WLMAC Newsletter June 2017

Editor – Andy Blackburn

A mass launch of chuck gliders at the 11th May club meeting; readers will note that not one of them hit the photographer, and some of them weren't even close – come along gentlemen, digitus extractum. Perhaps we could have a special prize for this next year…? (Mat Dawson photo)

Editorial

I distinctly remember claiming that I wasn't going to write much for the newsletter because it was enough effort just editing it, but events (and the persuasive powers of Chairman Mat) have conspired against me once more – see the piece on the Indoor Free Flight Scale Nationals. If anyone feels the need to have a go at indoor themselves and has no idea how to start, or just wants to come and have a look, please feel free to get in touch.

Also, we're hosting one of the BMFA Scale heats (again) but this year it's going to be run over two days; Saturday 10th June is basically a BMFA Scale flying training day - anyone can turn up and fly, you don't have to have a scale model, someone (possibly even one of the Lords of Scale) will be on hand to coach/encourage people in the art of Scale Flying. The actual scale heat is on Sunday 11th, normal flying will be suspended until mid-afternoon (3-3:30-ish) but the BBQ will be fired up and food will of course be provided.

Indoor Scale Nationals 2017 – Andy Blackburn

Around Christmas 2016 I had at least one semi-flyable indoor scale rubber model and was starting to build another one with the prospect of being able to finish a third shortly afterwards. Now, the thing about having a bucket list is that once something is written down (e.g. "Compete at the Indoor Scale Nationals"), then if the opportunity arises one really feels obliged to seize the chance.

So I took the plunge and entered both Kit Scale and Peanut Scale at the 2017 Indoor Nationals in April; didn't really know what to expect, but that's all part of life's rich tapestry, as they say...

Indoor Scale Classes

There were a couple of classes that I wanted to enter; I was originally only going to enter Kit Scale, but entered Peanut Scale as well (entering two classes turned out to be only slightly more difficult than entering only one):

- **Kit Scale** – meant to be for beginners, but it's easily the fastest-growing class and had the largest entry (37) at the Nats. Any model is eligible provided that it's been built from a plan that's been kitted. No documentation is required other than the original plan, and some sort of colour rendition (can be the kit box top, or anything, really) to show that the colour scheme you've chosen is approximately scale. Most models are finished in coloured tissue, sprayed finishes are penalised as are most changes from the plan. Flying is marked on realism by a panel of judges, and flying marks count for a lot more than static marks. I really like this class, partly because it's simple but mainly because the models has a very attractive aesthetic – since they're covered in coloured tissue, the models are semi-translucent which tends to suggest an overall lightness, yet they're (usually) a pretty good *representation* of the real thing without being rivet-perfect - sort of like the difference between a stained glass window and an oil painting.
- **Peanut Scale** – also very popular (19 entries), maximum span 13", or (rarely) 9" fuselage length. Flying marks are 1 point per second of flight duration, with a 10 second bonus if the model takes off from the ground (ROG – or rise off ground), static marks are based on a published scoring schedule. The interesting thing about the marking is that models are ranked for flying and static marks separately, then the placings are added together to determine the winner. This means that there are many ways to get a good score – for instance, the Nesmith Cougar in 4th place overall was 3rd in flying but only 10th in static. Documentation is a three-view and a picture, or a colour profile, or similar. I like this class because Peanut Scale models easily circle within a normal school sports hall, and although there are penalties for deviations from scale, there's no measurement of the model against the three-view and the emphasis is on the overall *impression*; a model covered in tissue and done well can still get a good static score.

There are some other classes which I didn't bother with - two was enough for a first attempt;

- Open Rubber Scale doesn't have any particular restrictions, but documentation is much more important and the model really does have to be quite accurate and realistic to get a good static score; static marks are as important as flying marks and one has the impression that they don't fly as well as Kit Scale models. There were 11 entries at this year's Nats.
- CO2/Electric is similar to Open Rubber Scale except that – obviously – the motive power is one or more CO2 or electric motors, some quite ambitious models are entered in this class (e.g. 4-engined electric Lancaster). There were only a few (7) entries in 2017.
- Pistachio Scale (12 entries this year) is similar to Peanut, except that the maximum wing span is even smaller (8 inches !!); unsurprisingly, they require a lighter touch than Peanut Scale, and are regarded as more difficult.
- Scale Glider is a new class and hasn't really got going (only 6 entries); there's no static marking but flights are marked for realism. They don't fly for very long, and I don't know if it'll catch on.

Which Models to Enter?

Ideally, one would go to one's model store (climate-controlled, naturally) and select the most reliable and potentially highest-scoring model from one's vast cache of built and immaculately prepared indoor models; but sadly, life isn't like that. By the time the entries had to be in, I had three flyable Kit Scale models - but none of them were properly trimmed; the oldest model – which should have been the most reliable – was the **Luton Minor** from an Aerographics kit; 20" span, perhaps a bit heavy (~39 grams) but loads of wing area, so the weight doesn't seem to matter.

However I have not, after several attempts, managed to get the bl**dy thing to follow an acceptable flight pattern; it will either fly left under power and then stall on the transition to what should be a left-hand descent, or spiral in when turning right. It's flown into the wall at least twice. I think the wing area is probably so large that the wing warps are over-powering the rather weedy fin & rudder, which is in disturbed air anyway. I've more-or-less given up on it, and things have got so bad that I'm seriously thinking of converting it to indoor R/C. So entering the Luton Minor in Kit Scale just wasn't practical.

The model that was built specifically for the Nats (a Vintage Model Company **Cessna 140**) has less wing area than the Luton Minor but is much, much lighter at about 24 grams and was built as close to the plan as I could get it, but then I got myself some potential penalty marks for painting the bits around the cockpit (Kit Scale judges are notoriously strict); however, some things *must* be done for reasons of style, and that was one of them. Anyway, at first sight the Cessna looked promising because on less than max turns it would do a good take-off, one and a half slow circles and land. The trouble was, the landing was a bit bumpy because it tended to dive for the floor when the power tapered off, because this is the first rubber-powered scale model that I've had that turned out nose-heavy(!). Adding tail weight or bending the elevators would take the trimming process back to square one, so there was a lot to do and entering it would be a risk.

My **Andreason BA4-B** was built from a Peck Polymers kit and had come out a bit heavy at 16 grams (doesn't sound much but it's only 12" span), but it was built with the trim settings on the plan and a slightly offset rudder, naturally turned left and had a surprisingly good glide. Initial tests with 3/32" rubber on about 600 - 750 turns demonstrated that it had a good take-off, stable left hand turn under power and a really nice landing. And it looked good in the air. It clearly required thicker rubber as it landed with a few hundred turns left on, but this was obviously the best-performing model of the three so it was entered in both Peanut and Kit Scale. I think it was the smallest model entered in Kit Scale, actually.

Saturday Evening Trimming

It took three flights in the enormous hall (flying area roughly 100 ft square) to determine that the Andreason required an additional 1/32" downthrust with a 12" loop of 7/64" rubber, and I have to say I was pleasantly surprised by the quality of the take-off and landings. I really wanted to fly it some more but sanity prevailed so I packed everything away and went off to get some dinner.

The Indoor Nationals

There were a lot of entries so flying started unfashionably early (trimming at 8 am, competitors' briefing at 8:15 and flying started at 8:25). One of my PSS mates turned up mid-morning to give a bit of moral support, but obviously decided that I didn't need any as he spent the entire day watching the flying, punctuated only by a second-breakfast visit to the burger van, lunch from the cafeteria in the viewing gallery and an afternoon snack just before it closed at 4pm.

Peanut Scale

Peanut Scale was first and to say I was nervous was possibly understating the situation a bit – my hands were shaking as I was winding the rubber! What you have to do for Peanut is find a free timing person from the two or three that are sitting and waiting, give them your timing sheet, march out onto the flying area in a confident manner (hah!) look at the timer to make sure they're watching, and fly. Then, make sure they've signed the sheet and go have a sit-down to recover. Actually there is a huge sense of achievement and (mainly) relief as soon as the first flight is complete.

The first three flights with 7/64" rubber were all around the 30 second mark, or about 20 seconds from an ROG + a 10 second bonus (I think the ROG bonus is only worth a second or two); bearing in mind that the most I'd ever managed before was about 25 seconds (with a Currie Wot, I think, in about 1978), I was very happy with that. However, there were lots of turns left when it landed so thicker rubber was indicated, but since it was a known quantity and obviously flew, I decided to leave it as it was for the first two Kit Scale flying rounds and make any changes after that.

The second round of timed Peanut flights (after Kit Scale) was with a loop of 1/8" rubber, and that improved the duration to about 40 seconds (or about 30 seconds from a ROG) but it still landed with turns left, so it needed thicker rubber again or a different prop that would use up the available torque slightly quicker. Since the rather hefty airframe was unlikely to yield very much more performance, and since either of these changes would probably require a significant re-trim, I didn't bother with the third timed Peanut session.

Kit Scale

The pilots' briefing stressed the need to keep an eye on the flying order that was projected on the wall – for instance, person A should be flying, person B waiting to fly with a wound model and person C preparing/winding. This worked surprisingly well so the organisers fitted in a few extra trimming sessions which some people found very useful.

Kit Scale was very similar to Peanut Scale from a flying point-of-view, with the additional caveats that a) A ROG is absolutely required if you want a good score, and b) it should be flown so that it comes as close as possible to the judges so that they can see what's going on. The Andreason's

flight score turned out to be quite good, in fact the first flight was the best by a small margin. The later flights with 1/8" rubber were not quite as good as the first, the model flew higher so the transition from climb to descent was easier to see, but I think the slight extra weight pushed the speed up a little bit, and the extra torque might have tightened the turn a bit.

So Did I Win?

No, of course not! But it didn't go too badly – 12th in Peanut Scale and (amazingly) 5th in Kit Scale. However, it's a pretty good spectator sport and it was a great experience;

- Would I go again? – Hell, yes!! I have a few ideas for what to enter next year.
- What have I learned? – Preparation is everything. And some extra thought about where to start the take-off from might be better next year.
- Why is it such a buzz? – to be honest, I don't really know; I suspect that at least part of it is now having the ability to fly models that refused to work properly for our younger selves. And it is, possibly, aeromodelling at its purest…

Parish Notices

Big Thanks to the Work Party

We had a successful work-party on Saturday 13th May, many thanks to the members who gave up a couple of hours on a Saturday morning to make a contribution;

Pete taking appropriate precautions while handling the club's helipad marker – you can never be too careful!

A workman (Roger Freeborn) blaming his tool for something, whilst holding a hammer.

Rabbit hole filling in progress, a largely futile task as it turned out! The bunnies dug them all back out again by the next day.

Training Incident

There was a bit of an incident during training early in May; Chairman Mat was in charge of a an E-Pioneer flown by Tony Briselden when another member – who shall remain nameless in order to protect the reputation of said member (whom I shall call "Archibald") – started flying a model which then proceeded to go through a series of obviously un-commanded cavortions with wildly fluctuating power quite close to our entirely innocent training pair; the flying display was worthy of a world-class 3D championship flyer. Naturally, both Mat and Tony were understandably transfixed by this spectacle and eventually "Archibald" landed (well, "arrived" is more accurate) – and Mat then said "where's you plane, then, Tony?" "Er… it's gone behind those trees over there..." The errant E-Pioneer was eventually recovered from Stockers farm with minor damage, after phoning Richard Orr to get permission – one of Mat's better landings, I'm told.

Tony retrieving his E-Pioneer from Stocker's Farm after phoning to ask permission first.

Tony about to fill in the Stocker's Farm Retrieval Log – really important that we do this every time we think anything has gone over the boundary. (Mat Dawson photo)

Oh, and it transpired that "Archibald" had <ahem> failed to extend his (35 MHz) receiver aerial…

WLMAC Meetings

We had a chuck-glider competition on Thursday 11th May Roy Lanning was the winner, closely followed by Stephen Emanuel.

The entrants; some of them show a marked lack of dihedral, and in some cases - any wings at all (Mat Dawson photo)

One for the X-Files – Steve Emanuel beaming up his close rival Lew Wrapson to get rid of the competition. You'll be told that this is just a trick of the light, but the truth is out there...

Events

Date	Event	Location	Description
Saturday, 10 June	BMFA Scale Training	Flying Field	BMFA Scale flying training day - anyone can turn up and fly
Sunday, 11 June	BMFA Scale heat	Flying Field	Heat for BMFA scale flying competition. Flying approx 10:30 onwards
Wednesday, 14 June	Field meeting	Harefield	BBQ and Electric Flying
Sunday, 2 July	Family Fun Day	Harefield	Our Annual Scale Event; there'll be a work party to get the field ready on Saturday 1 July, please come along to help if you can.
Sunday, 9 July	Reserve date only for scale event in case of bad weather	Harefield	Reserve date Family Fun Day
Wednesday, 12 July	Field meeting	Harefield	BBQ and Electric Flying
Wednesday, 9 August	Field meeting	Harefield	BBQ and Electric Flying
Wednesday, 13 September	Field meeting	Harefield	BBQ and Electric Flying