



BASINGSTOKE MODEL BOAT CLUB

Newsletter

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In the last Newsletter I questioned where does the time disappear to and who says that retirement means an easy life free from work. At the risk of repeating myself, which I am often told that I do, I have been extremely busy for the last few weeks. I have been clearing out the garage to have new doors fitted and I knew that I had a lot of 'rubbish' in there but it is only when you need to move things out into the open to get to the things you want at the back of the garage does it hit home. Many of the things in there haven't seen the light of day or been used for many years except by the spiders who have made their homes everywhere causing that awful sticky mess of webs – but it is done now with the new door fitted, everything including the walls swept clean and all the rubbish gone via many visits to the local refuse/recycling centre. The other day it was actually a pleasure to do a bit of work in the garage sharpening up some gardening tools and blades in such spacious surroundings. We are also getting ready for our next long holiday trip to France (yes, it is a hard life and I know we have already been once this year !) So 'pen to paper' had to be done to get this next edition out before we go.

Membership News:

In the last Newsletter I reported that we had 3 new members join our Club since April and we have had another two members join since then. Richard Somerset and Allan Follett are now members and I have sent both a letter of thanks for joining us and please give them a warm welcome when they visit the pond. So since the beginning of 2017 we have had 9 new members join our Club which is great news. Unfortunately not all our members have renewed their membership which now means we have 67 members in the Club which I had hoped to reach and maintain the 70 or more but 'c'est la vie'.

We have lost one of our older members for this year and this is Mike Oliver who lives down at Winchester. Mike said that at his age the journey down to the pond was getting more difficult and therefore reluctantly he had to tell me he won't be renewing his membership.

I replied to Mike saying how sorry we were to hear that he was not renewing his subscriptions to the BMBC. I wished him well for the future and gave him a big thank you for being a member of our Club.

Annual Membership fees Due for year 2016/2017

As usual In the last Newsletter I reminded all our members that the annual membership fees for the year 2017/2018 were long overdue and what a fantastic response I have had from many of you. To date I have received 66 membership subscriptions which includes new memberships, which is great. Our membership 'on the books' was 72 but despite me keep asking for the remaining non-paid subscriptions many have failed to contact me which means that I have now written the remaining 6 members off our books which is a pity but I cannot keep chasing them.

New members are always most welcome – if you have a friend that may be interested in model boating or joining the club then please let them know all about us, or tell them to have a look at our website to see for themselves - www.basingstokembc.co.uk

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General News:

News from the Basingstoke and Deane Borough Council (BDBC)

I reported in the previous Newsletter that we have for the last 3 years had the support of the Basingstoke and Deane Council Green Spaces Community Development Officer Zoe Channon and that She has been a breath of fresh air and during her time with the Council had given us her full support, held meetings with us and visited us regularly at the pond

I have been in touch with the Council's Community Development Officer to see if her replacement has been recruited or not. The good news is that they have but they will not be taking up their appointment until October – I have asked that we make contact with them as soon after as possible in order to continue the dialogue with the Council.

I explained previously that our Club has had a few good mentions and that I had come across a very interesting document called '**Eastrop Park Management Plan 2016 – 2017**' which sets out the future management of the park over the next 10 years.

In the document there are comments about our Club – all good I am pleased to say such as the following:- *"The Basingstoke Model Boat Club is a very popular, well established club that have long been a valued stakeholder in Eastrop Park. They meet twice a week and have become an important attraction in their own right. They are always happy to lend a hand in park events"*

I have now managed to speak to the department responsible for actioning some of the points in the report and have had a fruitful discussion with the Landscape and Horticultural Officer regarding the pond and how it is used by us and the members of the public. I have also

discussed the possibility of the provision of a large bench to be located near to where we congregate. I informed her that I had received an offer of a large donation for said bench from one of our members (I won't name names yet however) and that as these very generous offers don't come along that often that the Council should seize the offer with both hands and very quickly ! Unfortunately both she and myself are on holiday (not together !) and we have decided to meet at the beginning of October to discuss both the Management Plan and how it might affect us and the bench. Plus, it may be an opportune time for the new incumbent of the Council Green Spaces Community Development Officer position to be in attendance too.

Basingstoke - Love Parks Event

Unfortunately "Love Parks Week", a national event sponsored by the Keep Britain Tidy group was not organised and run by Basingstoke and Deane Council this year due to Zoe leaving but now that a replacement for her has been made, this event should be back on the Agenda for next year.

2017 National Play Day – Basingstoke

Well, what can I say about this event ! This was due to be held as you all know at Eastrop Park on **Wednesday, the 2nd August**. We had everything planned like the other organisers who take part, specific Health and Safety statements produced, Insurance details copied and submitted and myself, Andy Clark and Joe Harwood organised to bring all the equipment. Not forgetting of course our Club members who had volunteered to help out at this event.

I had been keeping an eye on the weather forecast for about a week as the event is somewhat weather dependant, by that I mean the better the weather the more people attend, as they did last year when some 10,000 persons were estimated in the park. The day before the event it looked like we were going to be subjected to some rain – we could cope with a little so not too much of a problem but then came the Met Office weather warnings. Heavy rain/storms and high winds were on the cards and we all held our breath. Wednesday morning loomed and having packed everything in the car the night before I was up 05.30 to get ready for the off. Just before 06.00 I received 3 texts on my phone regarding the event and the forecast weather conditions. The third one saying that the Council had, due to safety reasons cancelled the event. Somehow I cannot say that I was disappointed as in my heart I was dreading the prospect of putting up our gazebos and tables in the wind and rain and then spending the day wet and cold whilst waiting for odd or possibly no visitors to turn up !

Panic time for me now as I have to get the message out to those members who were due to support us. For Andy and Joe this wasn't a problem and even Joe's wife seemed pleased at just after 06.00 hours in the morning when I phoned to let them know ! I then had to fire up my trusty computer to send off some emails and also to text a few people. So apologies to those that were disappointed to hear that it had been cancelled but I think it was the right call in the end. Next year will be different as we are booking the sun in the diary straight away !

Green Flag Award

The Green Flag award is the benchmark national standard for parks and green spaces in the UK and inspections takes place each year in parks and green spaces all over the country and these areas are judged by representatives of the 'Keep Britain Tidy' organisation. Basingstoke and Deane BC has consistently won this award for their parks for a number of years. We have just been advised that Eastrop Park and The War Memorial Park have again been awarded their Green Flag award for 2017. Great news for all that use the parks and Eastrop in particular.

Whilst at the pond side I have spoken to a few people to see if they would be prepared to provide an article for the Newsletter and 2 have come up trumps this time around.

I mentioned last time that one of our older members gave me a couple of un-made boat kits that he had no need for and that Chris Cole had the Graupner Hecht Patrol launch. Now Chris has already submitted an article for the last Newsletter but seeing as he had finished this launch to a very high standard I asked if he could put a few words together to describe the boat and its build. However, before I start I must tell you about Chris's 'lucky' escape.

Chris and his wife were travelling back from Brecon in Wales when he was involved in a very bad car accident. A vehicle in the opposite direction was overtaking a number of cars and went onto his side of the road. He braked hard and was hit head on and at the same time two cars following him run into the back of their car. There was not much left of his car and it is a write off. His wife was injured and has a spiral fracture of her wrist and numerous bruising and Chris had concussion, or as he said a 'woollier head than normal'. They were very lucky to get away with just those injuries and our thoughts are with them both. Chris tells me that they had a full box of honey nut cornflakes on the back seat and this exploded sending showers of flakes all over the inside of the car! plus 4 pints of milk in the cold box – that must be the least of their worries !

Graupner “Hecht” Search and Rescue Vessel



The finished boat

Assembling the Graupner “Hecht” kit. (Simple translation “Pike”)

The full size Hecht is a search and rescue vessel used by the German naval/coast guard authorities, and is used as a Unimog towed, trailer launched package. The mast structure is lowered when on the water. The Hecht kit is very well supplied, which with all the accessory kits, makes for a very easy build. The instructions include 17 pages, 2 A3 plans, and many supporting sheets for the Jet propulsion, coupling, tow hook, motor, parts lists, etc.. The kit is apparently no longer supplied by Graupner.

Assembly

Graupner say the kit requires “No previous modelling experience!...it is possible for beginners to complete to a satisfactory standard. However the more carefully the instructions are adhered to the better the model will turn out.”

Much of the kit is ABS plastics, with a small amount of 4mm ply used for framing and support brackets. The ply was warped in places, such that the main propulsion unit frames were remade, but using 5mm ply, thinned at the contact points, to maintain the design centres. Some of the metal fittings, including the motor casing also showed signs of having been damp at some stage, but this was mostly discolouration, and slight corrosion scaling.

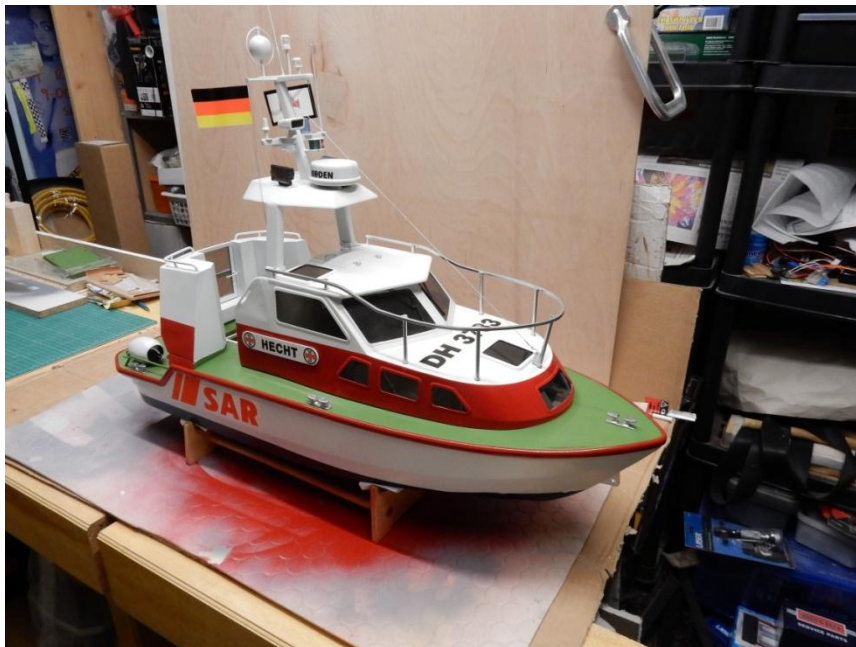
The preferred glue for the ABS parts is acetone, but this is quite aromatic, and not so easily obtained locally, without mistaking it for nail varnish remover, which may not work well, as it contains glycerine, which may not help with glueing. Plastic weld was used instead, but care must be taken to not depend on the “capillary” effect always working. Particularly, the deck to hull joints need careful attention, even prying the joint open and working the glue into the gaps.

The motor is a heavy unit and only mounted at the front on a 4mm ply plate. It remains to be seen how the alignment stays as set.

There was some concern over the water proofing of the ply parts, particularly the mounts for the external jet propulsion parts which screwed through the transom, with self tapping screws, into ply bearers inside the hull. These were coated with glue when finally assembled.

The impeller was not included with a lock nut, so was secured with a little stud lock. This could cause problems with reverse running.

The paints suggested by Graupner were not RAL number listed, but just their own part numbers, so the hull below the waterline became Rover British Racing Green but unexpectedly a metallic version?! (Helps to read whats written on the can!) Above the waterline and cabin Fiat white, red bits Fiat Red, and the deck the “textured” green. All are from “rattle cans.” All the plastic surfaces were “etch” primed first.



Nearing Completion

Running gear

Jet propulsion - The supplied unit was the Graupner jet propulsion kit, with the “clam shell” reversing mechanism. This included a 29mm impeller.

ESC - The speed controller selected was a Mtroniks Viper 24v 25A.

The battery suggestion was for 2x 7.2v 3000mAh NiMh in series, so the standard 12v ESC's would not be an option here.

Motor - The supplied motor is the Graupner 700BB Turbo, nominally of 12v, but ranged for 7.2 to 19.2v

Radio -

- switch for reversing
- esc motor speed control
- rudder

It was decided not to use a reverse on the motor/ESC, partly due to the impeller "looseness" and also as the reversing mechanism is a "shell" that swings down over the jet nozzle, and directs the flow back at the boat, hopefully more underneath the boat than just at the transom. Graupner advise that full power is not used when reversing using the mechanism. So with the reversing shell either up or down, one of the radio channel switches is used here. For the ESC control, the radio was set up on a central sprung channel, with the servo end points at 100% forward, 0% at centre, and 0% reverse. So the ESC does nothing for any reverse speed. I suppose some mixing could be done where a reverse setting pulls the "clam shell" down, then advances the motor in the forward direction. The choice of a spring centred stick is because the same radio is used for different models, using the binding option to select different models, and an uncentred throttle stick is felt to be dangerous if accidentally "knocking" the stick while not looking at the model. The rudder servo connects to the jet outlet ducted nozzle.

With this radio, it is possible to consider using forward only esc's, and setting the centre sprung stick to centre position -100%. This would be that forward would be +100%, (max receiver output volts to esc,) mid position would be -100% ie min receiver output to the esc, which for a forward only esc equates to a stop position. Reverse stick end position would still be 0%.

On the water

No ballasting has been added. The design weight is 3kg, and the model came in at 2.7kg. The waterline is close to normal. Some additional weight may help for stability at high speeds.

During running trials, current topped out at 7.5A. At 14.9v, 7.55A peak, 114W peak, which is much less than the motor and esc are capable of delivering. Running with higher voltages, upto 19.2v, and or using a brushless option, with a high kv motor may produce higher water speeds.

However..at low speeds the hull is very easily moved by winds, but at gentle speeds the steering becomes more predictable, though when the speeds increase further, and the the boat gets up onto the plane, it does produce a quite alarming wiggle. When the boat stops, it doesn't drift to a stop in a straight line, but swings depending on wind or wash. Reversing is not great. Graupner admit the boat is a "little" top heavy, and "full rudder at high speeds must be avoided!" The boat does have in its design, 3 buoyancy tanks, the 2 big sail structures on the rear deck, and 1 flat box structure half way up the mast!

Future Options

- Lights - work is nearly complete on a single stick (or 2 switch) 10 channel LED individually selectable system.
- Mast assembly raising by servo
- Tow hook release by servo
- brushless motor main power conversion
- rudder and dagger board
- more ballast

Many thanks Chris for this article – I won't ask you again for a while, I promise. Editor

I now have another great article from our Reg Rees on his new project.

Rapier build part 1

In one of my earlier newsletter contributions I mentioned that I was planning to make a scratch built scaled up version of the Tarpon, a model based upon a full sized 1950s sea going Italian designed motor launch with a semi displacement hull. In my mind's eye I already had it built, painted and sailing serenely along on a sunny day at the pond, yes folks the Tarpon was definitely going to be my next model. Well that was the plan, but as most of the people who know me will testify, a lot of what I plan to do gets changed before being acted on. Some close to me at home have even suggested it may be a sign of a dithery mind, something peculiar to men of a certain age. Maybe it is, but I like to think as one gracefully ages it is ok to change your mind, even more than once, well that's my excuse anyway and I'm sticking to it. For a second or two I did think about responding with the observation that it could be learnt behaviour from the female inhabitants of our family, but very quickly thought better of it! Well true to form I did indeed change my mind about making the Tarpon as my next model whilst on garage clearing out duties ordered by senior management. The reason for the change was opening a Rapier model boat kit which I've had for many years, but for long periods I tended to forget about it so never did make it. Anyway during my garage clearing duties I found it hidden away on a top shelf covered in dust.



The Rapier as many of you will know, is a 38inch Lesro kit of a fast motor launch originally intended for a something like a .90 ic motor, and with a beam to length ratio of around 3.5 has a reasonably sleek hull design. That evening I had a quick look on the internet to see if there was a video showing a Rapier in action with electric drive. In fact I found two examples, both performing really well. This convinced me that the kit was worth making rather than just sitting there on the shelf collecting more dust, so the Tarpon build was put off for another time.

The kit box itself is torn and tatty, but on initial inspection most of the bits seemed to be there with nothing obvious missing, although most of the wood was very badly warped and discoloured. All the bulkheads were there which are perhaps the most important items because their dimensions are often not shown on kit plans (as in this case), which saved me having to calculate them. These therefore could be used as templates and replaced with new ones along with the cabin sides, keel and other main parts, so replacement wood was duly ordered. As with most of my model boats, be it kit or scratch built, I tend to want to modify the model in some way making it a little different from the original, particularly looking

to see if I can incorporate a little bit of individuality into my models by trying to improve the looks vs function balance. I'm not sure why this is but whatever the reason once having had a good look at the plans; the Rapier would be no exception with plenty of scope for modification. Having said that, the way the kit is constructed around an ic setup, makes it unsuitable for having internal detail without major alteration, and more so with electric power even though the model is reasonably large at 38". This is not a problem for me as my working models tend to be minimalistic anyway and from a distance the model should look fine, so I was happy to leave the internal layout as per the kit other than modifying to save weight.

As I started to get into the nitty gritty of building the Rapier, senior management at home thought it may be a good idea if I were to share some of the design aspects of the build with fellow club members as the model progressed. At first I wasn't too sure if the build would be of interest, in fact I'm still not sure, but hopefully some aspects may be of interest hence this article.

Whilst waiting for the new wood to arrive I made a subtle redesign of the superstructure in terms of looks. To my eyes the central cabin looks a little high relative to the front and rear cabins for a supposedly sleek design, I therefore lowered the central cabin roofline by 15mm whilst increasing the roof angle to give a slightly more assertive look. I also slightly altered the lower edge of the side window opening to more closely follow the sheer line.

Staying with the central cabin, I noticed that in one of the video clips there was a rear wall whereas on the plan there's nothing shown, so I assume the kit was designed to have the rear of the cabin open. I wasn't happy with that so I designed a rear cabin wall which would enable me to incorporate a hatch later in the build. The wall would be angled in line with the superstructure but slightly inset, which together with the hatch would provide a little more design detail.

The next job once having replaced the bulkheads, keel etc. with the new wood was to build the hull. This was normal hard chine construction using ply sheet on bulkheads and stringers. The bulkhead centres were removed to help keep weight to a minimum. (Photo 2 shows work under way).

The motor mount position, originally intended for an ic motor setup is a fair way forward resulting in a shallow prop tube angle. This is common practice for an ic setup and not a problem with an angled flywheel at the coupling end, but not so great given the larger diameter of an appropriate electric motor. Clearance for the motor mount bearers is therefore very limited once the electric motor and mount is allowed for, so I strengthened the bottom skin at that point. Because of the limited clearance I thought it prudent to buy the motor early on in the build. The motor chosen is a 60amp.710Kv 1000 watt brushless. Hopefully it will be sufficient to give the kind of performance this model deserves, time will tell, certainly there's not much leeway for a larger diameter / more powerful motor. I did think about increasing the prop shaft angle to give more clearance, but there is always the risk of compromising hull performance by doing that so I left things as designed.

As an aside talking about motors, I bought a couple of aluminium motor mounts on the internet. Although only £8 each they were absolutely useless, flimsy and roughly made with lots of holes but not where I wanted them. In frustration I went down to a local metal fabricator and asked if they had a 3 by 4 inch aluminium angle offcut so I could make my own. Not only were they happy to oblige, they made up 6 pieces to the exact size in 3mm

engineering grade aluminium all for £2! So the moral of the story for me at least is to use local resource where possible, much better than some so called model boat specialists.

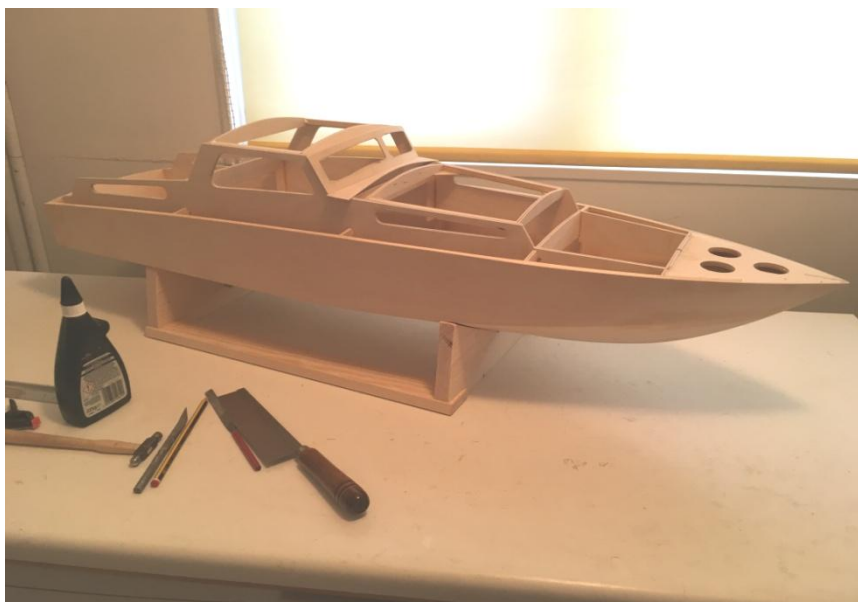
The next task was to make the central cabin roof removable so I could more easily gain access to the batteries, whereas with the kit the roof is not removable. This proved a little troublesome because my newly designed rear wall was by now firmly glued in place complete with top edge radius to align with the roof radius. With a fixed roof the covering would just need to be glued over the roof formers as per the kit; however wanting a removable roof meant there was now a conflict between the internal vertical roof structure and the radius on the angled rear wall, resulting in gaps where the two surfaces meet. In hindsight (and with a less dithery mind) I should have thought about my contact lens design days, specifically Conic lenses (where angles and radii are blended together), and put a flatter radius on the wall to offset the angle before permanently fixing it in place. However after a bit of fiddling I had a light bulb moment and made up a fillet for the top of the angled wall with a flatter radius. This neatly solved the problem, and with the rear wall being inset looks fine.

The next modification made was to eliminate having to use the wedge shaped piece of wood supplied with the kit that fits between the front windscreen of the central cabin and the removable front cabin roof. It requires heavy shaping and is just not in keeping with what I was trying to achieve and therefore was a nonstarter. I remember this feature from my old AeroKit building days and didn't like it then. The solution I came up with was to simply make a couple of duplicate front cabin roof formers. These were then glued to the inner superstructure either side of where the front windscreen sits and covered with a ply fillet, thereby accurately following the line of the removable roof. No blending required! While I was at it I made up a new windscreen design which simply fitted over the new fillet to replace the kit version.

The next job was to extend the forward section of the rear cabin roof so it meets the rear wall of the central cabin. The rear cabin roof on the kit version stops short of the back of the central cabin. (You may be able to see what I mean from photo 1). I wasn't happy with this design feature at all as the end of the roof just stops in mid-air. I suppose if the back of the central cabin is open then it's unavoidable, but now having enclosed the back of the central cabin with an angled wall I wanted the rear cabin roof to extend forward to meet it without stopping short. The rear cabin roof however has a vertical radius, which if left as it was and just carried forward would result in an uneven join line where it meets the angled wall. This time before I got near any glue I gave this modification some thought. I knew I needed to put a horizontal radius on the front of the rear cabin roof to counteract the vertical radius which should give a flush fit with the angled wall. The problem was that the rear cabin roof framework fits within the superstructure framework with no lateral movement, therefore the shape of the horizontal radius, and how far the roofline needed to project forward in order to meet the back wall of the central cabin, needed to be calculated prior to fitting the rear cabin roof. My way of overcoming this was to wedge the rear cabin roof framework minus the roof covering in position. I then took a datum point from the back of the superstructure bulkhead that butted against the rear of the roof framework. I then took measurements from that point forward along the centre line to the angled wall, and thereafter at 10 mm intervals outwards on both sides following the roof framework radius. Having taken a note of the measurements I then removed the rear roof framework and glued on the roof covering. The sides and back were trimmed to provide a roof overhang as per the plan but the front was left sufficiently long. The measurements plus the back overhang distance were then transferred to the rear

cabin roof. Once all positions were plotted they were spline joined and the line cut. This method proved to be very accurate with the rear cabin roof fitting beautifully within the superstructure framework with a neat consistent join line where it meets the central cabin back angled wall. I know looks are subjective, but I think the model now looks so much better with the rear roof line meeting the central cabin and well worth the effort. I know I could have trimmed the forward section of the roof covering bit by bit with the wedged roof framework in situ, or played around with a card template, but thought these were a little hit and miss and crucially would not have given me a much needed brain workout!

Whilst making the front and rear roofs, I did have to make one small design compromise involving the front and rear roof construction. This was due to the limited amount of superstructure material between the top of the cabin windows and the roof. The roofs when made up as per the kit ended up very flimsy and likely to distort because of the thin framework required to stop them protruding into the window space. To strengthen them I made up thin ply fillets for the framework joints which although has solved the problem they are just visible below the top window line for those with eagle eyes, hopefully though once a few yards offshore they shouldn't notice.



Well that's it for part one; (yes I plan sequel). Part two will outline the progress from now to final completion. My next job is to diagonally plank the deck with Lime and Walnut, however with a plank width of 6mm it may be a little while before the model is eventually finished! In the meantime when I'm not planking the deck or undertaking one of a growing list of household duties assigned to me by senior management, I look forward to some nice sunny days at the pond in the company of fellow club members. Thank you for your friendship and help, it is very much appreciated.

Many thanks Reg for this article – we await the finished article and part 2. Editor

Well, I must close now and just to let you know that there are **5445** words of wisdom (not all mine you know !) plus many pictures in this newsletter which must be value for your money ! If there is anyone who would like to send me an article for the next edition, I would be most appreciative as its saves me thinking of something to write ! **Ta,Ta, for now folks.**

***Newsletter by Alan Spooner – Secretary / Treasurer / Newsletter Editor
Basingstoke Model Boat Club***