have an electrical item that has been recalled should stop using it. Please go to www.cmldistribution.co.uk for instructions on how to return this item.

#### **MV BALMORAL**

After being laid up during 2013 at the city Docks in Bristol this Heritage ship has been undertaking a mammoth task of raising £350,000 to cover essential work ready for her five yearly dry dock inspection. The good news is that enough money has been raised for her to sail to Sharpness dry dock for her inspection, this voyage was planned to take place on 15th May. The bad news is that if any major problems are found with her hull and equipment she may never sail again! Hopefully if all goes well the MV Balmoral may be sailing again with fare paying passengers in 2015. The main issue is raising more money as if any major items are found requiring attention when she is in dry dock it would be much cheaper to rectify them then rather than pay for another dry docking at a later date.

For further details visit

www.heritagesteamers.co.uk/balmoral/news.htm





Schooner Abigail Louise seen at Wings & Wheels last year

#### 28TH WINGS & WHEELS MODEL SPECTACULAR

28th and 29th June 2014. The longest running R/C model show in the UK caters for maritime models on the purpose built pond and static displays in a huge marquee plus a very wide selection of operational R/C aircraft including a WW1 Centenary Commemoration flying display. R/C displays of all kinds, trade, Bring & Buy, weekend camping. North Weald Airfield, CM16 6AR.

All enquiries: Email: admin@wingsnwheels.net Tel: 01242 604126, or visit www.wingsnwheels.net MMI





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**Brushed speed controller** 

FROM £22.99



100% Waterproof,12V, 10A marine speed controller for traditional brushed motors. Easy to set up and use. Incredible small size and weight. Ultra fine motor control with built in receiver power.

Brushed speed controller FROM £22.99

15A, 20A, 25A or 40A



100% Waterproof,12V, marine speed controller for traditional brushed motors. Easy to set up and use. Small size and weight. Ultra fine motor control with built in receiver power. Available for all size of motors, 15A, 20A, 25A and 40A. See website or contact your local dealer for more information.

# tio Marine Brushed speed controller

FROM £26.99

15A, 30A or 50A



100% Waterproof,12V, marine speed controller for traditional brushed motors. Easy to set up and use. Small size and weight. Ultra fine motor control with built in receiver power and now compatible with the new Lipo battery type. Available in 15A, 30A and 50A. See website or contact your local dealer for more information.

# **HYDRA** Marine

Brushless speed controller

FROM £45.99

15A, 30A or 50A



100% Waterproof,12V, marine speed controller for the new brushless motors. Easy to set up and use. Small size and weight. Ultra fine motor control with built in receiver power. Suitable for use with any battery type. Available in 15A, 30A and 50A. Also available as a complete system with motor included.
See website or contact your local dealer for more information.

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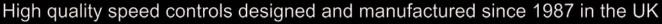
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# READERS' MODELS

## MORE MODELS FROM THE LISKEARD MODEL EXHIBITION

#### AUTHOR: CHRIS SAUNDERS

he Liskeard Model Exhibition had so many excellent model boats on display that I was unable to do everyone justice in the Meeting Point Report (May 2014 edition of MMI). One group of models that particularly caught my interest were those by Brian Timms and David Wellington of the City of Truro Mariners.

A new sealed system for submarines is being developed by Brian Timms. He is compartmentalising different parts of the dive and motor system and joining them together using 'push fit' plumbing components. This not only gives him a good seal but makes each compartment fairly easy to disconnect from its neighbour. Using smaller brushless motors his compartments have room for control rods and bellows allowing connections to dive planes etc.

Another of Brian's developments was clearly visible on his Skylar Rose yacht. All his fittings on the GRP hull are home built and finished with a baked powder coating. This gave everything a very professional appearance. He also had on display the Bristol Docks Tug Portgarth and Lighter No.7 Barge both of which were beautifully built and clearly demonstrated his skills as a model

maker. The fender was made from an old car door seal and the ropes were by David Brown.

I included a photograph of David Wellington's Police Boat in the report on the show. I mention it again as David had gone to great lengths to get everything working. This was particularly true for the sound system, strobe lights, and the fibre optic instrumentation. The latter was based on parts from an old illuminated Christmas tree.

A second boat in David's display was the Duke of York Lizard Lifeboat. Based on the Metcalf Mouldings hull he had designed and built everything from the deck upward. The fully laminated deck housing is very impressive.

Next to the lifeboat was a fishing boat called Athena that was built on a Cygnus Marine hull with a superstructure developed using a photograph of the marlin fishing craft. Dave had given particular attention to the marlin chair at the stern fashioning it in the same detail as the actual one on the original full size boat. All the fishing poles and rods were made from carbon fibre rods.



Lighter No.7 Barge for the Portgarth to tow



The Athena marlin fishing boat



The detailed marlin chair and carbon fibre rods



A compartmentalisation system for model submarines using 'push fit' pipe seals



Brian with his Skylar Rose yacht



Portgarth, a Bristol Docks Tug



David Wellington's Duke of York lifeboat



The finely detailed cockpit of the lifeboat

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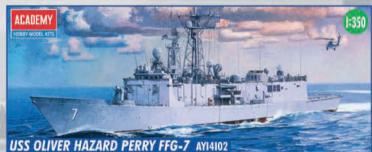






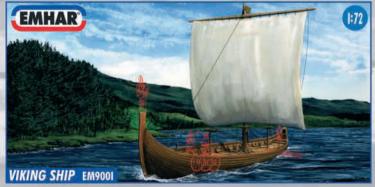














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# SAILFREE

CHRIS JACKSON WITH NEWS FROM THE RADIO SAILING WORLD

AUTHOR: CHRIS JACKSON 🧩 GREAT BRITAIN chris.jackson43@btinternet.com

wide selection of material in this month's column, with a look at the alternative world of R/C sailing organised by Naviga and then a second look at the very successful semi-scale hull which started life in New Zealand and has very slowly spread to the UK and the USA.



#### **NAVIGA WORLD CHAMPIONSHIPS**

The Naviga organisation gets very little coverage in the UK model press, despite being the world governing body for all forms of model ship and boat operation since its creation just after the Second World War. It covers both static and R/C scale model ships, I/C and electric model powerboats, and has regular very well supported events for all these classes, mainly held in central and Eastern Europe. It also has a sailing section which has for many years run very good championships for their classes on a bi-annual hasis

Back in the 1970s a joint World Championships for the Marblehead class was run at Gosport by Naviga and IMYRU, and was hoped to be a first such event but in due course, around 1990, IMYRU signed up with ISAF at which point the firm ruling of ISAF as to use of the 'World Championships' title put paid to any further such ideas. Since then any skippers sailing in a Naviga WC have known that they could be banned from entering an IRSA (aka ISAF-RSD) event within the next two years which has led to a complete split in the countries involved.

The most recent Naviga World Championships, the seventeenth bi-annual such event, was held in Jezierzany, Poland over a tenday period in August and early September 2013. This is close to the northern Baltic coast of Poland and the venue is part of a large lake complex. There were a total of ten countries listed, including Austria, Australia, Belarus, China, Czech Republic, Germany, Hungary, Poland, Russia, Ukraine, and three classes were run: FS-E with 60 entries, FS-M with 51 and FS-10 with 28 boats. The first class is commonly known as the Eine Metre and is closely related to the IOM class, whilst the M is the Marblehead and the 10 is the Tenrater. The Eine Metre class had the biggest entry and in that total were strong teams from China (11), Poland (13), Russia (15), Belarus (14) which shows that many skippers were interested in travelling to the event. The Eine Metre class boats are so similar to the IOM that the event was won by a skipper sailing a Britpop.

Many governments, such as China, will only grant visas for foreign travel if they also recognise the event organisers as legitimate, and Naviga has that status in many countries. On the model powerboating scene, most countries in the world have Naviga affiliation and it is only the model sailing where you find the world split into two separate parts, largely as a result of world politics. I have enjoyed sailing in a Naviga Marblehead World Championships, held in Vienna in 1984, and also acted as an official at two others and can vouch for the high level of organisation and sailing at these events, and it seems a great pity that the top Chinese and Russian skippers are unable to join the top guys from other countries at IRSA recognised events.



The 2014 General Assembly Meeting will have taken place by the time you read this column and by then the hotly contested election. with two candidates for every post, will have been concluded. This

timescale gives the outgoing committee a good opportunity to update interested radio sailboat skippers on progress. In the last four years IRSA has

been far from inactive, with many of the accomplishments appearing as one-line statements of action on their website. Maintaining contact with the DNM's, i.e. the affiliated country authorities, has been high priority, involving sending many emails and hours of work.

SAILING

The development of two versions of IRSA's Constitution (the first agreed at the 2012 GA and the second about to be put in front of the 2014 GA) has similarly involved enormous hours of work and interaction with ISAF. The 2014 version of the constitution would, if adopted, cement our position with ISAF and provide a solid base for taking the current IRSA and ISAF approved organisation model forward, enabling IRSA to get on with the job of looking after the interests of all radio sailors in an increasing number of countries throughout the world.

A number of Press Releases are on the website for everyone to read as well as being distributed to all DNM's and direct to IOMICA. These have also appeared in the MYA Acquaint, Model Boats and Marine Modelling International magazines, and also operated as worldwide announcements of IRSA activities. Furthermore each year an IRSA Annual Report has been submitted to ISAF for circulation at the ISAF GA meeting and is included in the ISAF annual report, which incidentally is also circulated worldwide. IRSA has increased membership with the addition of Israel, Turkey and Chile, with other countries and associations in the pipeline.

The Racing Rules Committee have updated and produced numerous documents to standardise the sailing standards at all recognised events, whilst working with two International Umpires/ Judges and more recently with IOMICA to improve and standardise the umpiring situation at our Championships. The Racing Rules Committee has also actively contributed its know-how and experience, which is incorporated in Appendix E of the 2013 - 2016 RRS. The Technical Committee have dealt with numerous Class Rule Interpretations and assisted on other technical issues all of which have been circulated.

#### MX GOTH - RG65

As one of these pretty little boats has come into my possession I can provide more detail than I was able to do when we published a single image of Peter Popham's example sailing at the 2013 RG65 Nationals.

The design is by the top Australian model yacht designer, Frank Russell, who has produced many fine boats in all the International classes and also embraced the Internet at a very early stage. He has guite a number of designs downloadable off his website (www.frankrussell.com) and you can see the generic hull profiles on the many reduced size plans which can be accessed online.

The boat I have here is imported into the UK by CM Yachts which can be contacted via their website (www.cmyachts.co.uk) and is moulded by MX Components in Thailand. The pack arrived as a completed hull with both sail winch and rudder servo installed and a bowbumper, a completed fin with lead ballast bonded to it, and the rudder and linkage. The buyer is left to work out the sail plan and make up the rigs, for which both standard and swing-rig mast positions are moulded. The foredeck has three bonded foresail



This view of the MX Goth from the bow shows the attractive and modern design of the hull, with a chine moulded into the side from about midpoint to the transom



Side view of the attractive MX Goth RG65 hull. Note the deep scallop in the deck to allow the main kicker to be as low as possible



The stern of the MX Goth RG65 shows the rudder servo in position, and the pulley for the underdeck main control line

attachment hoops bonded into the centreline. The quality is very high and all the hard work is done for you and the price delivered in the UK is very tempting as compared to other RG65 hulls.

Professional builders have told me that they have found that the labour costs of moulding RG65 hulls is higher than expected in comparison to the cost of a typical IOM hull/deck moulding and this is reflected in the price of all the commercially available hulls on the UK market at the time of writing.

#### J CLASS HULLS AND BOATS

Two years ago, in the June 2012 issue, we covered the development of the Canterbury and Nottingham J class hulls produced by Alan Horne in Nottingham. For the benefit of new readers the Canterbury J hull was first developed in New Zealand many years ago by members of the Christchurch NZ model yacht club to solve their summertime weed problem and had a main lead ballast detachable from the hull. Some hulls were exported



Alan Rogers' Canterbury J (76) with Jim Pinner's Nottingham J at South Lake, Woodley, Reading (Photo courtesy Chris Brill)

to other countries and a number were moulded under licence in South Wales by Alun Harwood until he passed on the moulds to Alan Horne. Alan Horne built an example of the Canterbury J to the traditional patterns but then worked out that he could develop a facsimile of this hull but offered as a single hull that would allow the lead to be dropped inside the overall hull skin. The Christchurch MYC decided, on reflection, that they were not happy to have the new type selling under the same name so the Nottingham J was launched to reflect its home base. In practice owners report no difference in boat speed between the two types in sailing.

Following on from the classic sloop rig of the J type, Alan has then gone on to develop a gaff rig variant based on the same hull. and this has a centre of effort the same as the Canterbury B rig so the hull, mast position etc. are all the same. With some forward planning the same hull can use both rigs. The initial launch of these was speculative but the hulls have proved very popular and both types have been selling to all parts of the globe. The boats have been going all over the country (and all over the world!) but it is difficult to tell if they are going to contribute to fleet numbers for racing or for social sailing. Quite a few have gone to Scotland and also the north west of England recently.

The most recent development from the same builder has been a larger hull, named the Nottingham 60, which appears to offer a very good sailing performance and may well appeal to owners with larger lakes and car boots. The hull is slightly different in design, having a modified stern so as to more accurately reflect the original J class, and there is a flare in the forward part of the keel where the ballast is placed, offering greater volume for the 10 kg of lead shot which has been tamped in place for the prototype. The initial



Allan Oxlade's (78) leads Alan Rogers and Chris Brill's boats, all Canterbury J hulls, around the mark. Chris somehow also took the photo!



Jim Pinner's Nottingham J hull on the bank, showing the underwater lines of the hull and the clean J class style lines overall



The twin foresail and gaff mainsail rig on the Nottingham J hull is the most recent variation on the standard size 48" length hull

plan is to market this design with a sloop rig but perhaps at some future date add a twin foresails option and perhaps a gaff rig. At the time of writing the prototype hull has been well tested with the Bermuda rig in place and preproduction work is under way. There will be accessory packs available giving the hull timber parts and deck materials for prospective builders and it takes some time to develop the CNC cutter patterns for these complex items which make assembly of the final product so much easier for the average home modeller.

Many potential purchasers would prefer to see this sort of boat before making the commitment to buy and build and there will be some opportunities to see them in action during the summer. The Woodley, Reading, club sail most Wednesday mornings at their home water just off the A329 and there will be open days at the Rotherham club on 15th June and at Colwick Park, Nottingham in July, well timed for readers of this column. For more information, prices and a look at the build manual you can log on to the website: www.jclasshulls.co.uk

#### **MYA TENRATER NATIONALS**

This event was originally scheduled to be run by MYSA at their home lake, The Round Pond, Kensington, one of the most prestigious and long established venues in the UK for braine, vane and R/C tenraters but had to be moved because of long, overdue modifications to the sloping edges of the lake, after a number of people on roller skates and on foot had accidentally fallen into the water. This used to be a problem for vane skippers and mates as keels got longer with development and we understand that the revised solution will be both safer and maintain the elegant nature of the lake

Thus it was that 19 skippers travelled to the Three Rivers Club in Ruislip to enjoy two days of excellent wind and water conditions. The wind co-operated by blowing straight down the lake at a force of limit top suit bordering on a change to second suit, and the club



ABOVE: The prototype Nottingham 60 hull shows off its cloud of sail. This rig is deliberately large area to mimic the full size J class, and will be best suited to light wind conditions

was able to get through no less than 19 races in two fleets over the two days without having to push skippers too hard. There were some visitors from abroad, two French, one Norwegian and a Swedish skipper and a smattering of Marblehead hulls with modified rigs but the event was in fact dominated by the elegant long slim tenraters which must have revelled in the conditions. The popular winner was Peter Wiles sailing his own design Tension, followed by Graham Bantock sailing his Quark design and Patrice Montero sailing the Diamond design. As far as I am aware the tenrater fleet has yet to find a Class Captain to promote itself within the new MYA system but if anyone does step forward then clearly there is a base of excellent modern boats around.

#### RADIO CONTROLLED RACING SAILBOATS -THIRD EDITION

By the time you read this column a third edition of my book will have been seen on the shelves of WH Smith shops and other newsagents as Traplet has recently produced a revised and updated edition in full colour in what is known in trade circles as 'bookazine' format. You may already be familiar with this format as other publications produce special editions on targeted themes and offer them in similar style. This is particularly true of computer magazines that will group a whole bunch of items related to one aspect such as, for example, Android system apps and hints and tips, and restyle them into a stand-alone magazine.

In the case of RCRS the original version of the book was issued under the title Radio Controlled Racing Yachts back in 1997, and then a much altered version was released in 2003 under the changed title to reflect the changes in nomenclature attached to the boats. After another straight reprint I was asked by Traplet to undertake a further revision and update and a decision to print in full colour in place of black and white was also made. This is the final version of the book with which I shall be involved as by the time it becomes dated a completely fresh look at the rapidly advancing technical aspects of R/C sailboat will be required.

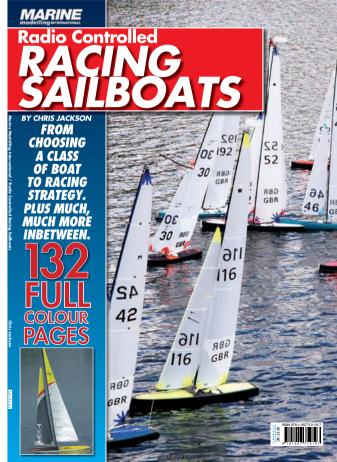
You can purchase a copy from Traplet's online shop (www.trapletshop.com) for the modest sum of £5.99 (plus p&p).

#### CONCLUSIONS

That is all for this month. Thanks as always to the people without whose help I could not put this column together. This can take the form of text or images or event just some useful information from which to build a short paragraph.

The print date of the final edition of my book which I know from feedback has provided many newcomers with a good general background in our hobby whether at local or more national level brings to an end a chapter in my life as there is no chance I will consider another one! Anyone interested in doing the next book should contact the management of Traplet Publications! MMI

BELOW: The front cover of the new version of Radio Control Racing Sailboats, 132 pages of useful info in full colour throughout, now on sale from good newsagents and stockists as well as direct from **Traplet Publications** 



# WATERLINE

PRINCESS CRUISES: KELVIN LOOKS FOR THE 'LOVE BOAT' (OUT OF MILD CURIOSITY)

AUTHOR: KELVIN HOLMES GREAT BRITAIN khwaterlines@btinternet.com

rincess Cruises were formed with the chartered Princess Patricia in 1965 and in the early years operated various small ships for the American market. A milestone in 1972 was the charter of Island Venture that joined the fleet as Island Princess (I). The '(I)' is not part of the ship's name but signifies first use of a particular name – there is extensive re-use of names in the 42 years covered by this article. Island Princess (I) was followed by her sister ship Pacific Princess (I) (ex Sea Venture) in 1974 when P&O acquired the company buying both vessels. P&O also transferred their own virtually new Spirit of London as Sun Princess (I). The Love Boat 1970s TV series was filmed mainly on the Pacific Princess (I) and apparently gave a huge boost to the American cruise market. In 1979 P&O bought the former Kungsholm and after modernisation she became Sea Princess (I). In P&O colours she operated out of Australia until 1982 when she returned to UK waters; in 1986 she transferred to Princess for five years adopting the appropriate colours.

The new build 44,000 ton Royal Princess (I) joined the roster in 1984, plus additional, mainly elderly, tonnage when SITMAR Cruises was bought by P&O in 1988. Using their original names these comprised the former Cunarders Carinthia (built 1956 which became Fair Princess), and Sylvania (built 1957 - Dawn



Scherbak Souvenir series model of the Crown Princess



Scherbak's Caribbean Princess illustrates the extras afforded by the Collectors series



Skytrex Mercator Grand Princess depicts the ship as built



CM-KR Dawn Princess; this ship began life as a sistership of Carmania



CM-KR Star Princess; this ship later transferred to P&O



CM-KR Crown Princess was one of the ex SITMAR ships



Degen resin model of the Sea Princess (I), ex Kungsholm

Princess (I)), plus the even older Oxfordshire (built 1964 for Bibby which retained the name Fairstar) and the relatively modern Fairsky (built 1984 - which became Sky Princess).

Fortunately, SITMAR also had three new builds lined up and these became Star Princess (I) (1989, later P&O's Arcadia (II)), Crown Princess (I) (1990) and Regal Princess (I) (1991). When the last named of these joined in 1991, Sea Princess (I) moved back to P&O as Victoria (finally sold in 2002). Between 1993 and 1996 the former Royal Viking Sky was chartered as Golden Princess (I) - this ship is now with Fred Olsen as the Boudicca. Meanwhile the good old Sun Princess (I) was sold in 1989 and went to breakers circa 2010. Island Princess (I) now operates as the Discovery. So much for what could be termed the first generation of Princess cruise ships, which remember were still owned by P&O.

The first big new build for Princess was the 77,000 ton Sun Princess class with four vessels joining between 1995 and 2000 but these were surpassed by the 108,000 ton Grand Princess class (of 3) starting with Grand Princess herself in 1998. A key event occurred in 2000 when P&O 'de-merged' their cruise business forming briefly 'P&O Princess Cruises'. When the merger with Carnival occurred in 2003, the company was in effect partitioned into P&O Cruises, Princess Cruises and P&O Cruises Australia, the latter's fleet of four comprising the three more modern ex SITMAR ships under their new names Pacific Pearl, Pacific Jewel and Pacific Dawn plus Pacific Sun (ex Carnival Line Jubilee). All the older ships had now gone - mostly scrapped but some to new owners.

More recent evolution of the Princess fleet has been astonishing with the acquisition since 1998 of fifteen new ships in eight 'classes' two of which have already been mentioned:

- Sun (II), Ocean (I), Dawn (II) and Sea (II) Princesses (77k tons, completed 1995-98 by Fincantieri)
- Grand, Golden (II) and Star (II) Princesses (109k, 1998-2002, Fincantieri)
- Coral and Island (II) Princesses (92k, 2002-03, Chantiers)
- Diamond and Sapphire Princesses (116k, 2004, Mitsubishi)
- Caribbean Princess (113k, 2004, Fincantieri)
- Royal (II), Ocean (II) and Pacific (II) Princesses (30k, 1999-2001, Chantiers R class) (bought 2002-06)
- Crown (II), Emerald and Ruby Princesses (Fincantieri, 114k,
- Royal Princess (III) and Regal Princess (II) (139k, 2013-14. Fincantieri; sistership Britannia being built for P&O Cruises)

Caribbean Princess had been intended for P&O Cruises but was retained by Princess with two of the 77k class transferred instead becoming Adonia (I) and Oceana (ex Ocean Princess (I)) in 2003. The latter has stayed with P&O Cruises but the Adonia (I) went back to Princess in 2005 under her original name of Sea Princess (II). The 21-year-old Royal Princess (I) was similarly transferred in 2005 as the Artemis. This popular ship was sold in 2011 being replaced by the 30.277 ton Royal Princess (II) renamed by P&O Cruises as the Adonia (II). This ship was one of eight Chantiers R class built for Renaissance Cruises in 1998 - 2000; when the company collapsed in 2001 all eight were laid up whilst new owners were sought. Carnival eventually buying three.

The current fleet numbers eighteen and includes the two new 139,000 tonners. In UK waters we may see Grand Princess, Caribbean Princess, Crown Princess (III) and Royal Princess (III) although these things do change. I would like to thank Wightlink Captain Peter Anthony for his lovely pictures of these four featured elsewhere in the magazine; my coverage is devoted to the models even if not all the ships are in the Princess colours.

The tables provide listings of all known 1/1250 models of which there is a good selection, the only glaring omission being Royal Princess (I) which has not been produced in any guise. I do have a pdf with plans and pictures of her as built, as Artemis and even in her current career as Phoenix Reisen's Artania - copies have been sent to CM and AL but without result; please Email if you would like one. Unfortunately the four Degens are not amongst those re-issued by AH Models and the Mercators are out of production. John Eagan's R class was produced in the USA but in limited numbers – quality is akin to Degen. Better news is that LJ L-31 is available and can be painted in either Princess or P&O colours. CM-KR are very active and in the USA we have the specialist cruise ship maker Alexander Scherbak with his 'Collectors' series of resin models fully painted and in display cases. In the table they are listed by 'class' but in most cases the individual ships are represented. Many are also available in the cheaper 'Souvenir' series. These models are also understood to be sold on Princess ships, certainly those in US waters. The models are often re-worked to reflect changes during a refit, for example both Diamond and Sapphire

Princess have been modified and Grand Princess had the heavy 'skyway disco' aft removed in 2011. For availability and details of the full range which includes several Cunard and P&O Cruises ships check www.scherbakshipmodels.tripod.com. The Konishi model is a rare item from Japan. The two Carat models are superb but you might think twice about repainting them in Princess colours. MMI



Scherbak Collectors series Grand Princess shows the changes made in 2011



Depicted here by Carat as built, the Sea Venture later became Pacific Princess



The former Sun Princess (I) much later in her career as Southern Cross; model by Carat

Name(s)	Built	Model(s) (* = illustrated)	As in	Notes
Sea Princess (I)/Victoria	1966	Degen 399*/LJ L-31	1979/1995	L-31 available from AH Models
		Risawoleska RI-245a	1986	
Spirit of London/Sun Princess (I)	1972	See notes		Carat 62* Southern Cross (1995)
Pacific Princess (I)	1974	See notes		Carat 49* Sea Venture (1971)
Royal Princess (I)	1984	CM-KR 69		CM-KR listed for years but never released
Fairsea/Fair Princess	1956	Degen 414 / 414a	1971/1989	Ex Cunard Carinthia
Dawn Princess (I)	1957	CM-KR89a*, Degen 414c	1989	Ex Cunard Sylvania
Star Princess/Arcadia (II)	1989	CM-KR68*, M935/M935a	1990	2003 – Ocean Village I, now Pacific Pearl
Crown Princess (I)	1990	CM-KR277*	1991	2007 – Ocean Village II, now Pacific Jewel

#### 1/1200-1250 Waterline Models - First Generation

Name(s)	Built	Model(s) (* = illustrated)	Notes
Sun Princess (II)	1995	Mercator (M) 937*	The second secon
Dawn Princess (II)	1997	M937a	
Sea Princess (II)	1998	M937b	M937c is Adonia (I)
Grand Princess	1998	M941*, Scherbak C, Scherbak C*	M941 as built; both versions from Scherbak
Pacific Princess (II) (R class)	1999	Planned by Scherbak	Sister ship Ocean Princess
			(ex-Tahitian Princess = model JE-9B)
Royal Princess (II) (R class)	2001	Planned by Scherbak	Scherbak also planning Adonia (II)
Golden (II) & Star Princess (II)	2001/2	Scherbak C (S planned)	Sister ships to Grand Princess
Coral Princess	2002	Planned by Scherbak	Island Princess
Diamond Princess	2004	Konishi 937 Scherbak C (S planned)	Sister ship Sapphire Princess
Caribbean Princess	2004	Scherbak C* & S	
Crown Princess (II)	2006	Scherbak C & S*	Sister ships Emerald and Ruby Princess
Royal Princess (III)	2013	Planned by Scherbak	Sister ship Regal Princess (II)

# PRINCESS CRUISE SHIPS IN UK WATERS

A PHOTO MONTAGE OF PRINCESS CRUISE SHIPS

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Completed in 2004 by Fincantieri, Caribbean Princess on 112,894 Gross Tonnage (GT) carries typically 3,080 passengers (Peter Anthony)



One of a class of three, Crown Princess (II) was completed by Fincantieri in 2006; on 113,651 GT, 3,064 passengers are normally accommodated (Peter Anthony)



Lead ship of a class of three, Grand Princess was completed in 1998 by Fincantieri and had a 'skyway' aft as seen on Caribbean Princess. This was removed in 2011 when this picture was taken. GT is now 107,517 and normal passenger capacity 2,600 (Peter Anthony)



The 139,000 GT Royal Princess (III) made her UK debut in 2013. Normal passenger capacity is 3,604; builder again is Fincantieri (Peter Anthony)





# PLASTIC KIT SCENE

## DETAILS ON SOME NEW PLASTIC KIT RELEASES

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inding interesting kits and other items for this article usually means scouring the Internet to see what is available from all over the world. This is where I found this month's first manufacturer; it's a company based in America that produces vessels and other items from the American Civil War period. I came across them after I had seen images of an unusual model of an American Civil War submarine.



Union Submarine Alligator (courtesy CIM)

#### **COTTAGE INDUSTRY** MODELS.

**Union Submarine** Alligator

Model No.: 72-003 **Scale:** 1/72 Length: 21.6 cm

Parts: Resin hull plus 2 resin parts, 32 cast metal, wire and

brass rod

Launched in 1862 the Alligator was originally powered by paddles coming

from the sides of the submarine, this was found to be inadequate; later replaced by a hand-cranked propeller. Designed for several tasks including clearing underwater obstacles and destroying bridges, not a successful vessel she sunk while under tow during a violent storm on route to aid the attempt to capture Charleston Harbour. The model comes complete with a diver figure and can be built in either the early version with oars or the later version with a propeller.

This model is the latest release from CIM, but after viewing the website I decided to email the company for details and images of some of their other models. A quick reply from William J. Blackmore the man behind CIM ensued, with details and images of three other models. I was amazed at what I saw; I can only say these models are what I would class as 'museum standard', the detail of these models is quite incredible. So here are the details of the other three.

#### **Alexander Hamilton US Revenue Cutter**

Model No.: 96-003 Scale: 1/96 Length: 45.7 cm

Parts: 14 resin, 253 cast metal, 1 bag of misc parts (wood/plastic strips, brass nails and wire) bundle of brass rods and wooden dowels, CIM handmade rigging rope, 4 pages of full size plans for building and rigging plus a detailed illustrated assembly booklet



The detail of the Alexander Hamilton is exceptional (courtesy CIM)

As far as the makers know, this is the world's first complete all resin model of a sailing ship. It comes with all that is needed to build the model without having to purchase any extras to finish the model. Even the rigging ropes are there, they are hand made by CIM and come in two colours and seven different sizes.



#### Confederate Ironclad CSS Tennessee

Model No.: 96-009 Scale: 1/96 Length: 66 cm

Parts: 23 resin, 153 cast metal, bag of misc parts (chains, ropes,

wire etc.), brass rod

This is one of the last ironclads built by the Confederate forces during the ACW. She fought at the Battle of Mobile Bay, and was captured by Union forces, renamed the USS Tennessee and was used by them for the remainder of the war. A wonderfully detailed resin model with many metal fittings, the interior is fully detailed and the model can be completed as a cutaway model to be able to view the interior. This model is massive with lots of detail inside and out, and would have a prime position in any collection.

#### **USS Monitor** Model No.: 96-008 Scale: 1/96

Length: 55.9 cm

Parts: 23 resin, 93 cast metal, brass rods, bag of misc parts

(chain, brass nails etc.)

This famous warship and the Confederate ship CSS Virginia clashed at the Battle of Hampton Roads, the first battle between two Ironclads. Neither managed to destroy each other and both ships withdrew never to meet again, but history had been made. A new era for warships had begun. This is another highly detailed resin model with cast metal fittings to enhance its detail. The gun turret has a detailed interior so it can be built with a cutaway section, an added bonus when displayed.



The USS Monitor turret showing the cut-out to view the interior (courtesy CIM)

I can only show a fraction of the detail and quality of these models so make sure you visit www. cottageindustrymodels. **com** where you will find full details of these models and the complete range that is produced by CIM.

#### REVELL

Revell has released a model of a flying boat, which I find is not out of place with model ships.



The box art of the Revell Catalina PBY-5 (courtesy Revell)

#### **Consolidated PBY-5A** Catalina Flying Boat

Model No.: 04507 Scale: 1/48 Length: 41.1 cm Wingspan: 64.7 cm

**Parts**: 162

Probably the most famous flying boat in aviation and was widely used by many countries. Built by the USA, the first

Catalinas were delivered for use in 1941. They had many varied roles; reconnaissance was their main use due to their long range. They were also used for convoy protection, submarine hunting and destroying, and for attacking surface vessels. Armament consisted of machine guns for protection and they carried torpedoes, bombs and depth charges for attacking enemy targets. Over 3000 Catalinas were built and many were still in use for years after the war. Later versions were adapted to help fight forest fires.

This is a large model, some of the many features included are: detailed fuselage and wings; cockpit with interior detail; wellreproduced engines; detailed armament and decals for two US Navy versions.



Revell CD-ROM Airbrushing in modelling

#### **Revell Airbrush In Model** Building

Item No.: 99339 Time: Approximately 25 min

Revell has also now released a very interesting CD-ROM for the beginner or expert modeller; it gives details together with tips and tricks for airbrushing techniques. There is an interactive function for problem finding and cleaning, a must for aiding airbrush users.

Revell model kits are available from all good toy and model retailers. For details visit

www.revell.de/en, @RevellGermany or facebook.com/Revell.

#### **MT MINIATURES**

Here is the latest Royal Navy warship from MT.



MT Miniature's model HMS Blake (courtesy MT Miniatures)

HMS Blake (C99) Model No.: MTM033 Scale: 1/700

Length: 23.5 cm

This is a model of the Blake after her conversion to a helicopter command cruiser in 1969. She was the third warship of the three Tiger class

cruisers. The conversion meant the removal of the after 6" and 3" gun mounts and the building of a hangar with a flight deck for the Wessex helicopters.

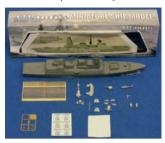
The model has a one-piece hull and superstructure that is cast in resin with white metal fittings. Decals and photo-etched parts are also included to add extra detail to the already well-detailed resin superstructure. No Wessex helicopters come with the kit but they

are available separately from MT Miniatures (No. MTM027).

Full details of this model and all MT Miniatures' kits and accessories can be found by visiting: www.mtminiatures.com

#### ATLANTIC MINIATURE SHIP MODELS **EXCLUSIVELY FOR ANTICS**

This company specialises in Royal Navy ships from the Falklands War to the present day.



Atlantic's 1/700 scale HMS Daring

**HMS Daring, Type 45** Destrover

Model No.: ATL 10K Scale: 1/700 Length: 22 cm Parts: 1 resin hull and

superstructure, 15 white metal, 2 wire strips, 2 etched frets, decals

This is a kit of the very latest class of Royal Navy destroyer, HMS Daring is the first of six in

the Daring Class of destroyer. The model is a 1/700 scale waterline kit cast in resin with white metal fittings, etched parts and decals. All parts are well detailed and come packed in a hard, clear plastic case with a black base which doubles as a display case and stand. It also comes with a coloured image of the finished model and an assembly guide. The model can be built as any one of the six in the class as decals for all six destroyers are included. The Atlantic range of modern Royal Navy warships and auxiliary ships is very good and most are not available from other manufacturers.

Full details of this model and the complete Atlantic range of models can be found at: www.anticsonline.co.uk and from any of their model shops. Or, visit www.mtminiatures.com who also stocks the full range of Atlantic models.

These models will complement the models available from MT Miniatures so a terrific collection of Royal Navy ships in 1/700 scale from post war era to the present day can be assembled.

#### **BLUE RIDGE MODELS**

#### **USS Ward DD-139 Destroyer**

Model No.: BRM-70028

Scale: 1/700 Length: 13.7 cm

Parts: 32 resin, 1 etched fret, plastic rod and decals



USS Ward from Blue Ridge Models

The Ward was the destroyer who spotted and sunk a Japanese midget submarine prior to the airborne attack on Pearl Harbor.

This kit is extremely well detailed and crisply moulded in resin, the hull and superstructure is in one part with some very finely moulded resin fittings. The etched fret is also very fine,

a full sheet of 1/700 US warship decals come with the kit as does the assembly guide which has line drawings and photos. A nice touch is that a small-scale resin model of the midget submarine is included with the kit.

This model is from their Heritage range, full details of all models can be found by visiting: www.blueridgemodel.com or www.freetimehobbies.com – thanks to them for the review model.

# VINTAGE CHATTER! PART 10

#### WE LOOK AT LESS COMPLEX IGNITION SYSTEMS

AUTHOR: DAVID WIGGINS GREAT BRITAIN

# THE 'GLO FASTER' SET! – AN EARLY BRITISH GLOWPLUG ENGINE

Hi there. From very early radio gear I move on very briefly this month to look at an early attempt by post war British model engine manufacturers to match American progress in developing alternative and less complex ignition systems to petrol/spark and compression ignition (diesel) motors for model aircraft and boats.

The nowadays commonplace miniature, low voltage, glow plug is said to have been invented by American, Ray Arden. Like many others back then he was, no doubt, seeking lighter and more high performance alternatives to the conventional spark ignition 'gas' engines then popular in model aircraft. His coil filament glow plug is a very simple idea but one that required much experimentation to perfect, both as regards to finding a suitable fuel mixture to permit the engine to keep going once the battery was removed, and in the manufacture of the plug itself. Even today, model glow plugs are not reckoned to be an easy item to manufacture: the key problem being the perfection of a gas tight seal under compression. Speaking of 'today' it has become, one notes, common practice to refer to glow engines as Nitro engines. This is quite incorrect in that a glow ignition engine will run perfectly well on 'straight' fuel blends containing just Methanol and oil and have done so for many years. Nitromethane is an additive and a hazardous one at that. Not that Methanol is exactly 'safe' either one hastens to add!



A close-up of the fuel tank and flip-top filler, both very nicely made

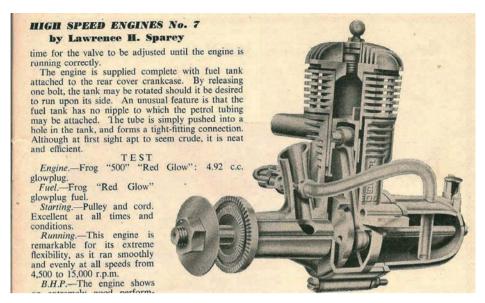


A quality built, early British glow engine - the 5 cc FROG 500. Note the nicely thought out needle valve

#### FROG AND LINES BROTHERS

FROG (derived from Flies Right Off Ground), a trademark of International Model Aircraft Ltd. of London (and of the parent Lines Brothers toy group), manufactured a sizeable range of miniature engines - mostly diesels during the '50s and '60s. But, like their smaller 1.5 cc VENOM, the FROG 500 (aka Red Glow) was an exception having been designed in an attempt to emulate or match 'hot' American racing engines like the famous Dooling and McCoy and other early British glow ignition racing engines like the ETA-29. In this endeavour, it must be observed, FROG largely failed. The single ball race FROG 500, though a perfectly adequate 5 cc sports engine for larger model aircraft, did not have the sheer bhp to match the best examples of a Dooling, a McCoy or an ETA-29, in either control line speed aircraft or in 'D' class tethered hydroplanes (the two areas in which a 5 cc glow engine was thought to be best suited back then).

Looking at their own advertised test figures one can see that Hales claimed less than 0.5 bhp at 14,000 rpm. A top end 3.5 cc could almost match that figure by 1965 or so. There was also a petrol (spark ignition) version, though I have never seen an example. So, in summary, this FROG was a nice, large glow engine but not a racer. What I will say, however, is that this FROG is a very nicely engineered product indeed. Look at the



An illustration/line drawing of the FROG from a contemporary publication

out of adjustment"; "This manufacturer has an unfailing knack of making engines that run smoothly and evenly over a large range of speeds" and "Even when pushed over the 15,000 rpm mark it purred with the same confidence as it did at 6,000 rpm. Throttle control is excellent." Test results showed a peak of just under 0.4 bhp at 13,500 rpm. I'm including just a section of Mr Sparey's report as it features one of those lovely 'cutaway' drawings so typical of the '50s. Nice artwork and my thanks go to my friend John Dell for finding this for me to share with you.

#### **COMING NEXT MONTH**

This has been the second FROG item featured in Vintage Chatter. Next month I'm jumping on a few years and I am back to vintage radio gear showcasing a once very expensive (and now fully modernised) VARIOPROP 12S modular system from 1973 and its German maker Graupner/Grundig. Followed, in August, by Bob Elliot's very successful second generation LOGICTROL II digital R/C set – fully restored 27AM, 5-channel gear from the very first days of American 'full house' proportional radio design – itself the first of a trilogy on the high point of American electronic design achievement in the model control field.

Until then, I bid you all goodbye for yet another month. MMI

little 'extras' like a flip up fuel cap, metal tank and thoughtfully engineered 'remote' extended needle valve. FROG could have saved a few pence by omitting such items but chose quality over mere price. Both were nice touches in an engine selling at nearly 4 pounds when that was a great deal of money for a working man to justify spending on a model engine for his hobby.

#### THE ENGINE TESTED BY SPAREY

An 'off the shelf' FROG 500 RG was tested by Lawrence Sparey back in the spring of 1950. His compliments included: "Starting is good – the engine will start and run even if the needle valve is badly

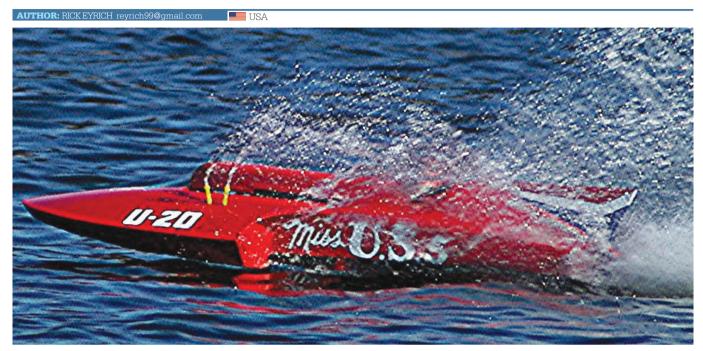




Sample details from a late 1950's catalogue showing the marine kit and engine range, and the front cover

# **POWER**PLUG

OUR I/C BOAT GURU LOOKS AT WAYS TO IMPROVE YOUR HULL'S ON-WATER SPEED THROUGH SOME SIMPLE TECHNIQUES YOU CAN DO AT THE LAKE OR ON YOUR WORKBENCH



Although impressive to look at, the 'magazine' on-water image doesn't mean that the marine craft is running at its maximum speed and handling levels especially when it's competing in a race

ne of the advantages of photographing R/C boats, especially really, really fast power craft, is that you can see up-close just how good or bad each vessel is handling out on the water. Of course the writer's section of my brain (very small) wants to see a hull with a large rooster-tail of water spraying off its transom and its bow well free of the lake's surface; but that's usually not how a really fast I/C boats should look. Set up to best suit the owner's driving style, the hull's design factors, and whatever the existing water conditions, the boat may not draw a lot of notice by magazine authors or spectators, yet it will provide the best lap times at a race. Just using your eyes to judge speed can produce lousy race results not unlike seeing the marine craft

SOUND AND MOTION Our subject, a petrol-engined hydroplane, caught my attention while I was attempting to capture its digital image with my trusty Pentax camera. With a long 200 mm telephoto lens in place, you

'posing' for a camera. With that said, we'll review a particular

hydroplane's on water actions and then see what steps can be

taken to adapt your nitro/petrol hull to this hydro's superior set up.

could easily pull the running hydro close to your eye and watch it glide smoothly through the water and look for any signs of a mistake in the boat's handling package. Viewed in the camera running in both a straight line and also as the hull pivoted around



Look at the difference in this photograph. Instead of producing a high rooster tail and having only a tiny portion of the hull bottom in the water this monohull is stable, smooth and fast on both the straights and around the course's turn buoys



Much larger than the RTR hydro's OEM turn fin, this aftermarket turn fin has the ability to both stabilise the boat and also greatly improve its turning action under higher turn-in speeds



Available in any number of sizes, shapes and materials, hydro hull turn fins should also feature at least a couple of different mounting hole/slots so that the boater can adjust the fin's profile to suit his/her driving style and pond conditions

the course's corner buoys, your scribe could clearly see just how stable the gas hydro was and how well it accelerated coming off a turn. No signs of twitching at high speed were noted, plus the boat stayed fixed while turning with no attempts to switch ends under full throttle control. During the particular heat race the gas boat was competing in, a strong wind was blowing right down the oval course's back straight, but, this air didn't cause the hydro to show any tendency to go into blow-over mode. Other boats in the heat that came into my camera's viewfinder had to occasionally blip their throttles to avoid having the hull's bow reach for the sky, so, our subject hydro was clearly faster, more stable and making a lot of time over the other vessels in this race.

Yet, with all of the good information I was gathering via my camera's long lens my ears were also picking up sounds from the focus hydroplane that were not being heard from any of the other race craft. Instead of the normal two-stroke engine/tuned pipe exhaust tones you'd expect to hear, the well set up hydro actually sounded like a full-scale race boat especially when the hull was rounding the corner buoys. As best as my mostly worn-out eardrums could pick up, the gas hull's propeller was really 'digging' throughout the hydro's arc around the turns and there was no sound of any throttle/engine rpm's speed being lowered as well, so the boat was running at full throttle all the way around the corners. Of course good driving skills plus having a properly tweaked hull/ engine combination would make it much easier to run the boat faster than the competition; so, I made my way over to the focus hydro's pit table to see what had been done to make this racewinner the master of its class brothers.

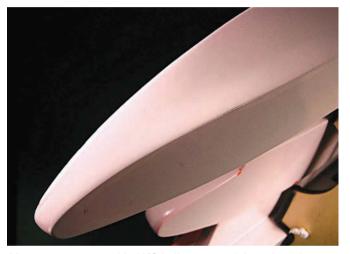
Sitting on a cradle that was itself positioned on a rolling pit cart I first wanted to check out the petrol hydroplane's sponson-mounted turn fin and unlike many hydro's this boat's fin was an aluminium piece of art. Much more massive than the majority of the turn fins your writer viewed at the event, this hydro's fin also had multiple bends in its make up with some still showing tool marks from their addition to the unit. A close inspection of the turn fin's attachment point and/or its actual mounting bracket revealed a whole series of bolt holes and slots to allow the fin to be moved around to suit the hull's set up or the race pond's current water conditions. Having this flexibility in the turn fin placement alone can greatly improve your own hydro's lap times especially if you've made any other changes to the boat's power system or transom hardware components.

#### **HULL EDGE NOTES**

Another 'set up for success' found on our winning petrol hydro hull was that every bottom edge on the fibreglass hull was almost to a sharpened condition, especially along the vessel's transom edges. As they come from the mould, most of today's latest



Note how this hydroplane fin has an under-bent section that helps hold the hull flat under the side loads of fast cornering, plus it keeps the boat's sponson from lifting as it accelerates off a turn



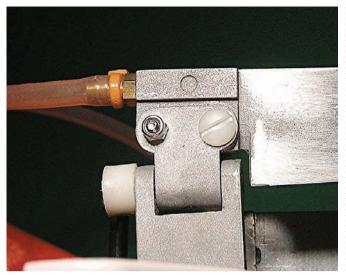
Many composite moulded I/C hulls come with less-than-sharp bottom edges, so you can improve the boat's handling traits by putting a sharper edge on the areas using a fine-grit dry paper on a sanding block

fibreglass/composite I/C hulls have a less-than-pointed bottom edge condition, so many long-time racers will take the time to sharpen these edges to help the nitro/petrol boat run more cleanly through the water.

Done with a good block sander this sharpening process was clearly evident on the column's focus hydro and I also noticed that only a minimal amount of paint finish had been added to the boat's exterior to help maintain its clean/sharp edges. Likely applied with an automotive-grade spray gun using an automotive primer/ topcoat finish, this coating was very thin, not unlike what you'd see on a full sized race craft. I have seen I/C boats that, once the outer paintwork had been completed, the edges were wet-sanded to create a relatively sharp edge where the main hull touches the water. If the vessel had received any clear lacquer protective coating then sanding with equally light grit wet/dry sandpaper will usually bring the bottom edges back to a good performance level once the boat's at speed.

#### TRANSOM ANGLES

Since most I/C hydro hulls have adjustable drive struts and rudder brackets, they, like the before mentioned turn fin assembly, can be set up to whatever onboard systems/water conditions you must deal with at your pond. On the prop shaft/stuffing tube strut, the shaft's centre line position will determine how 'light' the hull bottom runs on the water's surface and this important setting will also tie-in to whatever size/design propeller you're using as well.



Adjustable by loosening the strut's fasteners, this rudder blade's fore-aft angle can be tweaked to add/subtract the vessel's bow angle to better suit its turning performance



Due to hull lean from propeller torque, changing to a smaller three-bladed metal prop can help the boat run straight and smooth without showing too much torque lean as you accelerate the vessel

As for how much you can actually change the shaft angle or distance from the hull bottom on a hydro, this tweak will be limited, but this measurement can sometimes be offset by whatever diameter/pitch/lift prop is on the boat.

Lifting-style metal propellers are very popular on I/C hydroplanes as they only present around half of their make up once the boat is up on a good plane. Without enough prop lift, the hydro sponsons will pull/drag too much water and run too low on the water's surface, which in turn will greatly affect your boat's available speed levels. Hydroplanes are much like aircraft in that they can actually fly a bit when everything's set up correctly; however, going too far with the prop/stuffing tube adjustments could make the vessel run/fly a bit too much!

**NOTE:** If you prefer to run ultra-big metal two-bladed props, a lot of blade torque can actually push a hull over slightly onto one sponson and if the sponson goes deep enough, it will unsettle the hydro's whole ride stance. Changing to a smaller two-blade or even going with a three-blade propeller can help eliminate the prop torque twist on larger hydro designs.

Moving to the rudder blade's place in an I/C hydro's performance, it can generally be angled fore or aft via its mounting bracket much like you'd pivot a pair of trim tabs to help a monohull work better in the turns. Done mostly to change the hull's attitude as it's entering a turn, the rudder's lowest point should be pivoted forward to help 'drop' the bow of the hull while angling the blade rearward will help lift the bow

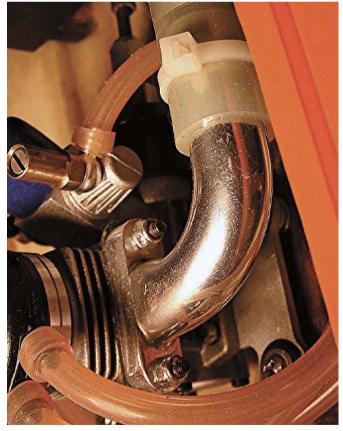
when the marine craft's making a turn. For this kind of adjustment point to work properly, the rudder's tiller arm/servo linkage will have to have ball-end clevises so that there'll be no binding if you re-angle the rudder. As a precaution, both ends of the rudder linkage should have ball joints and the larger the hull is the larger the clevises should be used to ensure there are no linkage glitches at the lake. Another rudder linkage concern is that by moving the blade's pivot point it will also change its servo centring; so, whenever you tweak the boat's rudder angle the steering servo may require a trim check via your transmitter's stick/wheel trim adjuster.

#### TUNED PIPE ALTERATIONS

Our final topic on the winning hydro's performance levels is that while it was running the oval course it actually sounded like a full



Sitting in the pit area, this gas boat looks fast, however, changing water conditions, wind and any changes in the hull's propeller or exhaust layout could demand some set up changes in the power craft's systems



Largely done on nitro-engined boats, adding or subtracting header pipe length on the exhaust can alter the engine's power curve to a point where it gives the modeller the best package for racing or sport running conditions

sized hydroplane hull. Working the turns the boat seemed to stay at full throttle when it encountered the buoys, but the driver told me he actually lifted just a bit to 'set' the hull as it pivoted around the corners. To my ears this lift could not have been much more than a tiny movement of the throttle, so having the right turn fin, rudder, propeller and trim settings on the hydro allowed it to achieve this level of speed, plus, the engine's aftermarket tuned exhaust matched the racer's driving style as well.

Although many modellers think that sheer, raw horsepower wins races many I/C boaters tune their motor/pipe to suit their hulls and/or driving traits, sometimes adjusting the exhausts length in the process. Usually more seen on nitro-engined hulls, this changing of the pipe can be done in a couple of different ways depending on your exhaust's design.

Beginning at the motor's exhaust port, the actual header pipe that joins the engine to the main steel/aluminium pipe assembly can be cut to best suit your boat's fuel blend, air/humidity conditions and propeller usage. Exhaust back pressure adjustments are normally addressed at the pipe's stinger pipe/tip and a longer stinger section will help develop more power, however, going too long on this part of the exhaust will also develop more heat which will hurt the motor's energy output levels and on nitro marine engines that means more burnt-out glow plugs. Owing to the non-common usage of exhausts with built-in mufflers/silencers you'll have to limit your tuning to the exhaust's header pipe area, but this section, if not water-cooled, can be modified to help the system's power curve/output. Finally, in the event that you do decide to work with your I/C boat's exhaust dimensions, having an adjustable style aft exhaust mounting bracket will make it much easier to add/subtract any new header pipe length or the other exhaust components inside your hull.

#### PRODUCT LOOK

Just after the first of this year, a new ready-to-run, petrol-engined catamaran by Pro Boat Models began to be mentioned on a couple of popular US-based online forums. Although not scheduled to be available for sale until early summer 2014, the Rockstar 48 Cathull has already generated a lot of interest and there are several good reasons why. First and foremost, the Rockstar's outward appearance is quite impressive in its black/yellow paint scheme and the completed hull weighs-in at just over twenty pounds. Gold anodised components are found all around the gas cathull and the '48 comes standard with a large two-blade aluminium propeller. For power the boat has seen a change in what previous Pro Boat petrol craft used as instead of a Zenoah G26 marine motor, the Rockstar comes with a 26 cc Dynamite engine that's water-cooled at both the cylinder head and the exhaust header coupler points. The Dynamite two-cycle engine also sports an electric starting set up that's powered by an included battery pack. The starter motor is a 15-turn brushed unit that is engaged by a small button on the boat's 2.4 GHz transmitter. There has been talk of an optional pull rope starter set up that will become available in the future and I hope to soon get a close look at this new RTR gas catamaran.

To see it online simply visit www.proboatmodels.com or www.horizonhobby.com

#### CLOSING COMMENTS

As is the norm for your MMI scribe, I must conclude this Powerplug column by clearly stating that whenever you make any changes, tweaks or other modifications to any I/C boat, make a note of it on paper or via any electronic device of your choice. Recording your work will greatly help you to determine how your updates help or hinder the vessel's drive-ability and speed; so, write down your changes and results at all times.

If you have any questions, ideas or tips to relay please feel free to contact me by the Email address shown at the header of this article. In our next Powerplug space we'll be covering a series of subjects that may enable you to have a lot more trouble-free lake time. Talk to you next time. MMI



After a few shunts the smart I/C boater will need to recheck/ modify/adjust his/her hull's drive, control and power hardware until the boat's drive-ability is back to normal

#### DOUBLE TIP OF THE MONTH

To round off this month's Powerplug I'd like to relate two separate repair tools for your I/C boat that are both popular when the modeller has an unforeseen contact with floating debris at the lake.

If your long brass tube stuffing shaft has suffered a slight bend, you can sometimes use two suitable boxed/closedend hand wrenches to help coax the tube back to its original shape. To prevent kinking the tube use only a small amount of pressure on the wrenches and if you can, I recommend using 12-point wrenches as they will put less 'tooth marks' on whatever stuffing tube bend you're attempting to correct.

Our other repair utensil is what I call 'fabrication Visegrips' which is a pair of adjustable locking pliers that feature extrawide metal plates designed to hold materials for welding. Capable of holding any type of metal plate these locking pliers can also bend hydro turn fins, monohull trim tabs, etc., to suit your boat's on-water handling tweaks. Due to the pliers' strength you'll want to first detach your tab/fin and then do your bending, as this technique won't over stress the hull's component mounting points.



LEFT: Using nothing more than two regular box/ closed-in wrenches you can either tweak or repair a hull's brass stuffing tube by placing the wrenches over the tube and adding slow pressure to the problem area on the shaft



Originally designed to hold two weldable metal sections together, these locking pliers can also act as a simple metal break tool to modify your hull's turn fin or trim tabs at home or at the lake

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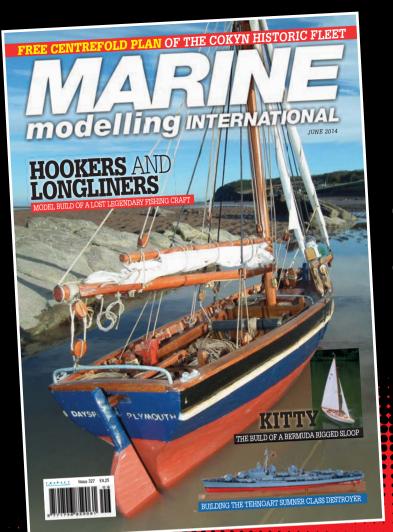
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# **SCALE** SCENE

IAN LOOKS AT EQUIVALENTS AND CONVERSIONS FOR VARIOUS SUBJECTS

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s you know, here at Marine Modelling we always take notice of our readers and once again this month's offering has been sparked by reader enquiries. But I promise you, no glues or French lifeboats! What I am going to talk about is equivalents and conversion factors you may need when building a model

#### CONFUSION

You would think in this day and age we could settle on a standardised measuring system, but unfortunately this is not the case. Especially here in the UK where we are supposed to be a Metric country, but still measure distance and speed in miles and miles per hour. This sort of mixed standard can be very confusing for a new modeller sourcing materials for their first scratch-built model. Even experienced scratch-builders have to stop and think

Although it has nothing to do with making models, something I saw recently should illustrate the anomalies that can occur. At a covered-in market near to where I live, I saw a stall selling cloth by "the metric foot". What that actually meant was they were selling cloth from two metre wide rolls, but selling it by the foot length. So, for example, you could have a piece of cloth two metres wide by six feet long. Try working out the area on that!

This is one subject that can cause a bit of a problem to inexperienced scratch-builders. You may see such things written down as: 1/2 inch to the foot, or 1/24th scale, just 24th scale, or even 1:24. It all basically means the same thing. The important thing here is the first term. It means that every half inch in model dimension equates to one foot on the full size ship. Or put another way, every model inch equals two feet on the full size. As there are 24 inches in two feet, this gives you 1/24. If you were writing this as metric scale it would be 1:24. If you see scale expressed

this as metric scale it would be 1:24. If you see scale expressed	the model multipli
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Plastic construction kit, note how the scale factor is written and that the length is quoted in cm (see text)

METRIC	ENGLISH	
1:12	1/12th or 1 inch to 1 foot	
1:16	1/16th or ¾ inch to 1 foot	
1:24	1/24th or 1/2 inch to 1 foot	
1:48	1/48 th or 1/4 inch to 1 foot	
1:72	1/72 nd or 1/6th inch to 1 foot	
1:96	1/96th or 1/8th inch to 1 foot	
1:192	1/192 nd or 1/16th inch to 1 foot	

#### Scale conversion chart

as a fraction, you can be fairly sure it won't be a metric measure. Sometimes the length of the model in a kit may be given as a metric measurement (see photo). In fact the convention is inches to feet. I have drawn a small chart that shows the commonly used scales for models. To get this inches to feet ratio, the trick is to divide the denominator by 12 (inches to the foot) (the numerator will always be ONE). So, as an example, the popular plastic kit scale 1/72nd is actually 1/6th of an inch to the foot. (72 divided by twelve = 6).

I may look at scale and the way true scale sometimes needs to be 'massaged' on models to look right in another article. But for now finally on the scale theme a subject that still causes problems to scale modellers.

#### SCALE SPEED

Although the calculation of scale model speed versus the full size craft's speed can be very complicated if you want to include such variables as laminar flow, water temperature and density etc., a reasonable approximation of true scale speed can be obtained by using the following calculation.

Scale model speed is equal to the square root of the scale of the model multiplied by full size speed. For example, with a 30

> knot destroyer at 1/100 scale the calculation would be  $1/10 \times 30 = 3$  knots which is fast walking speed. In calm water that would look pretty much correct (one knot = 1.20 land miles per hour, so in the above case 3 knots = 3.6 mph).

#### **MATERIAL THICKNESS**

It is annoying to say the least, to be building from a plan that gives measurements of materials in fractions of an inch, only to find out that said material is only available now in metric sizes, or for that matter in decimals of an inch. Sheet plastic is now often sold in metric thicknesses. Whereas other materials, such as thin plywood or balsa may still be sold in imperial sizes or it could be metric depending on where you purchase it. I have included a table showing fractions and decimals of an inch up to 1/2 inch along with the metric equivalents. As a quick guide however, try the following:

To convert to millimetres, multiply inches by

To convert to inches divide millimetres by 25.4.

Inches			Metric
Fractiona	l De	cimal	mm
1/64	0.0	156	0.3969
1/32	0.0	313	0.7938
3/64	0.0	469	1.1906
1/16	0.0	625	1.5875
5/64	0.0	781	1.9844
3/32	0.0	938	2.3813
7/64	0.1	094	2.7781
1/8	0.1	250	3.1750
9/64	0.1	406	3.5719
5/32	0.1	563	3.9688
11/64	0.1	719	4.3656
3/16	0.1	875	4.7625
13/64	0.2	031	5.1594
7/32	0.2	188	5.5563
15/64	0.2	344	5.9531
1/4	0.2	500	6.3500
17/64	0.2	656	6.7469
9/32	0.2	813	7.1438
19/64	0.2	969	7.5406
5/16	0.3	125	7.9375
21/64	0.3	281	8.3344
11/32	0.3	438	8.7313
23/64	0.3	594	9.1281
3/8	0.3	750	9.5250
25/64	0.3	906	9.9219
13/32	0.4	063	10.3188
27/64	0.4	219	10.7156
7/16	0.4	375	11.1125
29/64	0.4	531	11.5094
15/32	0.4	688	11.9063
31/64	0.4	844	12.3031
1/2	0.5	000	12.7000

Inches to metric chart - see text

Metric Threads -	Coarse Thread	Pitches	
Size - Nominal Diameter (mm)	Pitch (mm)	Clearance Drill (mm)	Tap Drill (mm)
M 1.60	0.35	1.8	1.25
M 2.00	0.40	2.4	1.60
M 2.50	0.45	2.90	2.00
M 3.00	0.50	3.40	2.50
M 3.50	0.60	3.90	2.90
M 4.00	0.70	4.50	3.30
M 5.00	0.80	5.50	4.20
M 6.00	1.00	6.60	5.00
M 8.00	1.25	9.00	6.80
M 10.00	1.50	12.00	

Metric Threads - Fine Thread Pitche				
Size - Nominal Diameter (mm)	Pitch (mm)	Tap Drill (mm)		
M 1.0x0.2	0.20	0.80		
M 1.1x0.2	0.20	0.90		
M 1.2x0.2	0.20	1.00		
M 1.4z0.2	0.20	1.20		
M 1.6x0.2	0.20	1.40		
M 1.8x0.2	0.20	1.60		
M 2x0.25	0.25	1.75		
M 2.2x0.25	0.25	1.95		
M 2.5x0.35	0.35	2.10		
M 3x0.35	0.35	2.60		
M 3.5x0.35	0.35	3.10		
M 4x0.5	0.50	3.50		
M 4.5x0.5	0.50	4.00		
M 5x0.5	0.50	4.50		
M 5.5x0.5	0.50	5.00		
M 6x0.75	0.75	5.20		
M 7x0.75	0.75	6.20		
M 8x0.75	0.75	7.20		
M 8x1.0	1.00	7.0		

#### **SCREW THREADS**

Screw thread sizes (mainly machine screws and bolts in modelling) can be confusing, especially if old plans are used. Prior to 1966 the most commonly used thread was BA. But after that date the ISO (metric) sizes were being used and this is what the average modeller is likely to encounter. For example, M2 and M4 as used for prop shafts.

A metric ISO screw thread is designated by the letter M followed by the value of the nominal diameter and the pitch. both expressed in millimetres and separated by the multiplication sign,  $\times$  (e.g., M8  $\times$  1.25). If the pitch is the normally used

'coarse' pitch listed in ISO 261 it can be omitted (e.g., M8). So the threads on your prop shaft are coarse threads.

There are no direct equivalents with screw threads, but as an example a 14BA bolt has a diameter of 1.0 mm so you could use an M1.0 x 0.2 metric and its corresponding nut as a substitute. I've included tables for a small selection of the common coarse and fine metric threads. Once again for full details check the Internet.

#### AN ESSENTIAL TOOL

Finally there is a tool that will help considerably with measurements - a Digital Vernier Caliper Gauge (or micrometer). This tool can measure thickness of materials, internal and external diameters of tubes and also depth. The one I have (see photo) can measure from 0 to 150 mm and is accurate to plus or minus 0.2 mm. It is one of my most used tools. Mine came from eBay for about £7 and there are many being advertised at around this price.

Well that's all for this month, see you next time. MMI



Digital Vernier Caliper as explained in the text

# MMI VISITS

NELSON SOCIETY OF MODELLERS, SOUTH ISLAND, NEW ZEALAND

**AUTHOR:** CHRIS SAUNDERS | CREAT BRITAIN

aving drawn a blank with contacting modellers in South Island. New Zealand before my visit. I was constantly on the lookout for any information on clubs or places where model boaters may sail. By accident my wife and I happened to pass a shop selling model trains and toys and on the door was an advert for children's train rides at the Tahunanui Modellers' Pond every Sunday. As the following day was a Sunday a visit was a must and so we set about finding directions.

With a large camper van clear directions are vital as it is easy to get into situations where you can't go forward and there is no room to turn around. Thus it was with some relief that we arrived at Tahunanui Park without too many wrong turns and there was plenty of room to park.

Filled with anticipation we explored the park and eventually came across a sign for the Modellers' Pond, just past the small zoo area. Round the corner a large, almost circular lake began to appear. This was obviously the right place as the pond had a harbour area and launching places all around the edge. There was only one problem, the lake was almost solid with weed; in fact it almost looked dense enough to walk across the surface (we think we have problems with weed in this country but we have nothing as dense as this). The lake was surrounded by a model railway track with shunting yards,

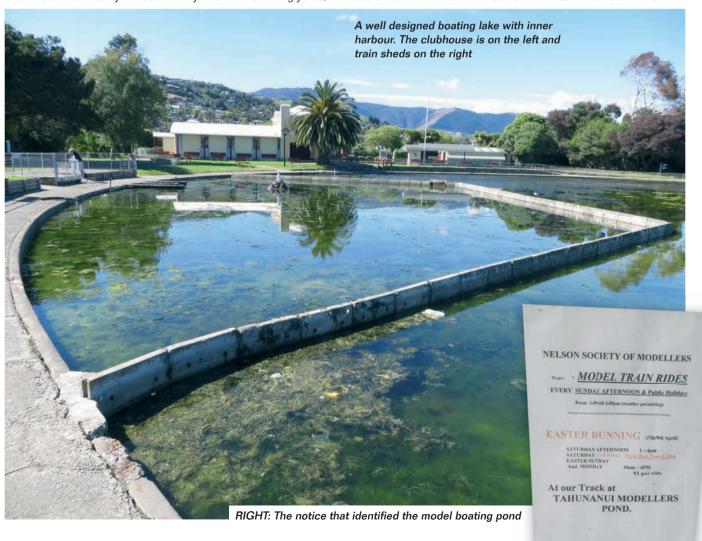


Weed so dense you could almost walk across the lake

engine sheds and a clubhouse all belonging to the Nelson Society of Modellers. Disappointingly there was no one about and so we set off to explore the rest of the very interesting park.

A couple of hours later, on our way back to the van, we noticed activity in the train shed area. This was an opportunity not to be missed and so I quickly went across and introduced myself to the group of people checking over a model steam engine, most of the group were train enthusiasts and had little to do with the model boating. We were however, eventually joined by Noel Dyer who was a local model boat maker and South Island importer of BECC model accessories (www.becc.co.uk).

Noel proved to be a mine of information and great company. He began by explaining the condition of the Modellers' Pond. For years the weed had been a problem and they had carefully managed it. Recently a rare species of sea creature had been identified right where the lake exchanged water with the sea. I use the word 'exchange' as I was given the impression that saltwater flows back into the lake at certain high tides. With the discovery of the sea creatures all chemical weed control measures were banned



until sufficient research has been carried out. Although some progress has been made there are significant cost implications to re-establishing the pond as a viable model boating area and government funding is being sought.

After a conducted tour of the steam engine yard it was time for lunch. Two members of the club set off for McDonalds on the traction engine that had been steaming up ever since we had arrived. They do this to attract children to the train rides, which take place in the afternoon. We were invited to get our sandwiches and eat them in the clubhouse, with a hot cup of tea, so I rushed back to the van and collected our grub. On return the main door to the clubhouse had been unlocked and the magnificent array of models stored there were on clear display. Never mind lunch, the next hour was spent examining the impressive range of working model boats and hearing the stories behind them. Unfortunately there is not room in this article to give the details on all the boats and so I have selected a few general pictures to give an impression of the quality



The team raising steam for the afternoon children's rides



Off to lunch



A static model with the display room behind

that was on display.

Lunch was a very happy affair with all the club members congregating for the hot tea. I presented the club with the most recent copies of MMI and these were passed around and initiated a lot of discussion. What became clear was that almost all of the members considered themselves modellers rather than train or boat specialists and were interested in all aspects of both hobbies. Noel explained that this tended to be a characteristic of the modellers in South Island as he could name a number of clubs that had a train track beside a boating lake.

Soon after lunch preparations were being made for the children's train rides and so we felt it was time to get out of the way. Despite not seeing any models on the lake, we had enjoyed our time with the Nelson Society of Modellers immensely and would advise any modeller on holiday in South Island, New Zealand to visit them on a Sunday to meet a great bunch of people. MMI



Potosi with her five masts; fully radio controlled



Some of the faster boats in the collection



Smaller models and plastic boats are also part of the display

# ALISON M-PART 3

IN THIS THE THIRD, AND FINAL, PART OF JOHN'S ARTICLE ON BUILDING THE 1:12TH SCALE BRISTOL CHANNEL PILOT CUTTER ALISON M, JOHN COMPLETES THE BUILD GIVING DETAILS OF THE MAST, RUNNING AND STANDING RIGGING, AND DESCRIBES HER SAILING CHARACTERISTICS

AUTHOR: JOHN DAVIES

#### PLANNING THE RIG

Waverley Models' Hilda comes with hull and deck plan only. The model's rig followed full sized practice. The rig's proportions came from Malcolm Darch's drawing of the lovely Marguerite, in his 'Modelling Maritime History'. The book is out of print. There are, alas, no plans to reprint. It is a treasure house of information, techniques and research sources. Mr Darch is generous with his expertise, insights and knowledge. Luckily, copies still turn up second-hand.

Following Agnes, she has a slightly longer bowsprit, just for the look of it. She has a bobstay, for the same reason. Most Pilot Cutters had neither bobstay nor bowsprit shrouds in their everyday working rig, relying on the strength and flexibility of the bare bowsprit. However, when racing, they shipped all sorts of extras; longer bowsprits and topmasts, bobstays, bowsprit shrouds with whisker booms, oversized jibs, large jackyard topsails, etc. A modeller therefore has some licence designing the rig. The bowsprit was rigged to run in on deck. Bobstay and topmast forestay are rigged with tackles to tighten them. There is a traveller, a metal ring, which travels in and out along the bowsprit, to which the tack (front lower corner) of the jib is hooked. Lines to control all this come aft

to the bitts on the foredeck. A 'standing' (i.e. fixed) bowsprit is very different.

Marguerite is still sailing. There is at least one modern replica, Annabel J. You can have a holiday aboard. You might consider it. If you are interested in gaff rig, it is far and away the best way of learning about it. In her day Marguerite was one of the most successful pilot cutters. She was owned by the redoubtable Frank Trott, and considered the masterpiece of Edwin Rowles, who built many of the best pilot cutters at his yard in Crewkerne Pill. Copying her rig results in a slightly lower sail-plan than Agnes. The truck of the mainmast is two inches lower. The truck of the topmast is a full six inches lower. While Agnes is a lovely boat and a delight to sail, if she has a fault it is that she is a tiny bit tender. She will cope with a gusty day, but needs care and close attention. Compared with Marguerite, she is a touch over-hatted.

#### Rigging begins





Winch and reefing gear

#### **SPARS**

The mast is 18 mm dowel, stepped on the keel. The step forms a slot. The heel of the mast is cut to form a tang fitting into this, so the mast cannot rotate. The topmast is cut from the end of a billiard cue (as is the bowsprit) giving a perfect taper. The topmast heel fits into a yoke, while the truck of the mainmast carries a metal figure 8 fitting. Hounds support the yoke and bolster, providing a firm foundation for the spreaders of the topmast shrouds, which in true pilot-cutter fashion are a thin metal section. Not all pilot cutters had them, but they look nice, so in they went. The mast carries four hoops to which the luff (leading edge) of the mainsail is rigged. These were made by cutting lengths of thin timber, boiling them until soft, rolling around a length of dowel, then when dry saturating with cyanoacrylate and finishing with sandpaper.

The gooseneck has two metal hoops around the mast. The loads from the boom are substantial in a full sized boat. A single hoop arrangement always ends up tilting and crushing the timber of the mast. Two hoops joined by a vertical metal bar are the solution. The gooseneck has to allow for movement both from side to side and up and down. Like many pilot cutters, it carries the typical Appledore worm-and-wheel roller reefing gear. This was cobbled up from brass and a set of gears meant for a 7 mm scale railway engine. It works, reassuring and useful if it is a blustery day. A small but interesting point; with the cutter on port tack, turning the handle would entangle it in the coils hanging from the pins. But on starboard tack, when she would be safer, with right of way over other sailing craft, the handle would fall conveniently to one hand and the throat halliard, which needs to be paid out, would fall into the other. Everything is where it is for a very good reason.

A roller-reefing boom is fairly complex. It needs a jackstay along the top for the foot of the sail to be securely fastened to. At the outer end, it needs some sort of revolving attachment, so that as the boom rolls the sail up, it does not also roll the mainsheet and the topping lift around it, causing the most awful tangles. Both the jackstay and the revolving attachment are a bit over scale, because in a working model, durability is very much a consideration, but they are not so far over size as to disfigure the model.

Finally the spars were treated with pine stain and antique oil, to give a nice gentle sheen. Only after this was dry, and all other jobs were completed, could the mast be stepped and rigged.

#### STANDING RIGGING

Standing rigging followed full sized practice. This meant once the shrouds were rigged, the deadeyes installed and their lanyards rove, the mast was in for the life of the model, short of cutting the lanyards. This makes her fairly large to transport, but with the topmast housed and the bowsprit run in, she is manageable. There are various methods of constructing a 'trick mast', which looks solid but unrigs completely, enabling the model to be packed



Roller reefing gear

flat. Agnes has one. I had no confidence I could make one that would look good and work properly. They usually involve springs, vulnerable to corrosion if they get wet, as the bilges of a working model can. Access for freeing and repairing the mechanism is difficult. Full sized practice was followed. It works. It usually does.

Attaching lower deadeyes to chainplates was a tricky little job. Each lower deadeye has a metal strap around it. The ends of this have small loops formed in them through which a pin is passed, also passing through the eye on the top of the chain plate. The photos show this. Brass rod was used. Upper deadeyes have a sheer pole lashed across them. This stops them rotating.

Rigging is conventional, following full sized practice. Standing rigging is 70 kg shark-fishing wire, supplied by Garry Evans fishermen's supplies of Newport, who were extremely helpful in finding what I wanted, and very interested in what I wanted it for.



Main clew revolving fitting



Deadeyes, lanyards and sheerpole



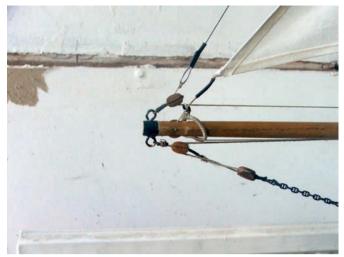
Hounds, yoke, bolster, spreaders, etc.

#### SAILS AND RUNNING RIGGING

Running rigging is hemp twine, supplied by The Model Dockyard. Proper working blocks for all the various tackles came from Waverley Models. Sails were subbed out to a friend, a dab hand with a sewing machine, which I am not. I must learn. I'd got the size of the main and topsail wrong when I made the templates, so my wife, bless her, came to the rescue to make replacements. Jib and topsail can easily be removed, while the main and staysail are bent on, i.e. semi-permanently attached. One small but subtle point; the various sails were sewn using very slightly different weights of cloth. A real cutter would almost certainly, for instance, have a topsail sewn from a lighter canvas than the mainsail.



Mainsheet spring buffer



Running bowsprit tackle



Deck view from bow

There are a few important points when rigging the mainsail. The lower edge, or foot, is secured to the jackstay that runs along the top of the boom with individual robands (rope bands). Likewise the upper edge, or head, is secured to the gaff the same way. It is possible to do this with a continuous in-and-out lacing. Some gaff-rigged yachts do. But if one roband parts because of strain or chafe, it doesn't matter. If a continuous lacing parts at any point, the whole thing will unravel. This will leave one whole edge of the sail flailing around out of control, not attached to anything. According to Murphy, this will happen at night with a falling glass, a rising wind and a nasty lumpy sea running. Indeed, it did once happen to me, at three in the morning in mid-Atlantic, not in my own boat, but on a badly rigged delivery job which was mostly used to give parties aboard in marinas, and fitted out accordingly. It took five of us to muzzle the sail. Never again.

There is a fair-sized gap between the leading edge, or luff, of the mainsail and the mast. There is a well-known photo of the pilot cutter Kindly Light towing her punt into the lee of a ship, showing just such a gap. It is there to prevent the sail being pulled into the worm-and-wheel roller reefing gear and jamming as it comes down. Remember that reefing is something you do in a rising wind and you will understand why this sort of snarl-up is undesirable. Given a full crew, you could have one man turning the handle and three or four others dragging the sail aft along the boom as the rolls came down, but remember these vessels were sailed short-handed in all weathers. One fascinating thing about building a model is that, with a little thought, it is often possible to answer the question "why did they do it that way?" Ours can be an educational hobby.

There are four mast hoops. The lowermost can be detached from the sail, making it possible to roll down quite a lot of mainsail.



Deck view from stern



Rigged for travel

With the topsail and jib removed, under staysail and close-reefed main, it would be possible to sail this model in quite a stiff breeze.

The mainsail is hoisted by two halliards. The throat runs to the gaff saddle that travels up the mast. Since pilot cutters were hightech boats, a proper gaff saddle was produced, rather than using the commoner pair of wooden jaws. It has a leathered curved piece that slides up the mast. Two metal straps that go each side of the gaff attach to this with a bolt, allowing the angle of the gaff to be adjusted.

The peak halliard runs to two blocks on bridles further along the gaff, and adjusts the angle of the spar. Both halliards have two ends that come down on deck. In each case, one comes to the belaying pins on the gooseneck at the base of the mast, conventionally throat to starboard, peak to port. The other comes down to the pin rail inboard of the shrouds and deadeyes, where it is attached to a tackle. In each case, the end that comes down to the mast would be used for hoisting the sail, and for large movements; lowering the gaff when pulling down a reef, or reducing the angle of the gaff to 'scandalise' the main, spill wind and de-power the rig. (You can't do that trick with Bermudan rig. One of the delights of gaff rig is its versatility.) The ends with the tackles are used for applying the final tension to the hoisted sail. They act 'tackle upon tackle', enabling considerable force to be exerted. This is an excellent arrangement. which I definitely intend to copy full size, having quite enough experience of swinging frantically on a halliard trying to get the last bit of tension into the luff.

There is a single topping lift, which also comes down to a tackle on the pin rail. This runs to the rotating fitting at the outer end of the boom, supporting the weight of the spar when the sail does not, for instance if it is partly lowered. The other line to this fitting



The completed model



She makes a large living room ornament

is the mainsheet. There are two. The working mainsheet is a straight in-and-out line running to the below-decks winch. The scale mainsheet, which is detached when the model is sailing, is a tackle. The central block runs on a short sheet horse fitted with hefty springs. Usually sailed short-handed, these boats were often gybed 'all standing', without hauling the mainsheet in first. The boom would come over with a tremendous wallop. The springs absorb the shock. Jib and staysail appear to be sheeted to black iron bullseyes from which the sheets are led aft to the cockpit, accessible to the helmsman. These sheets are dummies. The real sheets go below the deck to the winch.

The luff (leading edge) of the topsail should lie close to the topmast, otherwise it will sag off to leeward, dragging the boat sideways, not driving her forwards. One way would be to fit hoops to the topmast, but this means someone has to go aloft every time the sail is hoisted or dropped. Bristol fashion was to fit small thimbles (metal rings) to the luff. When the sail is hoisted, the halliard is led back down through these. When the downhaul from the tack (lowermost corner) of the sail is pulled down, the halliard comes bar-taut and supports the luff.

The last detail was an all-round white light on a bracket at the truck of the mainmast (not the topmast). There seemed to be few photos of pilot cutters with conventional port and starboard navigation lights. Perhaps they didn't carry them. A pilot would not want his rivals to know where he was. Some used elaborate subterfuges, hiding among fishing vessels, or carrying a tan topsail, common among fishing vessels but not in the pilot service. But there would be a white light, hoisted to announce his presence to a ship needing a pilot. The model has a bulb, controlled by an R/C switcher

#### ON THE WATER

She weighs 48 lb. Her waterline is a scale eight inches deeper than drawn; a little deep, but acceptable. Sources differ. By eye, it looks similar to the waterline depicted on Malcolm Darch's fine display model of Hilda. Most importantly, her 'sit' on the water looks absolutely fine. If I were to build another, I might aim for a weight in the low forties, purely to make her easier to handle ashore. She is heavy to carry ashore, necessitating a trolley both to move and to launch her. But her weight makes her a powerful sailing model, stiff and well able to stand up to her canvas.

She sails absolutely beautifully, a real delight. She had her maiden vovage in about six knots of wind. With everything set including the topsail, she gave no cause whatsoever for anxiety. It was obvious she would have coped with a good bit more wind before it became necessary to reduce sail. She will move in a zephyr. As the breeze picks up, she accelerates markedly, not really visible from the photos, as her lovely hull slips through the water without much disturbing it. She is slippery, making her a lively sailing model. She tacks very nicely. She will also gybe, but needs a lot of water. As she comes on to a broad reach she picks up speed alarmingly.

Everything works as it should. The care taken to prevent tangles paid off enormously. With the headsails correctly sheeted from side to side, a good 'slot effect' develops, enhancing their efficiency. Centrally sheeted headsails are a pet hate. Scale sailing models can be marginal in performance. Why give any away? Some arrangements are really odd. One model had the jib sheeted to port and the staysail sheeted to starboard, so whichever tack she was on, she would be hove to, with one headsail aback. It was far from obvious how she sailed at all. Better to copy full sized practice. It

She is beautifully balanced, carrying neither weather nor lee helm, sailing with tiller amidships. She can be steered perfectly well with her scale sized rudder. Maybe the oversize 'barn door' rudders that disfigure some scale sailing models are a desperate bruteforce attempt to overpower the out-of-balance forces created by incorrectly sheeted sails.

She is a little wilful. To bear away off a beat on to a reach, one lets some mainsheet out first, or she will be reluctant to answer the rudder. But then the same could be said of the heavy traditional cutter I once lived aboard. If you just hauled the helm up, you mostly got a lot of bubbles under the stern. The old lady would reluctantly swing a little, not really alter course much or willingly. But sail her with knowledge and sympathy, and she will do all you ask. On the water she is a complete and utter delight.

My only sorrow is that now she has gone to her owner, I no longer have her to play with. She is a model a person could happily get enthralled with for hour after hour. Remember, battery life is much longer than a steamship model. But I bought two hulls from Waverley. The next one is for me. After that, I have my eye on the

This shows the slot effect headsails correctly sheeted

immortal Marguerite, possibly the best of all the pilot cutters. Then there's a very interesting model of a 'plank on edge' racing cutter I took the lines off many years ago. As well as all that, I really must get back to sea in the full sized thing before I get too old. All I need is 48 hours in every 24. Ours is a good hobby. It keeps a person alive and interested.

#### **SUPPLIERS**

Waverley Models, Clevedon, 01275 546772, http://freespace.virgin.net/waverley.models/ Orion Mouldings, Sunderland, 0781 241 0173, www.orionmouldinas.com/ The Model Dockyard, Truro, 01872 261755, www.model-dockyard.com Garry Evans, (fishing tackle) Newport, 01633 855086, www.garryevans.co.uk/

#### REFERENCES

'Sailing Pilots of the Bristol Channel' - Peter Stuckey 'Modelling Maritime History' - Malcolm Darch 'Gaff Rig' - John Leather 'Hand Reef and Steer' - Tom Cunliffe MMI



Agnes illustrates the launching technique



A beautiful craft on the water





# COASTAL FORCES **TERAN'S MODELS**

WHEN PETER RETIRED IN THE EIGHTIES, HE DECIDED TO RESUME BOAT MODELLING WHICH HE HAD ATTEMPTED BEFORE IOINING THE ROYAL NAVY DURING THE WAR AUTHOR: PETER MUNNOCH



As I had served in Coastal Forces I started to try modelling Coastal Force Craft. During 1944 I had managed to make a 5" model of RML 513 and so I started on a 1:40 scale of the same boat. I served as Spare Officer in the 61st RML (Rescue Motor Launch) Flotilla in Newhaven and Dover and 513 was the Senior Officer's boat. She took HM King George VI on his inspection of the invasion fleet before D-Day on 6th June 1944. My new model was radio controlled and I enjoyed sailing her at Bourneville Pool, Birmingham. Rescue Motor Launches were used for Air Sea Rescue and worked in co-operation with the RAF HSLs (High Speed Launches) and were able to work in much worse weather than the HSLs. I remember looking at the seas coming in by Newhaven in a force 11 and knowing that two Motor Launches were out there with a convoy and that they were much safer staying out than trying to get into the harbour.







#### **MTB 697**

I was transferred to MTB 697 (a D Boat) very shortly after D-Day and served with her in Newhaven and Dover until she went for overhaul before going out to the Mediterranean. She was sunk in the Adriatic by a mine just before the war finished, losing ten of thirty of my shipmates; I decided that a model of her should be my next project.

Having now found John Lambert's plans, the process was much easier than relying on my memory as with 513. The other advantage was in finding that plastic sheet, rod and tube made it much easier

to produce some details than in wood. Once again the scale was 1:40 and the construction of the hull was 1/4" ply keel and ribs with a 1/32" ply skin and, as before, I used matt paint, believing that the model looked far more realistic than those using gloss.

I am guite surprised at how few models of D Boats are attempted. Over 200 of the craft were made and served during the war. The same thing applies to Motor Launches - many different versions of the BMLs were in service but few models seem to appear. There are plenty of short boat (MTBs and MGBs) models appearing at meetings and in manufacturers' catalogues.

> I was also intrigued by the reference in Kim Belcher's article in September 2012's MMI to fuel consumption. You may be interested to know that, after a patrol overnight to south of Boulogne from Dover, I used to see 1200 gallons of 100 octane fuel aboard. Our boat was probably one of three or four on the patrol.

However, after some time sailing the two models at Bournville, it became more difficult for me to do so, and they were stored at home for some years. Eventually, I decided to see if the Coastal Forces Heritage Trust would be interested to have them and, as they were, I took them to Portsmouth where they have them stored until their exhibition space in the Historic Dockyard is found and completed.







Once again, after some years, the urge to make another model took hold of me. Our hero in Coastal Forces - indeed he could almost be described as our Nelson - was Lt. Cdr. Robert Hichens DSO\*, DSC\*\* RNVR, known universally as 'Hitch'. Though he was killed in action in the middle of 1943, his methods and actions were considered the example to be followed. I thought that it would be fitting if I made a model of his last boat, MGB 77 - a 71'6" British Power Boat, although he was actually out in another boat of his Flotilla when he was killed.

The construction of the hull, as before, was plywood with superstructure and above deck details in plastic. The scale was 1:40 again. This time, however, no motors or control were fitted and once again the model has been passed to the Heritage Trust.

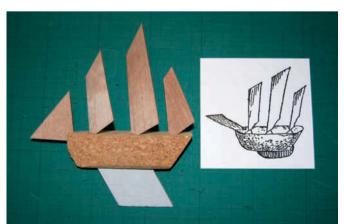
The Coastal Force Heritage Trust can be contacted c/o The National Museum of the Royal Navy, HM Naval Base (P66), Portsmouth, PO1 3NH if any readers are interested in their work. ММІ





ome readers may remember an article in MMI (October 2008) entitled 'Cornish Cokyn-Baba – toy boats with West Country origins from 150 years ago'. These little boats were built from builders' cork sanding blocks and the 'sails' from thin birch plywood (see picture). The originals, made by Cornish 'quay boys' and young fishermen, were carved from old cork fishing floats and the sails were chips of wood made by a shipwright's adze. It is interesting to note that since that article was published the National Maritime Museum is displaying online a picture of a Cokyn-Baba from Newlyn, Cornwall which uses feathers as sails. An image of it can be viewed at www.collections.rmg.co.uk and looking at Object ID AAB0103.

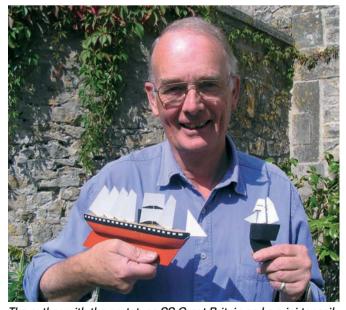
The published design for the modern version appeared to be well received by readers and cork boats have been built not only throughout Britain but also in parts of the Mediterranean, North America and Australasia. They have also been used as table decorations for at least two weddings and the Model Yachting Association has cited them as a good example of an 'educational aid' for children. The Warwick Model Boat Club even had a concour



Original 2008 Cokyn-Baba with drawing of a 1913 version

d'elegance and sailing competition for their members using a novel method of launching a whole fleet of Cokyn-Babas with a garden spring rake! (See picture).

Having produced these toy boats for a few years, mainly for my grandchildren and other youngsters, I wondered how far one could push the concept using other designs and sizes. The biggest drawback appeared to be the plywood 'sail' as, if thin, they tend to distort and if made thicker they make the boat more unstable – I must admit I haven't done any experiments with plasticard. I think that I've come to a happy compromise by making the boats up to twice as long as the 2008 design and using this 22 cm, or a shorter 18 cm, version to make representations, or at least impressions, of



The author with the prototype SS Great Britain and a mini topsail schooner

some larger historic ships. They can still be 'de-rigged' in seconds and put in a pocket, handbag or car glove compartment and are also of a size that can be happily used in rock pools at the seaside, paddling pools or garden ponds. If three hull sizes are produced a whole array of historic vessels can be made, albeit at different scales, and a number of parts can be interchangeable.

The 'historic fleet' now discussed are all based on ships that can be seen around Britain i.e. SS Great Britain at Bristol, HMS Warrior at Portsmouth, Cutty Sark in London, HMS Gannet at Chatham, RRS Discovery at Dundee and HMS Trincomalee now based in Hartlepool. The general principle can be used to make other designs and it is fairly easy to adapt the sail plan to denote the configuration of any appropriate vessel which appeals to the reader e.g. the American USS Constitution, the Danish frigate Jylland or perhaps the German Gorch Fock. I've even thought about making two opposing fleets, from the Napoleonic era that could sail on different tacks towards each other and create a general mêlée in the middle of a pond!

#### **PLANS**

The two pages of plans are, I hope, self-explanatory. One shows, in full size, all the shapes of 'sails' needed for the various models mentioned in the article and each sail has its own unique letter code. It also shows, as an example, the deck plan and profile of RRS Discovery, which is one of the 18 cm medium sized models. If a larger 22 cm or smaller 11 cm model is required the bow and stern sections can be kept 'as drawn' and just the actual overall length needs to be altered and the sail positions marked as shown on the second page of plans.

This second page depicts the half scale profiles, less keels, of all the ships in question. Measurements can be doubled in size to locate the position of the sails (and funnels) of each ship. The sails, identified by the letter codes, relate to each full size sail shape shown on the first page of plans.

#### MATERIALS NEEDED

A DIY cork sanding block (one per 22 cm model) - preferably the smaller grained compressed cork variety as it is easier to cut and sand to shape without crumbling.

One piece of thin birch plywood (or plasticard?) for the sails -24 cm by 8 cm is enough for the multiple sails of SS Great Britain. Brass or steel plate about 20 cm by 5 cm and about 1.5 cm to 2 cm thick. This could be made up from smaller parts and 'sandwiched' by thin ply. Total weight should be about 33 grams. Aluminium tubing if funnels are needed – 6 mm in diameter. Paint, glue, fine glass paper, varnish, cocktail sticks, nails, etc.

#### CONSTRUCTION

Measure and draw a line right around the cork sanding block bisecting it lengthways. Now do the same again to each 'half' thus creating a centre line on each (see picture). These second lines will assist in carving the hull, cutting the keel slot and positioning the sails later on. Note that two edges of the sanding block are already chamfered – these should be kept along the base of your model so they can be carved away when the hull is shaped. The block can now be cut in two along the centre line using a razor saw.

With these longer models the two halves of the block have to be joined end to end. Find the centre point on each end and then drill or bradawl a small pilot hole in each to accept half of a wooden cocktail stick. Glue the two ends together with impact adhesive using the half cocktail stick to help align the sections and give extra strength (see picture).

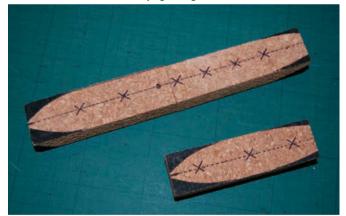
Once the glue has set the deck and side profiles can be marked out and cut. The bigger ships are 22 cm long, the medium ones 18 cm and the smallest 11 cm. It is easier to get the deck plan shape if a piece of paper is cut to fit the rectangle on top of the long block. Fold the paper lengthways and cut out the half bow and stern shapes. Unfold the paper to produce a symmetrical image that can then be transferred to the cork and marked out (see picture).



Mark out the sanding block and then draw the centre-line around each half



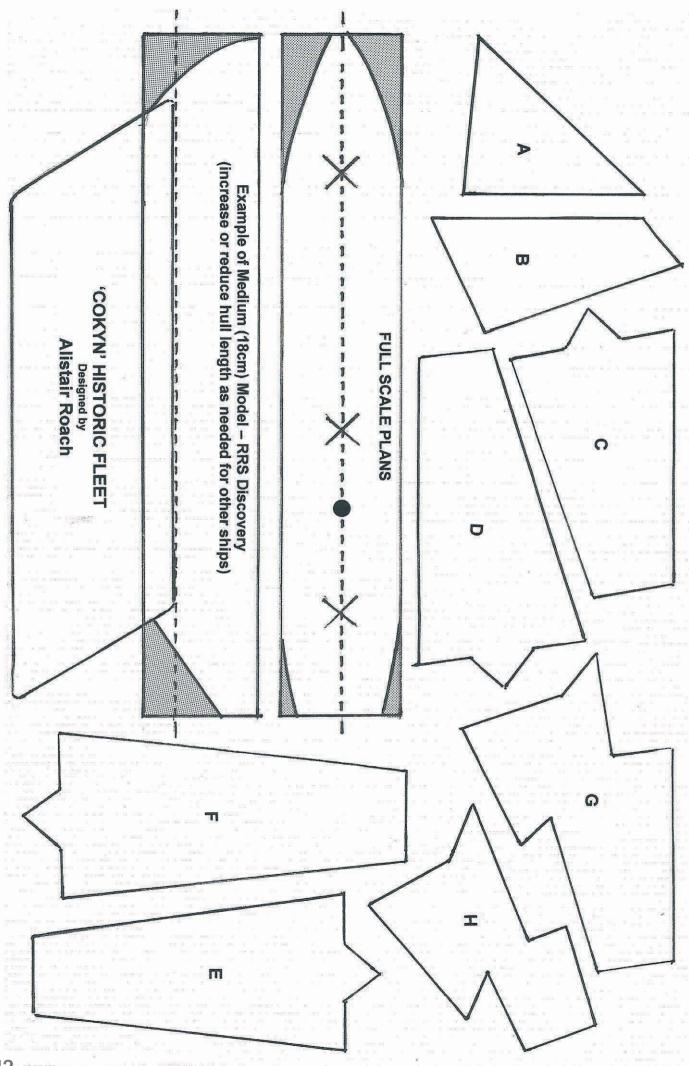
Cut the block in two - then peg and glue end to end

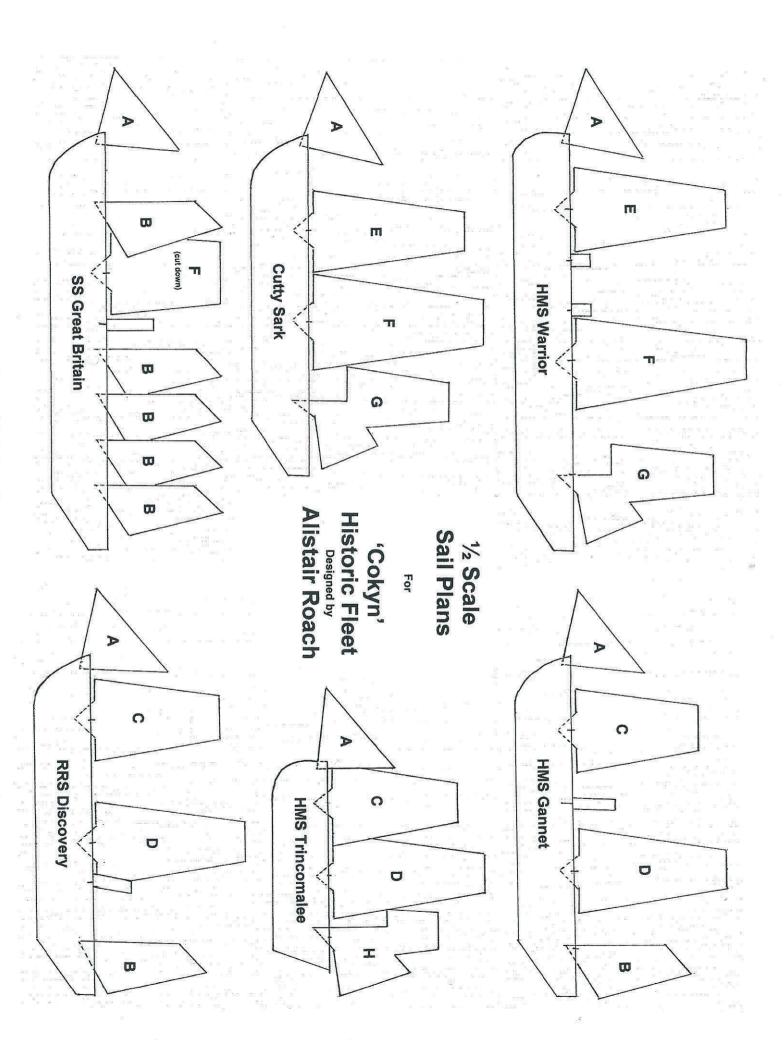


SS Great Britain and HMS Trincomalee hulls marked for cutting out and shaping



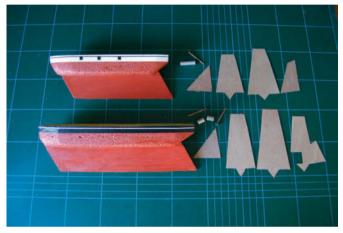
Short (11 cm), medium (18 cm) and long (22 cm) hulls carved to basic shapes







Metal keel(s) inserted into slot at base of hull and covered with thin plywood if desired



HMS Gannet and HMS Warrior hulls painted and await 'fitting

Cut the keel 'slot' with a hacksaw or razor saw and then carve the hull to the desired shape (see picture). This carving can be done in a fairly 'crude' way, as the old maxim goes - 'if it looks right it is right'. Once the initial carving is completed with saw and knife the hull can be finished off with fine glass-paper. Note: do not make the bow too fine, as the cork is liable to crumble.

The keel can now be cut. My own models had keels made up from smaller pieces of metal and then 'sandwiched' between some thin birch ply (see picture). Once this was completed the edges and corners were rounded off and the keel was then ready to be

fitted into the hull slot. Although this can be a friction fit I tend to epoxy mine into place for better security. The appearance of some models can sometimes be improved by gluing a small fillet of wood onto the bows to give a 'clipper' appearance if need be.

Cork can absorb a certain amount of moisture so it is best to paint and/or varnish the hulls. I use matt enamels throughout and then finish off with a coat of 'kitchen worktop' varnish. BECC vinyl lining was used to mark out gun-ports, lining, etc. prior to varnishing (see picture). Now is also the time to mark the sail positions on the deck - a single mark for the jib and crosses for the others, plus a dot for the funnel(s) if needed.

Using a Stanley knife cut the sail slots by pushing the blade into each direction of the Xs marked plus a single cut at the bow. If the positions have been clearly marked by pen it is easier to locate the slots formed by the blade in the future.

Sails are cut out from the thin birch ply. Note that the external grain of the ply should preferably correspond to the vertical length of the sails thus reducing the risk of warping. The ply sails can be enhanced by painting them. The 'spaces' of the square sails are blacked in and on some models dummy masts, made from thin dowelling or cocktail sticks, are also stuck to the back. This perhaps not only enhances the look but also gives them a little more rigidity. The funnels, where needed, are cut from 6 mm aluminium tubing and epoxied onto a small copper roofing nail, the head of which was the same as the internal diameter of the tube. They are painted to suit the model in question e.g. yellow or black.



HMS Trincomalee and Cutty Sark under trials in garden pond

#### ASSEMBLY AND SAILING

Push the corner of the iib sail into the bow slot and angle appropriately. Also push the funnel nails into the required position using a bradawl to make pilot holes. Check the shape of the other sails against the plans and push the base of each into the appropriate slots marked with crosses on the deck. These sails should all stand the same way in the slots and the leading (front) edge of fore and aft sails (i.e. not square sails) should be as vertical as possible.

As the sails have only two positions i.e. set either to port (left) or starboard (right) these miniature ships will only sail properly 'reaching with the wind abeam'. Adjust the sail positions to suit the wind direction, place in water and watch them 'go like a whiff' as they said in the old days. MMI







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# DIARY DATES FOR YOUR DIARY

#### **Event Dates for your Diary**

If you know of any confirmed Maritime related events and you would like us to include them please let us know either by e-mail *mmi@traplet.com* or post to MMI Editor, Traplet Publications Ltd, Traplet House, Pendragon Close, Malvern. Worcestershire. WR14 1GA. England. We need the Date, Venue, Organiser/who to contact and crucially an Email/Website address and/or a telephone number, a post code would be useful for Sat Nav's. A full listing of events for the year can be found on *www.marinemodelmagazine.com* We do need at least 8 weeks' notice to include in the printed magazine.

#### JUNE 2014

#### MMI **DIARY** DATES

#### **MAY 31/JUNE 1**

#### **Annual 'Springbok Model Boat Show'**

Springbok Estate, Alfold, Cranleigh, Surrey, GU6 8EX. This will be the 18th Show, which attracts model boat clubs and modellers from far and wide and is held to raise funds for 'Care Ashore' a charity who run the retirement home for seamen at Springbok Estate. Further information may be obtained from <a href="https://www.careashore.org">www.careashore.org</a> or phone 01403 752555

#### JUNE 1

#### Warship/Navy Day also Leisure Sailing

Balne Moor MBC, Kingfisher Pond. Start 1030. Refreshments available. Contact John Pollitt, Tel: 01977 645696

#### **JUNE 1**

#### **Edinburgh Model Boat Club**

Fast electric and I/C. Inverleith Pond. All are welcome, start time 12 pm. Contact david.jack5@btopenworld.com

#### JUNE 6 to 8

#### The 3rd European Warship Weekend, Belgium

The Scottish Warship Association and Edinburgh MBC presents an International Warship Weekend in Belgium, it is in Hofstade near Brussels, Belgium. Excellent Venue. Sports Hotel accommodation approx €17ppn, within an easy walk of the club facilities. To see the facilities and contact see <a href="http://users.pandora.be/suys/">http://users.pandora.be/suys/</a> or contact David Jack, Email: <a href="mailto:david.jack5@btopenworld.com">david.jack5@btopenworld.com</a>

#### **JUNE 7/8**

#### **Northern Model Boat Show CADMA**

The Doncaster Deaf Trust, Leger Way, Doncaster, DN2 6AY which is directly opposite the racecourse so it is very easy to find. The venue is a modern building with more room than we have had before, all facilities are on site including a restaurant. There will be club and trader stands as usual, plus pond to sail on. We look forward to seeing you all there. If you require further information please contact Bryan Smith (Show Manager) on 01909 564385 or bryansmith491@aol.com

#### **JUNE 8**

#### **Dolphin Model Boat Club**

All meetings are at Orpington Pond just off of Kent Road by the A224 Cray Avenue BR5 4. 10 am start. There will be a £2 charge per boat for any non-club members. Sorry no I/C or petrol boats. There is off road parking on club days but no food or toilet facilities. Web: <a href="www.dolphinmodelboatclub.com/">www.dolphinmodelboatclub.com/</a> Email: <a href="mailto:dolphinmodelboatclub@live.co.uk">dolphinmodelboatclub@live.co.uk</a> or Margaret, Tel: 01689 834896

#### JUNE 8

#### The East Midlands Model Lifeboat Day

King Lear Model Boat Club. Watermead Country Park, Leicestershire, LE7 1PD. All Lifeboaters are most welcome for this informal and fun event. We have a jetty and slipway for ease of access to our lake so please bring your boats along for a sail. There is ample parking and picnic facilities. There is a £2.50 entrance fee payable to an unmanned machine, so having the correct change is required. There are no catering facilities on site so bringing your own lunch is recommended. Further information can be obtained from Marie Burdett, Tel: 0116 2613959 or by email at <code>kinglearmbc@ntlworld.com</code> For up to date information please visit our website at <code>www.kinglearmodelboatclub.co.uk</code>

#### JUNE 8

#### **Glasgow Richmond MBC, Tug Towing Competition**

11 am to 4.30 pm at Richmond Park, Glasgow (opposite Shawfield Stadium). Visit the only tug towing event, in Scotland, see our extensive harbour system. Hot and cold food and beverages will be available throughout the event. Car parking is next to the pond side and a helping hand to unload vehicles will be available if needed. Toilet facilities are also available. So please come along, join in the fun, you will be made most welcome. All enquiries to the club secretary: Sandy Mercer through the club email: <code>glasgow.richmond@gmail.com</code> Directions are available on the club website <code>www.glasgow.richmondmbc.co.uk</code> We are only 1 mile from junction 1A of the M74

#### **JUNE 14/15**

#### 2nd Year of Boats on the Bay

Welsh Model Boat Show in association with Cardiff Harbour Authority and Margam Park Marine Modelling Club. This is a national event for Wales, a model boat show that includes clubs from Wales and surrounding locations. We aim to promote the hobby. There is free parking and camping with 24 hour security. Bring your own gazebos, tables etc. Open 10 am – 5 pm both days. Access is via the Cardiff Barrage. Sat Nav CF64 1FP Custom House. Set up Friday pm or between 8.30 – 9.30 am on the day. For booking forms and more info call Grahame on 07914537387 or Email: gbolddak@btinternet.com

#### **JUNE 14/15**

#### **Classic & Vintage Model Boat Weekend**

Fleetwood Yacht & Model Power Boat Club, Fleetwood, Lancs will be hosting this event. All Model Boaters who own vintage and classic model boats are most welcome. Clubhouse and free car parking available. I/C, electric, sail and steam powered models are welcome (own insurance required). Refreshments available both days with hotpot available on Sunday only. Further information can be obtained from Brian Carruthers, Tel: 01253 823878 or by Email: brian.carruthers1@homecall.com.uk

#### **JUNE 20 to 22**

## 18th Swiss Open 10 Rater Championship, Schwarzsee. Switzerland

On the 20th 09.00 - 10.00 Registration/Briefing. Racing from 10.30 to 17.00. On the 21st Racing from 10.00 to 17.00. On the 22nd from 10.00 to 14.00 followed by the results of the racing 14.30 to 15.00. For information on how to register contact: Gustav Albiez Tel: +41 (0)61 601 39 21 (evenings) or Email: g.albiez@bluewin.ch

#### **JUNE 21/22**

#### **PRO/AM Tug Towing Weekend also Leisure Sailing**

Balne Moor MBC, Kingfisher Pond. Start 10.30 am. Refreshments available. Contact John Pollitt, Tel: 01977 645696

#### **JUNE 21/22**

#### The Sumners Pond Model Show, West Sussex

Barns Green, Horsham, W. Sussex, RH13 0PR. Model boats, planes, trains, tanks, helicopters, cars, trucks plus lots more. Camping available, superb on site facilities. For more information Tel: 01403 732539 or visit: <a href="https://www.sumnerspond.co.uk">www.sumnerspond.co.uk</a>

#### JUNE 22

#### **Bury Metro Marine Modelling Society**

Tug Day. The Club is situated off the A56 Walmersley Road Bury take the Royal Avenue road and turn into the car park. For those with Satellite Navigation the postcode is BL9 6NG. For more information visit www.bmmmsuk.yolasite.com

#### **Chantry Model Boat Club**

Tug fun day. Lake 7, Bluewater Shopping Centre, Greenhithe, Kent, DA9 9SE (on Town Square Crescent). All models sailed except I/C. Good parking nearby. Clubhouse. Toilets. All shopping centre facilities nearby. Contact Club Secretary Martin Oliver, Email: martin.999@hotmail.co.uk

#### JUNE 28/29

#### John Barry Maritime Festival on Wexford Quays

John Barry was the founder of the American Navy. This festival is a major event in the south east of Ireland with water activities, bands, exhibitions of diving, the Irish coastguard cutter, displays with the lifeboat and the air-sea rescue helicopter, and of course a large display of model boats. For more see www.johnbarryfestival.com also on facebook. Contact Fred Crampton phone (00353) 53 93 66863 or txt (00353) 861060515 or Email: fcrampton@iol.ie

#### **JUNE 29**

#### **Dolphin Model Boat Club Charity Day**

All meetings are at Orpington Pond just off of Kent Road by the A224 Cray Avenue BR5 4. 10 am start. There will be a £2 charge per boat for any non-club members. Sorry no I/C or petrol boats. There is off road parking on club days but no food or toilet facilities. Web: www.dolphinmodelboatclub.com/ Email: dolphinmodelboatclub@live.co.uk or Margaret, Tel: 01689 834896

#### JUNE 28/29

#### 28th Wings & Wheels Model Spectacular

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#### JULY 2014

#### **Chantry Model Boat Club**

Large sail day. Lake 7, Bluewater Shopping Centre, Greenhithe, Kent, DA9 9SE (on Town Square Crescent). All models sailed except I/C. Good parking nearby. Clubhouse. Toilets. All shopping centre facilities nearby. Contact Club Secretary Martin Oliver, Email: martin.999@hotmail.co.uk

#### JULY 12/13

#### The 7th National Warship Weekend 2014

The National Warship Weekend will be held at, Richmond Park Glasgow, (opposite Shawfield Stadium). Home of Glasgow Richmond Model Boat Club. From 11 am both days. Hot and cold food and beverages will be available throughout the event. Car parking is next to the pond side and a helping hand to unload vehicles will be available if needed. Toilet facilities are also available. The event is open to all military related vessels. So please come along, join in the fun, you will be made most welcome. For more information feel free to contact Sandy Mercer, club Secretary via the club email glasgow.richmond@gmail.com Directions are available on the club website www.glasgow.richmondmbc.co.uk We are 1 mile from junction 1A of the M74 MMI



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# BUILDING THE TEHNOART SUMNER CLASS DESTROYER

A LESSON IN THE ART OF MODELLING

**ATITHOR: ROBIN TROTT** 



ot many modellers will have heard of the manufacturer Tehnoart, it was by chance that I spotted them on the Internet. This company is based in Latvia in Eastern Europe, but they do ship their kits worldwide. They advertise their models as of museum standard, which you can see is not wrong just by looking at their website. When I contacted them they were more than happy to send me a review kit to see the quality of the parts and build as a review for MMI.

#### THE SUMNER CLASS

The model is of a US Navy Sumner Class destroyer, this class of destroyer was built by the American shipyards from 1943 to 1945 and were a further development of the US Navy's Fletcher Class destroyer. This amounted to increasing the armament for more firepower to counteract the ever-increasing Japanese Kamikaze attacks on the US Navy warships and transports. The extra armament was at the cost of decreasing the destroyer's speed, but as this destroyer was based originally on the Fletcher design the modifications to the Sumner Class and later Gearing Class meant there was no decrease in the rate of ship production. These classes were considered to be the best World War 2 destroyers in the world at that time.

#### THE MODEL

The model is of the USS De Haven; its scale is 1/192, which gives the model a length of 59 cm. It is an unusual scale but this makes it a really detailed model for any collection.

When I opened the box I found that all the pieces were securely packed inside to prevent damage in transit. As I removed the contents I could not believe how many parts it contained and the quality of all pieces.

The hull and deck is in one-piece and made of resin, there were also many other parts such as the superstructure, gun turrets,



Tehnoart box art

bridge, and torpedo tubes just to mention a few cast in resin. Several bags of fittings were also cast in resin, the detail of all the resin parts are first class with very little flash to be removed. There are also many cast brass fittings all with exceptional detail; three frets of photo-etched brass fittings are included as well. These frets contain many parts and are of different thicknesses, the really thick one contains deck plates and are wonderfully detailed.

Brass rod, rigging thread, turned brass gun barrels and plastic tubes come with the kit, everything you need to build the kit is

The instructions come on a CD disk and contains full assembly guide, painting instructions, deck templates, photographs of all parts to make identification easier, photographs of the completed model from all angles, deck plans, port and starboard side plans and more. I downloaded the disk and printed out the assembly guide, which has no less than 30 pages, also the deck and side view plans and the templates and fixed them all in a loose leaf folder. The guide has photos of parts of the build for reference, and the line drawing plans indicated where all parts should be attached. The templates are to be used to show the positions where pilot holes are to be drilled in the deck as attachment points for many of the fittings including the stanchions around the sides of the decks.

The model is classed for the experienced modeller who will be able to produce a model of museum quality, and they are definitely right about that! It will be impossible for me to detail the complete build within this article due to the amount of parts and stages to go through, so I will give brief details of certain stages of the build together with as many photographs as I can.

#### WHERE TO START?

Like most model ships the hull and deck needed very little cleaning and preparation. The hull and deck is in two pieces which have already been joined together by the manufacturer, there is a join line that runs the length of the deck most of which will be hidden when the superstructure is attached. But where it is seen  $\dot{\text{I}}$  used some modelling filler along the join and sanded it smooth when dry, this then covered the seam so it was not visible.

The prop shafts and rudders were then fixed in place; once this was done I gave the hull a primer coat and when dry the hull below the waterline was painted. What I used for the anti-fouling red is red-oxide, two coats brushed on and it's done; I have used this product on many of my models and it looks just right and gives a lovely smooth finish.

The hull was now secured to a block of wood using Blu-Tack; this

The resin hull comes in one-piece complete with deck



Propeller shafts and rudders being installed, note filler used along some of the hull

gave me a handle to hold the model that is also easy to remove when needed.

On the deck I taped the templates in place and with a small drill bit in a pin vice I proceeded to drill holes in the deck as attachment points for fittings and stanchions and there are a lot of holes to be drilled! But these must be done otherwise the positioning of the parts will be incorrect.

The main superstructure is cast in resin and is attached to the deck with four screws: this makes it removable through part of the build. This is very good as there are several parts such as the bulwarks, support pillars,

under gun and deck platforms, and also the anti-skid decals where the superstructure is needed in place only for lining up and for making adjustments. As was the case of the etched brass bulwark which needs careful alignment as it butts up against the main superstructure, this means gently filing the sides and the bottom edges to ensure the correct fit, hence it had to be removed several times. The support pillars were measured precisely and then cut from the supplied brass rod.

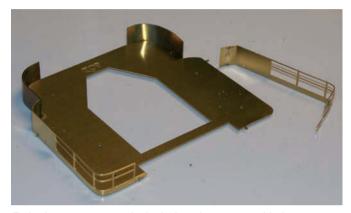
Once the deck was painted the anti-skid deck decals needed to be fixed in place at this stage due to some of them being located under the overhang of the bridge and gun platforms, this would not be possible after the superstructure is securely fixed in place. A diagram is shown on the disk giving the precise location of these decals. The superstructure was also easier to work with at this stage as a separate item.



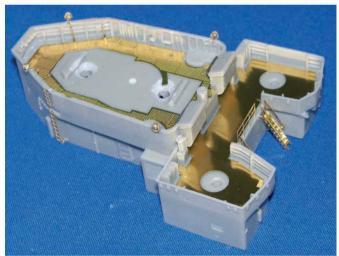
Templates attached to the deck to drill pilot holes for fittings

#### **BRASS ETCHED PIECES**

With so many etched parts to be folded I decided it was time for me to purchase a folding tool, this proved to be invaluable throughout the build. Some of the etched parts were made of thick brass plate like the superstructure deck plates; these are well detailed with chequered plating patterns. They cover the tops of the resin superstructure, to make them fit flush to the edges of the resin tops they needed gently filing in several places to get that snug fit. Bending the thicker brass etched parts needed the use of several types of pliers to help get the correct shape, this was especially so with the bridge deck platform walls and rails where curves as well as angles were required, but watch out as if you bend the parts in the same place too many times it will crack and come apart. I have also found that if you heat the thick brass etchings they do bend easier.



Etched superstructure deck platform being assembled



Bridge superstructure under construction



Range finder sub-assembly completed awaiting painting



Many etched parts needed for mast

The 20 mm gun platforms around the funnels needed careful bending and adjusting as well. The folding tool was really useful when it came to making the depth charge racks and the 'K' gun racks as these are very complicated assemblies involving accurate folding of parts and lots of dry assemblies before the final fixing, time and patience is required with these but it is worth it to see them on the finished model. All of these were made at the same time to be added to the deck later. This goes for many other parts that were built as sub-assemblies. I found that once I had started producing some of the etched parts I just carried on with them, at least they were built ready for later.

The range finder is built up from a resin turret like housing with the radar that sits on top made of etched parts; this radar took me ages to build as there were so many complex curves and folds to be done. At least it looked good once finished.

The mast was just as

complicated, perhaps even worse; its main part is made from resin but with a steel rod moulded in the centre to strengthen it. To this was added 28 parts mostly etched but a few resin and lengths of wire for aerials. Added to the top of the mast is the main radar made completely from etched parts totalling 21 pieces, nearly 50 parts for a mast that is less than 10 cm in height. Time and care was needed. as the parts were added to the mast it was very easy to knock off a part that had just been attached as the pieces are so close together. It is very delicate when finished, so I painted it and placed it upright attached to a piece of timber well away from my work area so I could not accidentally knock it over. Thankfully the instructions have eight photos and a detailed line diagram to assist in its build.

#### SUB-ASSEMBLIES ARE THE NAME OF THE GAME

As I have previously mentioned building the majority of the parts as sub-assemblies really does help, I know it will seem that the model is never going to be finished but you will be surprised once you start adding these assemblies to the hull and deck the ship soon takes shape.



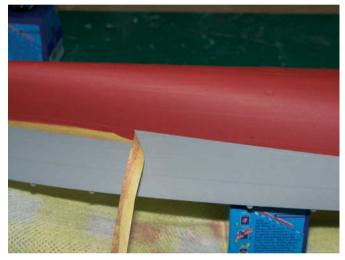
Test fit sub-assemblies before painting



All assemblies completed ready for priming



All parts were attached to a wooden block and sprayed with a grey primer coat



Masking tape was used on the hull during painting

These sub-assemblies include the main superstructure, two funnels, three gun turrets, two sets of torpedo tubes, anti-aircraft armament, gun platforms, range finder and the bridge which was built as two assemblies then joined together before the final placement on the superstructure; this is just a few of them. The bridge is held to the superstructure with screws so it can be removed, as it is built from many parts and it does need to be dry fitted to ensure it all fits together correctly. On top of the navigating bridge sits the pilot house and on top of this is the range finder, so it is easier to complete each section of the bridge before the final attachment. The funnels are well reproduced with excellent resin moulding and further detailed with etched parts. There are two 40 mm quadruple and two 40 mm twin Bofors guns; they are beautifully cast in brass with separate gun platforms and gun barrels, and etched gun sights and railings. The smaller 20 mm twin and single anti-aircraft guns are the same, cast in brass with etched fittings; quite superb detail on all guns.

#### FIXING THE STANCHIONS

The stanchions for the railings are supplied in brass etched form, and there are a lot of them. Some are for three bar, others two bar so careful checking where they go is needed, also stanchions with angled legs for support are included. I had spray painted the fret holding them first, but this was a big mistake as the paint had blocked the holes where the thin thread was to pass through them



Stanchions fixed in position with black thread to represent the railings, note the anti-slip decals in place

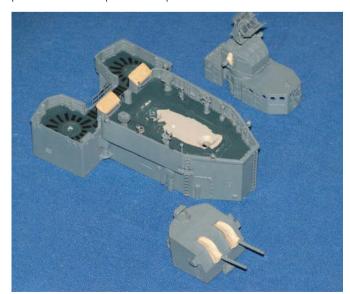
and most of the paint was scratched off as I used a micro drill bit to de-burr the stanchion holes. Around the edge of the deck and superstructure are marks indicating where the stanchions are to be placed. I drilled holes to fix them in position, some at an inward angle, owing to the slope of the hull sides the drill may pierce through and damage the hull. I worked out where the first stanchion with support was to be placed and where that section of railings was to finish, and then counted how many stanchions were needed in that section. With thread cut to the required length I attached it to the first stanchion using Cyanoacrylate adhesive (this adhesive was used throughout the build), the required amount of stanchions were now threaded loosely. The last stanchion for that section was now secured in place, when dry the other stanchions were dropped into their predrilled holes secured with a spot of adhesive, by doing it this way each stanchion can be secured at the same height and there is very little slack between each stanchion.

To make it easier to pass the thread through the holes I first dipped the end of the thread in the adhesive, then when dry I cut the end of the thread that was covered in glue at an angle with a sharp blade, this resulted in a pin like end that was firm enough to pass through the holes with ease.

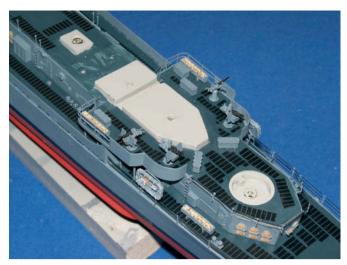
The stanchions were now painted with a small brush carefully so as not to get the paint on the black thread.

#### ADDING THE SUB-ASSEMBLIES

I now firmly secured the superstructure to the deck, and began to add the assemblies, starting at the bow and working my way back. It had taken me several months to get to this stage, but it was worth it as the destroyer was taking shape. There are so many parts to be fixed in place it is impossible to mention each one, but



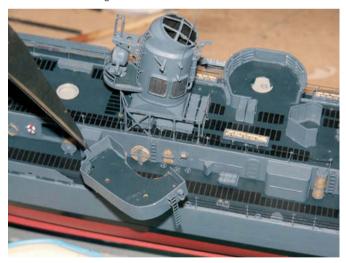
Assemblies ready to be attached to deck



The model is starting to come together now

by following the assembly guide and diagrams this made the going very good. The sub-assemblies all fitted in their allotted positions with no problems, this shows what a well-engineered kit this is. The assemblies had all been painted beforehand so it was just a case of touching up any marks that may have happened and painting the smaller individual fittings such as the gun lockers and cable reels.

The depth charge racks have up to eight attachment points, they all line up but I do think this is a bit of overkill as four would have been sufficient. The main gun turrets are all the same but not their mountings; the first and second turret mountings are slanted to compensate for the deck elevation. There are two lovely brass three-bladed propellers for the model, these I buffed to a shine using a fine wire brush head on a electric multi drill; this gave the brass an outstanding shine.

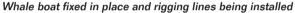


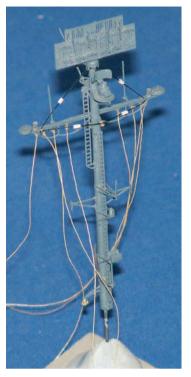
Gun platform being positioned



Nice polished effect on the propellers





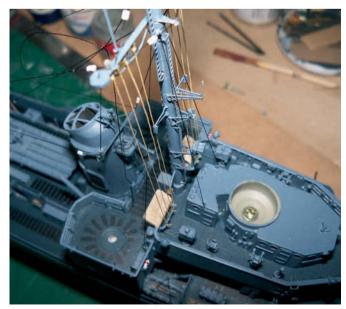


Halyard lines attached to top of mast before fixing to bridge

#### RIGGING

Now came the time for something I enjoy, as I believe the rigging done correctly makes a model stand out from all the rest. Rigging diagrams and pictures come on the disk, they do need studying first to work out where each line begins and finishes and in what order they should be attached, because all you need to do is place a line and then find that by fixing that one in place you cannot gain access to fix the next, this can cause big problems.

Anchorage points for some of the rigging have etched attachment points that are fixed by drilling holes and gluing them in place. These then act as a secure point to strain the lines, there are many of them but they do work as the thread can just be passed through their holes; just like the railing stanchions. The lines are then secured in place either with a knot or a spot of glue, but make sure they are in the correct position before this is done. There are two colours of thread for the rigging, the majority of



I left the two twin Bofors gun assemblies and the range finder off to give more space while rigging the mast

lines are made using black thread, the other colour is light sand which is used to reproduce the signal halyards that run from the mast crosstree down to the rear of the bridge and are tied off along the rails on the flag boxes. This colour thread is also used for rigging the boat tackle ropes for the motor whaleboat. Some of the rigging replicates the ship's aerial wires, these are in black thread but included with the kit is a length of small white plastic tubing, this is cut into 1.5 mm pieces. These pieces then have the black thread passed through them and glued in position to represent the insulators on the aerial wires.

### **PAINTING AND DECALS**

Before I started the build I looked at the painting and decal guides that accompanied the kit. It gave details for the destroyer to be built and finished as DD-727 USS De Haven; this ship had a rather complicated three-colour block type 32 camouflage pattern that would look very spectacular. This I thought will be difficult for me to achieve and would make the building time even longer. The guide also gives details to build and finish the model as DD-723 USS Walke in a two-colour paint scheme, the only problem with this is that several parts of the kit are not used with this destroyer and need to be left off during the build. I wanted to use all the parts, so I opted to paint the model using a single colour called Ocean Grey as both of these destroyers carried this finish by the end of the Second World War. The paints I used were from the LifeColor



The forward gun turrets on the completed model



Close-up image of the amidships section



Stern area has lots of realistic detail

Camouflage US Navy Set No.1 acrylic paints; these were very good as the set of paints contain the correct colours for the model. I also used several Humbrol acrylic paints as well. The decals were added using Humbrol Decal-fix to secure them in place and when dry the decals were given a coat of Humbrol Matt-cote to blend their finish in with the rest of the model's matt appearance.

#### THE DISPLAY STAND

With all the parts that come with the kit are five resin parts made to represent wooden keel blocks, these are to mount the finished model on so it looks as if it is in dry dock. These I did not use, instead I mounted the model on a polished wooden plinth with two polished brass bullet cases as pedestals supporting the model. The model was secured by screws passing up through the wooden base on through the pedestals and into the hull bottom where I had pre-drilled two holes earlier in the construction.

#### MY CONCLUSION OF THE BUILD

I hope this has given you an insight into building a Tehnoart model, to me this has been a great experience as I have never built such a complex kit before. The detail of the model is outstanding so I can see why they state it as museum standard. I know my build may not be quite as outstanding as may be produced by other modellers but it does look good. It has taken me the best part of a year to complete, as I would stop at times to build a less complicated model and then return with a new sense of determination to finish the model. This is something I have learnt over the years, if you keep on building one model constantly the interest starts to wane and the model starts to suffer as the quality of your work declines as you try to rush the build.

The standard required to build this model does mean experience in working with resin, brass and etched parts is essential, but when finished it is definitely a model to be admired. I would like to say thank you to Tehnoart for supplying the review model, and for giving me the chance to build such a superb kit.

Further details of this model and the complete Tehnoart range can be found on their website at: www.tehnoart.eu MMI



The detail looking from above

## MEETING POINT

REPORTS ON EVENTS HELD OVER THE LAST FEW MONTHS

## OCEANOLOGY 2014, 11TH TO 13TH MARCH 2014, BY PATRICK BONIFACE

Every two years the world's survey and oceanographic specialists gather at London's Excel Centre in Docklands for the biannual Oceanology exhibition. The exhibition and conference saw over 1000 exhibitors from across the globe showcasing their latest hydrographic, seismic, sonar and underwater mapping and charting equipment. Many of these pieces of kit had been under development for many years and the show was the first public demonstration for many of them. In the docks outside the Excel Centre were a variety of full sized working boats, barges and service craft from across the United Kingdom shipping industry and further afield from Europe.

For the model boater there was plenty of interest as virtually every other stand had impressive model boats of the latest or projected vessels to enter the fleets of their respective owners and operators.



Beautiful model of Geo Focus



Braveheart Shippings J-22 design



The deepsea support ship Quest Horizon on the Horizon stand



On the IXBlue stand was this impressive model of their IXSHIP120 design given the name of Andre Malraux



The model of Deep Ocean's Havila Phoenix drew a great deal of attention



The distinctive shape of the bow drew a lot of attention for this model of DCFSubsea's Skandi Skansen



Another view of the Skandi Skansen

#### HMS CAVALIER CELEBRATIONS, 5TH APRIL 2014, BY PATRICK BONIFACE

Model boats from the Cygnet Model Boat Club in Maidstone were on hand at Chatham Historic Dockyard on Saturday 5th April to witness the celebrations of the 70th anniversary of the launch of Great Britain's last World War Two destroyer, HMS Cavalier.

She is the only survivor of a breed of warship that saved the nation during its darkest hours, HMS Cavalier - the fastest destroyer in the Royal Navy and now a spritely 70 years young. Hundreds of former crewmembers gathered at the former Navy base at Chatham to celebrate and share memories of their time



Large scale model of the Type 23 frigate HMS Kent took pride of place on the display



The Type 21 frigate HMS Ambuscade alongside a Russian Riga class frigate



A stand full of excellent model boats

onboard the destroyer.

Built by Samuel White at Cowes and launched on 7th April 1944 into the River Medina, HMS Cavalier was one of 32 C class destroyers built for the Royal Navy and would go on to serve on the Arctic Convoys in the last year of the war. In the 1960s she was sent to the Far East during the Malaysian confrontation and later took the title of fastest ship in the fleet after winning a race with HMS Rapid, which HMS Cavalier won by a nose. Initially following her decommissioning in 1972 she was preserved at Southampton before moving to Brighton and Newcastle. Finally after it was feared she would be scrapped a permanent home for the historic



The stand at Chatham Dockyard was full of lovely warship model boats



A Vosper type fast attack craft alongside a Leander class frigate



Barry Chapman holds his model of a Russian Riga class frigate in front of the Victorian sloop HMS Gannet in one of Chatham Historic Dockyard's former dry docks

Peter Trout with his Royal Air Force launch

destroyer was found at Chatham Historic Dockyard where she now takes pride of place.

Amongst the dozens of excellent warship models on display were the pocket battleship Admiral Graf Spee and British World War Two battleships, HMS King George V and HMS Rodney. Taking pride of place, however, was a massive scale model of the Type 23 frigate HMS Kent. A photo feature on HMS Cavalier will appear in a future edition of Marine Modelling International.



Richard Stringer with his almost complete model of HMS Cavalier in front of the real ship

#### NATIONAL'S MODEL BOAT SHOW, COALVILLE, 5TH AND 6TH APRIL 2014, BY STEVE DEAN

With spring in the air (well nearly) it was time for model boaters from all points of the compass to head to the Hermitage Centre near Coalville in Leicestershire for the National's Model Boat Show. This time round Mark Williams of A Model World had brought together 21 traders, 14 club stands and 2 individual displays to completely fill this easy to get to venue.

This is a show that has a very relaxed atmosphere and provides a wonderful opportunity for exhibitors and visitors to study old favourites and the new creations that appear after slaving away all winter in the shed. Talking of new creations, a very proud Dave 'Stavros' Jones introduced a very young Catherine to all the boaters and she even had her first Alien encounter. There is no doubt that when this young lady gets her first visit from Father Christmas that the first present she unwraps will be something fitted with propellers!



Paige and Ethan Lowe proudly hold the shield for Best Club Stand awarded to King Lear MBC



Previewed at the 2013 show, Alan Horne displayed a completed Excalibur in Gulf racing colours



Jerome Grainger (right) of SHG performed the presentation duties and Bill Jefferson very deservedly won a whole shed full!

Add in a diverse array of traders and there really is something for everyone at this show. From complete kits to a single LED, it was all available. Last year Alan Horne of J Class Hulls previewed his new Excalibur powerboat and this year he displayed the completed model, fitted with a hugely powerful brushless motor and a gel-coat finish in Gulf Racing colours. It looked so impressive that a second hull on display in the same colour combination was purchased very quickly. Interest in his Nottingham and Canterbury J Class yacht hulls was high and he enjoyed a good weekend of trading. If you like your hulls to be in fibreglass or moulded plastic there was lots of choice to be had, however if you prefer a very traditional build then a visit to the Vintage Model Boat Company was to be recommended. Using modern production techniques, their range of wooden hulls provides a superb introduction to the delights of model boat building.



The scene across part of the exhibition as exhibitors and traders get ready for the first day



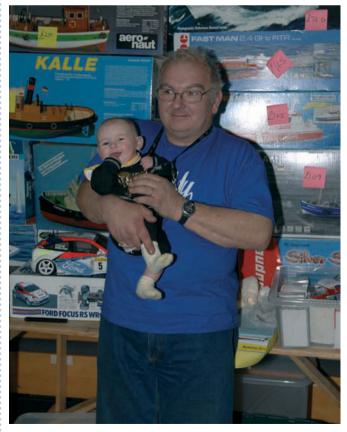
A completed 1:32 scale MT Avenger displayed on the stand of **Metcalf Mouldings** 



The Bring & Buy stand had lots to temp buyers and some items were snapped up very quickly



A close-up of the deck detail on Kingston Peridot H.591 - a truly magnificent model built by Bill Jefferson



"But Daddy I'd rather have a dolly." Dave 'Stavros' Jones introduces young Catherine to the delights of model boating



A wonderful diorama presented by Tony Olliff



HMS Trumpeter P294 built by Stuart Craven seen on the King Lear MBC stand



Yes it really does float! Fresh from his premiere in Brighton, AFOR (A for Alien) beams down to win a trophy in Coalville

The club displays were, as always, very impressive and are essential viewing as it provides the opportunity to study every type of craft imaginable. No matter what you are thinking of building you can always find something to give you inspiration. The trophy for Best Club Display is always hotly contested and the victor this year was King Lear MBC. Their young members, Paige and Ethan Lowe, were delighted to have their photo taken holding the shield.

One man who needed to build a wheelbarrow to carry his prizes was Bill Jefferson. The detail on his Peridot trawler and Spurn Lightship were of the highest standard and a joy to behold and thoroughly deserved to be winners. The points system used by the judges includes a category for the 'Phwoar!' factor and adds a fun element to the process.

Without wishing to see a whole summer of boating disappear too quickly, everyone agreed they were looking forward to returning to Coalville in 2015. The only problem is that if the show grows any bigger then Mark will have trouble fitting it all in.



Seen on the Nottingham MBC stand the trawler Maggie M struggled to land any fish in Leicestershire!







### **LIME - CHERRY - WALNUT - CEDAR** MAHOGANY - OBECHI - MAPLE - PEAR

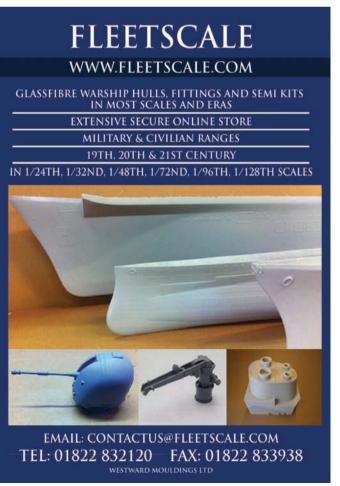
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The ship dates from 1934 and was designed for sailing in Canada at a time when yachting was only beginning to develop. Very few yacht clubs existed on the shores of the Great Lakes and, most importantly, there was a shortage of sailboats adapted to these unusual marine areas. The Lake One-Design is aptly named: it is a two man craft, rugged, inexpensive to build, very seaworthy and equipped with a 44 hp Scout engine (not used in competitions!). With a little over 44 m<sup>2</sup> of sail these boats took part in regattas at various locations. Without a kitchenette or lounge it is a boat where the crew camped and sailed dry!

Note that this craft, like any pure competition boat, has no permanently installed navigation lights. This yacht is the result of a competition in which several Canadian and American designers participated, but the design by Phil Cox Rhodes is the one I chose. His work immediately appealed to me with a very well designed bridge surrounded by a cockpit coaming of beautiful mahogany, the modest lines at the front and rear, the sloping rudder blade, triangular profile and the slatted mahogany deckhouse roof. I didn't need anything else!

#### THE PLAN

I set to work. First, I made the drawings using dividers, flexi curve and pencils, to produce the 1:9th scale plan. I expected a long and tedious ordeal punctuated by endless retouching and erasing. Surprisingly, on the contrary it was rather a delight! Each line went like magic without a blemish, and all points agreed: vertical, horizontal and diagonal lines marrying smoothly. Finishing the drawing with the profile view which had all the sections aligned, I was stunned by the elegant perfection of the champagne glass form. At this time, I really understood why Phil Cox Rhodes was recognised as a great naval architect!

Despite my research, I do not know how many models of this boat were built. The registration number would suggest that there were 10 before it. My book shows me a photograph of Kitty LO11: in the background, a wooded shore, the edge of the lake and the boat is nearby, heeled to 30°, and fully rigged with the #1 jib sails. Gunwale level with the water, as usual! The bow wave and the stern wake enable me to estimate its speed as between 9 and 10 knots! In these rather sporty conditions, deck and cockpit appeared to remain dry. Congratulations!



The auxiliary propeller and the rudder blade

#### THE HULL

The construction of this model is unique in the sense that, in the case of a triangular profile, the keel beam goes well into the bow. I cut out the keel from a piece of very hard, old, Hungarian oak. The shaped wood runs from the skeg where it attaches to the stern and then to the bow. The scalloped stern, made of

12 mm marine plywood, is extended by the enlargement of the vault housing the propeller shaft tube. For reasons of lightness, 6 mm frame members of plywood are hollowed out as much as possible. I nevertheless provided partial beams, since they have the width of the side decks. The rudder built on a coupling mounted on a plate is then joined to the keel with small stainless steel bolts and epoxy. A leading edge profile is produced in plywood for the added benefit of being a hard material and easily replaceable in case of a sudden collision. The race is not always a walk in the park!

The rabbet is then cut across the still inverted frame and shell and is lined with strips of red cedar 10 x 3.5 mm, glued with epoxy and allowed to set for 30 minutes. The rudder blade, made in two layers of 6 mm laminated plywood, is shaped and hollowed out to form the recess for the propeller. It is provided with its rudder stock of 4 mm stainless steel and a brass reinforcement at the base. It is



The additional keel weighing 2.700 grams

guided in a tube by a pin at the back of the stern. It fits into the sternpost in this way for streamlining. The hull lined with planks but not decked and unpainted weighs 900 grams!

#### ADDITIONAL KEEL

So as not to disfigure the model when on display in its cradle. I chose to use a

removable additional keel made from lead and weighing 2,700 g. This additional keel fitted into an invisible well in the main keel. This solution provided adequate stability for minimum ballast weight. The 30 mm two-bladed bronze propeller is resized to match the contour of the blades used at the time. At the rear, a small elliptical board finishes off this hull very nicely.



The additional keel fitted to the hull

The hull is carefully sanded avoiding the slightest defect in the planks. The operation begins using 80 grade sandpaper and then 150 grade and ending with 280 and 350 grade. The surfaces are protected by two coats of G4. The fixings for the additional keel are brass tubes that extend above the water, thus avoiding unwanted water ingress.

#### THE TECHNICAL PART

Propulsion is provided by a 6 volt Johnson engine installed on a removable frame, through a shaft fitted with an oiler. Two Robbe SW1 winches manage the sails. In effect, the semi-Genoa to the front requires a particular geometry of an endless internal loop that



The starboard deckhouse. A Genoa is sheeted behind the mast, which is what makes it different from a jib. This sheet passes outside the shrouds of the mast. The Genoa gives better performance upwind which is very important in this type of craft



From left to right: the Genoa winch, the connection to the mast and the mainsail hoist



Details of mainsail winch

must pass the sail from one side to the other, bypassing or skirting the mast. The main sail is served by the winch positioned enough to the front to allow a clearance of 400 mm. As for the steering, a Hitec 77BB (5.4 kg/cm torque) servo is connected by internal linkages (or connecting rods) to the rudder. The electric power is supplied by a single pack of five NiCad SAFT 4 Ahr cells.

panel and doors all work. The deckhouse roof and hatch covers are varnished mahogany and polished with aluminium oxide (a suspension used to polish rocks which gives a beautiful satin finish). At the helm the wheel made of oak is hinged and decorated with a Turk's Head knot.

Rigging spars are made from pitch pine and are hollow (a box system assembled with wood glue) and are covered with a polyurethane varnish. The pole, held by ropes on the front deck is built the same way. The rigging is stainless steel wire, 0.7 mm used in robotics, terminated in a forked sleeve glued with superglue and tightened using brass turnbuckles. The bore of the sleeve is 0.85 mm. The superglue is applied patiently until no more can be

absorbed. Cleaning with a fine file finishes everything off.

Brass, if moderately polished, resembles the bronze used at the time. A jumper stay stabilises the top of the mast. Shackles, different sized chocks and fittings in general are machined from the piece of brass.



The sails are fabricated from synthetic polyester of the desired widths, first assembled flat with the help of a slight bonding (textile adhesive) then permanent holes, or eyelets, are made. The curvature in the jib mainsail



One of the two rails for the Genoa

The trademark sails on the

ground. Note the Dacron

lettering



In dock an 'X' frame supports the boom

#### THE DECK FITTINGS

The 1.5 x 5.5 mm Linden deck strakes are placed on a plywood sub deck 0.8 mm thick and surrounded by a mahogany gunwale. Black cardboard is stuck on one side of each strake to simulate caulking. The deckhouse and cockpit coaming are then made. The mahogany coaming is lightly steamed into shape. The sliding



The rear deck seen from the starboard, the main boom and the cockpit



The slatted cockpit benches and gratings



As in real life, some turnbuckles require protection using a tube filled with grease



Details of the main bar rail and the mainsail with its hoist



Anchor points, spreaders, and shrouds

is achieved by adjusting the width of the seams. The lettering, meanwhile, is made using Dacron stickers.

A track was built on the back of the mast, and the luff of the mainsail and the jib are fitted with sliders. The special header of the mainsail required me to do a bit of research.

The Genoa tracks and footboards complete the deck equipment. Flags, boathooks, fenders, the lifebelt on its mountings and the winch cranks or handles make up the rest of the fittings. Note it is this type of sail that defines Kitty as a Bermuda sloop.



The foot of the mast



Rigging the forestay and the jib tack



Anchor points for the forestay and shrouds and spreader

#### **FINISHING TOUCHES**

The painting was carried out, as usual for me, with multiple layers (8-10) of diluted paints and intermediate sanding (dry at 400-600 grade), ending with a tough varnish of general purpose polyurethane. The bridge is painted in the same manner.

I chose Club Pointe Claire (on Lake St. Louis, south of Montreal) as the homeport. The flag or pennant on the masthead therefore had these colours. This by tradition is rigged 'on a stick'.

The flags are made using a computer. The patterns are



View of the whole boat



The rear view of the port side

reproduced on fine cotton (batiste) stretched and Sellotaped onto an A4 sheet placed in an inkjet printer. The flag elements are drawn on the computer screen and transferred to the printer. If they are asymmetrical, there must be two contiguous sizes. The rectangle corresponding to the flag is cut out and the edges are lightly treated with fabric glue to prevent fraying. It is obvious that these flags should be kept away from water as the ink is soluble, however, a few coats of varnish can make them waterproof.



The masthead and details of the top of the mainsail



The lifebelt, part of the safety equipment on the boat



Spreader

#### ON THE WATER

The model performed to my expectations: the stability is correct, the speed is obtained without corrections at the helm even going into the wind, tacking is quick and easy in any circumstances, the Navy F-14 radio control synchronising the two winches. Speed under sail is beautiful and the wake minimal. With continuous use, the battery life of Kitty is about six hours. The power output should be slightly restricted to fit the scale of the model.





#### MODEL FEATURES

Total height without ballast: 157 cm

Draught without weighted rudder plank: 19 cm Draught with weighted rudder plank: 28 cm

Maximum Draught: 47 cm Total boat weight: 6,050 g Keel weight: 2,700 g

Drive system (or Motor): 6 volts Johnson **Sail area:** 16 dm<sup>2</sup> + 28 dm<sup>2</sup> = 44 dm<sup>2</sup>

#### IN CONCLUSION

This model, the only one of its kind (to my knowledge), illustrates an era of nautical development characterised by great beauty, designs by talented architects and the sportsmanship of stylish and competent crews; alas gone today.

#### FOR INFORMATION

The site of BMB which includes André Maïornikoff: http://users. skynet.be/brussels.model.boats/

The Belgian site of the IOM class: http://sites.google.com/site/ belgianiomclass/

If you want to see some video clips of this magnificent yacht, simply log onto YouTube (http://fr.youtube. com/) and enter in the search window the keyword: 'kittyrcmeb'





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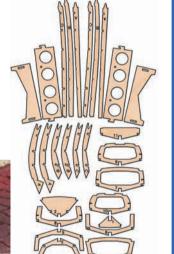
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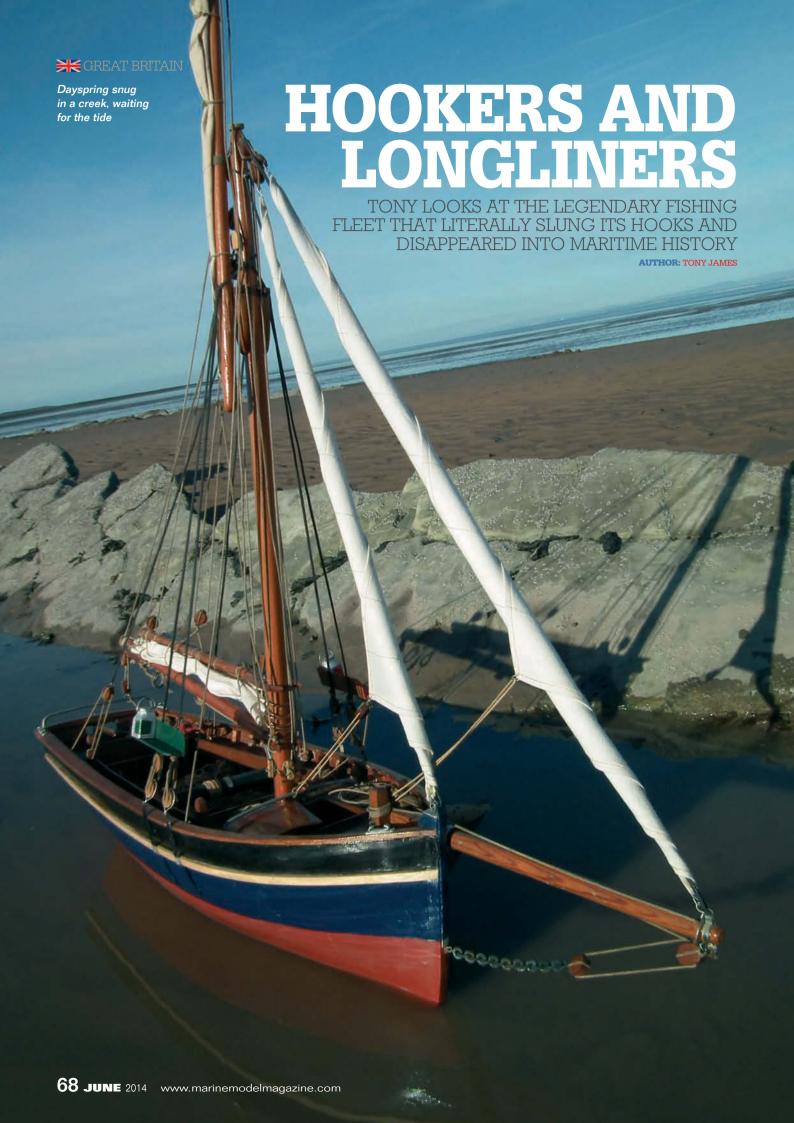




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or decades they were the workhorses of the southwest I fisheries, tending longlines containing several thousand baited hooks, out in all weathers to bring back the freshest fish a fishmonger could sell. No wonder that less than a century ago the 200 Plymouth-based longliners and hookers were Britain's largest and most successful inshore fishing fleet. Small and nippy, hookers would fish the rough ground and rocky coasts where trawlers wouldn't venture, bringing in rich hauls of hake, halibut, turbot, brill and skate.

Then less than 20 years later the fleet had literally slung its hooks and disappeared. From then on there were hardly any sailing longliners fishing in the southwest and marine historians still puzzle over just why their demise was so dramatic. One theory is that newly installed engines on sailing hookers disturbed the fish, another that bigger boats with steam-powered line-haulers took over the traditional longliner fishing grounds. After all, who would want to spend hours baiting a few thousand hooks in an open boat when they could earn a better living in a comfortable trawler?

Sadly, there are hardly any Plymouth hookers left and those that remain are in a pretty parlous state. One of the last to survive was Certa, owned by my friend Les Spence, a busy and successful marine painter, and she wasn't all that she seemed. In fact she had been built as Dayspring, a 31 ft longliner and hooker, in 1893 by the celebrated boat-builder Tom Pearce of Looe for Captain Charles Lambert, who worked her out of Plymouth until the 1930s. Looe had the reputation for building some of the West Country's best luggers and longliners which were particularly suitable for yachtconversion - the 29 ft Lily, built by Ferris of Looe in 1898, became the legendary Moonraker of Fowey in which Dr Peter Pye and his wife spent 20 years sailing the world for an initial investment of £25. When Dayspring was sold by the Lambert family her well was converted into a cabin and small cockpit and she became Certa, a comfortable four-berth cruising yacht. Les bought her in the early 1970s and for some years used her as a floating studio.

Hooker crews based in the pretty harbours between Fowey and Plymouth, lived hard and in calms thought nothing of rowing their heavy boats 10 or 15 miles to the fishing grounds. Their lines, known as 'boulters' since the days of Queen Elizabeth I, were 120 fathoms in length (720 ft) and each had at least 1,000 hooks. Each



The catch being unloaded in Megavissey harbour



Hookers leaving Plymouth harbour c1890



Hookers and longliners moored at Megavissey



Megavissey boats resting at Looe

deep-sea line was armed with 'ganges', fine brass or copper wire twisted round the hooks to prevent fish biting through the line, and were moored and buoyed in the most promising spots, taking into account wind and weather. Indeed, Dayspring's crew knew the bottom of the sea almost as well as the countryside around their own homes - prominent landmarks told the position of the best fishing-grounds, knowledge which took decades to amass and which is now largely lost.

Baiting a line with 1,000 hooks could take hours. For longlining the skipper had a crew of two and the catch was divided into fifths: two shares for the skipper, one for the boat and one each for the crew. John Curtis, who crewed on Dayspring for 20 years, once observed that "fishing was plenty of work and very little pay. We would take out our oars when it was calm and pull for hours and then hundreds of times come in with no bait to put on the hooks. We used to work about 2,000 hooks. We would start about March and we were always glad when August came and we could put out the pilchard nets to help pay some of the old bills. If we got ten shillings (50p) each in one week in those days we thought it was a big thing. Some winters we wouldn't go out for seven or eight weeks because of the weather and there was no dole money then. We lived on what we could grow in the garden but it was mostly potatoes."

#### **NEVER FORGOT**

Plymouth hooker fleets of up to 40 boats regularly fished in deep water up to 50 miles beyond the Eddystone lighthouse. In the summer season, extra lines were rigged out on poles either side of the boat. Hand-lines were mainly used for soles, bream and gurnard, but Prosser Germain, a legendary Looe fisherman, claimed to have once hooked 50 dozen whiting on one tide from the rocks just outside Plymouth Sound.

Conger eels, a Devon and Cornish delicacy, were usually caught at night. They were ferocious fish up to 100 lb in weight, up to 8 ft long and 2 ft in girth and had been known to bite off a man's hand as they were wrestled aboard. It was not uncommon to bring home 1,000 lb of conger after a night's longlining, which could be sold for up to 30 shillings a hundredweight. The favourite longlining bait was squid but pilchards were often used and if bait was scarce, pieces



Fishing fleet leaving Megavissey harbour c1903



A hooker at Sutton Pool, Plymouth 1910



Plymouth hooker Dayspring in 1935, before she became Certa



Hooker Two Sisters at Polpero 1900



Longliners and hookers in Megavissey harbour c1900



Massive fleet tied up at Megavissey



Megavissey hookers Charm and Fortune in 1936

of skate and dogfish were put on the hooks. Bait was a longline fisherman's most expensive item, costing about £100 a year.

In summer, hookers put away their longlines and spread their pilchard nets during an almost surrealistic ritual during which the fleet was accompanied by a small boat known as a lurker which scouted for pilchard shoals and communicated with the hookers by signs - fish were known to be alarmed by noise, but not, it seems, by music. On summer evenings when the fleet was seining in the darkness, someone would start to sing a hymn and gradually the whole fleet would take it up. Fishing was a hard and often cruel trade but there were moments like these that men would remember all their lives.

Ironically, the introduction of engines in the 1920s, intended to make life easier for fishermen, is thought to have actually contributed to the demise of the longlining fleet, as one Plymouth

stalwart remembered: "In the old days men collected on the quay with their white linen bags of bread, butter and tea, but the engines killed that - only a tin would keep out the taste of petrol. In fact the motor killed the trade in every way. Pilchards are very timid fish and motors would tend to drive them away. Under sail, if you had a bad night, week or month, you lost nothing but with a motor you had to go into debt for your fuel. As the masts and sails had been cut down you couldn't sail as much and the poorer fishermen were soon so much in debt that their boats were seized and sold. If they were wise they sold their boats for yachts before the inevitable happened.'

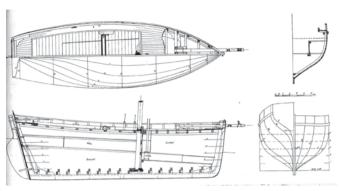
The last time we visited Les Spence in his remote Cornish farmhouse on the River Tamar there was no sign of Certa in the tiny dock next to his studio and soon Les was telling us the whole sad story. It seems that the previous year he had found massive rot in the deck and cabin and decided to return Certa to her original halfdecker state by running riot with a chainsaw one Sunday afternoon. Eventually he found to his horror that he had inadvertently sawn his boat in half. Les towed the wreckage round to his garden. He says that when he can get around to it he plans to convert the pointed end into a summerhouse.

#### A DOG'S LIFE

When hookers worked from small beaches between Plymouth and Fowey, fishermen trained Labrador dogs to swim out to boats approaching the beach, seize a piece of wood with a light line attached and swim back to the shore. Men on the beach then pulled in a heavier warp and hauled the boat stern first up on to the beach. At Hallsands Beach a dog named Alfie not only helped to bring in boats for nearly ten years but also showed younger dogs how to do the work when he had retired!

#### WHAT'S THE DIFFERENCE BETWEEN HOOKERS AND LONGLINERS?

Nothing, it seems longliners is the generic term used around the coast, particularly in Scotland and the north-east, while Devon and Cornish fishermen have for centuries called their longliners hookers. The main hooker fleets were centred around Brixham and Plymouth in Devon and Porthleven and Newlyn in Cornwall.



Lines of a Plymouth hooker

#### MAKING THE MODEL

When I decided to make a model of Certa in her Dayspring days she was already a sawn-up wreck and was little, if any, use as a building guide. Luckily, the indefatigable marine historian the late P. J. Oke had taken off her lines in Plymouth in 1935 on behalf of the Society for Nautical Research when she was still a working hooker and his blueprints and drawings provided everything I needed.



Early stages of the model Dayspring showing frames clipped to hull

Length overall was 31 ft, length of keel 27 ft, beam 9 ft 8 in and 6 ft draft. There was surprisingly little sheer on the hull. Floors were very sharp and bilges rounded. The deep lean hull was straightstemmed and half-decked with a small cuddy accessed by a sliding hatch in the bulkhead. The rudder was hung 'out of doors' on the raked transom stern with the tiller worked through a port in the



Transom marked out

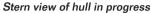
transom at virtually deck level. An open well took up two thirds of the deck area and across it at the forward end was fixed a hand-spike windlass known as a dandywink and used to handle the longlines and other gear.

Deciding on a scale of 1 in to 1 ft the model's reefing bowsprit is 21 in overall, 14 in outboard



Glued frames drying in the sun







Stern view of hull in progress



Completed frames and sheer plank



Side view showing stern and deadwood

and runs through the port bulwarks. The mainmast is 35 in and supported by two shrouds on either side. Dayspring had no fixed topmast but flew a topsail on a long yard. I chose her original livery of dark blue hull, black bulwarks and dark red bilge and boottopping.

Most hookers had a boomless gaff mainsail but in her later years Dayspring had a boom although the sail was only secured at the luff and leech. This was the rig I chose for the model. A hooker skipper's aim was to get the greatest amount of sail on the shortest possible masthead, often using a 24 ft topsail yard on a 3 ft masthead, which any amateur sailor would have regarded as

impossible. The answer was to use a 'timmanoggy' - an exotic name for what in essence is a wooden chock fitted on the gaff spar just above the jaws. A line, passed through a hole in the chock, held the heel of the topsail yard firmly against the masthead and the arrangement was robust enough to allow a massive jip to be set flying from the bowsprit end to the top of the topsail yard despite the lack of backstays.

Hookers were usually sloop-rigged in winter and cutter-rigged in the summer. A few were dandy-rigged – standing lug with a short mizzen - but after some initial resistance to gaff rig, most south western boats eventually adopted it.



Stern view showing longlines and dandywink winch



Stern view showing tiller, bilge pump and dandywink winch





On the water, forward view showing staysail horse and mast



View of the mainsail with its mast hoops



Stern view showing dandywink winch and starboard navigation light

#### **FINE LINES**

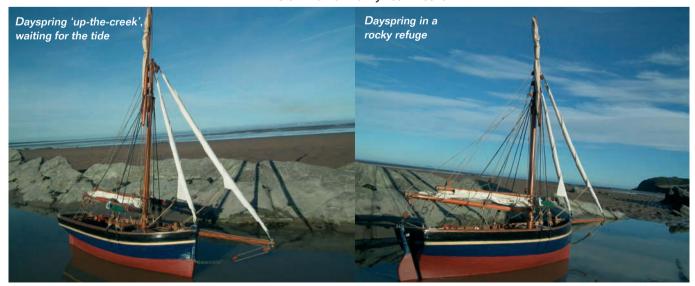
Dayspring's bowsprit originally had no bobstay or shrouds, the jib outhaul acting as a bobstay. Later she had an orthodox bobstay with double blocks. She also acquired a pair of mainmast backstays and all these have been incorporated in the model.

I did a rough lofting-out using the Oke blueprints, laid the keel in elm and used the same wood to build up the deadwood fore and aft before fitting an oak keelson and stem and stern posts. The deck shape is achieved by attaching two 1/4 in x 1/2 in pine gunwale stringers to the stem and stern and holding them apart with plywood shadows. Once the shape was right it was made permanent with ash deckbeams and longitudinal strips marking the sides of the well and the forward hatch. Frames are oak, either steamed or sawn, depending on the amount of bend. They are glued to the keel or deadwood and to the inside of the gunwales. Had I thought, I would have made them long enough to extend beyond the level of the deck and become bulwark stanchions. But I didn't, so separate stanchions were added later after the deck planking had been fitted.

Hull and deck planking is 1/2 in pine with an oak ikng-plank just below the bulwarks. The ash rubbing strake remains unpainted because it looks good and also because painting a delicate fine line is not my strongest point! Cockpit coamings, cappings pinrails, cleats and Samson-posts are teak, a bit posh for a working boat – the originals were painted – but I thought the old girl deserved a bit of fuss after what Les had done to the original! MMI

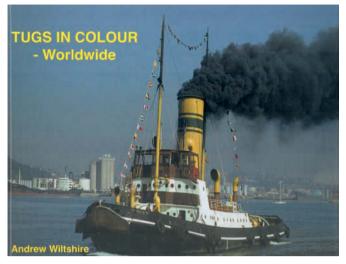


Stern view of the Plymouth hooker



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Author: Andrew Wiltshire Pub Date: April 2014

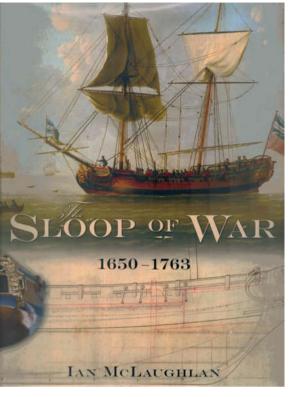
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Author: Ian McLaughlan Pub Date: 2014 RRP: £40.00

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Illustrations: Black & White illustrations and plans

Dimensions: 25.5 cm x 30 cm x 23 mm

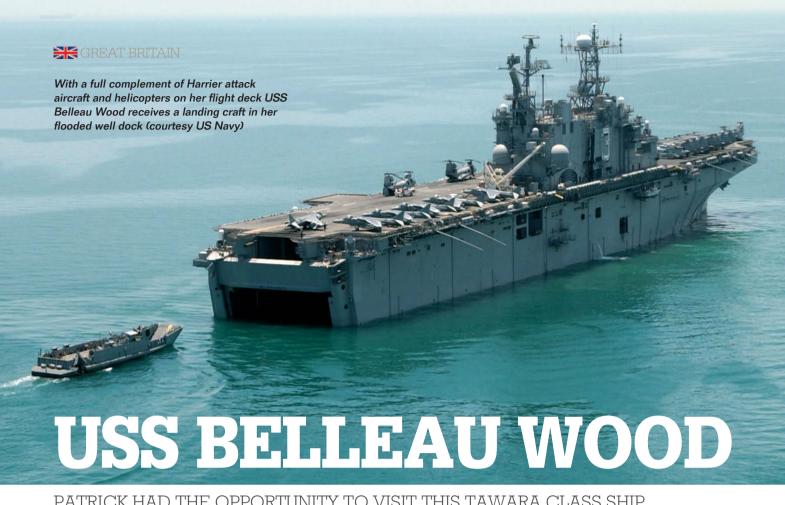
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AUTHOR: PATRICK BONIFACE

The five members of the Tawara class general-purpose amphibious assault ships of the US Navy are coming to the end of their operational lives with the subject of this article, USS Belleau Wood, already having been sunk in a live fire naval exercise. Before she was sunk, on 13th July 2006, Patrick Boniface had the honour of being allowed onboard this mighty American warship.

Nicknamed 'Oevil Dog', USS Belleau Wood was built by Ingalls Shipbuilding at Pascagoula in Mississippi. Construction started on 5th March 1973 and four years later the hull was launched on 11th April 1977. Finally completed she was commissioned into the US Navy on 23rd September 1978.

The Tawara class were evolutionary warships as they combined into one hull the functions of four previous classes of warship. The ships took over the roles performed by the amphibious assault

ship (LPH), the transport dock (LPD), the amphibious cargo ship (LKA) and the dock landing ship (LSD). Each of the five vessels was accordingly significantly larger than any preceding amphibious warfare vessel at over 40,000 tons. USS Belleau Wood had dimensions of 830 feet in length, 106 feet in the beam and a draught of 26 feet. She was armed with two 21 cell RAM launchers. two 20 mm Phalanx close-in weapon systems, four 25 mm Mk.38 Bushmaster gun mounts, five .50 cal gun mounts and thirty helicopters and AV-8B Harrier attack aircraft. When they entered service the Tawara class vessels caused guite a stir by their very appearance, effectively a slab-sided box with a bow and a well deck and dock aft. Each ship had a full-length flight deck capable of supporting a full United States Marine Corps battalion of 2000 marines during the assault phase of an opposed landing ashore.



Forward view of island. Note large radome in front of the bridge structure and prominent yellow line running down the flight deck



Rear view along the island structure looking forward



Anchor and bow overhand, port side



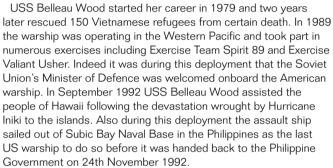
'3'. Note sailor for scale.



Rear of island structure: note sensors on rear mast, shutter style door and mobile crane unit



Stern gate on USS Belleau Wood lowered for hovercraft and landing craft to enter and leave



The troubles in Somalia in 1995 saw the warship operate off the coast with her helicopters and marines operating ashore, and a similar role awaited the ship when she was deployed off East Timor during the Australian led INTERFET peacekeeping operations during October 1999.

Movie stardom came in 2002 when USS Belleau Wood played a crucial role in the movie Antwone Fisher.

USS Belleau Wood was decommissioned from service on 28th October 2005 and allocated to be a target for the following year's RIMPAC '06 naval exercises held off Hawaii. She was 'attacked' by a variety of missiles, bombs and torpedoes before she sank on 13th July 2006. MMI



USS Belleau Wood being manoeuvred by US Navy tugs (courtesy US Navy)



Starboard side view whilst alongside at San Diego



Passing the aircraft carrier USS Midway at San Diego. The clean, simple lines of the Tawara class are shown to good effect in this view of USS Belleau Wood (courtesy US Navy)



Passing under the Corrando Bridge in San Diego (courtesy US Navy)



Starboard island structure details (courtesy US Navy)



A landing craft approaches the partially flooded stern dock of USS Belleau Wood (courtesy US Navy)



Towed away to be used as a target in a SINKEX exercise in the Pacific (courtesy US Navy)



Wide open flight deck looking towards the bow



The hulk of USS Belleau Wood is towed away to be sunk as a target (courtesy US Navy)



USS Belleau Wood at Souda Bay in Greece (courtesy US Navy)



USS Belleau Wood with her stern doors open (courtesy US Navy)



Aerial view of USS Belleau Wood (courtesy US Navy)



USS Belleau Wood. Note distinctive shape of the bow of the Tawara class ships (courtesy US Navy)



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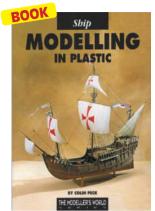
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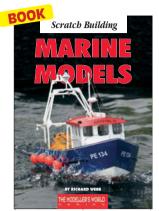


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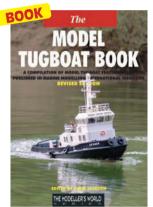
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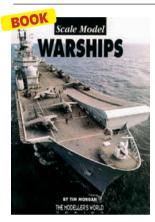
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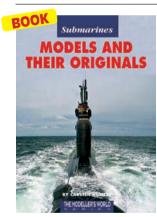


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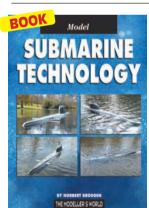


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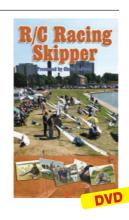
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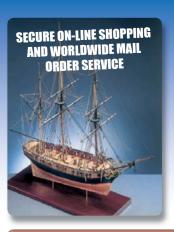
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