



BRCMAC

November 2015 Newsletter

Chairman's Chat

Once again the seasons have raced along and we are on the edge of winter, dark, wet and windy, however we were lucky enough to have had some ideal flying days throughout the year, right in to late October.

We have had two flight training sessions with the Scouts and radio club which were great fun, although a little worrying at times with young trainees flying unscheduled aerobatics on the buddy boxes, luckily recovery was fast from our instructors, so no losses.

We had a fantastic BBQ, with reasonable attendance with the benefit of invited guest pilots and our own club pilots giving an entertaining flying display, well controlled by our flight Director John Harris. As usual commentary on the P.A. system was by our own John Paton who did a sterling job (no pun intended) keeping up with the numerous planes and pilots flying various flying schedules. Thanks John!

Mike Chinnick and his wife arranged our BBQ food and created a magnificent spread including two whole cooked salmon that were not only delicious but were consumed in record time, this combined with fresh fruit salad and scones with cream, complemented the burgers admirably. Not forgetting Mike Heley and Alan Marshall who must have cooked over 130 burgers and sausages throughout the day.

Our BBQ raffle was arranged by Murray Barnes and we had fun trying to locate the various winners. Overall with donations and hard work by our team of volunteers, we also made a small profit for the club.

Well done everyone! Here are just a few photos of some of the people and planes that were there.





Peter Bennett ran our Franklin Trophy this year, which was really enjoyable, more of this in the newsletter.

We are still not using the club forum, please sign on to this facility, it is very easy to use, get some info out to other members and see if we can get this operational again.

We have filled in the central access to the strip so that Blue Badge holders can park vehicles adjacent to and behind the pits area, please check our website where you will find a site map showing the morning and afternoon parking area for mobility car owners.

We held our end of season meal at the Anchor Inn, Oldbury, on 14th November, with excellent food and great company; it was a very enjoyable evening.

Our next meeting will be on Tuesday 1st December at the Chantry, where we will hold our AGM; we do need you to make every effort to attend. As you are probably aware, I will be standing down as Chairman this year and we need to fill that position, if you are interested, please let us know.

Well Christmas is around the corner, so let's hope there are lots of new flying pressies to be had. Hope to see you at the strip, when this foul weather improves.

Ian Ferrari

Franklin Trophy Scale Event

This year's event finally took place on the morning of Saturday 19th September, delayed one week due to our inclement windy weather the previous weekend. The turn-out was disappointingly low with only 6 models entered. The forecast for the morning was good with very little wind, but we had not bargained on the fog drifting over the fields which delayed flying for about an hour or so. This meant that flying, when it eventually got underway, had to be shoe-horned into a fairly short time slot as quite a few people were pushed for time.

Steve Bridges, one of our newest 'A' pilots entered his ARTF Piper Cub OSS. Unfortunately it went o/s during its first test flight and took no further part in the event. However, he finished 5th overall and takes the Carroll Cup for best ARTF. Well done Steve.

Martin Fardell flew his superb scratch-built Ryan Brougham and flew it very sedately in scale-like fashion, finishing in fourth place.

I managed to get in a couple of flights with my SE5a. It scored well in the static but not so well in the air, finishing third overall.

James Anderson, another of our newer 'A' pilots, flew his Bucker Jungmeister recently acquired from Steve Haines. This model is a great flyer and, by dint of the award of double 'A' pilot flying points, scored a massive 32 flying points in total. He finished second overall and takes the Wilkins Cup for best 'A' pilot.

Steve Haines flew his fantastic 1/3 scale DH60 Tiger Moth. This not only looks good on the ground but he flies it superbly as well. He deservedly finished top of the pile with 41 points.

As we finished late and some of the prize winner had already gone, the trophies will be presented at the AGM.

Place	Pilot Name	Aircraft	A' Pilot	ARTF	Static	Flying	Total
1	Steve Haines	DH60 Tiger Moth	<input type="checkbox"/>	<input type="checkbox"/>	17	24	41
2	James Anderson	Bucker Jungmeister	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	32	39
3	Peter Bennett	SE5a	<input type="checkbox"/>	<input type="checkbox"/>	25	13	38
4	Martin Fardell	Ryan Brougham	<input type="checkbox"/>		13	10	23
5	Steve Bridges	Piper Cub OSS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0	0	0
6	James Anderson	T240	<input checked="" type="checkbox"/>		0	0	0

Peter Bennett

AGM – Tuesday 1st December 2015

This is just a reminder about the forthcoming AGM at the Chantry, which will start at 8.00 prompt. As mentioned in the AGM notification documentation previously circulated, we need 25% of the membership to form a quorum. Your presence is valued. At the time of writing, no proposals have been received from the membership this year.

Peter Bennett

2015 Much Marcle Model Show Incidents

Well more than one incident at this show, but only one of these could have caused us personal injury.

Let me explain, although my wife is not an aviation enthusiast, the prospect of attending a show is tolerated as long as we can then travel around the area in our camper and stay over for a few days.

So this is what we did this year, I like Much Marcle as the display is usually interesting and well attended by traders. Also I tend to meet up with John Paton who camps at the show and helps out with the setting up. John's wife Jan also attends and makes some walnut and fruitcakes that are delicious and I have for some years been fed cake and coffee whilst watching the show outside of their caravan. This year was no different other than that John and I missed each other when we arranged to meet and my wife had retreated back to the camper to read, so I headed off to his caravan, which was at the far side of the runway, well past the pilot's box.

Having seated myself comfortably in front of the caravan, I was chatting to Jan, who was about to serve coffee (and the cake of course), when we saw an RC Wellington bomber take off, it's port engine cut just at the wrong height and it rolled and ploughed in to the ground. I saw the pilot later and he was looking over the wreckage of his plane, not much of it appeared to be salvageable. I refrained from approaching him to discuss it, as from past experience it is usually the last thing you wish to explain when you have lost your favourite aircraft.

Back to the caravan then, we were watching some excellent flying which was being photographed from the edge of the strip by a camera team using a swing boom with the camera attached, we were well away from this area so it was difficult to tell what happened next, other than we saw a very large French plane with a pusher prop take off very slowly, climb away and then gently bank to starboard level out over the heads of the camera team and head towards the pilot area. I thought when we heard a resounding clunk, that it has hit a parked Transit belonging to the pilots, but I later understood from John, that it did get caught by the crash netting and nobody was injured.

Having settled down again (I cannot recall if I had the coffee and cake by then or if it was imminent), we watched the second Wellington touch-down and over run the end of the runway in to the longer grass, where it stayed for a while with its engines on tick-over, whilst other aircraft took off. A short while later it turned towards us and crossed over the runway, revving up as it tried to negotiate the longer grass.

Now I do not know much about the details of this plane but I guess that it was over 3 metre wingspan and running a couple of 3 bladed props on some sizeable engines. It must have been at least 60 metres away at that time and although noted and discussed by Jan and I, we were not too concerned about it. Suddenly the engines fired up again and the plane accelerated towards us, I instantly realised that it was unlikely to stop and shouted a warning to Jan who was seated next to me. We both jumped up from our seats and I steered Jan over toward s the protection of a large van. The Wellington had gathered speed and then the revs dropped, just as the nose of the aircraft hit end on to the tow-bar of John and Jan's caravan and we could see the Wellington front turret collapse as the plane stopped and the engines finally cut.

Jan stepped out from behind the van to make contact with the pilots as they could not see us from the runway. It transpired that this created a real stir as they were not expecting us to be there and then imagined that someone might be injured. We checked over the damage and although the nose of the plane was obviously damaged, the caravan was OK. However, one prop had made contact with one of the caravan's solar panels leaving several curved tell-tale over its surface from the sweep of a propeller! Fortunately, these did polish out later.

Lots of apologies all round and it appeared that although the aircraft's engine cut out was used, it failed to stop the engines completely and when the engine cut button/switch was released the engines re-started and it took a while for the pilot to bring it under control. No doubt the safety officers will be looking at this incident and make the appropriate recommendations.

All-in-all at bit of a surprise and lots of adrenaline rush, but it brought home again that although we all go to watch the excitement and thrill of these displays, you cannot be casual and need to be aware of what is happening around you, as even with all the planning and safety regulations, there is still an element of danger at these events.

Ian Ferrari

Flying Wire Fork Ends and Silver Soldering

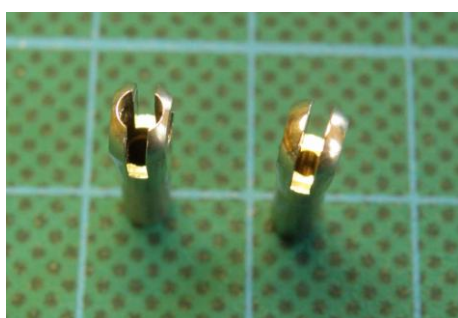


When it comes to building bi-planes, construction of the rigging and in particular flying wire fork ends, can be problematical. It is possible to use ordinary spring clevises with the ends of their threaded studs soldered to flat flying wires. However, these tend to be rather bulky, especially for the smaller models, prone to coming undone and are not so easy to adjust the tension of the wires. This article aims to illustrate my method of manufacturing reasonably realistic, fully adjustable fork ends where the

threaded studs are 'blended' into flat stainless steel flying wires using silver solder. Silver solder is by far the best joining method as it is much stronger than ordinary soft solder and is no more difficult to do, as you will see.

Parts and Tools Required

Mick reeves Models (<http://www.mickreevesmodels.co.uk/~mickreev/Bipes/p2bipe.html>) sell some very nice scale-like fork end kits comprising all the parts needed to make one complete adjustable flying wire. Several will be required depending on the model. One fork end allows the threaded bolt to rotate freely while the other end can be screwed in or out to adjust the wire tension. He also sells reels of flat stainless steel wire of varying widths suitable for making the wires themselves, as well as silver solder wire and flux if you need some.



The job can be accomplished using some basic tools and a mini blow torch, the kind often sold as kitchen aids for browning Crème Brûlée and the like. These are excellent for this kind of work as they are capable of producing a small but very hot needle flame, ideal for small silver soldering work. I borrowed the wife's and she never got it back!

Method

First, measure the lengths of all the wires you need, taking account of a pair of assembled fork ends, one at each end. You need to make sure you allow for some adjustment of the wire once it is complete.

For each wire, first cut a slot in the centre of the end of each stud with a fine-bladed piercing saw, about 2mm deep, just wide enough to push the end of flat flying wire into. Open up the slot with a fine needle file if necessary. Make sure the ends of the stud and flying wire are cleaned with emery paper or the silver solder will not adhere.



5





Next, mix a little 'Easy Flow' flux powder with water to form a smooth paste and dip the ends of both the slotted stud and wire in it, fit the wire into the slot and then set the assembled wire and stud on a fire brick or similar (ordinary household bricks or building blocks will do) ready for silver soldering in such a way that it cannot move. Ideally, you should also position some pieces of brick around the job to reflect the heat onto the job, although this is not so important for smaller jobs like this.



Adjust the blow torch air setting so that it produces a short and pointed blue flame (the hottest) and play the tip of this flame on the area to be joined. As the metal heats up to a dull red colour the flux will start to melt and bubble. This is the time to introduce the silver solder wire into the flame and touch the melted flux joint area.

With luck, the end of the silver solder wire will melt and flow into and around the joint. If necessary, turn the job over and add some more silver solder to the opposite side to build it up a bit. Repeat the process for the other end of the wire, and do the same for all wires needed.



Finishing

When cooled, simply file the freshly applied silver solder on the studs at each end to achieve a nice smooth transition from round stud to flat wire, per the top wire in the picture above. Et voila - that's all there is to it!

Peter Bennett

Visit to Cotswold MFC, Aston Down

Following our invitation to The Cotswold MFC and LMA members to attend our annual BBQ this year, we received a reciprocal invite to attend their scale day which is held at their flying site at Aston Down Airfield.

I think that six of our club took up this offer and after help from airfield security we eventually found our way on to the site through the right gate.

The club had set up a tent in the parking area and we were welcomed with the offer of a cup of coffee and a biscuit as we watched the members assembling their models. The flight line was a little way from the car park and as models were already flying we had to wait for permission to cross the runway to join them. The pits area and the flight line were both on the side of the runway so we were able to view the models both flying and static.

There were a wide range of models but they were all dwarfed by Steve Holland's half-scale Cub which, as usual, was flown in a very scale like fashion.

We were able to watch the full size gliders being towed up. This is done using a winch tow, the ascent is very rapid and the pilot has to release the tow rope before it starts to haul him back down again probably resulting in the loss of wings. Because of the full size flying it is mandatory that the model flyers have a "spotter" standing alongside and when the occasional glider did go overhead the model was dropped to a very low level or landed.

We ended up having a really enjoyable day and if invited again I would hope that more of our members could attend and actually do some flying on this site.

John Paton

Historic Bi-plane Rigging Drawings

On the back page you will find the next in the series of contemporary WW1 rigging drawings originally penned by Air Mechanic 1st Class Campbell under command of Chief Mechanic George Thomas Taylor – a Curtis JN4a. Enjoy!

Peter

Future News letters

To make future Newsletters interesting your articles or stories (visits to shows or exhibitions, model builds, flying experiences, modelling techniques etc.) for sales and anything not necessarily model aircraft related will be most welcome and should be forwarded to secretary@brcmac.org.uk for inclusion as appropriate.

That's all for now. Happy flying.

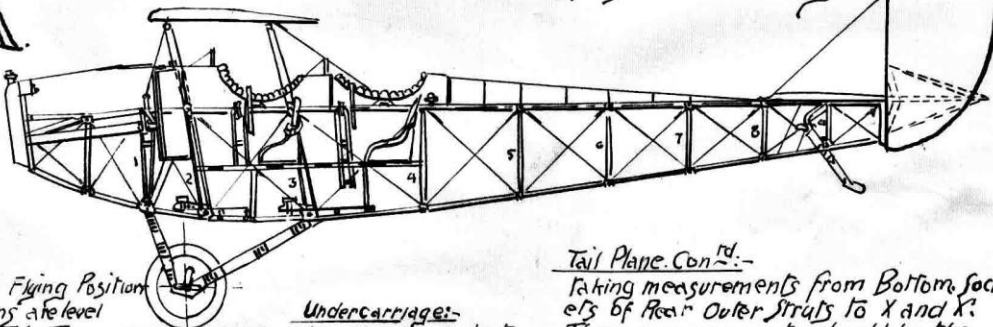
Peter Bennett

Editor

CURTISS BIPLANE

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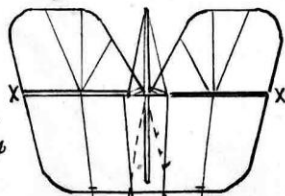
Rudder. - With Rudder Bar square in Fuselage, Rudder must be square with Machine & point directly fore and aft.
Fin. - Must be fixed in a vertical position and point directly fore and aft.
Tail Plane. - Must be level transversely and square with Machine. Check former by Spirit level over the Spars and the latter by

Flying Position:-

The Machine is in Flying Position when Top Longerons are level from No 1 Strut to Tail. To place in Flying Position, level off Top Long-erons in Pilot's Cockpit. Make longitud-inal adjustments by raising or lowering Tail and transverse adjustments by packing Blocks under Undercarriage axle.
Fuselage. - Mark points on Side Struts 1, 2, 3, 4, 5, 6, 7, 8, 9, at equal vertical distances, say 6" below top face of Top Longerons. Lightly clamp straightedges transversely across marked points on Side Struts 1, 4, 6 & 8. Support fuselage so that Top Longerons are level as far possible, working from No 4 Side Strut, make Internal Cross Bracing wires equal at each section. Stretch a line from mid-point of Front Cross Top strut to axis of Rudder Post. Adjust Top Cross Bracing Wires so that all mid-points of Top Cross Struts are along this line. A plumb line from mid-point of Top Cross Strut to mid-point of Bottom Cross Strut must just touch this line. By means of Side Bracing Wires true up until all straight-edges are level transversely & longitudinally.

Undercarriage:-

Is symmetrical about vertical centre line of Machine. Heaviest Cross Bracing Wires making corresponding diagonals equal.



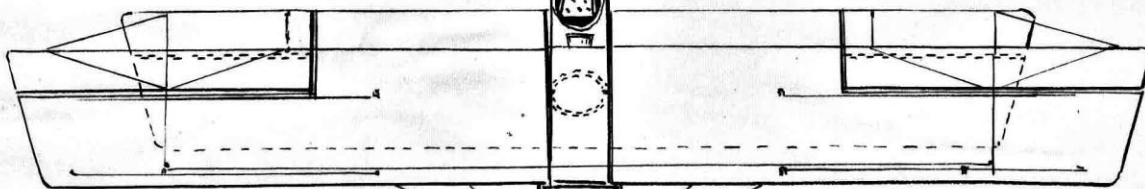
Tail Plane Contd:-

taking measurements from Bottom sock-ets of Rear Outer Struts to X and X'. These measurements should be the same on both sides.

Main Planes:-

Dihedral:- Is 4° for both Upper and Lower Main Planes. Check by Abney Level and Straightedge along the Spars.
Incidence:- Is 2° for both Upper & Lower Main Planes. Check by Abney Level and Straight edge, placing latter from Leading Edge to Trailing Edge at 15°.
Stagger:- Is 16" throughout. Check by meas-uring the horizontal fore and aft distances between the Leading Edge of Lower Main Planes and plumb lines dropped from Leading Edge of Upper Main Planes.

The Leading Edges of Upper and Lower Main Planes must be symmetrical about centre line of Machine. Check by measuring the distance between Bottom Sockets of Front Outer Struts to Rudder Post and Front Drift Wiring Plates. Corresponding measurements must be the same on both sides.



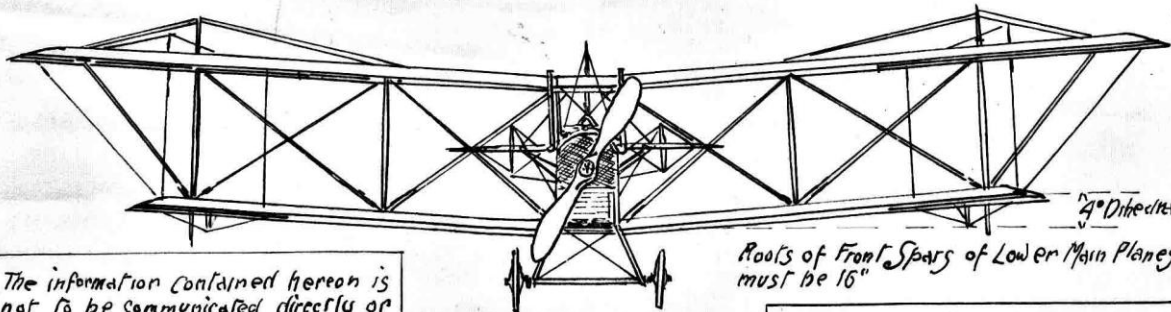
Fuselage Contd:-

& Top Longerons level throughout. Check for transverse level by spirit level over faces of the straightedges & check for longitudinal level, using a long straight-edge over the faces of the transverse straightedges for this purpose.

Controls:- With Pilot's Control Stick central, the droop of ailerons is 8" & Elevator are in continuation of Tail Plane.

Centre Section:-

Is symmetrical about vertical centre line of Machine. Adjust by Cross Bracing Wires, making them equal. Stagger of Centre Section is 16". Check by dropping plumb lines from centres of Top Sockets of Front Centre Section Struts. The hor-izontal fore and aft distances between these lines & the centres of hinges for



2° Dihedral.

Roots of Front Spars of Lower Main Planes must be 16"

The information contained hereon is not to be communicated directly or otherwise to any person not holding an official position in H.M. Service.

Chief Mechanic Taylor, T