

Hovervan....or does it?

Homemade ducted fan airboat



RABOESCH FABRICATED Props are available in multiple sizes, blade configurations & styles including typical blades authentically shaped for pre 1940's ships; typical blades authentically shaped for post 1940's ships; large surface area props for high propulsion at low revs; 'skewed' blades designed for faster ships where low vibration is a requirement; capped blades specifically for use in kort nozzles and thrusters.

Such a wide range of designs ensures that Raboesch have a prop to suit virtually all applications including, small steam boats, auxiliary engine sail boats, cargo ships, port tugboats, pleasure yachts, motor sailors, fishing boats, steam ships, work ships, tender boats, frigates, patrol boats, cruise ships, container ships, luxury yachts, police boats, pilot boats, torpedo boats, ferries, aircraft carriers and submarines.

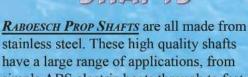
CALDERCRAFT BRASS Props were designed using the latest CAD surface modelling software. After exhaustive computer modelling of a wide range of designs three test designs were decided upon. These designs were then produced and 'real world' tested on a range of model boats to precisely determine which gave the best performance, for both forward and reverse propulsion. Metal dies were then cut to produce the wax models used in the investment casting process. Investment casting faithfully reproduces the cavity in the metal mould resulting in a final product so accurate that balancing of the propeller is not required for most scale boat applications. The alloy used has also been carefully considered resulting in a rich brass colour with the strength of mild steel. Caldercraft brass propellers are currently available in left and right hand, 3 blade from 30mm to 75mm, 5mm increments, M4 threaded.

stainless steel. These high quality shafts have a large range of applications, from

simple ABS electric boats through to fast electric and glow engines.

FINE LINE PROP SHAFTS are the all new shafts from Caldercraft, featuring 6mm diameter stainless steel stuffing tubes fitted with long brass bushings at each end to help support the shaft and ensure smooth running. The shafts are 4mm diameter stainless steel, threaded M4 at each end and fitted with brass Fine Line nuts and washers. Available from 4" to 20".









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Model shown photographed complete with the optional Sea Commander fitting set.









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# contents

## Regular Features

## **COMPASS 360**

General items, what's on, comment and the Mutual Model **Boat Society** 



## **RANGE FINDER**

Dave Wooley's Worldwide Review of Warships and Warship Modelling has an indepth look at a remarkable 1:96 scale HMS Warspite and the penultimate part of his long running feature on the 1:72 scale HMS Daring project



## **GALLERY**

David Walter presents some pictures of the shipping activity on the River Thames



## **FLOTSAM & JETSAM**

John Parker looks at Signalling **Equipment Limited** 



## **BOILER ROOM**

Richard Simpson discusses how best to finish your engine

## **AROUND THE CLUBS**

Darlington & District MBC are featured



## **READERS' MODELS**

Ron Rees' RAF 207 is featured

## **TEST BENCH**

New items for the modeller

## READERS' FREE CLASSIFIED

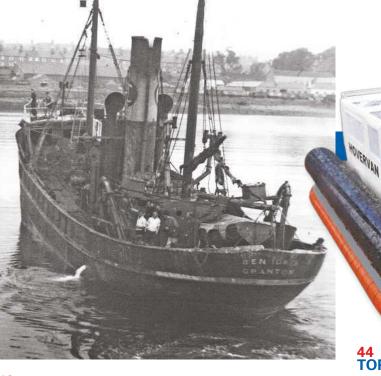
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## **BMPRS NEWS**

Craig Dickson reports from **Branston Water Park** 



Special Features



#### 10 BEN IDRIS

Jim Pottinger presents a new Feature Plan for this steam trawler





#### 44 TOP GEAR HOVERVAN

Ashley Needham's unique working model

### 52 SPRING MODEL BOAT SHOW

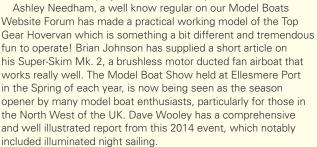
Dave Wooley reports from the National Waterways Museum

## PLANET T5 & T7 TRANSMITTER CONVERSION

Colin Vass installs a Robbe Futaba Twin-Stick dual motor control unit

### Bow piece

his 84 page packed issue includes an article for Ben Idris, a new Feature Plan that is now available via our sister company, MyHobbyStore. We also have a full review by Terry Small of the Graupner HMS Bluebell ARTR model, and Jeremy Bull makes a welcome return to these pages with his restoration project for Joanne of Kyle.



Readers' Models has Ron Rees with his latest super lightweight brushless powered model of RAF 207. His foam hulled models are so easy to build and light in weight, but still robust, that this must be a way the hobby will develop, since the technology has been widespread in model aircraft for sometime now. We also have the usual regulars of Range Finder, Boiler Room and Flotsam & Jetsam, so as usual I hope there is something here for everyone who participates in this great hobby of ours.

Paul Freshney - Editor

# Compass 360

Model Boats notice board for your news

#### **Editorial Contact - Paul Freshney**

You can reach the Editor, Paul Freshney, on 01277 849927. The editorial postal address is: Model Boats, PO Box 9890, Brentwood, CM14 9EF.

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#### Solent Radio Control Model Boat Club

On Saturday 30th August 2014 this club will holding their Annual Charity Exhibition at All Saints' Church Hall , Greenbanks Close, Milford on Sea, Hampshire SO41 0SQ, from 1000hrs to 1600hrs. Entry by charity donation in aid of RNLI & Hampshire Air Ambulance and refreshments available. Further information available from David McNair-Taylor, tel: 07887 967887 or email: david.mcnairtaylor@sky.com. Club website: www.srcmbc.org.uk

## Vintage Model Yacht Group

The 'Pond Side' newsletter of this group recently arrived in the editorial office. Many long-time readers of this magazine will know and remember Russell Potts, who wrote for this magazine 25 years ago. He is now standing down as Chairman of the VMYG, as he will be 80 years old in 2015. In his published note, he makes the point that he has done his

bit, but also no longer wants to be bothered too much now with other people's problems, something with which many readers will I am sure fully understand and sympathise, as the tendency these days across all walks of life is so often to ask questions of someone else without initially making the effort to find the answer oneself by proper investigative use of the Internet or by reading books and magazines.

The Group have a full programme of events for 2014 across the UK and Alistair Roach is their secretary, who is the initial contact for inquiries about the VMYG,

email: AlistairRoach@aol.com.

The VMYG website is: www.vmyg.org.uk and the group is of course devoted to the subject of vintage pond yachts and their preservation.

#### **Footy Gold Cup**

SailFootyUK will be running this international event at the Two Islands Radio Yacht Club on

#### Obituary - Mike Smith

The club secretary of Grays Thurrock MBC, Mike Smith, sadly died on the 22nd April. He was well known in model boating clubs in the South East of the UK, attending many shows and helping the A Team Model Boatyard with their world record. He will be sadly missed and the club extend their condolences to his family and friends.

**Bob Cossington** - Grays Thurrock MBC

Furzton Lake, Milton Keynes. on **26th and 27th July 2014**. The Gold Cup is returning to the UK this year after being hosted in Poland, Germany, Italy and France during the last four years. There are already 24 entries from Italy, France and Switzerland, as well as the UK. More details can be found on the SailFootyUK website: www.SailFootyUK.com. *Information supplied by* 

Roger Stollery

#### Midlands Model Engineering Exhibition

A reminder that this event is being held at the Warwickshire Exhibition Centre, Nr Leamington Spa, CV31 1XN between

Thursday 16th October and Sunday 19th October 2014 inclusive. This is primarily a model engineering show, but there is some marine input.

there is some marine input. Further information from: www.meridienneexhibitions.co.uk or tel: 01926 614101.

## South West Model & Hobby Show - 2015

This will return again in 2015 to the Bath and West Show Ground, Shepton Mallet, on the **2nd & 3rd May 2015**. The recent 2014 event was judged a success, after missing a year, and the organisers intend the 2015 show to be bigger and better, the show catering very much for model makers of all types in the South West of the UK. More information will follow.

#### Bristol Model Engineering and Hobbies Exhibition -15th to 17th August 2014

This is as usual is being held at Thornbury Leisure Centre near Bristol, **15th to 17th August**. This year as usual the four halls will be filled with a wide range of trade stands for tools, materials and machines; also lots of new models from individual model engineers plus many clubs and societies.

The outside exhibit area is being extended this year and it is planned to include some full size examples of prototypes including the National Trust's ex Penrhyn Quarries Hunslet Hugh Napier from the Ffestiniog Railway which will be in steam. 2014 is the 150th anniversary of the opening of Brunel's Clifton Suspension Bridge and there will be a 16 feet long model of this on loan from the Bristol Museums' collection. There are several new clubs exhibiting their members' models and more new traders supplying hobby needs. The radio controlled model aircraft, trucks. hovercraft and boats will also be in action

The online ticket sales operation is now available for advance purchase of 'Queue Hopper Tickets' via the exhibition website: www. bristolmodelengineers.co.uk or contact Steve Birch, Exhibition Manager, email: stevebirch7@btinternet.com or tel: 01454 838625.

#### **Seaforth Publishing**

Available to all Model Boats readers is a discount of 10% for online orders. Seaforth (Pen & Sword Books Ltd.) publish many books, but recent additions include: Big Gun Monitors, Naval Firepower, HMS Hood and German S-Boats in Action. The website is: www. seaforthpublishing.com and the special code is 210408 that needs to be inserted into the promotional box. The alternative telephone number is: 01226 734555.

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Mutual Model Boat Society

he club was started in 1992 by a group of model building enthusiasts who needed somewhere to try out and sail the various models that they had built and it is based in Heywood, Manchester. Their aims are to promote all aspects of model boating and to encourage more people to take up the hobby, especially the younger generation. Whether you want to buy or build your model, help and advice is readily available. The member's models cover a wide range of styles from steam driven warships and launches through to airscrew driven fun craft

SOCIETY

HEYWOOD

#### Sailing times

They meet every Sunday morning from 0900hrs, 52 weeks a year to sail, chat, share ideas and information and have a brew and a natter. Visitors are welcome on these Sundays. The sailing water is in the grounds of Mutual Mills, Aspinal Street, Heywood, Manchester, OL10 4HL, but the mill itself is a business centre, so sailing is not available at any other time. Also, due to the proximity of local residents, i.c. and fast electrics are not permitted so as to protect the water's use by the club. The club also has a social calendar.

#### Location?

Mutual Mills, is just five minutes drive from the M66, Junction Two. Head towards Heywood town centre and Rochdale. Aspinal Street is on the left just past the garage and look for a sign saying Crimble Croft Community Centre. Tea, toast and toilets are available in there from approx. 1100hrs. Parking is available within the grounds of Mutual Mills and if you are early enough, almost at the water's edge!

#### **Bring and Buy days**

These are held twice a year on the last Sunday in March and the last Sunday in September. These have now become one of the most attended Bring & Buy events in the North West with over thirty tables of boating and boat related bargains to be had. Admission is just £1 including a raffle ticket. To reserve a Seller's Table for the 2014 September event, please contact the Mutual MBS Events Secretary Kevan Winward, tel: 07803 975089. Club website is: www. mutualmodelboatsociety.co.uk. Information supplied by Colin Travis



Mutual MBS has a sailing water just by Mutual Mills in Heywood, Manchester.

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# www.modelboats.co.uk

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- A Forum that has sections for:
   Beginners, General, R/C and Accessories, Static, Kits,
   Scratch build, Steam, Vintage, Events and Chat.
- A Features area that has sections for:
   Build Features, Kit and Product Reviews, Hints,
   Tips and Technical, Show and Regatta Reports and
   General Interest Articles on Model Boating.
- A Link to www.myhobbystore.com which has over 3000 plans available and numerous modelling items, books and kits. These can all be purchased online.

# **BoatsNext** issue

The Model Boats August 2014 issue is on sale on the 11th July 2014





The included Complimentary Free Plan is for Ixplorer, a research and survey craft, and we have an in-depth review of the Models by Design 1:24 scale Wildcat 53 Windfarm Support Vessel.

See more about what's in *Model Boats* magazine month-to-month in forthcoming issues and see some of the articles you may have missed from past issues and subscription offers on our website: **www.modelboats.co.uk** 

We have a great range of subscription packages that you can choose from, including **our new Print + Digital package** which give subscribers 13 issues a year with 6 free plans, 13 digital editions to download and keep PLUS access to an Online Archive dating all the way back to January 2007.

**Don't forget!** The August 2014 issue will be published on **11th July 2014** price £4.50 – don't miss it! Order your copy now! Or better still why not make it your first copy in a year's subscription to **Model Boats** magazine? See our subscription offer on **Page 14** in this issue...

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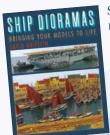


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# **Ben Idris**

**James Pottinger** presents a Feature Plan for a steam trawler

TOP: Ben Idris, possibly when new or a trials photo judging by the crowd aboard and the builder's flag at the foremast.

INSET: A later view from aft when Ben Idris (now as GN7, homeport of Granton) showing the typical hard worked appearance of a trawler. Note there are trawl doors stowed outboard of the port and starboard gallows. (Photo courtesy of John Sinclair)

which the demise of much of the UK shipbuilding industry, many sources of ship and boat plans have disappeared, except for those fortunately deposited in the various museums and archives and a few copies squirrelled away by some former employees. With some admirable exceptions, a number of those archives make it somewhat difficult to obtain copies unless one is willing to pay a fairly hefty price by

the time VAT, handling, printing, postage and other administration costs have been added.

I was very fortunate in this instance that one of the disposal contractors used by my employers had been involved in removal of much of the remains of the local Hall Russell Shipyard in Aberdeen when it was demolished, and one of their staff had fortuitously come across a number of drawings amongst the general rubbish. Possibly for no other reason than pure curiosity, he salvaged some and noting my interest in drawing model plans mentioned that he had some drawings which might be of interest to me. 'Yes please', was my immediate reaction and thus I was able to borrow half dozen or so drawings of ships built at the yard which included the general arrangement and lines of this Aberdeen built trawler Ben Idris, from which I drew this model plan and others before returning the copies to him.

However, the majority of the plans of ships built by Hall Russell, Alexander Hall and John Lewis were saved by the strenuous efforts of the staff at the local Maritime Museum who, working overnight, loaded these and many other records which were stored in heavy steel ammunition boxes into a van for transportation to safe storage, literally one step ahead of the demolition squads.

Trawlers were in the main owned by companies, with no shareholding apportioned amongst the crews who were on a fixed wage, with the possible exception of the skipper and mate who were also rewarded with a bonus if the catch value (grossings) merited it. There could be a conflict of interests as there was the constant stress on the skipper to maximise the catch with all its attendant risks, as a run of poor grossings (revenue from fish sales) would soon see him deposed from his position of seniority, most trawler owners being not especially renowned for their benevolence in this respect.

Thus trawling, for the deck crew at least, was a dangerous and hard life, operating in some of the most hazardous oceans working on an open deck fully exposed to the elements in all weathers and apart from the trawl windlass, little in the way of powered gear handling equipment, manual pulley hauling being the order of the day.

An example of the nature of the dangers faced by trawler men from the main centres of this activity such as Aberdeen, Grimsby, Hull and Fleetwood in the period from 1946 to 1975, is that at least 156 ships were lost and over 400 men perished, a figure



that would be significantly increased if we included in the survey the smaller trawler ports of Lowestoft, Swansea, Milford, Granton and Leith. The double loss of the big trawlers *Roderigo H135* and *Lorella H445* on 26th January 1955 when fishing N. by E. of the North Cape of Iceland was the greatest loss during this period, both succumbing to a combination of weather and heavy icing, which caused them to capsize and claiming the lives of forty crewmen, the only trace being an inflatable rubber dinghy picked up by an Icelandic trawler three days later.

Between 1887 and 1961, an astonishing total of 272 Aberdeen registered trawlers were lost due to a variety of causes, either by stranding, stress of weather or due to war causes etc. and more tragically, many were also lost without trace. This melancholy statistic is even more striking when during this period many of the deep sea trawlers lost in the latter years were relatively large and well found modern vessels built strictly to classification surveys, the majority also being fitted with up to date electronic navigation equipment and the skippers and mates meeting the necessary examination requirements. If one reason is needed, it confirms the power of the elements which is no respecter of size or type.

#### **Ben Idris**

This trawler was one of a size which operated primarily in the nearer fishing grounds in the North Sea, North West Coast of Scotland and around Shetland. The most striking thing to be noted when studying the

INSET: Close up view of the starboard side of a typical trawler of that time, with trawl door lying outside the gallows, with the trawl net and bobbins stowed inside the starboard bulwarks.

BELOW: Author's painting of a similar trawler, Avondee A826.







ABOVE LEFT: An electric trawl winch, basically same layout as the steam winch on Ben Idris, with brakes, end warping drums and warp guiding-on gear to the barrels and note the vertical slotted pillar(s) on the deck to take the wooden pound boards. ABOVE RIGHT: This is a steam winch used to haul the carriage on Herd & MacKenzie's slipway at Buckie. Whilst of different layout to the trawl winch on the trawler it shows the arrangement of steam cylinders and connecting rods etc.



ABOVE: Centre rollers, sometimes known as centre bollards. Here we can see warp from the aft starboard gallows passing around a single roller, next around the centre roller and then leading aft to trawl winch. The port centre roller handles the warp from the forward gallows.

BELOW: Forward starboard gallows with trawl door stowed up inside the bulwark, also handing the warp block. The sheave at the foot guides the warp from the hanging block to the centre roller.



small sectional arrangement is the relatively small space allocated to the fish hold, although the space immediately aft of this could be utilised when the coal stored there on outward voyage was used. This immediately confirms the obvious advantages which followed from the introduction of motor trawlers, where the fuel could be carried in the double bottoms and side tanks in the engine room, thus freeing up additional volume for stowing the catch. However one of the reasons for the inertia in abandoning steam was that many of the trawler owners were also merchants and suppliers of coal, and thus possibly had an incentive to delay any changeover. Even as late as 1958, the last steam trawler was built for the Hull fleet with the commissioning of the Joseph Conrad, and the last of the port's coal burners, the Othello, made her last fishing trip in 1962.

In a pure economic sense it is perhaps instructive to note that some of the so called inshore Scottish fishing boats in the 70ft class, having a significant share ownership among the lesser number of crew and with a number of efficient labour saving mechanical and hydraulically powered aids they had either pioneered or otherwise developed to their full potential, were achieving an annual grossing within a whisker of the top earnings of modern stern trawlers of twice their size. Admittedly much of the prolific distant fishing grounds formerly fished by these big trawlers were being closed due to the restrictions imposed by Iceland and Faroe when on 28th February 1961 the UK accepted the twelve mile Iceland fishing limit, thus restricting their earning potential.

#### The plans

These are drawn to a scale of 1:48 (1/4 inch to one foot) and the full size vessel was just under 118 feet long overall. No construction details are included, the

plans being a redrawn and updated version of the original builder's plans. However, there is sufficient information on the plans for a model maker with some experience to build a working or static model. The lines show the typical fine lines of trawlers of this era, with fairly deep draft aft to ensure good impression of the propeller when towing the trawlers.

of this era, with fairly deep draft aft to ensure good immersion of the propeller when towing the trawl. The stern in profile is something of a compromise between an old fashioned counter and a more modern cruiser stern.

Two fishermen type anchors are carried forward.

With no built in hawse box in the bow, an anchor

With no built in hawse box in the bow, an anchor would have chain led out through the hole in the spirket plate, the chain being handled by the hand operated winch which had handles on each side of the shaft. The companionway giving access to the fore cabin has double doors with one having a split panel - please see detail of *Ford Companion* on Sheet One. A number of glazed flush deadlights are positioned in this area to give light to the cabin below. At some later stage in her career she was given a raised forecastle which would have provided some welcome shelter for the crew working on deck.

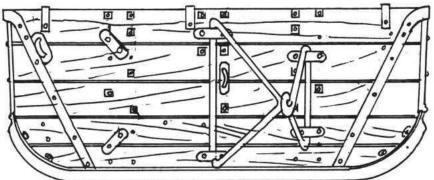
Four hatches are arranged on the centre line above the fish hold, closed by wooden hatch boards and when on passage they were sealed by canvas covers secured by wedges and battens, dogged down inside the cleats fitted along the outside of the coamings - please see Detail Hatch on Sheet One. Portable fish pond boards are slotted into vertical supports at each side of the hatches.

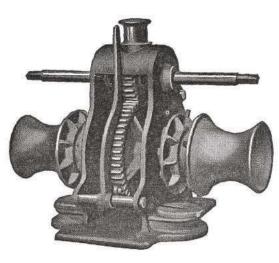
The fore deck is dominated by the trawl gallows on each side. These are basically of a steel H section, again please see detail on Sheet One which also shows the method of attaching the warp hanging block. Trawling is usually carried out from the starboard side, but fittings are duplicated to allow either port or starboard operation. The warp guide rollers on the aft gallows are incorporated in the base of the forward leg of each.

Guide sheaves are mounted on the deck at the foot of the gallows to guide the trawl warp to the winch via side and centre bollards and the detail of these and the gallows is also on Sheet One. This detail also shows the bulwark stanchion and note the concave section of the cemented base of the wide waterway all round along the deck edge inside the bulwarks.

The steam trawl winch has a raised wooden platform for the winchman at the aft side. Flush scuttle hatches are arranged along the side decks for coaling into the bunkers underneath. A number of angled sheaves are fitted along the sides of the casing to give a lead to the winch for the various

BELOW: Drawing of a typical wooden trawl door which has steel protective armouring and towing bridle attachments.





Typical hand winch, but with chain cable lifters on each side.

ropes associated with the fishing gear. There are also other rollers which guide the steering chain aft to the steering tiller which is under the grating at the stern. Wooden planked raised gratings are fitted along each side amidships for stowing the net.

A small raised skylight with deadlights on its top and sides and a cowl vent are positioned aft of the galley with a small boat carried on supports above it all. Note the 'stable type' of door at after end of the galley (see Sections C-C and D-D on Sheet One).

This detail shows the navigation sidelights in 'inboard' housed position, but they are swung out to position and locked there as indicated on the plan view when the vessel is under way. The mizzen boom gooseneck fitting is positioned at the aft end of the galley top. Two hatches are fitted on top of the boiler casing and these have grating internal covers with a hinged curved lid of design to allow it to be held open to gain air to the boiler room and when closed, the lid covers the coaming opening.

There are numerous cleats and roller fairleads arranged along the wheelhouse, casing and galley sides as shown in the various views. Access to the wheelhouse is via a door at the port side of its rear and there are chequer plate steps fitted to the sides of the casing, please see Section E-E. Similar plating extends along the deck at the casing sides near the boiler. Please note that the skipper had no navigation aids shown apart from an overhead compass. The steering chains from the wheel are carried down the outside of the wheelhouse sides to the deck inside a tube with suitably positioned roller sheaves for guidance. The centre sections of the steering chains (leads) were formed from steel rod with the flexible chains at the forward and after ends, all running along the deck in shallow channels (see Section C-C)

Note the door in the lower section of the boiler room which allows the ash bucket to lifted out and then tipped over the side after being hoisted up the inside of the cowl vent. Also, please note the asbestos rope lagging on the lower part of the whistle steam pipe in front of the funnel.

Both masts and the derrick are wood with correct lacing of the shroud deadeyes, with the centre hole at the upper and lower ends of the these.

The top steaming light is angled off to port and an extended crane angled out to starboard is fitted to take the oil lamp. Double eyes are fitted on each side of the lamp which engage over the downward projecting prongs of the crane when the lamp is hoisted and a tail rope is attached to the bottom of the lamp to hold it steady when hoisting and helping with retrieval.

#### Colour scheme

Funnel: White 'C' on a black disc on grey band on black. External hull upperworks: Green with white line at lower edge of bulwarks.

Hull bottom: Red. Decks & inside bulwarks: Red. Wheelhouse, engine casing,

galley & deck fittings: Light brown.

Masts and spars: Varnished wood.

Wheelhouse top: White.
Trawl winch: Black.
Guardrails: White.

Note: Apart from the funnel and hull colour being confirmed, other colours are typical

of these trawlers.

#### Ben Idris principal particulars

 Length:
 117.7ft

 Beam:
 22.6ft

 Depth:
 12.1ft

Engine: 82 NHP triple expansion reciprocating steam engine 30th April 1931: Launched by Hall Russell & Co. of Aberdeen, Yard No. 722

10th June 1931: Given registered fishing number of SN137

Late-June 1931 Completed

#### **Brief history**

First owners were Richard Irvin & Sons Ltd & Archibald M. Meikle of North Shields (n.b. - Sir John H. Irvin K.B.E. was the Aberdeen manager).

1939: Requisitioned by Admiralty as an Examination Vessel

and given Pennant No. FY1766, based on the Tyne.

18.04.1941: Collided off Tynemouth with the armed patrol vessel
HMD Young Ernie YH55 (88gt/1924), which then sank.

1941: Converted to a minesweeper.

1941: Owned by Carnie & Gibb Ltd, Granton,

(Wm. Carnie Jnr. was manager).1941: North Shields Registry closed.1941: Registered at Granton as GN7.

18th Sept. 1945: Returned to owners.

Pre-1960: Owned by Inch Fishing Co., Granton.

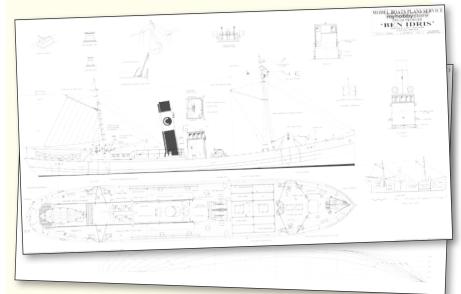
Nov. 1961: Sold as scrap to BISCO (British Iron & Steel Co') for £2750.

22nd Nov. 1961: Arrived at breakers yard at Charlestown, Fife.

29th Nov. 1961: Scrapped by Ship Breaking Industries at Charlestown.

#### Plan for Ben Idris

The two sheet full size plan No. **MM 2092** is available from MyHobbyStore Ltd and is priced at £12.50 + p/p as of July 2014. MyHobbyStore plans may be purchased online at www.Myhobbystore.com or please call: 0844 848 8822, 1000hrs to 1600hrs, Monday to Friday.



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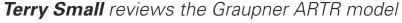
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The end came when she was torpedoed and sunk by U-711 under the command of Hans-Günther Lange...

raupner are now well established in the 'Almost Ready To Run' market and have recently released HMS Bluebell, a flower class corvette, at 1:48 scale, Item No. 2200. These warships served in the Royal Navy during WW2 and 267 in total were built. HMS Bluebell was put into service in July 1940 and she served in the Atlantic, Mediterranean and Arctic, escorting convoys to Russia, also taking part in the invasions of Sicily and France. The end came when she was torpedoed and sunk by U-711 under the command of Hans-Günther Lange on 17th February 1945 when escorting convoy RA-64 from Murmansk and only one crew member survived.

The model consists of a GRP plated hull and superstructure largely made from laser-cut ABS parts. Fine detail and small parts are etched and there are superbly detailed guns and lifeboats, a pre-installed Speed electric motor type and it is all

finished in semi-matt paint. It is supplied with an instruction booklet and plywood stand, all ready to get started. Radio control can be just a basic two channel set and dimensions are 1280mm long by 215mm beam and height of 500mm.

#### A bit of history

The months leading up to WW2 saw the Royal Navy return to the concept of a small escort warship being used in the shipping protection role. The Flower class was based on the design of a whale-catcher called the Southern Pride and rumour has it that Winston Churchill labelled them 'Corvettes'. The original Flower class was a group of 225 vessels ordered during the 1939 and 1940 building programmes and the modified-Flower class, were a further 69 vessels ordered from 1940 onwards, these being slightly larger and better armed.





Smith's Dock Company based in Middleborough, a specialist in the design and build of fishing vessels, had developed its 700 ton, 16 knots whale catcher Southern Pride into what we now know as the Flower Class. Their long range inevitably meant that they became the mainstay of the Mid-Ocean Escort Force for convoy protection during the first half of WW2. The simple design of these vessels using parts and techniques common to merchant shipping meant they could be constructed in small commercial shipyards all over the United Kingdom and Eastern Canada. Also, the use of commercial machinery meant the Royal Naval Reserve and Royal Naval Volunteer Reserve crews largely manning these corvettes would be familiar with their operation. Many of the Royal Canadian Navy's vessels were initially fitted with minesweeping equipment, while virtually all of the modified Flower's were fitted with a limited anti-aircraft capability.

These later modified-Flower's also saw the forecastle extended aft past the bridge to the rear end of the funnel, a variation known as the 'long forecastle' design and this markedly improved habitability. In the 1953 film, 'The Cruel Sea' starring Jack Hawkins and Donald Sinden, the story line was based on board the 'fictional' Flower class corvette HMS Compass Rose and a DVD is still available of this film.

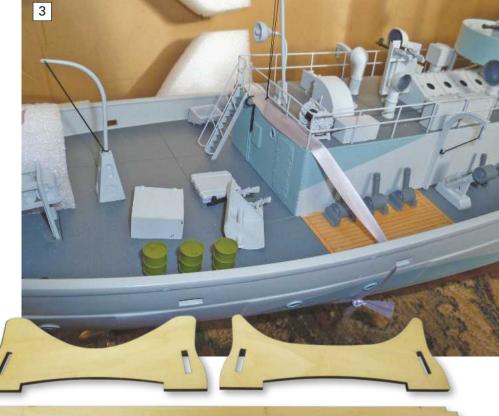
#### The model

This arrived in a very large thick cardboard box by a very considerate courier. The first thing that amazed me was how light in weight the whole box actually was, **Photo 1**. On lifting the larger box top sleeve away from the inner carton I started to think of using it as the actual regular storage box. The model is secured in place during

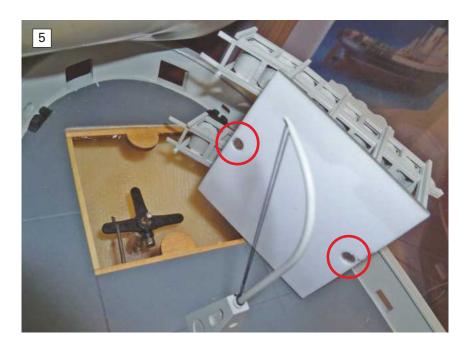
transit by means of moulded to shape packing foam pieces, **Photo 2**, and lengths of ribbon, **Photo 3**. Having removed the model from the transit box, it was checked for any damage during transit (from China I believe). Only a small bollard was loose and easily glued back, once its correct location has been found. There is a reasonably comprehensive A4 size instruction booklet printed in French, German and English with black and white pictures to assist during assembly and

preparation for radio control operation, together with a very nice laser-cut, stained and varnished, plywood boat stand that is ready to assemble, **Photo 4**. This is put together using PVA glue or similar and then using felt or carpet tile pieces to on the hull supporting edges.

The main superstructure unit is one complete section and the front bridge part is a separate removable item. A removable deck access hatch with the depth charge racks on it covers the rudder



4

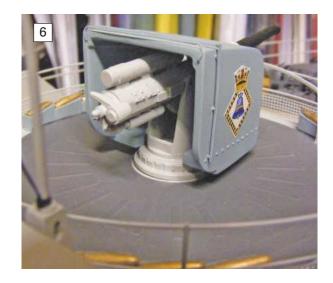


tiller arm and its control rod. This hatch just lifts off, but a nice touch are the small retaining magnets, **Photo 5**. The ABS superstructure is beautifully put together, with superbly neat internal joints.

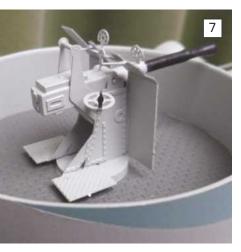


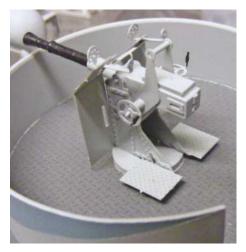
#### **Detail**

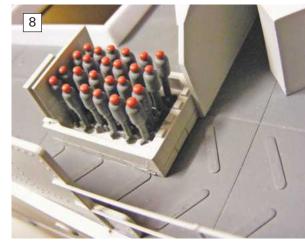
The main gun is a BL 4 inch Mk.IX gun with external rivet detail and comprehensive internal detail, **Photo 6**. This gun is supplied un-mounted, so it can be made to traverse if desired by linking its support shaft to a servo (not supplied) beneath the deck. Even the single Pom-Pom bandstand and its gun has chequered deck plate detail, an elevation wheel, sights, plus shells racked and ready for loading, **Photo 7**. The Hedgehog mortar shells are also racked and ready, **Photo 8**, and just look at the detail on the hatches and skylights,

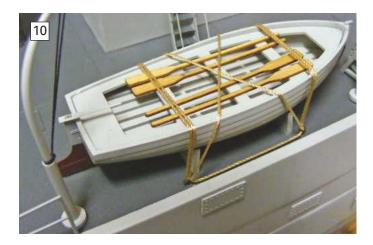














#### Photo 9.

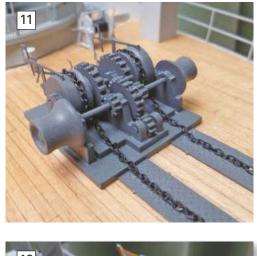
The two ship's boats include external and internal detail, **Photo 10**. Parts of the deck are planked in a thin wood veneer of scale thickness and grain, **Photo 11**, which also shows the winch. Finally in this sequence is **Photo 12**, which is of the bridge, and please note the planked deck again - first class!

#### Smoke?

This model cries out for some additional operational features such as the aforementioned traversing gun, smoke, asdic noises etc.

The funnel is glued (rather well actually!) to the top of the superstructure and has no continuation hole out of its bottom, or at at main deck level down into the hull's interior. So, to fit a JJC smoke unit, **Photo 13**, the only practical solution was to go into action with hand tools.

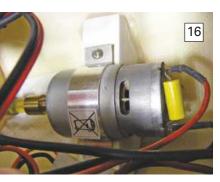
In fact it was easy, as it is possible to create a hole in the bottom of the funnel from underneath, by carefully marking its position, chain drilling a circle of holes, joining them and opening out the plywood and styrene deck area to a circular opening to match a little bit less than the funnel's internal diameter, **Photo 14**. You will notice that four screws were inserted to avoid separation of the plywood and styrene during the whole process. Then it was easy, by peering down the funnel to see the deck below, marking it with a long pencil and then creating a hole for the smoke outlet flue to pass

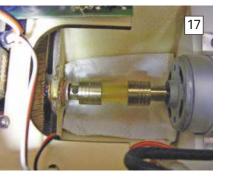




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up from inside the hull into the funnel casing, **Photo 15**. You can use any smoke unit, but the JJC one was to hand and in stock, but I believe is no longer currently being marketed. However any alternative will do, if this is something you want to include on your model. The unit itself is mounted on a plywood base below the funnel inside the hull.

#### **Radio installation**

A basic two channel radio for rudder and motor control is all that is needed, unless you intend to have extra working features. The smoke unit itself requires no operating channel, as it is 'lit' before the model sets-off. The brushed Speed 600 type of motor comes ready wired and suppressed, **Photo 16**.

The driveline is pre-installed. including the aforementioned Speed 600 type motor, which requires connectors. A plywood servo tray includes a servo pre-connected to the rudder tiller arm via a control rod, and a fitted and pre-wired electronic speed controller. The supplied documentation including Graupner's own website and catalogue actually state that a speed controller is separately required, but I am not going to complain as it was included!

To supply power to the motor, connections have to made, either by terminal 'chocolate' blocks or Tamiya style plugs and sockets or their equivalent. An On/Off power switch was installed in a concealed position on the deck for easy access. Although the rudder servo is pre-installed, the amount of rudder throw either side of centre seemed small, so the servo horn was changed for a larger Futaba version to increase the throw. The motor coupling to shaft alignment required minor adjustment by packing the mounting with thin pieces of cardboard. The importance of alignment cannot be underestimated as it will reduce wear, noise, vibration and current consumption, all leading to a longer running time on the water. The coupling is rather neat, Photo 17, but no propshaft oiler device is fitted. The main drive battery is a 6v 12Ahr sealed lead acid (not supplied), which gives long running time, but some further ballast will be needed and the power supply for the smoke unit is a smaller 12v 3.3Ahr sealed lead acid battery, Photo 18. You will have to make the battery trays, but to conclude this section, Photo 19 is a view looking aft from the drive motor. The smoke unit electronics are on the right (port side of the model in this photograph).





#### Extra detail and special effects?

This is up to you! However, 1:48 scale sailors would be no bad thing and some of the fittings such as the flag lockers could do with some flags as superdetailed here in **Photo 20**. There is plenty of room inside the hull, so Asdic and gunfire sound effects are planned for the future, together with a proper traversing and manned 4 inch gun.

#### Ballast and on the water

Ballasting was easier than originally thought, as the model just fitted in the domestic bath (not including me!). The two sealed lead acid batteries are the principal ballast, but 1.3kg of shaped sheet lead at the bows and 360gms of lead shot at the stern just in front of the rudder post brought this HMS Bluebell down to the waterline. Once the ideal location is determined, then make a diagram







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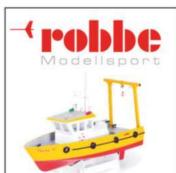
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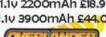
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The Wiesel on its modified golf trolley for transport.

The Workboat twin water jet drive units.

he dominance of propeller use for model boats, large and small, fast and slow, is long established so the choice of the Graupner Wiesel kit made a superb start to my boat modelling a few years ago. Its quality and looks along with triple screws promised enjoyable cruising at the newly joined sailing club and a modified golf trolley helped to take it there. The Otley Sailing Club is based on an old gravel pit with an overflow outlet giving a constant water level, together with a concrete slipway for easy model insertion and retrieval. During its first trials close to shore, the model would sometimes noticeably slow down and only the slight current and a long fishing rod would allow its recovery. The penny dropped when it was upturned to reveal weed wrapped round the screws and rudders; a look around the shoreline showed their origin and as this was a seasonal recurring nuisance, the model was relegated to indoor display at those times.

It was around this time, after Glynn Guest's Skimmer Airboat was featured in this magazine back in 2007, that some motors, batteries and controllers etc. were available from some redundant model aeroplanes and these were ideal for use in some airboats. A series of six airboats were then built, culminating in Super-Skim, and all of them operated well over weed and clear water without any problems. Airboats really need a cage round the propeller for safety if running in public surroundings, but these six models without cages were (and are) used in privacy, which also allows crashes into the jetty without embarrassment!

The Graupner Manhattan 74 kit became available once again in early-2009 and a large part of its appeal were the twin water jet drives and again in theory



shore for the debris to be cleared.

After the airboats and water jet boats no further variations on the theme seemed to provide any other weed resistant models, but a bright new day brought the answer in the EDF (Electric Ducted Fan) units now becoming popular in lightweight model aeroplanes. A web search produced various sites and sizes of fan units up to 120mm diameter with motors and shaft adapters supplied loose, but requiring to be balanced after assembly, and the choice was narrowed down to a Lander unit, Ref: LEDFDPS90-1A19 from BRC Hobbies of Newcastle. This 90mm unit complete with a 1900kv brushless motor and fully balanced, looked to be possible to be quickly and easily fitted into a suitable hull for trial purposes.

so a series of five widely different water jet boats was made. The undersides gave no weed problems, but if the water inlet grille picked anything up, their reduced speed was still sufficient to bring them to

#### The model

With such potential, it seemed that the Super-Skim airboat would be the ideal donor hull and the boltedon motor pylon readily removable for modifications. Also, its thrust of 2500 grams was bettered by the EDF at 3200 grams. A 1.5mm duralumin support was cut and folded to suit the straps supplied with the unit and the pylon was cut down and profiled to clear the motor. This was the extent of the modifications, but the top portion of the rudder was also cut down for appearances sake. As all this was an experiment, albeit a very promising one, the 100 amp speed controller and the two batteries for 22.2v operation were borrowed from the LCS-2 USS Independence model and a static trial on a fairly low throttle gave very smooth running. The rated maximum of 42000rpm would probably not be needed, but the trials were eagerly anticipated! Comparing the running weight of Super-Skim with two crew, at 2810 grams, the new Mk.2 showed an increase of 327 grams giving 3137 grams total and with only one crew member.

Like most modellers, I like to see a neat and tidy installation of the running gear inside the model, with all the equipment and control items well-spaced to avoid any possible electrical or signal interference. Mind you, it must be admitted that in this model everything has been pushed together in the space available and seemingly still not causing any problems. The short 2.4GHz antennae, which should normally be well spread, are mixed in with other cables, but the r/c system still works well.

## Trials

#### First attempt

After the long hard winter of 2012, a day arrived in April 2013 with a temperature just approaching double figures, so initial trials could be made in comfort. The crew were on standby as Bill retained use of the Workboat and Ben took over this Mk.2 Super-Skim. The first run quickly settled any doubts as the immersion line duplicated the original, as did its speed and agility. The cut-down rudder still gave quick response; full throttle was not needed for fast runs so some travel was left for braver and warmer days! In broad terms, the two models were equal in performance, but with the desirability nod being given to the Mk.2 for its safe enclosed power unit compared with the original large propeller without a cage. Cost does also come into the equation with a propeller and its motor being far less than an EDF unit and also requiring less power at 14.8v. The noise level of the EDF unit during static running seemed to be fairly high, but was not really noticeable during the test runs and it should be no problem in general use.

#### Second attempt

The summer arrived in early-June for the showdown between Bill in the Workboat and Ben in the new Mk.2 Super-Skim. Ben produced some good runs with excellent speed and turning agility without any fan noise. The wake was flat, other than some turbulence from the partly submerged rudder, and the overall impression of the model was that it would do everything asked of it, safely and consistently, without any drama. The Workboat had

Super-Skim on the weeds!

...a static trial on a fairly low throttle gave very smooth running.









Super-Skim Mk.2 first run.



Bill's turn to show off in the Water Jet boat.

very quick acceleration and it seemed to be faster than Mk.2 Super-Skim, but with 'keeling' (marked leaning-over) in tight turns, but the white water thrust from the jet outlets showed up really well!

#### Conclusion

So both models were winners in their own right with the Mk.2 Super-Skim being easy and cheap to adapt, but perhaps the Workboat was visually more rewarding at rest or speed. Both methods of propulsion are reliable, but the external EDF unit is easier to fit than a internal hull mounted water jet unit.

Weeds or no weeds, any of the three types; Airboat, Water Jet or EDF propelled, provide simple, high performance and easy two channel r/c operation and lots of fun, which is perhaps what our hobby is really all about.

(In February 2008 MB, Brian had a letter published in this magazine about his airboat development of the original Glynn Guest Skimmer Free Plan first published in September 2007 MB. This was then followed by excellent practical in depth articles in the July 2008, November 2008, May 2009, September 2009, January and June 2010 issues of MB. The first Twin-jet based on the Vector design was published in October 2010 MB and in March 2011, his Twin Jet Workboat. In September 2011 MB, the conversion of a Riva Aquarama to water jet propulsion followed and then LCS-2 USS Independence in May 2012 MB. He is to be congratulated on his practical, well thought out and described development of the original Glynn Guest Skimmer design - Editor)



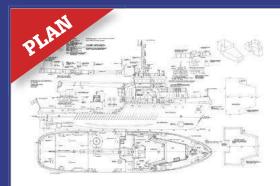
ABOVE: The ex-USS Independence electrics are a snug fit underneath the hatch - note the esc cooling fan.

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TOP. David Brown's magnificent HMS Warspite as of 1933.

PHOTO 1. The attention to detail on the forecastle is simply stunning.

PHOTO 2. Just look at the detail on the 15 inch gun barrel blast bags, and all at 1:96 scale.

# **Dave Wooley** with his Worldwide Review of Warships and Warship Modelling

elcome once again to our regular sortie into the world of fighting ships and this month we have an in depth look at a remarkable 1:96 scale HMS Warspite model and the penultimate segment of our long running feature on the 1:72nd HMS Daring project, plus our usual Mystery Picture.

#### **HMS Warspite by David Brown**

Whilst attending the Warspite Centenary commemoration at Devonport Naval Dockyard, I was able to view in the Model Gallery of the Heritage Centre a number of models by David Brown, but also his latest project which is HMS Warspite as of 1933. David has chosen to represent HMS Warspite after her 1926 refit when that reconstruction involved trunking the two funnels into one, in order to reduce the problems of smoke around the bridge and the foremast was also modified to accommodate a larger control top. It did not include the later complete rebuild of the Conning Tower as

depicted in Colin Vass' model which is of a later time frame. The date chosen by David of 1933 is when a flying-off platform on B turret accommodated the small and nimble Fairy Flycatcher spotter plane. He has also shown a number of functions being performed; such as loading torpedoes, deploying booms, ship's boats being launched and cordite cases being stowed. Even the sun awning on the quarterdeck is only partly deployed, all of this making the model look 'busy'.

This is a truly magnificent model and one that takes your breath away and like Colin Vass' 1:72 scale model, it is a superb example of the modelmaker's craft. David made the point that his scratch built 1:96 scale HMS Warspite is not fully completed even now, although many would say, 'What else is there to do'? This is one of those models where pictures say far more than words, so for that simple reason I'll let the model speak for itself, **Photos 1 to 12**! Now, you have never known me be that brief before, but do remember that this HMS Warspite is 1:96 scale!







PHOTO 3. In 1933, HMS Warspite carried a Fairy Flycatcher spotter aircraft.



PHOTO 5. In the 1926 refit the foremast was re-built and the original two funnels trunked into one. David Brown's model demonstrates this reconstruction really well.

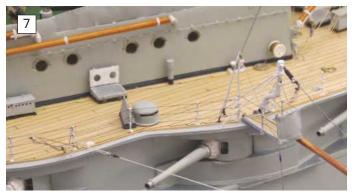


PHOTO 7. One of the casemate guns still in use.



PHOTO 9. So that's how it was done! A fascinating insight into the methods used for a boom assisted lift of the cutter.



PHOTO 11. A superbly made 30ft gig, (barely 4 inches long) demonstrating the dipping lugger style of rig.



PHOTO 4. Just aft of the main director at the base of the foremast is the signalling position.



PHOTO 6. The attention to detail around the funnel casing even includes the painter's seat suspended from the rail above.



PHOTO 8. This picture shows a wealth of detail and includes one of the two 3-inch anti-aircraft guns and the Robinson Davit Disengaging Gear on the 32ft cutter, and still all to 1:96 scale in case you had forgotten!



PHOTO 10. Immediately beneath the barrels of X Turret are brass cordite cases ready to be hoisted below and please note the small davit for just that purpose.



PHOTO 12. Part of the awning is deployed on the quarterdeck, whilst the opposite side remains folded. revealing more of the amazing detail around Y Turret.



...I had ballasted the hull during initial power and steering trials and was reasonably confident that the model would still float...

PHOTO 13. Commodore Baum, Naval Regional Commander North of England, takes command of HMS Daring!

PHOTO 14. Almost perfect conditions for launching HMS Daring.

PHOTO 15. HMS Daring basking in late-afternoon winter sunshine.

## 1:72 scale HMS Daring Type 45 destroyer - Part 36

After a number of delays, 15th December 2013 was Launch Day. I must admit I would have preferred the model to be 100% complete, but arrangements had been made and to be fair I needed more time to develop some of the ideas for how the flight deck was to be arranged including the Lynx Mk. 8 helicopter, plus the rails on the forecastle are not just unusual, being of a box section shape, but in the absence of any photo etchings they had to be made from scratch with the principle drawback of inevitably being fragile. Also the RIB boat bays required their final fitting out and at the time of launch some of their internal detail was still being prepared.

#### **Launch Day**

I was asked by Commodore Baum if he could take HMS Daring out on her maiden sortie at the National Waterways Museum in Ellesmere Port. Commodore Baum was the Guest of Honour at the 2013 Haddock Park Model Boat Convention and is himself keen on working models, so the date was set and a team of tugs assembled, courtesy of Ellesmere Port MBC. Originally we had intended to dynamically launch HMS Daring down a slipway, but our combined intelligence(!) overcame that idea as the possibility of damage was too great. So the tugs were on hand for any unforeseen mechanical failure rather than assisting at the launch.

Many Moon's ago, I had ballasted the hull during initial power and steering trials and was reasonably confident that the model would still float (and work), but I had some reservation regarding the motors. Being 24v, but operating on 12v, means just one thing, namely a significant reduction in power, but on the day a scale speed was maintained with no problems.

As many readers know only too well, launching a model for the first time can generate excitement and apprehension in equal measure. I had no time to prepare any form of launching frame and as such it was a heavyweight human lifting job, but with the help of Mark Hawkins the job was less of a back-breaker. I have to say as well, that by the time you read this, the model will be in the hands of the Royal Navy as I need workshop room for the next project.

After the usual pre-operating checks and some winter sunshine, Commodore Baum took command and steered HMS Daring clear of the quayside enjoying the experience, albeit at 1:72 scale, **Photo 13**, and I was not disappointed with how the model performed and floated. As each motor is independently controlled, its manoeuvrability was good. Scale speed can be worked out mathematically, but you can't scale water and I would say that scale speed can be very much in the eye of the beholder. If it looks right on the water then it's probably not far off, **Photos 14 and 15**.



With the trials completed, HMS Daring was returned to the Fitting-Out Quay (AKA my workshop) to begin the final stages of fitting out. It is often said that it's the small bits that make a model and I had made many of these and as I wrote earlier, by the time you are reading this my workshop will have something new underway.

#### Helicopter

There is one feature that I was keen to add, namely a Lynx HMA Mk. 8. This is different in respect to the HAS 3 version in having Sea Owl, a passive identification thermal imaging device, mounted forward on its nose. For this model I sourced a reasonably good 1:72 scale kit from Hobby Boss, **Photo 16.** 

The first flight of this aircraft was on 21st March 1971, the helicopter entering service in 1978. The most recent version is the HMA Mk. 8 which entered service with the Royal Navy in 1995 and is currently operating from HMS Daring. The basic airframe remains broadly the same as the Mk. 3, but improvements consist of composite main rotor blades, improved data transfer and sensors with the original Sea Spray radar relocated to a radome beneath the nose. However, certainly one of the most prominent features on the Mk. 8 is the aforementioned Sea Owl device in a gimbal mounting on the nose.

#### Modifications to the kit

A number of years ago at Intermodellbau in Dortmund, there was a superb 1:48 scale Oliver Hazard Perry FFG with a stunning SH-60 helicopter and attendant flight deck crew. I couldn't help noticing how effective it was to see the rotor blades in the folded position, supported with rigid stays to each blade. As this would be a departure from the original kit, this required some lateral thinking. Also, part of the tail boom would need to fold back as per the prototype, reducing the length of the fuselage for hangar stowage. Any modeller familiar with injection moulded kits will know that their instructions do not always indicate an assembly sequence that is compatible with painting. For this reason I formulated my own assembly sequence so the last part of the model to be fixed would be the rotors, but the need to separate the tail part of the boom was more urgent and Photo 17 is of the fuselage suitably cut and the rotor blades folded.

It's worth remembering that it's always beneficial to clean plastic components before assembly to remove any moulding residue. I won't go into the minutiae of building the helicopter, but the first task was to prepare and fix in place its completed interior unit. The two fuselage halves could then be glued together and some exterior features added, including the main rotor head. A small amount of filler was needed on the joints, but nothing too onerous. This type of model comes with a highly detailed surface and as such it's important to avoid damaging the detail on the moulded surfaces. Prior to airbrushing with Humbrol No. 128 Light Grey, the open cockpit and fuselage side entrances were well masked, as in Photo 18.

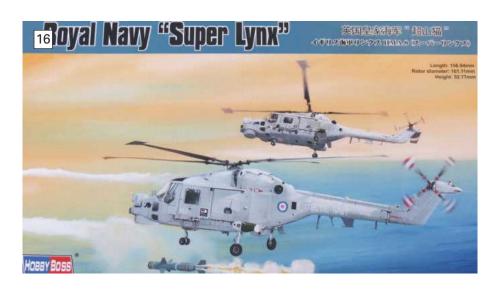




PHOTO 16. The Hobby Boss Lynx Mk. 8, represents the type of helicopter currently embarked on HMS Daring.

PHOTO 17. Preparing the modifications, namely a folded tail boom section and the folded main rotor blades.

...I formulated my own assembly sequence so the last part of the model to be fixed would be the rotors...

PHOTO 18. Masking over the completed interior ready for airbrushing the fuselage exterior.



31



PHOTO 20. Positioning the folded

tail boom.

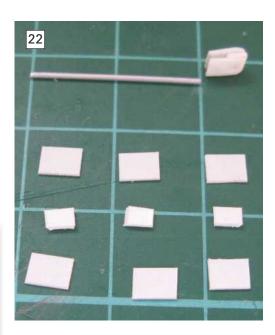
PHOTO 21. Painting the tail rotor was easier (and looks better) than using decals.

PHOTO 22. The parts required for making the rotor blade supports.



Building the kit straight out of the box is really a straightforward exercise, but as this Lynx will be tied-down on the flight deck, there would be a number of exhaust and inlet covers and hazard markers fixed to various parts of the airframe. There are covers on the engine's exhaust outlets and a further two around the intakes, which are





orange/red in colour. **Photo 19** is of an exhaust outlet cover being placed in position. It is nothing more complicated than self-adhesive decal film punched/cut out of a larger sheet.

#### Folded tail boom

To allow stowage in the hangar, the tail part of the boom folds back on itself, but the angle and position are critical as the after starboard main rotor support fits between the folded tail and the boom, **Photo 20**, but more on that later. The next step was to prepare the tail stabilisation rotor. Within the kit are decals for red and white stripes around each blade. As the tips would have to be painted anyway, I made the decision to mask off and use paint throughout which was probably less frustrating than using the decals, **Photo 21**.

#### Main rotor blade supports

Having these in place is all part of the stowage arrangement, but is not often that visible. Russ French from TF72 (a model group in Australia) has also incorporated this feature to good effect on an SH60 helicopter aboard his superb model of USS Winston Churchill.

The supports are quite simple to make, but their positioning somewhat less so. All that was required though, were four 21mm lengths of 1mm diameter aluminium tube obtained from Albion Alloys and some styrene. In order that the top of each support slides over the tip of each blade, two sections of styrene, 4 x 3mm were cut and separated by another strip of the same width, but a third of the length and just 1mm thick. When joined and firmly set, the external end was rounded as per the original and a corresponding hole made to accept the aluminium tube as in **Photo 22**.

The angle of each support end corresponds to the position of each folded main rotor blade. The tubes were secured to the tail boom using lengths of very fine wire turned to produce a small eyelet into which the support tube located. After carefully reviewing a number of close-up pictures, I noticed



PHOTO 23. Main rotor blades supported and deciding exactly where the helicopter should be positioned on the flight deck.

PHOTO 24. The Lynx looks quite menacing here, but more to the point, this shows where the anchor points on the fuselage are for the tie-downs.

that the supports are normally arranged in an inboard/outboard arrangement which is evident in **Photo 23**. The rotor blade supports were painted in an unexciting standard Humbrol Matt Yellow!

#### Tie-down straps

25

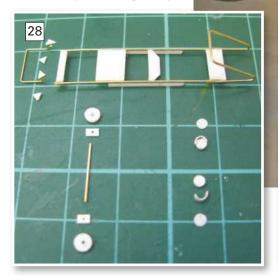
The next step was to locate where these go on the fuselage and also those for the front of the rotor blades above the cockpit canopy, **Photo 24**. Note the latter are red for Port and green for Starboard. Strips of litho plate work well for simulating the straps as in **Photo 25**. The Lynx is positioned just outside the hangar door, on the premise that it had just been pulled from stowage and pre-flight preparations are about to begin, **Photo 26**.





PHOTO 27. The four wheeled dolly for moving torpedoes and missiles.

PHOTO 28. The parts for making the dolly.



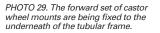


PHOTO 30. A strip of masking tape, sticky side up, helps keep the dolly frame in place.

PHOTO 31. Once assembled, the dolly was painted olive green.

PHOTO 32. Here we have the dolly and its torpedo on the flight deck in preparation for attaching the weapon to the pylon, making for quite a nice mini-diorama.

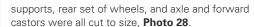


# Sting Ray lightweight anti-submarine torpedo

Part of the scenario would be preparing this helicopter for the Sting Ray homing torpedo to be installed either side of the fuselage on external pylons. For this purpose, the torpedo is transported on a small four wheeled dolly as in **Photo 27**. The torpedo uses pump-jet propulsion and is capable of 45 knots, has a range of 10000 yards and is 2.53m long whilst mounting a 45kg shaped explosive charge.

#### Four wheel dolly

This transports the torpedo from the magazine to the helicopter and is of a basic tubular design, making for straightforward construction. As always, a simple sketch was created initially that would provide a basic constructional plan. Using a length of 0.5mm brass wire, this was folded to form the main part of the dolly with the push bar at the rear folded separately. The internal bracings, push bar



The forward set of castors are steerable and therefore different from those at the rear and here in **Photo 29**, their mounts (a bit like mini-mudguards) have just been positioned on the underside of the frame. **Photo 30** is of it almost complete and just awaiting the wheels.

A brief aside here: When fixing parts of the dolly (or indeed anything), there is a simple aid to help free-up your hands. A length of masking tape, sticky side up, folded around a scrap length of timber, as in this last picture, helps no end to temporarily hold something.

Finally the two torpedo cradle supports were fixed in place and the entire dolly airbrushed in Humbrol No. 80 Olive Green with the wheels brush painted in Humbrol No. 27 Matt Dark Blue, **Photo 31**. The Lynx is actually secured to the flight deck by pins inserted into the underside of the body and painted deck grey, thus blending in rather well. The dolly plus Sting Ray torpedo was placed close to the Lynx together with a tool cabinet, **Photo 32**, and the scene is set!





#### Conclusion

Although the constructional side of the build is virtually complete, there remain one or two detail items such as the forecastle stanchions and railings, plus the warning chevrons on the RIB davits. It is surprising how much colour there actually is on a modern warship, so it is worth including and there will be a little bit about this in the next issue.

## Answer to the June 2014 MB Mystery Picture

For most warship enthusiasts, a profile that is distinctly recognisable is of course the unmistakable lines of a Type 21 frigate, in this instance the PNS Babur D182, its former name being HMS Amazon, F169. Retired from the Royal Navy on 30th September 1993, she was then commissioned into the Pakistan Navy on 18th January 1994.

Due to problems experienced during the 1984 Falklands conflict, all of the class underwent modifications to improve their hull's structural integrity. To solve this, doubler plates were fitted amidships adding 350 tons to a warship design already on the margins of stability. This was not improved when the ship entered service with the Pakistan Navy and modifications included retro-fitting four RGM 84 Harpoon surface to surface missiles forward of the bridge, a Mk. 15 Phalanx CIWS aft on the hangar roof and other weapon enhancements.

Another significant change, together with improved fire control and sensors, was the substitution of a Lynx for the Wasp helicopter.

Still in service though today with the Pakistan Navy, PNS Babur is a testament to the care lavished by the current officers and crew of this ship and I had the privilege to see the professionalism of the Pakistan Navy when aboard a sister ship in 2005.

## This month's Mystery Picture - Photo 33

The clue is: This ship has Gallic flair.

# References and acknowledgements

**HMS Warspite 1926 refit ref:** British Battleships 1919-1939 by RA Burt.

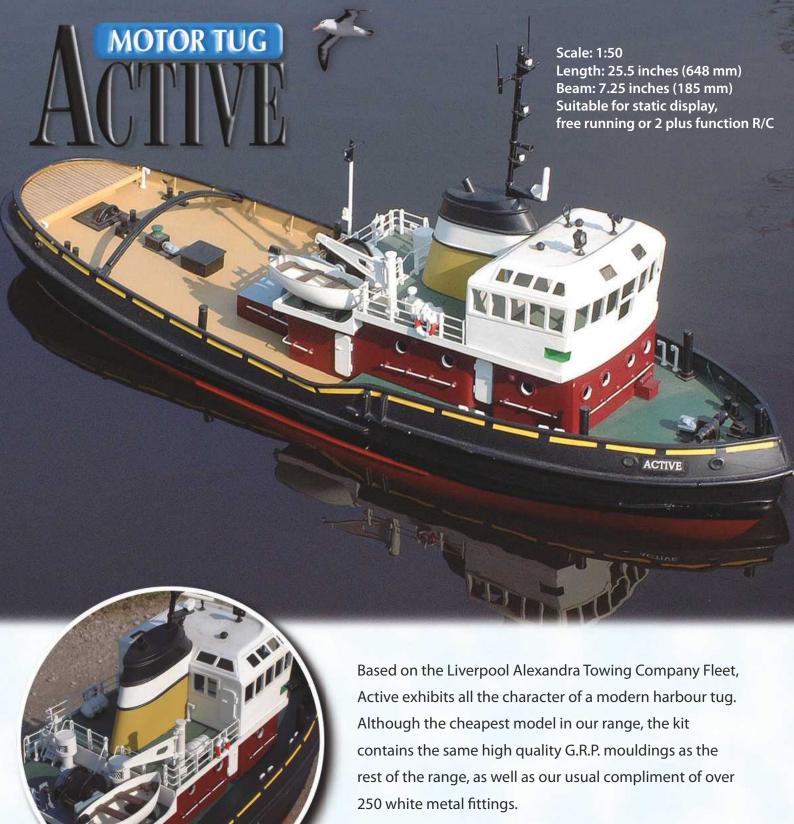
Ship's Sea Boats Manual of Seamanship, Volume 1 1915 & Volume 2, 1932.

**Type 21 ref:** Modern Combat Ships Type 21 by Captain Lippiett RN.

My continuing thanks to the **Captain and Ship's Company** of HMS Daring for their help and assistance during my visits.

My Thanks to the **Naval Regional Office** in Liverpool for their help and support. My thanks to the **Ellesmere Port MBC** for their help and assistance during the preparation and launch of HMS Daring and to the **Waterways Boat Museum** for allowing the use of their facility.

PHOTO 33. The Mystery Picture and the clue is: This ship has Gallic flair! Answer in the August 2014 MB issue.



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PHOTO 5. In bits!

PHOTO 6. The hull was generally rotten.

PHOTO 7. The hull was flooded internally with thinned glue to penetrate the wood. Strengtheners were also added to the frames.

#### **Getting started**

An external examination revealed that all the glazing strips needed replacing; the rudder needed repair; the hull filled before painting to return it to that sleek look; the rigging restrung; various curious fittings such as the nail on top of the mast(!) replaced with something more appropriate and a decent tiller constructed to replace the 'crossbow' fitting. I also decided the ugly stand needed to be modified so that it would show off the fine lines of the hull rather than dominate it all as it did at present. The construction was of balsawood planks

on bulkheads for the hull; thin mahogany strips for the cabins and bulwarks, all topped off with thin ply for all decks and roofs and all glued with a cellulose based adhesive.

The first step was to dismantle it as far as possible, removing the sails, rigging and deck fittings, **Photo 5**. The good news was the sails were in good condition apart from some staining and age discolouration. They were so nicely made that I decided to keep them, but the bad news was that the hull and cabins were rotten. A combination of water damage, poor storage and the cellulose based glue, had caused the balsa to crumble, the plywood to de-laminate and the glued joints to fail. Not looking good(!) and this became even more apparent when my fingernail went through the hull just above the keel, **Photo 6**.

#### Repairing the hull

All work now stopped whilst I considered the options. Burn it(!), give it back or take a long shot and fill the hull with diluted PVA glue and hope the balsa absorbed it such that when dried it would strengthen it all sufficiently. This last option was definitely worth a go!

The addition of Wall's Magnum lolly sticks as vertical bracing for the bulkheads completed the stabilisation attempt and **Photo 7** shows the soaked and clamped hull drying. You will have realised by now, since I have written this article about the restoration, then this method must have worked!

















BELOW LEFT: The Hovervan's basic body unit being assembled.

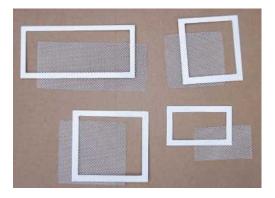
BELOW RIGHT: The basic body, sanded to shape.

here is no rest for the wicked. As soon as you have finished one Top Gear project another rears its ugly head and in this instance it was the infamous Hovervan. This was a Ford Transit converted to be a hovercraft with the addition of two large powerful motorcycle engines, fans and so on. It caused a bit of a stir in the media due to the outrageous behaviour of the craft on the water, blowing people over, tipping them out of their boats and covering everyone with voluminous amounts of spray! All good stuff and the very essence of a Top Gear project so how could I refuse a challenge like this?

#### **Ambitious?**

First things first and a cardboard mock-up was made to check the dimensions. As usual I was not building a perfect replica, but just 'a representation of', and so optimised some measurements for operational reasons. Usefully, the card model showed me that a body approximately 7 inches wide and 20 inches long would allow the fitting of a six-inch propeller for propulsion and be of a reasonable size to match my other Top Gear craft. Other measurements were guesstimated as required and the card model was used to verify them.





The window frames and their grills.

#### What we did and why

#### Basic construction.

Ostensibly there is not much to this craft as it is a plain box-like cabin (body) sitting on a flat platform with a lift fan inside plus a forward propulsion fan. It is supposed to hover, so everything has to be reasonably light and the body has been made from 6mm balsawood sheet, with layers of blue Styrofoam at the front to enable sculpting of the bonnet. The side windows were cut-out before assembly, as these are large openings covered in aluminium mesh, and they are there to admit the copious amounts of air needed for the fans. Then the entire thing was covered with fine glassfibre cloth and Deluxe Materials Eze-Cote finishing resin.

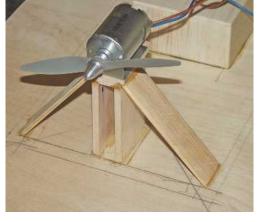
#### Painting.

Despite the outwardly smooth surface, there was still an awful lot of filling and sanding, painting and yet more rubbing down before painting with Humbrol gloss white enamel. I had to make and paint the entire van body BEFORE gluing it to the base with epoxy adhesive, as the base would have got in the way and made the rubbing down and painting tricky. Pictures of the crew were obtained with a camera's long lens and pasted in place and varnished for protection, then finally the silver wheel-arch covers were fixed in place, these being made from 6mm MDF (watch the dust when cutting this material).

#### Hovering?

Bearing in mind the hovering requirement, the very large flat platform the van body sits on has to be light in weight, and so 1.5mm plywood was chosen for this and it was cut with the outer grain running side to side rather than lengthways, so as to provide a modicum of stiffness at the sides, but underneath front and rear, two 12mm square spars were fitted fore and aft to stiffen those areas.

An oblong hole was cut in the geometric centre of this platform and a box made on the inside (i.e. above the platform inside the cabin), this being for the lift fan which is a 75mm EDF unit, held in place by what I would describe as plywood clamps. With any luck the motor would be clear of the water when not in hovering mode, but we would have to wait and see!



The forward thrust motor and its mounting.

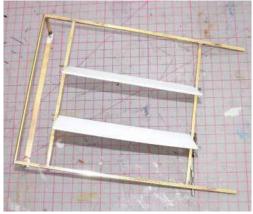
#### Forward Propulsion.

This comes from a standard 540 motor, mounted as in the pictures, driving a six inch propeller running in a duct made from 0.8mm thick plywood, initially wrapped around a plastic Dulux paint pot, glued at the ends, then covered in glassfibre cloth and Deluxe Materials Eze-Cote finishing resin. A flange was made at the inner end (a circle of 0.8mm plywood) and this assembly was then painted and glued onto the motor mounts at the body's rear, once it had been fixed to the main platform.

For the cabin (body) central roof section, a frame was constructed using 1.5mm plywood to which cross-bars of balsa were glued. This frame was painted white and then netting fixed underneath to simulate the mesh covering of the original. This frame is springy and a large tab at the front coupled with a smaller one at the rear allows it to be sprung into place. There should be railings on it, but I liked the clip-on easiness of it all and so didn't bother to fit them.

#### Steering.

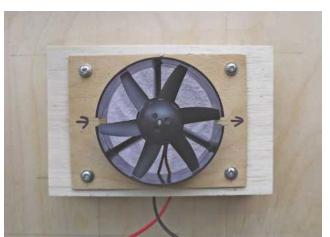
This is effected, mostly by luck it has to be said, by two large flaps running in the propeller's slipstream, held in place by a frame-like affair constructed of 3mm brass square section and tube, somewhat similar to the full-size original. Both flaps are tied together by 0.8mm stainless steel MIG welding wire (as you do!) and linked underneath the propeller duct to a servo in the normal manner.



With any luck the motor would be clear of the water when not in hovering mode...



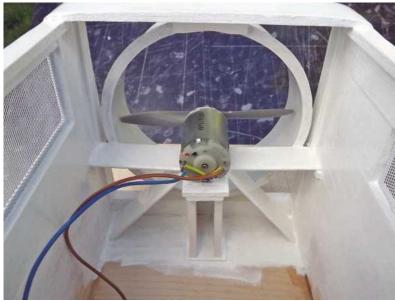
LEFT: The rudder assembly looks a bit 'Heath Robinson', but actually works quite well.





## special feature







ABOVE LEFT: Inside the main body unit, looking aft.

ABOVE RIGHT: A rear view of aft end of the cabin body unit.



RIGHT: The Armaflex skirt in the jig, ready to be fixed to the main platform.



#### Skirt.

This was my first hovercraft, and I elected to use foam pipe insulation for the skirt, this being Armaflex black tubing of 37mm diameter. This is almost like neoprene and bends around tight corners, similar to those of this Hovervan platform, very nicely and without distortion and it was fixed in place using the special Armaflex impact adhesive. This was one of the major successes, as much thought was given to fixing the skirt to the body evenly and as always, it is worth checking the manufacturer's website as quite often they produce especially dedicated adhesives. You only have to ask!

To get everything in the right place, the idea of a temporary frame to hold the skirt in position in the right shape was pursued and this frame had guide blocks fitted to align the Armaflex tube with the main body. After having agonised for some time as to the correct technique to employ, the actual operation took about 15 minutes from spreading the proper glue onto the Armaflex tube and lowering the body into exactly the right place. The lesson again, is that quite often special adhesives for special products are available from the manufacturer.

### There were three good reasons for using this foam for the skirt.

One is that it is easier than making a proper bag or finger skirt out of nylon material.

Second, it looks very effective once painted in Eze-Cote, Humbrol orange paint and then lined-in with a fine indelible pen.

Third, it added buoyancy to the base unit.

In point of fact, this third feature was the most important reason as those big long black tube-like bags on the sides of the original were to stop the craft sinking, but unfortunately if mine got this low in the water and just floated on 'air-bags', it would be too late to save the power equipment on board. So, the foam tube skirt enables the model to float without lift thrust, whereas if the model had a normal hovercraft skirt, then it would surely sink.

#### Finishing off

Finally, a few details like the front and rear number plates were added. Completely by chance, the rear

reflector material was left over from the Lotus 007 project previously in this magazine (January 2014 MB) and it looks very correct. The rear lights on the towing board are squares of fluorescent Perspex and as the sides have been 'matted' with wet & dry sandpaper they pick up the ambient light and look just like they are lit from behind!

#### What went well?

The card prototype looked very workmanlike!

#### What didn't go well?

First, the side black floatation 'sausages'. These are the big black inflatable rubber fender-like objects fitted either side to allow the original van to float, or perhaps more correctly, not to sink too much! I estimated that a three inch diameter tube would be about right, but we were up against it with the weight. Not perhaps absolute weight, but its height above the baseplate was more the worry. I tried foam pipe lagging as this appeared to be ideal, being light and approximately the right size, but it



TOP: Platform and body being glued to the Armaflex skirt.

ABOVE: Armaflex skirt is now firmly fixed in position with the special glue.

BELOW: An underneath view of Hovervan. Note the fore and aft support strips.



#### special feature



RIGHT: Inside the body unit.

FAR RIGHT: Hatches off the battery and r/c compartments.





would not stay straight after sealing and painting, looking more like an overripe banana! I could not find any sort of plastic tube light enough, so eventually settled for cardboard tubes as used for posting rolled model boat plans.

These tubes were trimmed to length and capped at each end with three inch expanded polystyrene spheres that had been cut in half. In the flesh, they look okay, but the card spiral winding pattern is slightly visible and I could not sand this out as the card would just rip. This is not noticeable at normal viewing distance or when covered in water spray, which is after about 30 seconds on the pond!

Second: The all-important HOVERVAN lettering on the side, just in case anyone was in any doubt as to what they were looking at! This has a particular square lettering style and I was pleased to be able to reproduce this on a Word document and test print it on paper. I found some Letraset clear self-adhesive sheets and printed the lettering directly onto this, stuck them on the sides, admired the effect and then found that they were not waterproof and promptly peeled-off after the first water test! So, Plan B was initiated and some off-white paper obtained, printed, stuck on and varnished. Not the best job in the world, but adequate and not affected by the spray.





Third: Hiding all the internal parts in the van body? The real thing had two large and powerful motorcycle engines in its rear load area, with all the attendant plumbing and so on that goes with them. In the model's van body there is a small box with one fan, a round electric motor and a few wires. Worse still, all this is on view as there is a see-through mesh top on the body. So, unless I was to 'fake' two engines and all the plumbing, which might not look particularly convincing apart from adding unnecessary extra weight, simply hiding the esc's and wires would have to do, within plain side cupboards next to the fan box. These also double as waterproofing for the electrics to some degree, as once on the move there is water everywhere - back to the 30 second window of opportunity again!

#### Will it fit in your garage?

#### A few vital statistics:

Van body: 200mm high, 185mm wide and

500mm long.

Hover platform: 375mm wide by 700mm long **Skirt:** 37mm Armaflex black foam pipe lagging tube. Side floatation bags are 75mm diameter and 700mm long overall.

Lift fan: A 75mm EDF unit; propulsion is an ordinary 540 motor (MFA and definitely not the low powered version) with a 6 x 4.5 propeller.

Battery: 7.2v 4300mAH battery.

Weight: 1.97kg with battery and fully equipped Top speed: Sorry to admit it, but this is minimal -

i.e. quite slow!

#### It can't be that difficult?

For the first test the lift and thrust were linked, so half-throttle would be half-lift and half-thrust. This is not as silly as it seems, as this conserves battery life when not going fast, and to my great delight I had already discovered that the craft floated(!) to the level of the platform, so the EDF unit was above water when at rest and the craft could float about on its own, while we all had a chat at the pond side. You can see that there is no shortage of lift as even on very small throttle openings the van rises from its low position (skirt underwater) to sitting on top of the water with air gently puffing out from under the skirt. Unfortunately on anything approaching half throttle, the craft pitched wildly and the leading edge started to dive underwater!

Back at the top-secret Top Gear workshops, we fitted a simple on/off switch to the lift motor



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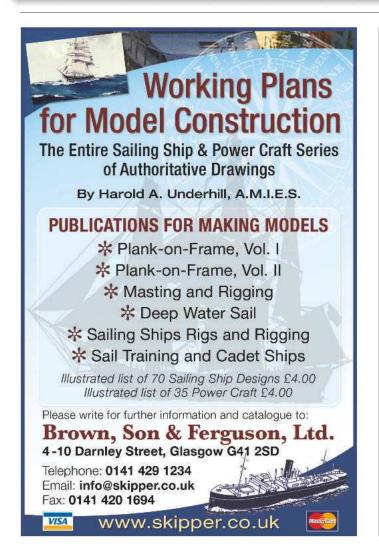
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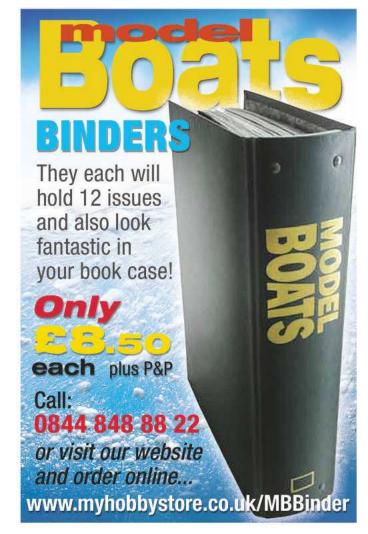






Normandie..... RMS Mauretania.... Edmund Fitzgerald...







# Spring Model Boat Show

Dave Wooley reports from the National Waterways Museum, March 2014

ABOVE: The Upper Lock where models could be put through their paces.

BELOW: The dock system was slightly changed from 2013, but still a challenge. his is the fourth year that this museum at Ellesmere Port has hosted this March model show and for 2014 it was on the 1st and 2nd of the month. Many residing in the North of the UK will be familiar with this venue and the events held there. The location and the maritime history surrounding the site makes this a unique venue and an opportunity to bring model boating to the general public. In collaboration with the staff of the museum and the Canal and River Trust, Ellesmere Port MBC have worked tremendously hard in recent years to create and enhance this annual Spring event.

The Waterways Museum is close to the Manchester Ship Canal at Ellesmere Port, but the



site pre-dates the Industrial Revolution and it was a functioning canal terminal up to the 1950's. From the late 1960's, and with inspiration from authors such as David E. Owen, an army of volunteers worked for more than 15 years to reverse the decline of the site and reinstate many of the locks and gates, buildings and the surrounding grounds to become a working heritage museum.

#### The event

A good barometer of an event's popularity is how fast the car parks fill! Well, by 9.30am on the Saturday, the main car park was full and overflow facilities were having to be used. Much of the museum site is used for the event which includes the Island Warehouse where all of the traders are located, plus a number of clubs. More clubs and the David E. Owen Competition were housed in the Boat Hall and Tom Rolt Centre. This year, some extra space was allocated to model tanks, trucks and earth moving vehicles, including an amphibious element.

All of the on the water activities are held in the Upper Lock area and as previously, the organisers worked very hard to ensure that the dock system was up and running and their huge 15ft long 'tows' were ready for this weekend event. This is a major undertaking and when you see these large models being handled through the dock system and out on to open water, you really appreciate the skills involved. The water conditions on the Upper Lock were perfect over the weekend and as a result just about every type of model, from sail to steam, provided a continuous moving display for the visiting public and us modellers alike.



ABOVE: USS Columbus was awarded a Gold medal and Best in Show - a worthy winner. INSET ABOVE: USS Columbus' aft twin arm Talos launcher. The launcher loading doors can be seen at the rear of the deck housing.



ABOVE: Detail from USS Columbus.

BELOW: Marks Model Bits have introduced four sizes of inflatable boat.



The superb Titanic and Lusitania models built by Bill Lucy.

#### **Trade**

A good turnout and trade was brisk from what I could see! Too many to list here, but notably, Macs Mouldings have created 1:12th scale crew gear and Marks Model Bits now has a series of RIB's in differing sizes. The overall trade support was well balanced with modeller's needs being adequately covered, or to put it another way, I got what I wanted!







ABOVE LEFT: St. Helens & District Model Boat Club had a well balanced display. ABOVE RIGHT: The Lifeboat Enthusiast Society are stalwarts of model boating events.

#### show report



ABOVE: Something new from Mac's Mouldings.

BELOW: Tugs and some of their skippers; Nick Radcliffe and John Pollitt of Balne Moor MBC.



#### **David E. Owen Competition**

This is for static judging of models to a set standard in different categories, not unlike that at the MyTimeMedia Model Engineer Exhibition and Naviga C Class events. The overall quality of the models was high and a newcomer to Ellesmere Port was Brian Clewes with his model of the Essex oyster catcher Betty CK145, which was awarded a Bronze medal. John Williams presented a model of an armed trawler, a type prevalent

during WW2, and although having the fictitious name of Sea Lord it impressed the judges enough to be awarded a Silver medal. His model oozes character, especially the galley with its galvanized bucket loaded with spuds, a very nice touch.

Silver medals also went Chris Behan with his outstanding model of a Soviet Navy Zubr attack hovercraft. Another regular to the competition was Paul Bannon with his latest project, a 1:144 scale USS New Jersey in its 1980's guise complete with elevating and opening Tomahawk missile launch boxes. Entering for the first time was Paul Blyth with his model of the nuclear powered missile cruiser USS Long Beach, which also achieved a well-earned Silver medal, but the Gold medal and the Best in Show award also went to him with his impressive 1:96 scale model of the converted Baltimore class cruiser USS Columbus, a first generation US Navy missile armed warship. Gaining an award in the David E. Owen Competition is an achievement and it is certainly worth entering if you have nothing else planned for 2015?



Competition winners: Left to right Paul Blyth; Brian Clewes; John Williams; Paul Bannon; Chris Behan; Dave Melville; John Hughes (organiser) and Jimmy Wood (judge).

#### Saturday evening sail

This is now very much part of the event. All the dock system, the locks, dock buildings and bridges were illuminated, setting the scene for the huge tows and the tugs operating under night-time conditions. The host club provided refreshments and the company of visitors from as far afield as Jersey to the South and Glasgow to the North made it a great evening.

#### **Conclusion**

This March event is becoming more and more popular and not just with the North Western UK model boat clubs. The venue of the Waterways Museum has much to commend it, not least because apart from the models, there is the museum and its exhibits to view. The host club are really enthusiastic and keen to make it 'alright on the day'. This year the visitor numbers were more than expected, particularly on the Saturday, so the in-house catering was working at full stretch trying to cope with the hungry and thirsty modellers as well as the general public. Perhaps the lack of a major model boating show in the North West of the UK between Blackpool in October 2013 and March 2014, meant that modellers got withdrawal symptoms and turned out in greater numbers than ever! Please see these pages for dates of the 2015 event when confirmed.



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## Flotsam ZJetsam



John Parker delves into the archives

### 16: Signalling Equipment Limited

ne of the English companies that prospered in the post-war years was Signalling Equipment Limited, a subsidiary company of J & L Randall Ltd. of Potters Bar. The name came from their principal product of the war years, a Morse code training outfit consisting of a buzzer, key and battery on a wooden base. When the war ended they were quick to put on the market a range of technical toys including electric motors and a steam engine intended for model boat use, all emblazoned with their SEL script logo that, due to the central position of the S, is often misinterpreted as ESL. SEL placed regular advertisements in Meccano Magazine during the years 1945 to 1955,

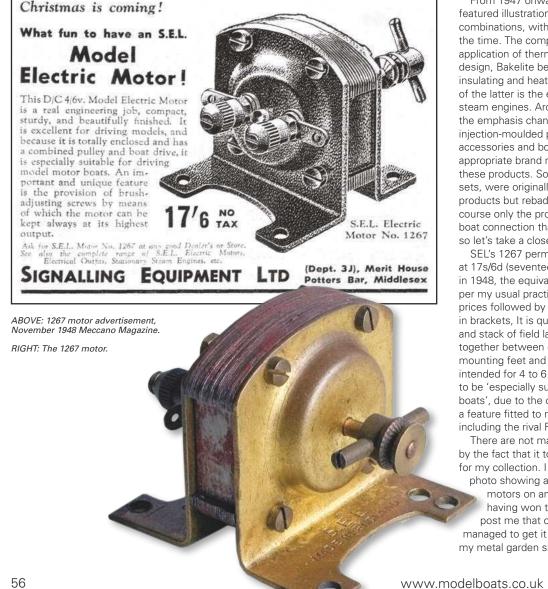
and these provide a ready means of tracing the company's product development.

Turning to the 1945 issues, we see advertisements telling of what was to come as the company made the transition from 'From War to Peace'; early 1946 advertisements list some items that had been on sale from as early as Christmas 1945 and made more specific promises of the products that were to come in the months ahead. These soon began to appear in a bewildering variety: electric motors, a generator, stationary steam engines and workshop machine models. transformers, an induction coil, electrical outfits, a steam engine for a model launch, a pocket compass, signal lights, optical products such as microscopes, binoculars, viewers, a film strip projector and kaleidoscope, tool outfits and so on.

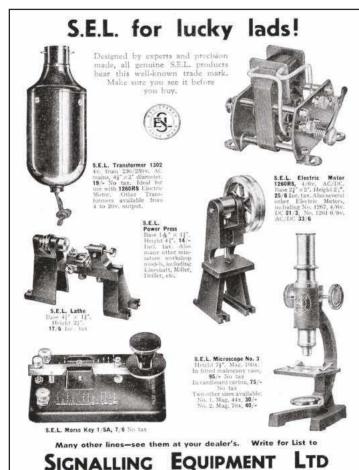
From 1947 onwards, SEL advertisements featured illustrations of their products in different combinations, with new additions coming all the time. The company had expertise in the application of thermo-setting plastics to product design, Bakelite being used for both its electrical insulating and heat-resisting properties. An example of the latter is the engine bed for the stationary steam engines. Around the middle of the 1950's, the emphasis changed from technical toys to injection-moulded plastic kits, toys, puzzles, railway accessories and board games, and the more appropriate brand name of Merit was applied to these products. Some items, such as the chemistry sets, were originally developed and branded as SEL products but rebadged with the Merit name. It is of course only the products with some sort of model boat connection that we are concerned with here, so let's take a closer look at those.

SEL's 1267 permanent magnet motor was priced at 17s/6d (seventeen shillings and six old pence) in 1948, the equivalent of about £26.95 today. As per my usual practice, I will now quote the original prices followed by the 2012 inflation-adjusted price in brackets, It is quite a neat item, the two magnets and stack of field laminations being clamped together between end cheeks that incorporate the mounting feet and adjustable brush gear. It was intended for 4 to 6 volt battery operation and said to be 'especially suitable for driving model motor boats', due to the combined pulley and dog drive, a feature fitted to many small motors at this time including the rival Frog Revmaster.

There are not many 1267's around today, judging by the fact that it took me ten years to find one for my collection. I spotted it in the corner of a photo showing a scruffy pile of cassette-player motors on an Internet auction site and having won the auction, told the seller to just post me that one and throw the rest away! I managed to get it running, but can only do so in my metal garden shed as otherwise its interference



THE MECCANO MAGAZINE



(Dept. 3), Merit House, Potters Bar, Middlesex

ABOVE: Meccano Magazine advertisements from January 1951 (left side) and August 1950 (right side). RIGHT: The 1260 motor.

### S.E.L. Summer Companions!



Many other lines!

SIGNALLING EQUIPMENT LTD

(Dept. 3), Merit House, Potters Bar, Middlesex

is sufficient to wipe out television reception in the area! Apparently SEL sold a wooden model speedboat powered by this motor, but that's even rarer than the motor and does not appear in their advertising. By January 1951 the price of the 1267 had risen to 21s/3d (£28.30) and, I believe largely due to the imposition of British Purchase Tax, to 27s/6d (£36.60) by November of the same year, quite expensive for a small motor and possibly the

explanation for its rarity today.

Much more common is the larger 1260 motor, a series field-wound type for 4 to 6 volts AC or DC. Its configuration is similar to that of the mid-size Taycol motors that appeared some years later, though it was not as powerful. It doesn't really have anything particular to recommend it for model boat use, but judging from readers' letters to Model Boats and forum postings on the Internet it seems that quite a few of these motors went to sea. The 'RS' version came with a reversing switch, but being a wound field motor, this still required the user to reverse the battery polarity as well as throw the switch. In January 1951, the 1260 motor was priced at 25s/6d (£33.95). The 1261 was a more powerful 6 to 8 volt AC/DC twin-field version of the 1260, using some of the same parts and mounted on a Bakelite base. It was priced at 33s/6d (£44.60) in January 1951 and most likely to have been put to use driving a Meccano model. Completing the quartet of SEL electric motors was the 1262 which also came on a Bakelite base with a horseshoe field winding for 4 to 8 volt AC/DC. This motor survived to become the Merit 1262 in the 1960's, fitted with a permanent magnet.

The all-metal 'Miss England' 13.5 inch (343mm) speed boat model, priced at 28s/6d (£43.85) in SEL's April 1948 Meccano Magazine advertisement seems strangely out of place amongst the other technical toys. It was in fact an outside product

made by Victory Industries, marketed for them by J & L Randall due to the legal difficulties Victory Industries were facing with the use of 'their' name. It was 'twin-jet propelled' by means of a simple methylated spirit fired 'pop-pop' reaction engine. Later this product returned to its parents and was sold as the 'Electra', fitted with a Mighty Midget electric motor.

SEL's 1560 Steam Launch Unit was, as its name suggests, intended strictly for use in a model boat. It appears in their August 1949 advertisement priced at 15s/2d (£22.70). A single-cylinder, single-acting engine, it is quite nicely made using cast brass parts, the upright frame being bolted to the bed. The small diameter flywheel, extending below the engine bed, marks it out as a true marine engine and it provides a quite lusty performance for such a simple engine when provided with an adequate supply of steam. To this end, SEL listed suitable boilers in their August 1950 advertisement: The Standard, 105cc capacity, for 12s/0d (£17.40) and the Major, 127cc capacity, for 14s/3d (£20.70). I presume these were identical boilers to those used in the stationary engines that carried these names, though they remain a bit of a mystery as they were not illustrated and as far as I can tell, soon disappeared never to be mentioned again. Later advertisements (for example, February 1952) mention only the engine.

There is one intriguing clue here as 1954 to 1957 issues of American Modeler magazine carry an advertisement by the Allyson Company for a 'Steam Engine for Model Boat'. Anyone familiar with the SEL marine steam engine, or the distinctive SEL brass funnel, twin-wick burner, displacement lubricator and boiler design





ENGINE

BELOW: Steam plant

advertisement, January 1957 American Modeler.

recognise these items in the advertisement.

Together, they make a sensible complete steam

plant for a model boat, rather than the engine-only

28" in length. Safe, fitted with safety valve; easy to start, just fill lamp with alcohol and the boiler with tap water, starts within five minutes after lighting burner. Runs for twenty minutes.

ENGINE: Single cylinder, single action, oscillating type. Light weight, precision made, very powerful, built to the highest standards of polished and cast brass. Drive shaft is of steel. Size of base: 1%"x14". Height: 2½". Net weight: 6½ ozs. BOILER: Strongly constructed, fitted with base, whistle, safety valve, and filler cap; two burner

mp, and funnel supplied with unit.
Oil reservoir fitted in steam pipe line. Total weight of steam plant 1 pound.

Price including postage \$15.45 ALLYSON COMPANY 910 WATERTOWN STREET

WEST NEWTON 65, MASS.

for export?

With declining interest in traditional toys, J & L Randall ceased production of their steam engines in 1965. Most of the other technical toys had also gone by then, and the Merit name had superseded SEL. Mamod, long-term steam competitors, bought up the remaining stocks of the Steam Launch Unit and fitted them to their own boiler and base to create the Mamod ME 3 Marine Steam Engine. The conventional wisdom seems to be that the Mamod boiler is not up to the job of providing the ex-SEL engine with sufficient steam, in this roundabout way slightly tarnishing the reputation of what was once a rival engine.

The J & L Randall company was bought by Letraset in 1978. Today, the SEL name is recalled only by collectors, but deservedly so I think. I have a mental image of their designer working away at his drawing board, the war still nearly a year from its conclusion, putting conceptual form to the electrical and mechanical toys that would fascinate a generation of young people once peace returned.



At the NEC Birmingham Collectors Toyfair all sorts of toys, models, books, materials and tools are sold, including vintage model boats and accessories as well as diecast vehicles of all types and scales.

The **NEC Birmingham** Collectors Toyfair is being held on Sunday 28th September 2014 at the National Exhibition Centre, Birmingham, This is a major event for model collectors and is supported and promoted

by Model Collector, our sister magazine. Many model boating enthusiasts have an interest in all things to do with all models, so we are pleased to extend that magazine's offer to our Model Boats readers.

#### Marriott Forest of Arden Hotel Golf and Country Club

Model Collector and Model Boats readers can take advantage of spending either the night before the fair (Saturday, 27th September) or the night of the fair (Sunday, 28th September) in the luxurious surroundings at the Marriott Forest of Arden Hotel Golf and Country Club at a very special rate. The hotel is offering overnight accommodation for two in one of its 214 splendidly appointed and fully equipped double en-suite rooms, with full English breakfast, use of the extensive leisure facilities and free car parking for the special rate of just £99. To take advantage of this great offer, simply call The Marriott. tel: 01676 522335; select Option 1 and quote LOPR. The rate is

subject to availability at the time of request.

For more information about the hotel please visit:

www. forestofarden.co.uk

#### **Free Competition** in Model Collector magazine

In the July issue of Model Collector magazine, on sale in the usual high street retailers, there is a free to enter competition to win one of these overnight stays at this hotel. It is on Pages 22 and 23 of their July 2014 issue so you could if you wish, enter the competition using the printed form in that magazine and perhaps win the free overnight stay at this prestigious hotel!

Please note that entries close on the 11th July 2014.



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AVIATION, NAVAL & MILITARY ART SPECIALISTS



British Pacific Fleet - 1945 by Roger H. Middlebrook GAvA Open Edition available in 3 sizes from £24.00



Awaiting Fate - Bismarck by John Stewart Open Edition available in 2 sizes from £24.00



HMS Warspite by Anthony Cowland FGAvA Ltd Edition of 120 - £48.00



The Broken Lines by Richard Grenville Ltd Edition of 120 - £72.00



Force 'H' 1940- HMS Hood by Roger H. Middlebrook GAvA Open Edition available in 3 sizes from £24.00



Victorian Splendour - HMS Magnificent by Roger H. Middlebrook GAvA Open Edition available in 3 sizes from £24.00



LEFT: A good example of manufactured stove enamel. Hemmens' engines were supplied with a stove enamel finish on the engine and much of the auxiliary equipment was supplied to match, making for a very attractive

a very attractive plant. This finish is a bit trickier for the home hobbyist to apply and bake.

RIGHT: One option available to us, and not mentioned in the text, is to simply do nothing! Let the beauty of the engineering speak for itself as in this home built engine



## Boiler Room

## **Part Forty Three: Finishing Your Engine**

Richard Simpson's series on model steam plants



ne point that regularly seems to get overlooked with steam engines is the way you finish it. This is whether you are building your engine from plans, a kit, or if upgrading and personalising a new or secondhand engine. There are no real hard and fast rules with the finish you choose, but I thought I might show a few possibilities and perhaps provide a bit of food for thought.

Building your own engine of course gives you complete flexibility right from the start, whether it is from a plan or a kit, and it is best to know what you want to do before you begin. This is necessary, not only to decide on what parts you might want to paint, but more importantly, what areas of a

part may require masking so that you do not paint surfaces that need to remain paint free. It might be however that you are reconditioning an engine or maybe just making a manufactured engine more to your personal preference, but exactly the same considerations need to be thought about, so the engine should be stripped down, cleaned and prepared for painting in just the same way as a built engine. Let us start then by considering the options for metal finishing so we can decide what finish might be best and for which part.

#### **Materials**

Those who have read the last two Model Boats Winter Special Editions will remember what has been discussed as regards different metals and their properties. The first thing to consider therefore is whether a particular piece requires a coating to prevent oxidization, or whether it can be left as natural bare metal. Ferrous metals require help to prevent them from oxidizing and most engines will have steel piston rods and crankshafts. Painting a piston rod is never going to be an option as it has to pass through a seal, so in this case we rely on keeping the part well oiled and usually make them from a high chrome steel to slow down the formation of rust. Consequently running parts such as these are best left clean, polished and well oiled. Other parts of the engine that are made of brass or copper may well be best simply polished as they do not need to be protected from the effects of oxidization, so you have the option of polishing, painting or any other of the finish options we are going to look at now.

#### **Polishing?**

The first and possibly simplest option is polishing. Brass and copper lend themselves to this process easily as they both polish easily and look superb when properly buffed, but polishing is also an



www.modelboats.co.uk

**Model Boats July 2014** 

A good example of running gear from a Stuart Turner 10V engine. The brass

crankshaft has been cleaned-up with a

wire brush. In this case it was felt that the character of the engine would be

lost if perfect finishes were achieved,

so care was taken not to overdo the

metal finishing.

rods have been polished and the

option for ferrous metals. Polishing will take the form of using an abrasive paste or abrasive wheel to generate a consistent finish on a part. When that finish is achieved, a finer grade abrasive is used to create an even smoother finish. This process can be continued until the finish is very fine indeed and the abrasive is no more coarse than a standard liquid metal polish. The main disadvantage of polishing is that you are actually removing metal, so care must be taken not to affect the part's fit or the running surfaces with this process. The main advantages are that it is a simple and effective process and in the case of copper in particular, that metal is soft enough to usually be able to use nothing more than liquid metal polish right from the start. Brass and copper both look really good when polished, particularly when used in conjunction with other

#### **Painting?**

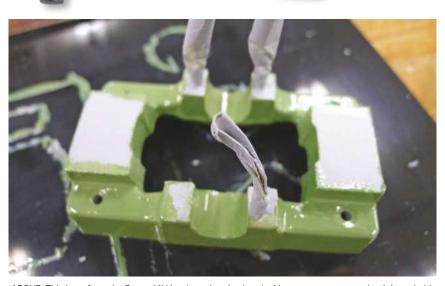
painted components.

Painting is of course a huge subject so we are only going to scratch the surface here (a bit of a pun there!) and mention a few of the advantages, disadvantages and points to remember. Your first consideration is the paint type and basically for home hobby use you have acrylics, enamels, epoxy paints and stove enamels. As paint seems to be going through something of a revolution, driven mainly by environmental concerns, standard enamels and the hear resistant stove enamels seems to be becoming much harder to obtain. Even manufacturers are having to turn to water based paints for their products, although on the plus side technology is progressing quickly and water based paints are getting better all the time. Although stove enamel will probably give you the most resilient surface, it is not the easiest to apply and then of course the part has to be baked in an oven. This requires either a dedicated hot cabinet or a sympathetic wife! My own preference for painting is car body paint, ready supplied in spray cans from your local car body parts supplier. There are very convenient to use, come in every colour imaginable and are incredibly easy to use to obtain a good finish. I would however suggest a good primer be used first, preferably an etching primer to give the best adhesion to the metal, before a couple of top coats of the gloss paint.

The advantage of painting is of course the huge range of colours available as well as it will help to protect ferrous surfaces, but the disadvantages are the effort required to apply the paint as well as perhaps the cost. However, achieving a good paint finish is very satisfying and when used in conjunction with polished surfaces can give you a very attractive engine for either static display, or in a working model. I have also used epoxy coatings, but these are difficult to obtain and come in a limited range of colours as well as being quite tricky to apply. They can only really be successfully sprayed using professional industrial equipment, so you are domestically limited to brush painting.

#### Blackening?

This is a process that uses an acid based chemical bath, which varies in chemical composition depending on the material being treated, to



ABOVE: This base from the Stuart 10V has been hand painted with a two part epoxy paint. It is probably the hardest finish to apply to an engine and the colours are limited and application is very tricky. Note all the mating and running surfaces have been masked-off to keep them free of the paint.

stain the surface of the metal. Kits are available to the hobbyist, but the process requires a degree of experience to get it all just right and the chemicals are quite unpleasant. The bath obviously coats all areas of the part, but it does not add or remove material, so it should not affect 'a fit' or the running surfaces. It is also a bit limited in the resultant effect as you have the option of black, or black! Some modellers like the idea of a dirty looking engine in a scale model without having to use paints, and you can just stain the moving parts such as the crankshaft and piston rods.

haft and

Although all of ferrous metal, these items have only been cleaned, avoiding a high polish that may spoil the authenticity of the engine. The cylinder cover is 'blued', which is another form of protective coating beyond the usual capabilities of the home hobbyist but is very similar to acid based blackening.

#### steam basics

RIGHT: Two takes on Stuart Engines. The 10V on the right has been painted with epoxy paint with car body paint on the chain wheel as well as other polished and cleaned-up components. The D10 on the left however has been rubbed with graphite to maintain the realistic 'old' steam engine look and no other finishing has been applied. The graphite will need regular topping-up and a bit of help from the well oiled engine!

BELOW: Pre-planning and preparation is the key to a successful paint job. These parts have been masked before being sprayed with two coats of an etch primer and two coats of car body paint. This is generally an easy enough process and within the reach of us all. Care should be taken with spray paints though to ensure adequate ventilation and any overspray being controlled.



#### **Graphite?**

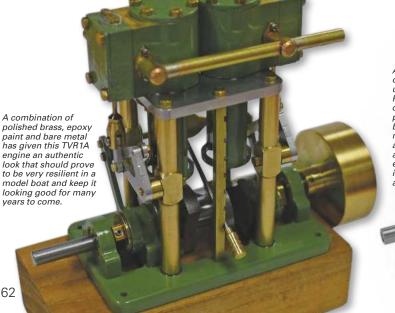
Instead of using paint or oil to protect a ferrous surface, I have in the past seen modellers who have simply rubbed powdered graphite into the surface of the metal. The challenges are the fact that the

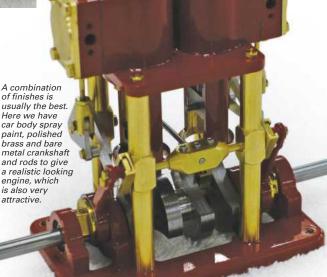
graphite continually rubs off, so is not the most resilient of coatings and this then allows rusting to occur. Graphite is a lubricant in its own right, so a liberal coating on an engine does help to protect all surfaces and it can look very realistic from a scale modeller's point of view though.

#### **Conclusion**

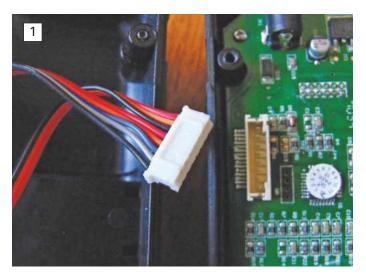
As with so many aspects of steam modelling, there are many considerations to take into account when choosing a particular means to an end, and finishing your engine is certainly one of them. Bear in mind the metals you are dealing with as well as the ease of application of the desired finish before considering just how the final combination will look. You may even want to modify your intentions based on whether you are building a display piece or a functioning engine. Paints and varnishes may seem like a good idea initially, but quite often polishing or simply just cleaning is enough to do the job and keep the engine looking good and operating reliably. My suggestion though is to not be tempted to paint everything, as it will almost certainly spoil the look and may well lead to an unreliable engine.

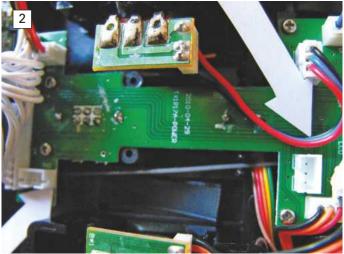






**Model Boats July 2014** 







## Planet T5 & T7 transmitter conversion

Colin Vass installs the Robbe Futaba Twin-Stick dual motor control unit

decided to carry out this conversion on my Planet transmitters, because having owned for many years the Robbe Futaba F14 NAVY Twin-Stick 40MHz system, I have found the twin-stick motor control very useful, although I appreciate that many model boaters use twin motor mixers as their personal preference for improving manoeuvrability.

The major set back with the F14 system, which is only available on 40Mhz, is really its cost which can be over £200 in the UK. There is a company in the USA that do conversions as a very expensive option, but I thought I would have a go myself and it has all proved quite straightforward. The description of the conversion and photos in the following text, is only suitable for the Planet T5 or T7 transmitter and anyone wishing to carry out the process do so at their own risk, but it has all worked okay for me. Remember of course that the warranty will be also null and void as soon as you start cutting wires etc.

#### What is needed?

A Planet T5 or T7 transmitter obviously and the Robbe Twin Stick Module, Part No. F1564. Model Boats do occasionally offer a free Planet T5 as a subscription incentive, so that can be a good place to start as arguably it will have cost you nothing!

Sourcing the Twin-Stick unit is up to you, but I recommend obtaining a guaranteed original part from for example, Alexander Engel, website: www.engel-modellbau.eu where it was at the time of writing, priced at 111 Euros plus p/p. So, if you have got your free transmitter from Model Boats, for another approx. £95 you can end up with a five channel 2.4GHz twin-stick Planet Transmitter. Well not quite that simple, but we are getting there, and why the Planet Tx? Well, the four fixing points on the front of the case for each stick unit match exactly the fixing holes of the twin-stick unit, which is one major hurdle overcome.

A general warning here is not to touch or drop anything on the main component board as you

could cause damage to the electronic components and care must be taken to prevent static discharge which cause damage.

#### **Planet T7 conversion**

The same will apply to the T5 type, but here I am using the T7. First job is to remove any installed batteries and then undo the six screws that hold the back of the case in place and carefully remove it. Unplug the connection from the board, Photo 1, and then looking inside the transmitter, unplug the two connections from the left dual axis stick unit, Photo 2, which of course is actually on the right as you have the transmitter face down on the bench. Then remove the four Allen screws on the front of the case holding the stick unit in place.

Establishing which way the replacement twinstick unit goes in is simple. Looking at the unit's two levers, the push-in-bar that locks them both together should be on the left, so mark the top of the module with a piece of tape (here it is the CE sticker) as it will help with assembly, Photo 3. You might want to do the same inside the TX body as we can all get mixed-up sometimes when working back to front and inside out!

On the Robbe module, unscrew and remove the two little screws holding the plastic control levers in place and put to one side for refitting later. The next operation will be more involved, so don't rush it and keeping all the relevant parts together for both the original unit and

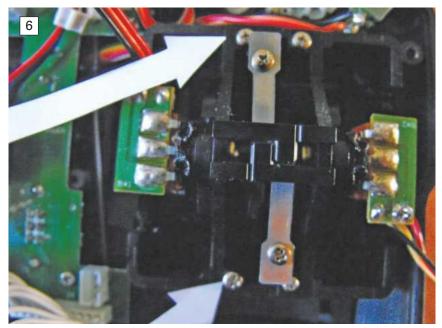
Robbe part. Taking the Planet unit first and screw down the two tensioning screws

A general warning here is not to touch or drop anything on the main component board as you could cause damage to the electronic components...



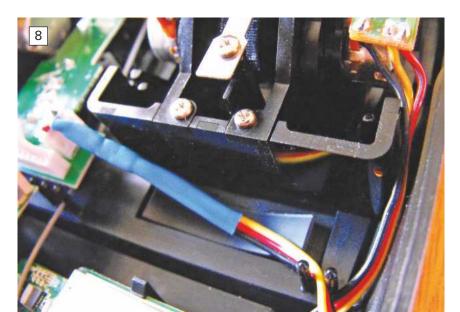








and remove the springs and self-centring cams which will not be needed with this conversion, **Photo 4**. Then, remove the four screws holding the side and bottom plates together with their potentiometers, **Photo 5**, and keeping the unit with the marked top upwards, remove the left-hand potentiometer and plate and then remove the bottom one and put to one side. Remove the two screws and two friction ratchet plates from the new Twin-Stick Module and then remove the four screws holding in place its potentiometers and plates, **Photo 6**. Carefully, but with a little pressure,

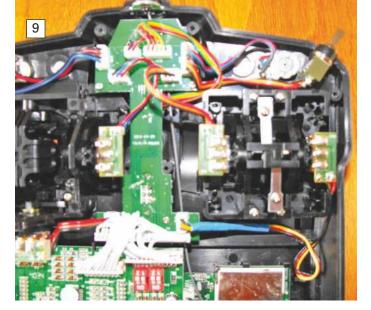


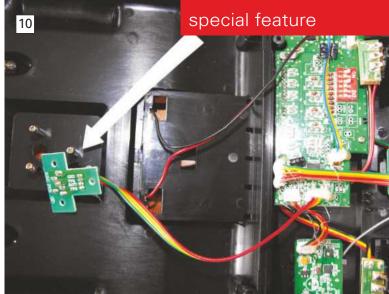
prise and push out the plates and levers together, keeping a note of their position for refitting.

Taking the removed parts, keep them left and right handed. Take the left-hand parts, prise off the control stick from the shaft of the Robbe part (noting the way it fits), then undo the nut holding in the potentiometer with pin nose pliers from both parts. The sub-trim plate will also come away on dismantling, but just make sure the correct one is replaced and only use the Robbe parts. On examination it will be noticed that the potentiometer from the Planet Tx has a longer flat shaft and this will have to be filed or machined down to match that of the Robbe unit. Why do we have to do this? It is because the potentiometers from Robbe have different values and will not work with the Planet Tx. Remove 3mm across the flat face and 2mm from the end of the shaft keeping both areas flat and even, Photo 7.

It will also be noticed that the size of the nuts and thread are different, so keeping the relevant parts together, take the machined down potentiometer and refit onto the Robbe sub-trim and plate, making sure all the plastic parts line up and the metal tab on the potentiometer case fits in the hole in the plate. Refit the nut, tighten it carefully, and then put back the control stick, noting which way it was removed as it only fits one way. Now do the same procedure for the right-hand parts.

Before re-fitting the potentiometers and plates together as a complete unit, the wiring must be extended on the right-hand one, Photo 8. Un-solder the plastic connector from the board on the potentiometer and cut it off. The wires will be soldered back directly to the board (make a note of the colours and where they go). Take a piece of three wire servo lead 100mm long and join it to the unsoldered piece, either individually with soldered joints covered with heat shrink, all over-wrapped with a larger diameter piece of heat shrink, or by any other means you may prefer. The colouring of the wires is not that important, as long as the middle wire goes back in the same place on the board to the centre connection. The other two wires should also not be swapped around on the board, but actually that does not really matter as the existing Planet Tx installed reversing switches can be used if need be to resolve that. Replace the two lever assemblies back together the way they were removed, together with the friction plates and screws, check operation and adjust if necessary. Before fitting the complete assembly, the original slots that were used for the trim sliders can be covered from the inside by gluing thin strips of styrene in place and painting the recesses black or silver. Also, run the self-tapping screws into each hole first as it will make it easier to assemble into place the Twin-Stick





unit. Plug in the connections, the left one to the top socket and the right one in the bottom socket, **Photo 9**. Re-connect the wire socket on the rear of the case back to the main board, replace the rear cover and secure with its six screws.

Turn the transmitter over and re-fit the two plastic control levers of the Robbe unit and job done! All you need to do now is determine which receiver connection relates to which arm of the twin stick unit and away you go.

#### **Planet T5 conversion**

The only difference to the procedure on the T7 version is with the wiring. Care must be observed when taking the back case off, as there is no plug/socket able to be readily disconnected. Unscrew the three screws, Photo 10, from the small board fitted inside the back of the case as it will make working on the front section much easier. Carefully cut the wires as close as possible to the plastic connector on the bottom right-hand side potentiometer, Photo 11, as the wires will need to be extended anyway. Un-solder the three terminal connection board on the side potentiometer as it will be re-soldered on re-assembly. The cut wire from the bottom potentiometer will have to be extended with 100mm of servo wire connected as previously in the T7 conversion, and then solder it back directly to the board of the potentiometer as previously.

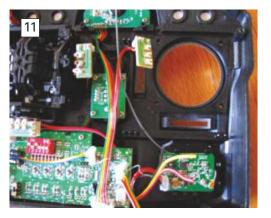
The same alterations to both potentiometer shafts will be necessary as for the T7 and terminal board connections. Otherwise, just reassemble in reverse order.

#### Tips?

Both of these transmitters are marked and designed for aircraft use (with words like flaps, ailerons and elevators), but they are more than suitable for us model boaters. The T7 comes with a trainer switch on the top which can be removed if not required whilst the case is apart for conversion and the resulting hole then covered.

#### Conclusion

**Photo 12** is of my two converted transmitters that do just what I want on 2.4GHz. I hope this is helpful to readers wishing to carry out this conversion, but do bear in mind that transmitter modifications invalidate warranties and although this has all worked perfectly well for me with my existing Planet transmitters, if in the interim the manufacturer has upgraded the internal design, then a different approach may be required. Also of course, the 'proper' Robbe Futaba F14 NAVY



Both of these transmitters are marked and designed for aircraft use (with words like flaps, ailerons and elevators), but they are more than suitable for us model boaters.



Twin-Stick 40MHz system is designed to accept expansion modules that enable numerous working features to be controlled on a model, and that is something the Planet systems cannot do, unless you know differently and therein lies the challenge! We are not altering in any way how signals are transmitted, just making a mechanical change to the transmitter as a the twin-stick unit is using two channels to control the esc's and mechanically linking them for dual motor control. The loss of the horizontal axis on the left-hand stick can be a problem if that is where you would naturally have a bow thruster control, but that applies equally to the F14 system.

On the other hand, with the increasing prevalence of brushless motors that need individual esc's, having a twin-stick function is very handy as one can operate the motors as one, or separately for tight manoeuvring. *Enjoy your hobby - Colin Vass*, 2014



# Darlington & District MBC

lan J Archibald with news from this club



Geoff Sutcliffe has sympathetically restored this Colin Archer, which was purchased from a deceased club member's estate.

Ithough a flourishing organisation with a growing membership of 79 at the last count, the club has never put on a regular programme of talks or presentations. This is despite the fact that virtually across the road from where the club sails is the Middleton St George Cricket & Social Club. With the Chairman and Secretary both being members, its facilities including the excellent ballroom are available to the club free of charge.

#### The Seaham lifeboat disaster

On 3rd October 2013 Ernie Lazenby gave a very interesting talk about Donald Campbell, his cars and K7 boat, which was well attended, so this was followed on Tuesday 25th March 2014 by Bill Coates giving a talk about the loss of the Seaham lifeboat *George Elmy*. This was very well presented with accompanying slides, many in colour. This talk had two distinct parts, the first dealing with the sad event itself, and the second with the search for the lifeboat and its subsequent restoration.

#### **Club information**

Darlington & District Model Boat Club is located at The Waterpark, Middleton St George, Darlington, Co. Durham. Middleton St George is a small village just outside Darlington, and the nearest postcode for those that have a satnav is DL2 1JG. The lake is 88 by 85 metres and 1.5 to 2 metres deep, with a launching and landing stage about four metres long. The club also has a brick built building which contains a club room, toilet, storage and a building area. Sailing/meetings are held on Wednesday afternoons and Sunday mornings with membership currently around 80 persons. The subscription is £25 for an adult and £5 for a junior, which includes third party insurance for the member. New members and visitors are welcome and for information please visit the website: http://ddmbc.co.uk or contact:

lan Archibald (Secretary), tel: 01642 652608, email: iarchi877@gmail.com

Walter Snowdon (Chairman), tel: 01642 645491, email: waltersnowdon@hotmail.co.uk

**East Durham Heritage and Lifeboat Centre** 

Website: www.seahamlifeboats.oneuk.com



ABOVE: Helmut Schroder of Dunlossi, a Thames class lifeboat. This model is built by Alan Wilson.

LEFT: From left: Alan Brookes, Malcolm Cooper and Bill Coates, all from the East Durham Heritage Group.

The Liverpool class lifeboat George Elmy arrived at Seaham on 13th January 1950. Built at Cowes, she cost £10983 donated by a Miss Emily Elmy in memory of her brother George. Significantly, although literally unsinkable, she was not a self-righting lifeboat as we know it. On the evening of 17th November 1962 she was launched to assist the fishing coble Economy, but was capsized by two large waves within sight of the harbour. Despite being near the beach, all five of her crew and all but one of the five fishermen she had rescued perished, including a 9 year old boy. Although damaged by being washed ashore upside-down she was repaired and assigned to the RNLI reserve fleet. In 1972 she was sold out of the service for £600, then converted into a fishing boat and was still in existence in 2009.

In the meantime, the East Durham Heritage Group had decided to set up the George Elmy Heritage Project as a memorial to the bravery of the lifeboat crew who had made the ultimate sacrifice. The lifeboat was eventually located at Holyhead after being spotted for sale on eBay and her identity confirmed by the maker's mark GG504 chiselled into her stem. Although in poor condition she had already been sold for £1900! To summarise a long story, the group were able to buy her and she was transported to a professional restorer in South Shields where she was virtually totally rebuilt and restored to an as-new condition. This was a remarkable accomplishment and she then sailed under her own power to Seaham on 23rd June 2013. At Seaham she was installed in the original 19th Century Lifeboat House which had also been totally restored to house the boat. This lifeboat can now be visited and other attractions on the development of Seaham's North Dock that now forms part of the East Durham Heritage and Lifeboat Centre.

#### Lifeboat models

To complement the talk, four lifeboat models were tastefully displayed by two of our club members, Geoff Sutcliffe and Alan Wilson. Colin Archer from the Billings kit will be familiar to many modellers and Geoff's version had been bought from the estate of a former member. He has sympathetically restored her and added missing details to create an impressive model. Alan Wilson specialises in lifeboats, and has attended events throughout the country. His Helmut Schroder of Dunlossi, a Thames class lifeboat, is of one of only two of that type built. His other two models were of the Tyne class Hilda Jarett and the Watson class William and Mary Durham. Alan really is a super builder and this was an impressive accompaniment to an interesting evening's entertainment.

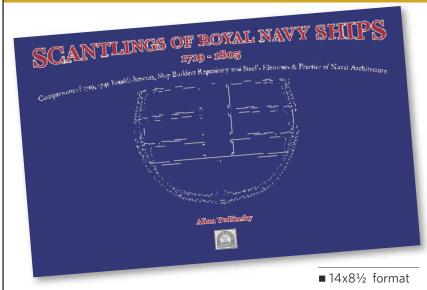
Information supplied by Ian Archibald

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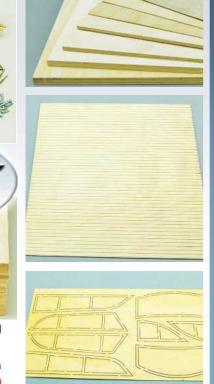
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**Ron Rees** builds a Seaplane Tender based on the ST206 hile I was working on the idea for the Targa Police Boat (to be a Plan Feature in MB later in 2014 - Editor), I had made a prototype hull from blue polystyrene foam, based on the somewhat sketchy details to hand at the time and also using a modified version of Richard Webb's Fairey Huntsman plans, to make a hull approx 20 inches long

Webb's Fairey Huntsman plans, to make a hull approx. 20 inches long.

ABOVE: This picture of the hull clearly shows the added piece to the transom and the wooden deck. The 'blue' polystyrene foam, once shaped was covered with ne leg of a pair of tights and rot if tights and rot if tights and rot is the poxy resin to give a hard exterior surface.

Where's the motor? Remember this hull is only 20 inches long and the 2830 brushless motor is far smaller, but also much more powerful, than a 380 brushed motor which used to be the standard.

The methods used to make the hull were identical to the Fairey Huntsman ('Away with the Faireys', July 2013 MB). As it so happened, this hull really looked like Targa, so it went into the 'I will think what to do with it later' box!

#### **Basic hull**

After about a year of moving it out of the way all the time to get to something else, I was sorely tempted to throw it in the bin as it was definitely taking up useful space in the already overcrowded model room, but then possibly using it for a 20 inch version of ST206, an RAF Seaplane Tender from the early 1930's, rather appealed. This would be to a nominal scale of 1:24 and the rather nice article about the ST206 Seaplane Tender, that was rebuilt and went to the RAF museum in Hendon by Colin Bishop, 'The Last Voyage of ST206', a Special Feature in January 2011 MB came to my attention, so I was redirected once again to the now somewhat sorry looking hull.

This troublesome hull had been made with a sloping transom for the Police boat, so I stuck a more conventional stern back on. You can easily do that with the blue polystyrene foam and a deck of 1/32 inch plywood was then added to the hull by smearing the foam with five-minute epoxy adhesive (you can't beat the Mk.1 forefinger and its fingertip for this job) before quickly inverting the foam hull and weighing it all down. The hull was then finished in the inevitable one leg of a pair of tights, plus epoxy finishing resin, very much in model aircraft wing style.

#### Interior

The hull's inside was bit of a mess as it had also been used for experimenting with hot wire cutting and had after all, been destined for the rubbish bin. Anyway, once the deck had been trimmed to take the ST206's different shaped cabin and rear cockpit well, the running gear was installed. This consisted of a very nice Turnigy 2830/1000kv brushless motor which fitted into a standard 380 nylon motor mount perfectly, as recommended by Paul Freshney. An 11.1v (3S) 2800mAH LiPo battery and a really cheap E. Sky Forwards Only 20 Amp. electronic speed controller for £3.95 (!) pretty much completed the electrical side of it all. Thinking about it, i.c. boats and aeroplanes operate without reverse, so maybe we get a bit too worked up about having a reverse



ABOVE: Here the hull has been coated, rubbed down to a smooth finish and the spray rails added, before coating again with epoxy finishing resin.

readers' models

I hate doing loads of tiny windows so I made the whole front part of the cabin in 1mm clear styrene...

LEFT: The basic cabin and some fittings.

on our scale, or not so scale, model boats. In terms of setting up a new brushless esc, this £3.95 unit really was 'Plug & Play' and it has been trouble free, thus far. Radio control is via a Spektrum DX5e set, bought for me for Xmas 2013!

#### Cabin

I hate doing loads of tiny windows so I made the whole front part of the cabin in 1mm clear styrene, leaving the protective polythene in place on the

outside. To this was added all the fiddly frames and corners in strips of white styrene sheet and the task was then so much more enjoyable and easy. The protective sheet was left until after it was all painted, and the result? Crisp and sharp edged windows!

The after cabin and rear cockpit well, engine covers etc., are all from 1mm styrene sheet and the oval window frames are slices from a piece of 0.75 inch oval plastic electrical conduit. These were glazed after painting in the normal way, i.e. clear styrene stuck onto their inside faces).





ABOVE: A contemporary photo of the original Seaplane Tender.

LEFT: The cabin and cockpit well were built using the hull as the former.





Brushless motors are sooooo(!) much more powerful than larger and heavier brushed motors. They tend to be less power-hungry than high performance 380/400 brushed types as well.

#### **Fittings**

Over the years I have built up a fair collection of homemade 1:24 scale silicone moulds for all sorts of detail parts, so resin casting many of the fittings, was very straightforward. The bollards and fairleads however were cast in white metal, although I guess with some thought they could also be resin cast.

The large spotlight on the cabin roof was built around a piece of plastic one inch overflow pipe, fitted internally with a large (8mm) domed bright white LED, after spraying the interior with chrome acrylic paint. The LED was tested and then finally embedded within the whole casing by pouring in clear casting resin and floating the very small reflector with its three arms on its surface meniscus. The pivot arms and base are bits and pieces of flattened fine bore brass tube and plastic from the scrap box.

The main 'A' frame mast is of plastic tube and the steaming masthead light is also an LED fitted inside a nice commercial brass lamp fitting from the bits box that looked just right. Each wire runs down the inside of a leg and then soldered to the brass pivoting bases; then these are continued by

BELOW: No proper plans - all just from pictures and sketches. Why 207? Well there is already a 205 and



soldering wires to the brass hold-down 12BA bolts inside the roof. Port and starboard running lights, horn and a bit of handrail have yet to be fitted in the photos, but the model was ready for an on the water test and I couldn't wait!

#### **First trials**

With the foam hull and every bit of weight considered carefully during building, the model actually weighs next to nothing. This, coupled with a smooth and efficient motor and a powerful battery, must make for a scintillating performance was my reasoning. The power train produces no noise to speak of, with the 380 nylon mount and a homemade neoprene motor to propshaft coupling. Also, unusually, there are no beeps or high pitched whine from the very basic brushless electronic speed controller - I have no idea why that is so.

The model didn't need any ballast or balancing and performance on the water?

Well, it took off like a rocket coming up onto the plane just like the real one. On one occasion a very high speed large turn was attempted and the model touched the wake of another model. What happened? It tried to do a barrel roll in the air and only my hard won model helicopter flying response skills saved it from turning right over and disappearing under the waves at Fishers Green Model Boat Club!

In a straight line it could be opened up to full speed, which is truly incredible, but it has to be throttled back before making a turn, otherwise we are back to flying model helicopters again!

#### Conclusion

I am pleased that a few more hours were spent rescuing this little hull from the round filing cabinet on the floor (waste bin!), as it has turned out to be one of the prettiest fun models I have made in a long time and even if my family think I'm a bit of hoarder it certainly pays to 'never throw anything away'.

So, if you have a sad looking hull sitting on the shelf, of any type, maybe even bought at a Bring & Buy sale, then its time you dug it out and had a look at those old model magazines or surf the web for a bit as I'm sure you'll find something that you can have a bit of fun with.

Happy boating - Ron Rees.



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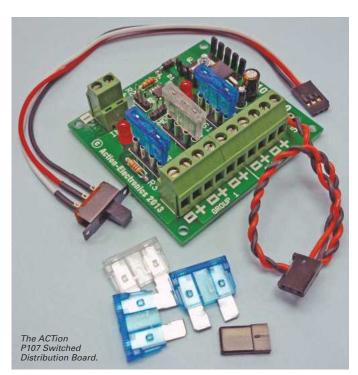
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## **Test Bench**

Model Boats looks at new products

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## New ACTion electronic units

ne of the bugbears of fitting out a complex radio-controlled model boat is the need for a large ON/OFF switch to carry the necessary current from the battery to the various on-board electronic devices. It can be difficult to hide such a large switch so that it is accessible from the outside of the model. Disguising the switch toggle as a ship's fitting is one method; others are hiding it under a dummy hatch or fitting it under

by adopting a tiny, high-current MOSFET switch which isolates the power to the board, thus needing only a very small manual switch as the controller. This means that literally any size of any type of switch can be used

**ACTion P107 Switched** 

Distribution Board

This has solved this problem

to turn the main power to the model on and off as the current through the switch is just 4mA.



The P107 comes complete with a miniature slide switch on a 3-way servo cable, terminated in a standard Futaba male plug which fits onto header pins 'SW' on the circuit board. If needs be, this can be extended with a standard servo extension lead.

There is provision to connect an optional LED voltage display, again via a 3-way lead, using pins 'MON' on the board. This useful little gizmo is not supplied with the P107 but can be obtained separately. Other than that, P107 is much the same as the existing and familiar P92 Distribution Board, with two fused circuits and indicator LEDs to supply battery voltage for up to five separate circuits within the model. It also has a fly-lead which provides a regulated 5 volts to power the receiver, thus eliminating the need for a separate receiver battery pack. Included are a set of spare fuses and an alternative plug-shell moulding for JR/Hitec radio receivers. P107 is suitable for battery voltages between 6v and 15v and a maximum combined continuous current of 30A.

#### **ACTion P106**

Where a power distribution board is not required, but the use of a small ON/OFF switch would be desirable, there is this new P106 device. It incorporates the same type of MOSFET as P107 on a tinv in-line circuit board, pre-wired with either 14AWG, 16AWG or 18AWG silicone-covered multi-strand cable for connections to battery and speed controller. There are two much thinner wires (red and black) for connection to a miniature switch. No connectors or the switch are supplied, but many suitable types are available from Component-Shop. P106 suits batteries between 3v and 20v, with a maximum continuous current capability of 20A (Short term burst current 100A).

Both units come with fully illustrated instructions. P107 is £27.50 and P106 is £8.95. The optional 0.35 inch display (for the P107) LED Voltage Level Indicator is £3.50.

All are available online from Component-Shop, website: www.component-shop.co.uk, or tel: 08432 898528 or 07825 511877.



## Tugs in Colour - Worldwide

Written by Andrew Wiltshire, hardback, 241mm x 195mm, 80 pages copiously illustrated with 106 (mostly) colour pictures. ISBN 978-1-902953-63-2, price £16.50. Published by Coastal Shipping Publications, 400 Nore Road, Portishead, Bristol BS20 8EZ, website: www.coastalshipping.co.uk. Available direct or through the usual retail outlets.

This book is one of a series and here we see tugs in areas such as North America, the Caribbean, Australia, south-east Asia and South Africa, together with tugs on waterways such as the St Lawrence and the River Rhine and River Danube. This book basically has a photograph and description for each tug listed, plus their location and historical timeline for them where possible.

This is the sort of book where if you are looking for inspiration for your next tug model project, there will almost be certainly something that appeals. What is particularly interesting is how so many classic British steam and diesel tugs have ended their days working in ports far from the UK with colour schemes to match!

So, if tugs are your thing, this is a useful book to have on your bookshelf. To gain as much information as you can from this book via the internet, would take a huge number of searches and even then such data would be incomplete and a book is therefore one of the best research tools still to be had.

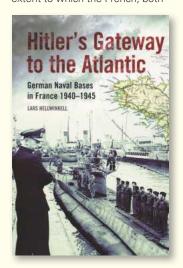
Book review by Paul Freshney

#### Hitler's Gateway to the Atlantic – German Naval Bases in France 1940-1945

Written by Lars Hellwinkell, hardback, 234 pages, 240 x 165mm, over 150 black & white photographs illustrations and maps, ISBN: 978-1-84832-199-1, price (RRP) £25.00. Published by Seaforth Publishing, an imprint of Pen & Sword Books Limited, 47 Church Street, Barnsley, South Yorkshire, S70 2AS. Tel: 01226 734222, website: www.seaforthpublishing.com. Available direct from the publisher or through the usual retail outlets.

In this extraordinary story of Nazi megalomania on the French coast, the author, examines the role that the Atlantic ports played in the operations of the Kriegsmarine during WW2. When the Wehrmacht overran France in May and June 1940, the Germany's dream of access to the Atlantic was realised and Brest, Lorient, St Nazaire, La Pallice and Bordeaux were converted into naval bases for surface warships, U-boats and auxiliary cruiser operations, though it's only the heavily fortified U-boat bunkers that have received any attention to date. At the outbreak of war the German Naw had 57 submarines, of which only about half were suitable for operations in Atlantic. As the war went on Admiral Karl D nitz, transformed the U-boat into one of the most important weapons available to the Kriegsmarine in the naval war against Great Britain and its allies.

This book describes the extent to which the French, both



locally and at the level of the Vichy Government, cooperated with the German authorities in occupied France to convert the existing ports, and explains how 45000 workers of the Todt Organisation built the monumental bunkers and other facilities. The description of the German occupation is balanced by the story of the British maritime and air campaign that was commenced immediately following the fall of France, which was far more effective than has been previously suggested, while the later attempt to turn Brittany into a vast bastion area after the Normandy landings is also covered in detail for the first time.

This highly readable account is a significant addition to the history of the naval war in the Atlantic, and provides a wealth of fascinating new material, including photographs and maps which illustrate the operation of the French ports under German occupation. This is a recommended must-read for ship modellers, with a particular interest in WW2 U-boats.

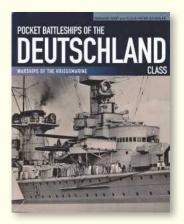
Book Review by John Deamer

#### Warships of the Kriegsmarine – Pocket Battleships of the Deutschland Class

Written by Gerhard Koop and Klaus-Peter Schmolke. Softback, 224 pages, 242 x 192mm, over 370 black & white photographs, line drawings, maps and diagrams. ISBN: 978-1-84832-196-0, price (RRP) £16.99 Published by Seaforth Publishing, an imprint of Pen & Sword Books Limited, 47 Church Street, Barnsley, South Yorkshire, S70 2AS. Tel: 01226 734222 website: www.seaforthpublishing. com. Available direct from the publisher or through the usual retail outlets.

The three warships of the Deutschland Class, were the first heavy ships to be built by Germany after World War One. The design of these 10000 ton diesel powered ships, Deutschland, Admiral Scheer and Admiral Graf Spee, was so revolutionary that it defied conventional categories. Simply termed Panzerschiffe or 'armoured clad ship' by the Germans they were better known to their opponents by a far more evocative term – Pocket Battleships.

With the outbreak of World War Two, all three ships were deployed as commerce raiders in the Atlantic. In 1940 Hitler ordered that Deutschland be renamed Lützow, since the name Deutschland was to be used for a larger ship. Lützow



saw war service in both the Atlantic and the Baltic, but in 1945 after being severely damaged by RAF bombers, she finally sank off Kolberg in Poland. After surviving for most of the war the Admiral Scheer met a similar fate whilst under repair in Kiel, when in April 1945 the dockyard was heavily bombed by Allied aircraft and she capsized and sank at her berth. In contrast, the Admiral Graf Spee's career was much shorter after an encounter with a Royal Navy Battle Group, famously known as the Battle of the River Plate. As a result, she put into Montevideo for temporary repairs, but believing that there was now a large force of Royal Navy ships waiting just outside territorial limits, the Admiral Graf Spee put to sea with a skeleton crew and was scuttled.

This book is the second in a series of six volumes by Gerhard Koop and illustrated by Klaus-Peter Schmolke, depicting the warships of the World War II era German Navy. Each volume contains an account of the development of a particular class, a detailed description of the ships, together with full technical details and an outline of their service histories. Heavily illustrated with plans, battle maps and a substantial collection of photographs, this new edition of the series, which has been out of print for ten years or more, will be welcomed by enthusiasts, collectors and ship modellers alike.

Book Review by John Deamer



# **Russian Navy Osa-1 Missile Boat**

# Merit Models' 1:72 scale plastic kit

This new kit is something a bit different. With a NATO reporting name of Osa, this was the Russian Navy's Project 205 Moskit (Mosquito). Designed in the late 1950's, over 400 were built

between 1960 and 1973, serving with the Russian Navy and widely exported. Merit's kit is very nicely done, and on opening the box, you will find it packed with parts and the hull is a single piece moulding, as is the deck. The long, box-like superstructure is in two parts, with

plenty of other details to be added. The missiles and the launch rails to fit inside the four missile containers are all included, so you can pose it with the missile box hatches open to show what is inside them. Detail is crisp and there are quite a lot of parts involved. With the metal

propshafts supplied and the large opening in the main deck over which you fit the superstructure, it rather cries out to be a 'Plastic Magic' conversion to r/c model by installing motors and r/c gear. There is certainly plenty of room inside the hull to accommodate it all.

Clear parts are included for the cabin windows and there are two large photo-etched frets with extra detail fittings. Exploded assembly diagrams take you through the 32 stages of construction.

So, a bit different, but eminently practical for r/c conversion and a nice size, being 542mm long. Merit kits are imported into the UK by Pocketbond, who supplied this sample and it is available though the usual retail outlets for £90 rrp, although discounted prices can be found

Review by Robin Buckland

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MODEL SHIPWRIGHT - 127 copies in perfect condition, £150. Colin Sharp, tel: 01268 416025 (Basildon, Essex).

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COLIN ARCHER hull, 37 inches long, plus trolley, speed control, motor, new battery, Tx & Rx. £125. Roy Johnson, tel: 01323 440708 (Hailsham, East Sussex).

SIRMAR LAKE CLASS whaler 1:48 scale, £400. Flower class corvette, part built, 1:48 scale, £350. Mountfleet Highlander, 1:24 scale, £250. Schmell class Russian gunboat, 1:24 scale part-built, £200. Fairmile D GRP hull, £60. Buyer collects. W. Mortimer, tel: 01964 614043 (E. Yorkshire).

NAJADE, Robbe motor cruiser, 960mm x 300mm with Acoms 27Mhz r/c, two Tornado 3700mAh batteries and stand. Very realistic on the water, photos available, buyer collects, £250. Mr. J. Beats, tel: 01305 772014 (evenings only), email jerry@jbeats.plus.com. (Weymouth, Dorset).

AIR SEA RESCUE LAUNCH, nice build but no esc or r/c, photos available, £160. Also; Glynn Guest Vosper MTB, photos available, £60 (cost of materials). Buyer collects, Alan Robertson, tel: 01277 624587 (Billericay, Essex).

MOBILE MARINE ROSGARTH tug, 36 x 10 inches, 12v motor, Mtroniks esc, two of 12v batteries, charger, Planet T5 r/c, working pt. and stb. navigation lights. £300 ono, Mr. D. Lane, tel: 01773 603707 (Alfreton, Derbyshire).

TUG BOAT, 30 x 10 inches, nice boat, twin electric motors, brass props', electric speed controller, but needs r/c, £200. Andrew Calladine, tel: 07546 188258 (Southwell. Nottinghamshire)

**POWAWALKER** Electric Four Wheel Trolley, useful for moving models. Please see manufacturer's website for more info'. Buyer collects, £250. Graham Colover, tel: 02089 538143 (Elstree, Herts.).

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river launch kit, £65. Revell Flower class kit with running gear, motor etc. £75. Both ono. P. Evans, tel: 01492 572248 (County Conwy).

#### Wants

MODEL of any ship associated with Liverpool please. Radio not required. Quality build please, anything considered. A. Coupe, tel: 01614 273712 (Stockport, Cheshire).

SIRIUS STAR Plans (or copy), c1950 to 1960 river cruiser. Will pay expenses and/or local collect. Roy Whitton, tel: 01924 256590 (Wakefield, W. Yorks)

**PLANS & INSTRUCTIONS** for Patrick Blunt Models Oil Rig Support vessel Fortes Shore. Also, plans & instructions for Billings kit No. 510 Banckert. Mr. Ronald Gooding, tel: 01206 303158 (Brightlingsea, Essex).

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Boyd Elson and his winning Best Boat of the Day.



# **BMPRS News** Website: www.bmprs.co.uk

Craig Dickson reports on the first event of 2014 at Branston

BELOW: Luke Bramwell spots his mangled propeller.

BOTTOM: The new C class Stratos boat by Mike Gelson.

ello readers! After a seemingly long recess during the winter period, our members have been itching to get their boats wet again in race conditions. The building of new boats, modifying existing boats and testing all come to fruition during the first race event of the year. This exciting mid-April event was no exception, as it



the key safety requirements and reminded us all of the importance of enjoying the day's racing irrespective of winning or not. Mark announced that he is this season all but forfeiting his own racing to concentrate on managing the majority of the events this year and we thank him for that. Personally I hope that he does enter at least a few events to keep us on our toes in the classes in which he usually races so well! With the formalities completed and thanks to Mark's superb organisational skills, the first race started at 10am bang on schedule.



#### So how did the day pan out?

Each class of boat ranging from the smallest engine size AA class to the largest D class spark ignition boats competed in two heats. The total lap scores from the morning and afternoon heats were added together to decide the results for each class of boat.

#### AA class

Bernard Holder with his own designed and built Crusader 1 hull, ran away with it by winning first place as he logged up 53 laps total over the two heats although his boat stopped once in the first heat, but that didn't deter him as he is a seasoned racer. Second place went to Mark Beesley, driving very tight to the buoys, with his Cavalier hull powered by an outboard OS 21 engine scoring 38



**Model Boats July 2014** 

laps. Third place went to David Hough with 25 laps, racing his Pursuit hull powered by a GO 28 engine.

Dave Clay was running a Challenger 43 hull with a CMB 21 engine. Unfortunately he suffered an early failure with the gear drive system which resulted in retirement after the first heat of this class. Graham Stanley's Cavalier hull powered by a tuned OS 21 engine was from my observation the fastest boat on the lake in the AA class with a blistering top speed. However upon launch it went over the top of Bernard's Crusader and stopped! In the event Graham came fourth place with 20 laps in total and this boat has a great potential in future races.

#### A class

This class featured seven entries with three of the boats being Crusader hulls and a good mix of power plants. First place with 75 laps went to Bernard Holder running his CMB 45 Crusader 2, my own Crusader 3 clocking up 73 laps to take second place. However its less powerful SC 46 engine is really no match for the CMB 45 engine and I had to pull every ounce of power and speed out of it. Interestingly, this boat was considerably slower than several of the other boats, including Kurt Cave's very fast TT 46 powered Cougar, but on this occasion keeping the boat going for the full race duration paid dividends in terms of the laps scored. Third place with 37 laps went to Dave Clay with his fast and powerful CMB 45VAC powered Orion, but he would have done much better if he had scored more than just six laps in the second heat. Kian Searle, a junior member, came in extremely close to Dave achieving 37 laps and fourth place. It was only the final lap positions that put Dave's score just ahead of Kian, but only by a fraction. Luke Bramwell, also a junior member, hit a buoy with his Sea Spirit 2 early on in the first heat. Although his boat kept going, it was only when the race ended that he realised why it was running so slowly as both blades of the alloy propeller were smashed from the buoy collision, but he did well to end up



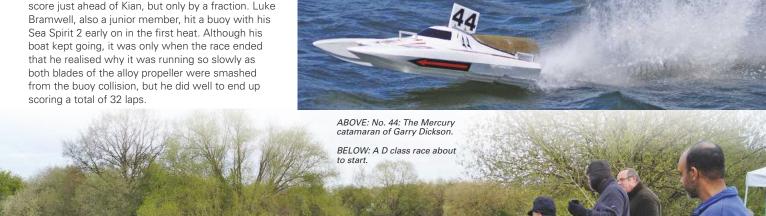
AA 176: Mark Beesley's Cavalier.



Luke and Kian Searle battling it out in the A class.



D 29: The petrol engined Pipedream of Graham Stanley.







ABOVE: D class: Kevin Alcock chasing Graham Stanley.



ABOVE: Harry Stewart launching his all wood D-class boat.

BELOW: Inside of Kurt Cave's huge Apache Chief and please note the titanium tuned exhaust system.

#### B class

With five entries in this mid-engine sized nitro fuel class, Bernard Holder gained his hat trick with yet another podium win clocking up 67 laps. This time he achieved success with his CMB 67 powered Magnum, the largest hull that he makes. Close behind taking second place was Garry Dickson scoring 63 laps with his Challenger hull powered by a vintage Webra 61 engine. Mark Beesley gained third place with 47 laps running an un-named hull powered by an ASP 61 engine. Mark and Garry



enjoyed some very tight racing with their boats being of similar power and speed. Malcolm Pratt came fourth with 46 laps running his CMB 67 powered Apache. Malcolm's Apache is extremely quick and capable and is definitely a boat to look out for in this 2014 season.

#### C class

Although only four boats entered this class, all of them achieved good results with some very close racing. Harry Stewart's OPS 80 powered Warhawk won first place with 75 laps in total. Harry gained 45 of these laps in the second heat, an outstanding performance. Bernard Holder on this occasion had to settle for second place running his CMB 90 powered Magnum. A collision between his Magnum and Ian Searle's Makara in the first heat resulted in Bernard's engine seizing, but that did not stop him from racing in the second heat, as he managed to replace the damaged engine prior to the start! Third place went to Mike Gelson running his new CMB 91RS powered Stratos achieving 67 laps in total. Mike is one of our newer members and his latest boat showed great potential in its first national race. Ian Searle's CMB 91 powered Makara took fourth place with 45 laps in total, Heat 2 proving troublesome as his boat went up the bank and at first we thought it had hit a tree!

#### D class

With nine boats entered, this spark ignition class racing promised to be fast and furious. Kevin Alcock's RCMK powered Patriot achieved an astonishing 95 laps easily giving him first place and the highest lap score of the day. Garry's Zenoah powered Miami took second place with 79 laps. Garry flipped his boat over at full speed, but luckily right at the very end of the first heat. Third place with 73 laps in total went to Kurt Cave running an Apache Chief powered by a Blata 39 (39cc) engine. Kurt's boat is huge, being 72 inches long from the bow to the tip of the rudder and it was built for him by Andy and Jake Porter. The engine punches out around 13 horsepower and is installed with a handmade one piece segmented titanium tuned pipe, a unique and fascinating installation.

#### Catamaran T1 class

The catamaran classes were introduced last season, so it is exciting to see a decent turnout of boats in this and also the larger T2 class. In these classes the heat duration is only 10 minutes compared to 15 minutes for the other classes, so inevitably lap scores will be lower. OPS engines powered three out of the four entries in this T1 class. First place with 43 laps went to Harry Stewart racing his R2 Silver Fox hull powered by an OPS 45. This was Harry's second win of the day and very well done indeed. Kurt was close behind taking second place with 41 laps running an OS 21 outboard motor powering his F1 Cat'. Considering that this engine is about half the size of Harry's, a great performance by Kurt. Third place was won by junior member Boyd Elson, being pitted by his dad. Boyd's stunning brand new X-Cat 38 powered by an ASP 46 engine scored 40 laps. This catamaran was designed and built by Daz Elson and it looked the business, being very neatly put together, so much so that Boyd proudly won Best Boat of the Day with it.



ABOVE: Branston Winners. BELOW: Madelyn Reid checking



#### Catamaran T2 class

These featured the larger catamarans with the most powerful of engines and the racing was wickedly exciting to watch with only four laps separating the first three places, there being five entries in total. First place with 54 laps went to Kurt Cave running his awesome Conquest powered by a KRC 29 engine. Garry gained another second place with his MPM Zenoah powered Mercury clocking up 53 laps. Garry did well considering that this was the first race challenge for his new cat'. Kevin Alcock wasn't far behind with 50 laps running his RCMK 27 powered Conquest to take third place. Daz Elson entered his X-Cat 48, another stunning new build from him. Being its first race, Daz spotted some teething issues with the servo mounts and wisely decided to retire the boat for a check.

#### End of the day

With the racing concluded and the results confirmed, it was time for the winners to be presented with their certificates. Special thanks were given to Peter and Alan, representatives of the host club, Burton MBC. We are always very grateful to these guys as they kindly allow us to use their facilities, make us feel so welcome and not only that, they supply and operate the essential rescue boat facility which is a demanding job in its own right. Thanks also to Madelyn who did a sterling job of doing the lap counting, in other words concentrating for over 3 hours on the task.

Please check the calendar on our website for future events, as potential new members and spectators are all welcome to come and enjoy the fun and excitement of our style of model boat racing.

Craig Dickson - April 2014

BMPRS Results: Branston 13th April 2014					
Name	& Position	No.	Hull	Engine	Total Laps
AA cla 1st 2nd 3rd 4th 5th 6th	Bernard Holder Mark Beesley David Hough Graham Stanley David Clay Ian Searle	86 176 87 29 42 127	Crusader 1 Cavalier Pursuit Cavalier Challenger 43 Challenger 43	MDS 21 OS 21 o/b GO 28 OS 21 CMB 21 Picco 21	53 38 25 20 2
A clas	s Bernard Holder	86	Crusader 2	CMB 45	75
2nd 3rd 4th 5th 6th 7th	Craig Dickson David Clay Kian Searle Mike Proudman Luke Bramwell Kurt Cave	55 42 128 85 6 7	Crusader 3 Orion Crusader 3 Shockwave 36 Sea Spirit 2 Cougar	SC 46 CMB 45VAC ASP 46 Dynamite 32 SC 40 TT46	73 73 37 37 35 32 21
B clas	s				
1st 2nd 3rd 4th 5th	Bernard Holder Garry Dickson Mark Beesley Malcolm Pratt Barry Woods	86 44 176 9 43	Magnum Challenger 48 Unknown Apache 50 Challenger 48	CMB 67 Webra 61 ASP 61 CMB 67 CMB 67	67 63 47 46 1
C clas				0.00.00	
1st 2nd 3rd 4th	Harry Stewart Bernard Holder Mike Gelson Ian Searle	133 86 36 127	Warhawk Magnum Stratos Makara	OPS 80 CMB 90 CMB 91RS CMB 91	75 68 67 45
D clas					
1st 2nd 3rd 4th 5th 6th 7th 8th 9th	Kevin Alcock Garry Dickson Kurt Cave Graham Stanley Ian Searle Malcolm Pratt Harry Stewart Mike Durrant Kenn Dodd	75 44 7 29 127 9 133 8 78	Patriot PMC Miami 55 Apache Chief Pipedeam Apache Sigma Woody Phantom Phantom	RCMK/GIZMO MPM Zen 31 Blata 39 Zen 26 RCMK RCMK? GWS 26i Gizmo 31 Zen 29	95 79 73 66 51 51 34 21 7
	l class	100	D2 Cil F	ODC 45	40
1st 2nd 3rd 4th	Harry Stewart Kurt Cave Boyd Elson Kian Searle	133 7 72 128	R2 Silver Fox F1 X Cat 38 Sprint Cat	OPS 45 OS 21 o/b ASP 46 OPS 21	43 41 40 9
	2 class	7	0	KDC 00	E4
1st 2nd 3rd 4th 5th	Kurt Cave Garry Dickson Kevin Alcock Malcolm Pratt Daz Elson	7 44 75 9 73	Conquest PMC Mercury Conquest Aeromarine X-Cat 48	KRC 29 MPM 31 RCMK 27 CMB 91RS RCMK 30	54 53 50 12 0

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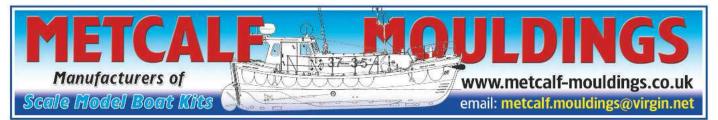
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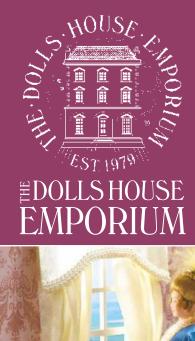
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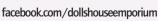
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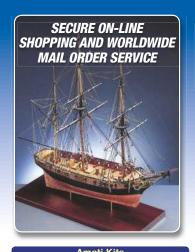
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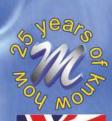
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