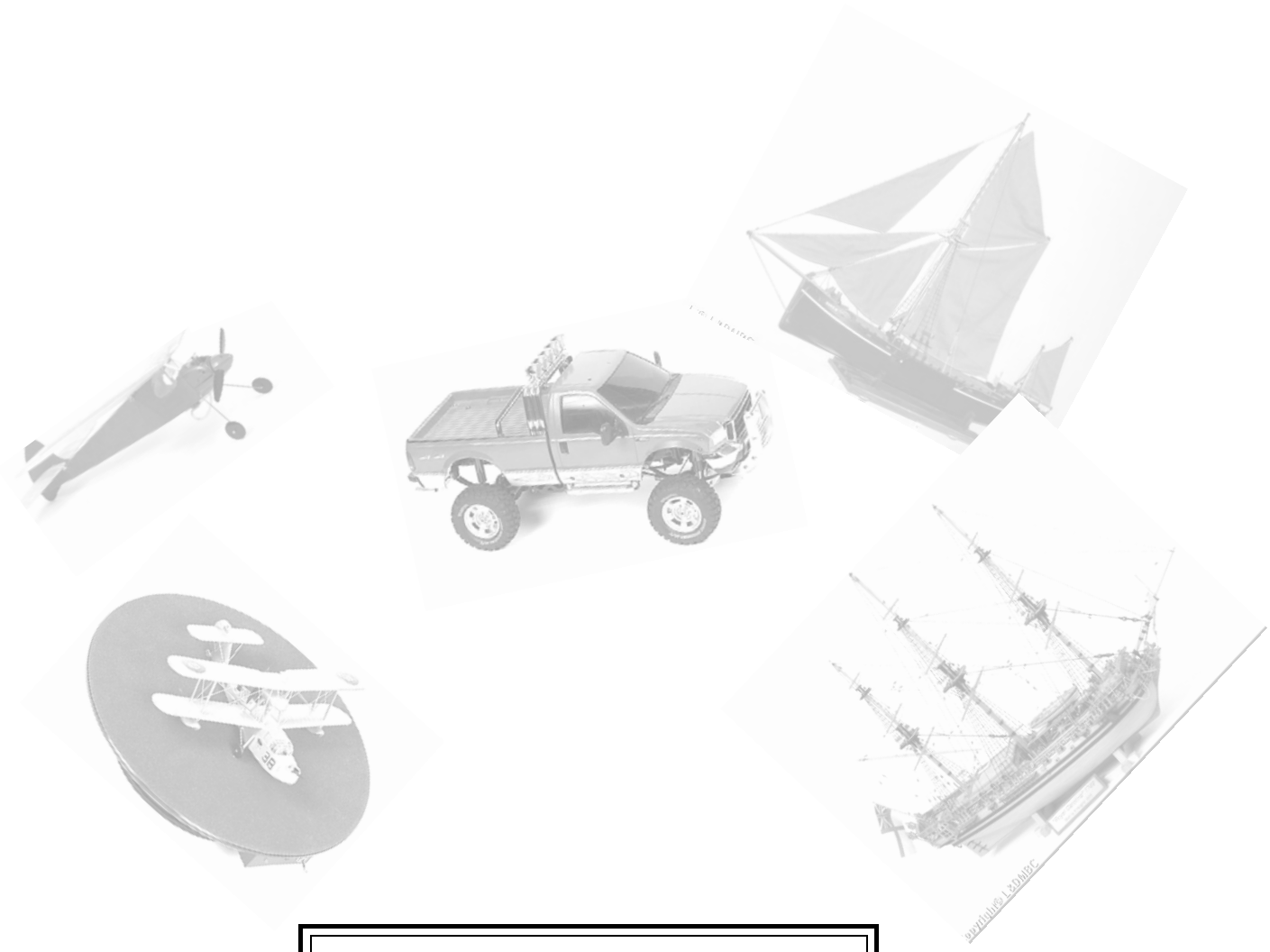
Luton & District Model Boat Club

… a model club ***not*** just for boats



NEWSLETTER

SPRING 2011

Notes from your Editor

In spite of this following the quiet months of winter, it is a full magazine. Okay, I've saved some old articles to fill in the gaps, but its worked.

July is going to be a busy month this year. On 9th July, Stevenage is having a fun day, organised by the Council where model boats will be just part of the attractions on show. This is in addition to the Stevenage Model Boat Club's usual open day, this year on the 12th June. Then it will be our Club Open day on the 17th July. There will be the usual non-competitive events on the water.

Requests received from the membership

One of our new members has asked if we can have a talk on modelling techniques – any volunteers to share their skills at a club evening?
We have also been asked to organise Themed Sailing Sundays, to bring similar models to the lake all at the same time.

Can you help…?

We have a plan for improving the facilities lakeside, which involves footings, brick and laying pavement. Do you have some hidden skills that would be useful? The job has to be completed in a day, so to leave it unfinished would be too much temptation to those who use the park after sunset – we would very likely return to find any unsecured materials at the bottom of the lake!

Stop Press

Paul Birtles is our latest Granddad… Darren and Gemma gave him their first grandchild, a boy still to be named, but weighing in at 7lb 15oz.
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2011 International Model Engineering Show

John Morgan

Another New Year means another trip to North London and Alexandra Palace. Kay and myself met Graham and John Weedon at the lakeside hut to squeeze the parts of the stand kit into the cars. Once done, we set off, closely following Mr R's taxi, though I think we know the way by now…

It was a very good drive to Muswell Hill, the easiest I can remember and parking on the east side of the palace was also no problem.

Having unloaded the cars and met the team inside, I, for one, was somewhat concerned to find out, that none of the stand design team was present. My fears of a long and difficult build seemed to be correct, as we all gazed at the bits on the table and then at ourselves, the looks saying it all. As we sorted through the pile, memories were stirred but we did find the notation on the woodwork a tad confusing. To our surprise, Jill Martin knew much of what went where, what would we have done without her! The pace of construction quickened, in spite of having to re-do the (now blue) infill's – too late it was realised that the ones with a cut out had to be fitted at each corner.

In the end, the departure was around the usual time of 17:30hrs. For those who attempt to return to Beds and Herts using the same route as the outward journey, I have found that heading north, crossing and ignoring the North Circular in the crush hour, through Bounds Green, Southgate and Barnet to the A1 at Sterling Corner, largely clear of traffic.

Kay and I were due to return first thing on Sunday, to help man the stall and also the breakdown. Unfortunately, my mother had the spanner to place in our works, which she exercised at 21:30hrs Saturday night by falling and breaking her wrist. Following the long stay until 04:00hrs in A&E, it was lunchtime before our weary eyes were open. A quick brunch and we were on the road to arrive at the venue with just over an hour before closing time. So, no time for me to go shopping this year.

The problem with a late arrival is parking; we were in the lower, west side, car park. Not a problem for those just viewing, but we had to get two heavy-ish boats down the hill through the park. Needless to say we failed to see the left turn in the dark and walked in an arch, back to the main road! The transport was located, lit by the headlights from the only other vehicle remaining. Yes, I should have taken the time to bring the car to the boats; loading would have been a nightmare without my little helper!!

Our award winning stand was, this time, scored with the “also-rans”. I suppose it must be difficult for the organisers, to keep giving prizes to the same stands as this will not encourage the others to turn out every year. We can take comfort from the knowledge that our flexible design gives us one of the best stands to be found in any show. Just one observation, although Ken G’s artistic eye produced an excellent layout, we always seem to bring the same models to display on our stand. It would be good to have other members volunteer their creations to keep the interest going… and give Mr G a challenge!!

At 27 minutes, the breakdown was done in double quick time, ensuring an early evening arrival for us back in Sandy, to catch up with our lost sleep…

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Milton Keynes IPMA Show, 2011

John Morgan

This was my second time at this show; the first was last century, when the club decided to attend. Still not sure what happened last time but I was the sole representative and the “stand” was my workmate supporting 2 parts of the harbour, with boat, just inside the main door entrance – in February…yes, it was on the cool side! I suspect that we (the Club) were told there was no room for us, but the message failed to reach me!

Back to the 21st century. The show was well supported by the Plastics brigade, or should I say miniature modellers, as there were also models made from card and meccano, though plastic aircraft and tanks dominated. Overheard in the tea queue – “Not as good as last year”. If that is true, what was last year like? My only comment would be, for the exhibitor’s to have more labels on their exhibits to tell me what the model was. Some were

obvious (to me), that is, most of the RAF models, but those from across the pond and all tanks were not. I would have liked more dioramas, but then the obvious challenge from the hall would be for me to produce one!

Our stand was conveniently placed close to the refreshments, on the first floor. I felt a bit sorry for those further up the stairs, a bit out of the way to have many visitors? We had a guest exhibitor, Alan Izzard, son of George. Among his collection of plastics was a very well finished racing cycle. This was entered into the competition, but to my surprise failed to win a prize. It was Alan who created the clubs web forum site.

One of our visitors was a chap who had produced static ship models for museums. As museums demand high quality he sounds like a useful chap to know. George did the “hard sell” on behalf of the Club and got a promise of a lakeside visit from the poor fellow, if not actually signed up as a member.

While we watched the world go by, occasionally responding to a visitor’s question, James and Molly busied themselves building a 1/76th Tiger and Crusader 1/100th tanks, sitting behind the stand. They very nearly finished them as well.

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Brighton Model World 2011

Ken Gould.

This event is normally known as the Brighton Show. One, I promised myself I would go to; some day. That day arrived on Saturday 19th February last. Not being allowed out on my own any more, I had the company of two carers, Dave Abbott and Tony “sinker” Dalton. If truth be told, I looked after them most of the day. The venue was the Brighton Conference Centre, across the road from the sea front. There was plenty of adjacent parking in a choice of multi story parking next door. We used one of the side entrances, as they didn’t have queues. I should say up front, if you are a died in the wool model boater, it may not be the day out you were expecting. Having said that, there were thirteen boat clubs exhibiting in the main auditorium, mostly built around a small pool, a nice touch was a large talking swan which had the small kids enthralled. There was also another five marine exhibitors spread about in other halls. Two old favourites, Graham of Hunter Systems and Sue and Gerome of SHG were both doing brisk business. Plus a number of tool outlets, where Dave actually brought a paint brush, yes just the one!

With eyes wide open, we took in the sheer diversity of modelling subjects. Railways, ranging from Z gauge to ¼ sized engines and a full sized Pullman Carriage parked outside the main entrance, there were twenty five plus layouts featuring a whole range of themes in many different scales and gauges. Engineering was strongly represented in all its many forms. Meccano abounded, Toy cars of all descriptions and scales, Dalekworld with full size exterminators roaming around. IPMS were well supported, mostly by planes. Tanks and armoured vehicles, ranging from small plastic to large metal types, many were motorized. Cranes, Lorries and earth moving equipment both static and moving with the Germans demonstrating all types as only they can.

Aircraft and Helicopter demonstrations, it's amazing how a heli demo sells the ready made kits. Card Models were as usual, so well done and presented. Books abounded on many subjects and with so much more to please the eye.

I have left out a number of disciplines, so as not to spoil your visit next year. There were 148 different stands and traders; spread over three floors with multi halls on each. Three models caught my eye. A railway layout, depicting a station and the surrounding area an army camp just prior to the D Day landings, the village and station buildings in particular were superb. On the Heron MBC stand, a Thames tug "Becky" with a counter balanced folding funnel enabling it to go under the bridges, scratched built superstructure on a brought hull, very sharply modelled and well painted. The last of the trilogy, was a twenty plus foot long WW2 Forrestal class aircraft carrier, complete with two dozen aircraft, made entirely of Lego Bricks!!!

This show is one for all the family as well as us old farts; as was borne out by the thousands of younger people coming through the doors (under 60). There were many food and drink outlets on each floor, I would suggest you bring you own, as their prices were right at the top end of what is acceptable, Tony found that out to his cost, though table space was available for all types of eating. Through some quirk, access to Auditorium's 1 and 2 was through the main restaurant. Knowing I use a walking stick, they found every flight of stairs possible. Therefore I am now forced to send Dave and Tony on a lift button selection course because of the number of times they chose the wrong button for the floor required, thus more stairs.

We were there for the 10.00am opening, having driven for an hour and a half. We all agreed, to see everything in detail would take two of the three days available, so for a day ticket £6.50 (£8.50 for the under 60) it was good value for money. www.brightoncentre.co.uk By 4 o'clock we were thinking of making tracks for home, Dave suggested we go via Shoreham harbour to see if anything of interest was in. it was particularly empty but for a 1950's steam tug "Challenge" being such a classic tug, have you see a model of it at a show? Getting back to the journey home, as Dave refuses to buy a map and was unsure of the way, we had to follow our collective noses home. Tony was of little help, as he was mostly kipping in the back. I finally arrived back at my abode in the early hours of Sunday morning, having had a great time. I would recommend this event for the occasional visit.

With increased use of these battery types this article may be of interest to you.

Nickel Cadmium (Ni-Cd) or Nickel Metal Hydride (Ni-Mh) Batteries

Ni-Cd or Ni-Mh fast charge cells and larger Li-Po packs can be discharged at very high currents (up to 100 amps and more). Short circuits, faulty wire insulation or loose contacts can result in very considerable heat generation and may cause fires.

Nickel Cadmium (Ni-Cd) Batteries

(a) Ni-Cd cells will self discharge at a rate of around 20% of their capacity each month and if a stored pack discharges below approximately 1 volt per

cell, there is a danger that one of the cells in the pack may be irreversibly damaged. The lower the voltage reached the more risk there is that this will happen. It is therefore recommended that all Ni-Cd packs be charged regularly, at least every few months, and that any pack not in regular use be initially stored fully charged.

(b) Ni-Cd cells are very resilient when trickle charged at around 1/10C (i.e. 50mA for a 500mA battery). Most chargers supplied with radio equipment are designed to work in this range and there is little risk involved if packs are inadvertently left on charge when using them. Even if you regularly fast charge your cells, it is good practice to trickle charge them occasionally.

(c) Overcharging Ni-Cds at high currents (fast charging) can ruin your cells and has been known to cause battery packs to explode violently. Most fast chargers have a 'delta peak' voltage controlled cut-off and are generally very reliable. If you don't have such a charger and wish to fast charge your cells then, as a minimum, you should use a charger with a timer or temperature controlled cut-off.

(d) If you have a charger capable of both discharging and charging your battery packs then you should fairly regularly cycle the packs as this will help to keep them in optimum condition. However, it is also good practice to occasionally trickle charge any packs that are regularly fast charged whether they have been cycled or not. Just make sure that the pack has been well used or discharged before you start (no lower than 1 volt per cell though).

Nickel Metal Hydride (Ni-Mh) Batteries

(a) Ni-Mh cells can self discharge at a rate of up to 40% of their capacity each month and the danger of a stored pack discharging below 1 volt per cell and possibly causing irreversible cell damage is therefore considerably greater than with Ni-Cd cells simply because it will occur sooner. It is therefore recommended that all Ni-Mh packs be charged more regularly than Ni-Cds, at least every two or three months, and that any pack not in regular use be initially stored fully charged.

(b) Ni-Mh cells may be trickle charged at around 1/10C (i.e. 50mA for a 500mA battery) and most chargers supplied with radio equipment are designed to work in this range.

However, Ni-Mh cells are more fragile than Ni-Cds and are susceptible to damage by overcharging even at normal trickle charge rates and should never be left connected to the charger longer than is necessary. The 'safe' constant trickle charge rate is very much less that that provided by the standard type of charger supplied with most radio equipment so the possibility of overcharge damage when using these trickle chargers must always be borne in mind.

(c) Ni-Mh packs can be charged at high currents (fast charging) but overcharging can quickly ruin the cells. Most fast chargers have a 'delta peak' voltage controlled cut-off and are generally very reliable but you must ensure that the one you are using is specifically designed for Ni-Mh batteries.

(d) Ni-Mh packs may be cycled, as with Ni-Cds, and you should consider doing this fairly regularly. However, it is also good practice to occasionally trickle charge any packs that are regularly fast charged whether they have been cycled or nor. Just make sure that the pack has been well used or discharged before you start (no lower than 1 volt per cell though) and note the advice in (b) above.

Other Lithium Based Batteries

Battery technology moves rapidly and there are several types of lithium based batteries now available to model flyers, including Lithium Phosphate and Lithium Manganese. These are only two of a growing selection and you can expect many more developments in the near future that will give you more capable and safer on-board power sources.
The cells now available generally have a slightly lower energy density than Li-Pos but they are not susceptible to the potential thermal runaway problems that Li-Pos may experience.
In very general terms these packs are treated in much the same fashion as Li-Pos but it must be stressed that you should follow the manufacturers/suppliers guidelines carefully.
For more information on these newer cell technologies, keep watching the commercial magazine electric flight columns and you should also be prepared to surf the net as there is a great deal of information out there.

Li-Po Basics

If you have not used Li-Pos before or do not have access to manufacturers data, the following might be of use to you. The terminology applied to Li-Po batteries can be confusing but it is actually quite simple. There are three different things to look for.

Cell configuration: You will see a battery referred to, for example, as 3s1p or 2s1p. The first two characters are simply the number of cells in the pack: 3s = 3 cells = 10.8 volts nominal, 12.6 volts fully charged. The second two characters tell you how many packs are connected to make the battery. 1p = one pack of cells. Therefore 3slp is a single pack of 3 individual cells. 4s2p is two packs of four cells each, connected in parallel as one big battery.

Capacity: This is familiar to any rechargeable battery user and will usually be in milliamp hours (mAH), i.e. 700 mAH, 2000 mAH etc.

The ‘C’ Rating: This can be thought of as a measure of the ability of the battery to charge and discharge. In conjunction with the Capacity, it will help you decide how quickly it can be safely charged and discharged. Most batteries have their ‘C’ rating marked on them by the manufacturer but if you do not have this information it is always wise to consider the battery to be 1 OC.

Charging Rate: To find the maximum charge rate of the battery, you simply divide the ‘C’ rating by 10 and then multiply by the capacity.

A 1OC x 700 mAH battery will simply be 1 x 700 mA (0.7 amps) maximum safe charge rate.
A IOC x 2200 mAH battery will be 1 x 2200 mAH and will take 2.2 amps maximum safe charge rate.
A 20C x 1500 mAH battery will be 2 x 1500 mAH which gives 3 amps maximum safe charge rate. Note that the higher the ‘C’ rating, the quicker the battery can be charged.

However, for longer battery life, you can always charge at less than the maximum allowed but do not go higher. If the battery comes off the charger anything other than slightly warm, you are charging at too high a rate.

Discharge Rate: The safe maximum continuous discharge rate of the battery is the full ‘C’ rating multiplied by the capacity.

A 1OC x 700 mAH battery will have a maximum safe discharge rate of 7 amps.
A 20C x 1500 mAH battery will have a maximum safe discharge rate of 20 x 1500 mA = 30 amps.

These are reasonable figures to use as a basis for your power decisions. If you find that your model is finishing its run with the batteries more than reasonably warm, you are discharging at too high a rate and battery life will shortened. Much too high a discharge rate and you risk the same thermal runaway situation as with overcharging.

It is highly recommended that you invest in a good multimeter or powermeter so that you can monitor the current drain on the batteries in operation. Even a minor change in propeller selection can make the difference between safe and unsafe battery Operation but you won’t know unless you can monitor current levels.

(Would the author please contact John M for recognition – Editor)

End of Newsletter