SOLENT Scale Section

Setley Sail

July 2012 - Summer Newsletter

Scale Captain's Chat

Hi Folks..

You're correct... this is not the Scale Captain; in fact, it appears to be a Cherub with a hamburger! For an explanation see inside!

Well what can I say about the past few months? "You can stop the rain now the pond is full!"

The terrible wet weather we have experienced over the past two months has just about put a stop to all the activity at Setley although some of our more hardy members have still managed to get some sailing in, I hope that things will be better for the second half of the season!

Talking about the rest of the season I would like to remind you that we have exhibitions coming up at Lymington Lifeboat Station Open Day on Sunday 5th of August and Our Big Club Exhibition in The Masonic Hall, Lymington on Saturday 1st September. If you would like to exhibit at either or both please let me know by e mail or phone so that I can monitor numbers and set up arrangements. The Lifeboat Show runs from 10.30 am until 4pm and we will be inside the boat house as per usual, the show also incorporates the Lymington Sailing Club Bath Race Day so it will be busy, please note that if you are exhibiting the club will pay your car park fee for the day. The RNLI poster for the day is on our web site if you'd like to display it.

The Masonic Hall show will be setting up on the **Friday evening** from 5.30 pm, this year our charities will be The RNLI and Hampshire Air Ambulance who we hope will both be providing stalls in the hall. We hope to get our 120 boats on show so please support the show if you can.

The next event at the lake will be the Steering Competition for the Setley Cup on Sunday 22nd July, lots of fun and not too serious, if you have not taken part before why not come along and give it a go!

Sadly I have to report that since the last newsletter three of our popular members have passed away they are Vera Winter, Louis Vaisey, and Don Brazier who will all be sadly missed at the lake and club events, our condolences go out to their families in their sad loss. I am also sorry to inform you that Peter Oram is back in hospital and we wish him all the best for a speedy recovery.

I hope to see you at the lake very soon,

David

Dates for your Diary (all at Setley Pond unless stated otherwise)

Sunday 22nd July; **Solent Cup:** Steering Competition, 9.30am to 12 noon

Sunday 5th August; **Lymington Lifeboat Day and Bath Race:** Club Exhibition, Lifeboat Station, 11am to 4pm (set up from 9.30am)

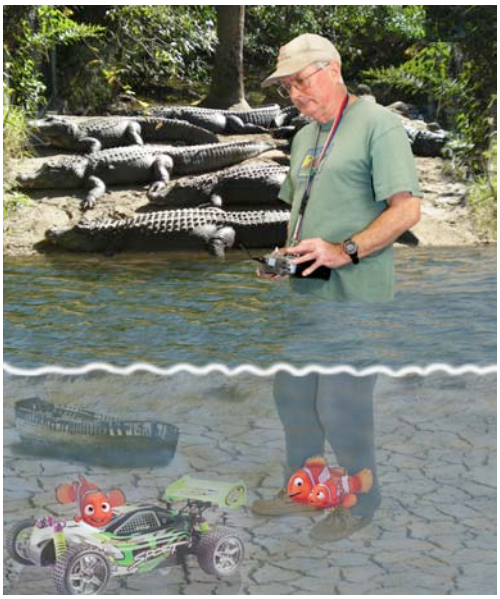
Saturday 1st September; **Club Exhibition:** Masonic Hall, Lymington; 10am to 4pm (set up Friday 31st August from 5.30pm)

Saturday 15th December; **Xmas Lunch:** South Lawns Hotel, Milford-on-Sea (see below)

So our Scale-Captain went off to the USA and came back married... fortunately he was with Lucy when he proposed!!! Our very Best Wishes to them both... but watch out for that hungry Cherub!

Editorial: when will the rain stop?

In my last editorial I was anticipating an arid canyon appearing where the pond used to be. Fortunately, although I retired from my career in marine meteorology a few years ago, I haven't lost the weatherman's knack of getting the forecast wrong! So why has the pond filled up? Not just lots and lots of rain but also these relatively low temperatures which have cut down the evaporation rate.


An update to my photo in the last issue!

In the photo I'm using a Spektrum transmitter which recently actually did fall into the pond. Taken apart and dried out in the oven (very low heat!) it now works again. So that's one thing in it's favour. However I'm not sure I'd recommend choosing Spektrum. Although Howes Models have recently been advertising the DX6i units with an Rx for £99, that's still expensive compared to some other 2.4GHz makes. The computerised Tx has a 10 model memory which is good, but there are pitfalls when reprogramming it for a different model. It's best to go back to the factory defaults as a first step. And if the voltage supplied to the Rx dips too low (e.g. when a servo operates using a low battery), the unit does not go into a failsafe mode. This, and other information, does not appear in the users manual but can be gleaned from the web... so be warned!

My thanks to those who have contributed to this newsletter, it's good to see more items from club members, more contributions are always welcome – and remember we are viewed world wide via the club web site.

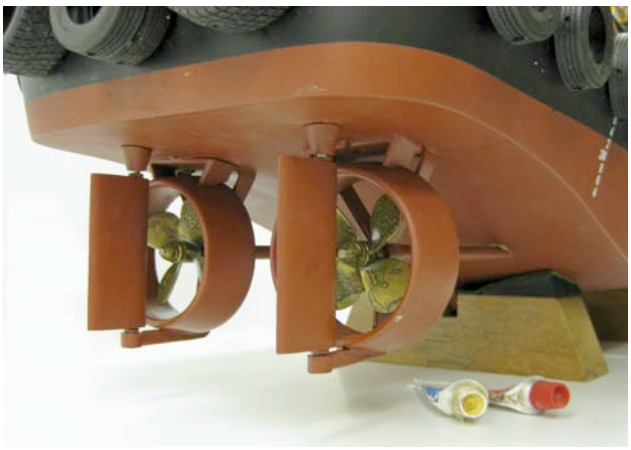
Peter Taylor, your Editor.

Feature article: Mooring and Berthing Tug “Wyeforce” (Scale 1/24)

[Editors Note: the Wyeforce is owned and operated by Itchen Marine from American Wharf in Southampton and an RTR model of the tug by Hobby Engine is sold as the “Southampton”]

Before starting, I hope I am not teaching your mother to suck eggs.
I brought this kit from Laurie of The Model Slipway some twelve years ago, with the intention of making a quick build and then start my career in tug towing at events local and national, so much for good intentions.

Like all good modellers, I checked the contents of the box with the parts list as there were nearly six hundred bits and then I read the instructions a couple times before starting. Having spent a considerable amount of time over the years researching ships plans, I have a healthy scepticism regarding their accuracy. So with this in mind, I spread out the two non scale sheets both concerning the position of the superstructure and fittings, there being no hull lines as it was a GRP moulding. The box also contained the usual mix of die-cut parts, printed parts, styrene sheet, doweling, etched brass, metal rod and a bag of tyres.



I found in the December 96 edition of Model Boats a review of the kit by Paul Freshney and in another edition John Doyle’s super detailing article. With an old engineering adage in mind of measure twice and cut once, I started on the hull. As with any piercing of a hull it should be done with care, masking tape over the area in question will help when marking, drilling and filing. With the two propshafts, kort nozzles and the twin rudder shafts in place, the whole lot was two-part epoxied using the 24 hour type not the 5 minute stuff.

I had in stock two large low drain motors that should have done the job, but because of their weight, size and diameter they had to go up front; necessitating 10” long intermediate propshafts running closely either side of the 12v 7amp jelly cell battery. I found some couplings from SHG Marine, but under heavy load they were somewhat noisy so changed them for ABCO type with brass inserts. Unfortunately on the first test run the original ones did not produce the boat speed required; so I replaced the pair with some unknown make which rotated at 9000 rpm and drew just over 1.4 amps each at full speed, just about right for this type and size of boat. On reflection, one should keep to the conventional approach as much as possible, short propshafts and one coupling per motor.

The deck was next, with the 5mm square wood section deck support and six cross sections epoxy glued in place around the inside of the hull, the inner wood deck was cut to shape and made a close fit. As the full size deck plates are welded

together, I scored the top surfaces of the outer plastic deck to reproduce this effect. As I want to use the boat for towing, the triple Sampson post was changed from the merely decorative to a hard fixed point by drilling the three uprights and gluing 5mm studding in place, this in turn was fixed to a square horseshoe shaped aluminium section epoxied and glassed to the inside of the hull just under the deck, nuts and washers completed the strong point.

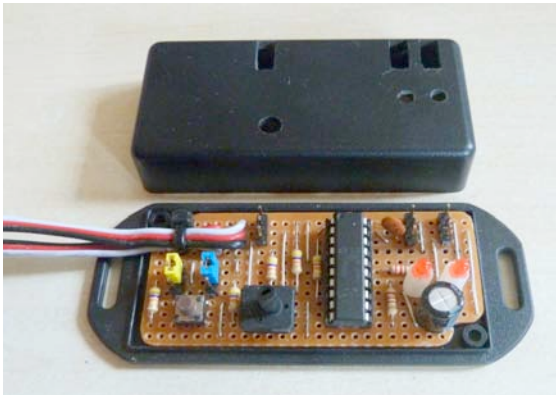
There is only one superstructure in two sections; my main difficulty was the upper wheel house assembly with its twenty three window openings and twelve panels, masking tape comes into its own here. With all bits in the right place and squared up on the jig, I solvent-melted the appropriate edges together using Plasweld, reinforcing on the inside with very thin strips of plastic as required. When fully dry, small amounts of JP Green Model Filler were used to get the sharp outer edges required. The lower accommodation section was a straight forward styrene build as were the two funnels. I then glued the funnels to the upper section and filled any naff fitting bits. To join the upper and lower sections I used two self tapping screws, I didn't glue as this would make painting much harder later on. The stanchions are white metal and the top rail is of brass, necessitating the making of jigs so both sides and the front ladder rails turn out the same. The four ladders in the kit were not sharp enough and incidentally the wrong type. So I made my own, once again using a jig.

The mast went together as per drawing, modifying so as to accept the navigating lights, 1 anchor and 3 steaming lights, I use very fine motor winding wire as you can get many of these into a small area or superglued to the outside and not look out of place. The choice of light type is a personal one, on this occasion I used 12v grain of wheat bulbs from Hunter Systems lit on 9v, I later changed to the full 12v because at an evening sail, I had trouble at times discerning which direction it was travelling due to the lower luminosity, the extra 3v made all the difference. The openness of the wheel house gave me the opportunity to include lots of furniture, not all included in the kit. To get inside, I made the roof removable, hence the next problem, which was to arrange for a 12v supply to the four nav lights and one searchlight on the roof, a buzz bar under the roof was the answer. The roof is held in place by two strips of thin magnetic plastic stuck to the underside; this is attracted to two strips of ground down hacksaw blade glued at the ends to the wheel house insides. For the radar I ran a small diameter shaft down to the lower level and connected via a D coupling to a motor and gearbox run on 1.5v hiding all this inside a double bunk.

Ken Gould.

[the concluding part of Ken's Article will be published in the next news letter]

Hints and Tips: An Improved Rudder Mixer



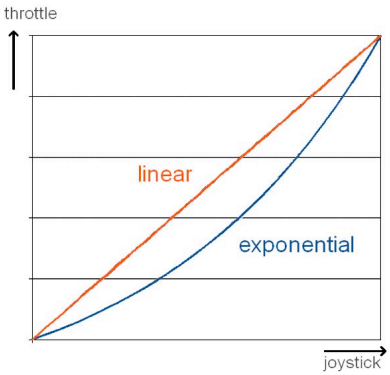
Rudder Mixing Overview In twin motored boats, a rudder mixer allows simple differential speed control of the two motors without the need of an extra throttle channel or alternatively the use of an upmarket transmitter capable of mixing channels at source. The basic concept is to mix the rudder (steering) demand in equal and opposite amounts with the throttle demand thereby creating two output channels which respond in unison to the throttle but differentially to the rudder. These outputs drive the two motors via their ESCs (Electronic Speed Controllers). Thus, for example, when turning to port the starboard motor speeds up and the port motor slows down to assist the turning action. If the boat is stationary, rudder application will drive one motor forwards and the other in reverse allowing the boat to literally turn on the spot.

The Original Mixer This project offered a major difference from the commercial rudder mixers I had thus far encountered, in that the proportion of rudder mixed into the throttle signals could be adjusted from zero to 100% by the user - I had found that the usual 100% (fixed) mix resulted in the boat accelerating whilst turning. In fact, at other than very modest speeds, rudder authority alone is usually sufficient to adequately steer the boat, so after some experimentation I chose to use about a 60% mix for a decent balance between low speed manoeuvrability and good steering behaviour when under way. The capability to adjust up to 100% mix was still retained for boats (or tracked vehicles) steered by differential motor control alone or those boats where 'scale' rudders prove to be woefully inadequate.

Another Control Option The above problem of potentially excessive steering assistance can be avoided if the user is prepared to sacrifice an additional channel to feed into the 'rudder' input of the mixer instead of the actual rudder channel itself. That way the user can choose to only invoke differential control when the boat is at low or zero throttle settings. This means the user controls the boat in a similar manner to one fitted with a bow or stern thruster.

Dynamic Mixing I prefer the simplicity of controlling just the rudder, which in comparison to the above idea frees up a channel for control of other accessories. So, to have my cake and eat it, I have developed a new mixer which can adjust the proportion of rudder mixing applied dependent on the speed. I refer to this as 'dynamic' mixing as opposed to the 'static' (i.e. speed-invariant) mixing offered by the original device. Thus at zero speed, 100% mixing is available for high manoeuvrability, tapering off to zero mixing at e.g. 40% throttle when rudder authority alone suffices to steer. The user can adjust this upper speed threshold to suit the steering behaviour of the boat in question. Think of it like the power assisted steering in your car – finger-tip light for parking but it has become re-assuringly firm by 30mph and remains so all the way up to full speed.

A link allows the user to select either static or dynamic mixing, and a single potentiometer serves to adjust the proportion of mix for either option.



In addition, for those of us not able to implement an exponential throttle control law courtesy of an upmarket transmitter, a further link on the mixer allows the user to select either a linear or an exponential throttle control law. Exponential throttle control gives a finer control at low speeds, at the cost of the control becoming coarser as the speed increases (where precision control is less important). The graph to the left illustrates the concept. However, unlike the situation with upmarket transmitters, the exponential law is not adjustable but following trials I have selected a control law that gives approximately twice as fine control at low speeds which I found to be a useful improvement.

Nulling Offsets There is also a pushbutton switch which can be used at any time to null out any rudder offset signal to the mixer. This is to recognise that a slight amount of rudder trim away from the nominal 'neutral' may be necessary to get the boat to run dead ahead (i.e. when this cannot be

achieved by adjustment of the servo horn on its splines). Throttle null is set in the usual manner using the trim on the transmitter. When throttle and rudder are correctly nulled the resultant zero speed demand ('neutral') to the two ESCs is indicated by a pair of LEDs.

Power-Up Issues At switch on, there is a five second delay, counted down by the two LEDs flickering. This is to allow time for 2.4Ghz receivers to 'boot-up' and assert their correct outputs rather than those dictated by their 'failsafe' condition during the boot. For example, the Planet receivers output a 1.0mSec pulse train on their throttle channel until they have initialised – this represents the safe condition of a closed throttle for aircraft systems, for which these units are generally intended. However for boats this usually means full reverse throttle! Thus during the five second start-up delay, the mixer outputs a 1.5mSec pulse train ('neutral') to the ESCs which prevents an unexpected and rapid journey in reverse which would probably swamp the stern of the boat. It also allows those Mtroniks 'plug and play' ESCs to initialise correctly – the latter set their 'neutral' based on the pulse width they first see at start-up, so were you to connect that type of ESC directly to a Planet receiver you would end up with a forward only speed control operating over the entire range of the joystick – as several SRCMBC club members have found to their bewilderment!

Construction As can be seen from the photo above, the unit is easily constructed on stripboard and has been designed to utilise a small flanged ABS box which will afford protection against accidental shorting and/or moisture. The rudder demand is passed directly through to a 3 pin plug to which the rudder servo connects, thereby obviating the requirement for a Y lead. The ESCs are plugged into the remaining two 3 pin plugs.

Those of you wishing to build one for yourselves can visit the Technobots website where shortly you will be able to find additional detail including a stripboard layout diagram, a parts list, a circuit diagram and guidance on its operation and setting-up. All parts, including the programmed microcontroller chip, are available from Technobots.

Alan Bond.

Member's News: the Boscombe Down Aviation Collection

As a few of you know, apart from model boats, I am very keen on preserving military aircraft. I have for the last three years been a member of the Boscombe Down Aviation Collection. Here we preserve cockpits of aircraft, complete aircraft, weapons etc. Because the museum was in a hanger within the Boscombe Down air base we could not open it to the public. Having said that I did get Chris Chattaway special security clearance and took him in. He was very impressed and will no doubt pass any comments to anyone who asks.

Now, at long last, the museum is open to the public. We have moved from Boscombe Down to Old Sarum airfield and have been open from 1st July. Details are as follows:

Boscombe Down Aviation Collection, Hanger 1, Old Sarum Airfield, Salisbury, SP4 6DZ.
Summer opening times: Tuesdays to Sundays from 1000 to1700 hours.
Entrance fee: £10 (Concessions available).
Hanger Mobile: 07985105568

The museum is run completely by volunteers. It was a lot of hard work getting everything in place by the opening date. Initially all the cockpits are in place and some of the smaller aircraft. However due to the logistics involved some of the larger aircraft have taken longer to move. Imagine the work moving a 15 ton jet down main roads. Also equipment like low loaders and cranes are needed. So if you do visit in the first few weeks please bear in mind what we are trying to achieve on a low budget. However the collection will grow.

One good point is that the cockpits are available to get into. Children and adults enjoy being able to go through all the start up procedures of a modern jet and actually being able to move levers and switches. Just think about sitting in a Tornado, Harrier, Canberra or Andover just to name a few. All aircraft at the museum previously have been based at Boscombe Down.

Peter Bryant

Photo feature: Queens Jubilee weekend at Blakeney, north Norfolk

I spent the Jubilee weekend in Blakeney helping to crew the Sailing Club's rescue boat. The top photo shows (from left): where not to park in the shore car park; a ten rater RC yacht sailing over the car park; and the Blakeney Hotel which I can recommend very highly! The middle row shows another photo of the unfortunate visitor's cars; the rather fine ten rater model yacht; and the sort of dinghy I sail, a Seafly, dressed overall for the Blakeney's own "River Pageant". The latter event is illustrated in the bottom row of photos. It was a good weekend despite the dire weather!

Peter Taylor.

Club Contact details

For Membership Matters:

(if your address, email, or other **membership details** change):
Contact: Lorna Soffe, 1 Stoneleigh Avenue, Hordle, Lymington, Hampshire, SO41 0GS.
Email: membership@srcmbc.co.uk . Phone: 01425 615305

For "Members Adverts" and the Newsletter and Club Web Site:

Contact: Peter Taylor, 84 Priory Road, St Denys, Southampton, SO17 2HS.
Email: info@srcmbc.org.uk . Phone: 023 80554670 (you will get my answering machine; say who you are and I'll either answer if I'm there, or get back to you!)

Cut off date for entry in the next issue is: 1st October 2012

But don't wait till then, send it to me now, and especially give me more time if you are submitting on paper or want me to do the "art" work!

For Other Club queries etc:

The Scale Section Captain: David McNair-Taylor, 18 Wilton Gardens, New Milton., Hampshire, BH25 5UT.
Email: scalecaptain@srcmbc.org.uk . Phone: 07887 967887

Members Adverts:

HMS Bronington Kit

A still boxed mini kit by Deans Marine of a 1/96 Scale HMS Bronnington, Ton Class Minehunter.

Scale: 1/96, Length: 465mm, Beam: 86mm
Sailing weight: 736g
Kit price from Deans Marine: £108

Asking Price: £65 or very near offer.

Contact: David McNair-Taylor;
Phone: 07887 967887
Email: scalecaptain@srcmbc.org.uk

(Buyer collects from New Milton or will bring to Setley Pond)

RAF Rescue & Target Towing Launch 2754

Scratch built. Length: 36", Beam: 9.5", Height: 14". Single water cooled engine.
Also includes:

- Model stand and car carrying base to hold securely whilst in transit
- 2.4 GHz Planet T5 Transmitter and receiver
- Graupner Ultramat 16 Battery charger
- three 9.5V battery packs included for free since I am unsure about their condition; need testing for possible use.

Price: £250 (will deliver anywhere within 50 miles of Salisbury).

Contact: Peter Bryant; Phone: 01722 333369; Email: peterbryant@srcmbc.org.uk

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"Members Adverts" is a free service offered for private (i.e. non-commercial) model boat related sales. Advertisers are strongly encouraged to exploit other possible sales routes such as **ebay** and the Boat Yard:Marketplace/Sales/ category on **ModelBoatMayhem forum** (if you are a " Full Mayhemer").

Buyers: While the adverts are displayed in good faith, the SRCMBC accepts no responsibility for the accuracy of descriptions; check before you buy!

SOLENT MODEL BOAT CLUB
CHRISTMAS LUNCH

SOUTH LAWN HOTEL, MILFORD
15TH DECEMBER 2012

12.30 FOR 1PM

HOMEMADE TOMATO AND BASIL SOUP
HERB CROUTONS

CHICKEN LIVER PATE
TOMATO RELISH, MELBA TOAST

EGG AND PRAWN SALAD
LEMON MAYONNAISE

SEASONAL MELON
BERRY COMPOTE

POACHED FISH MORNAY

ROAST TURKEY, SAGE AND ONION SEASONING
BACON-WRAPPED CHIPOLATA, ROAST GRAVY

SLOW ROAST BELLY PORK
APPLE SAUCE

VEGETABLE STIR FRY

ROAST POTATOES, CHEF'S CHOICE OF SEASONAL VEGETABLES

TRADITIONAL CHRISTMAS PUDDING
BRANDY SAUCE

VANILLA CHEESECAKE
FRUITS OF THE FOREST COMPOTE

CREAM FILLED PROFITEROLES
WARM CHOCOLATE SAUCE

FRESHLY BREWED COFFEE

PRICE £17.50

Partners and family welcome! Reserve the Date in your Diary! ...and if you already know you are coming please tell Lorna: Return the slip below, or phone her on 01425 615305, email: membership@srcmbc.org.uk, or tell her at the pond!

✂------**Reply slip**----------

I/we will be attending the Christmas Lunch on 15th December 2012, please add my name to the list:

Name (print):..... Number of people (including me!):.....

Please return to: **Lorna Soffe, 1 Stoneleigh Avenue, Hordle, Lymington, Hampshire, SO41 0GS**