

Leek & Moorland Model Gliding Association

<http://www.lmmga.co.uk/>

Sept 2015



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Events in the next quarter

Neil Tricker will be organising a series of Fly for Fun events over the weekend of Friday 11th to Sunday 13th September. Neil put a similar event on last year and it was a most enjoyable weekend of flying. Why not come along and join in. Suitable for all abilities



Hey You!

When did you last send something in for your newsletter?? Tips, Kit Reviews, Pictures, Ideas, advice. There's 100s of years of modelling experience in our club, why not share it with our newer members

Front Cover This is Peter Garsden 's **Ideal** .it has a 3.2 metre wingspan. and is made by Top Model. The kit costs £290 + servos etc. It has Hitec 82 servos all round and seems to fly in any wind up to 25mph. He bought it as a replacement for his Easy Glider. It is a hotliner and is designed for fast use from the flat field under power. He says, I do like it. It seems to have quite some momentum and comes in handy when the lift drops off.

L&MMGA Annual General Meeting

Date...Sunday 8th November

Venue...The Winking Man

Time.....2 pm

Agenda

Officers Report

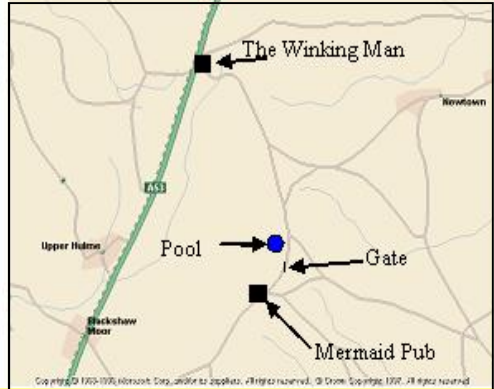
Election of Office

Safety

AOB...

Meals are available from

12 noon



**Directions to Winking Man
The from the Mermaid flying
sites**

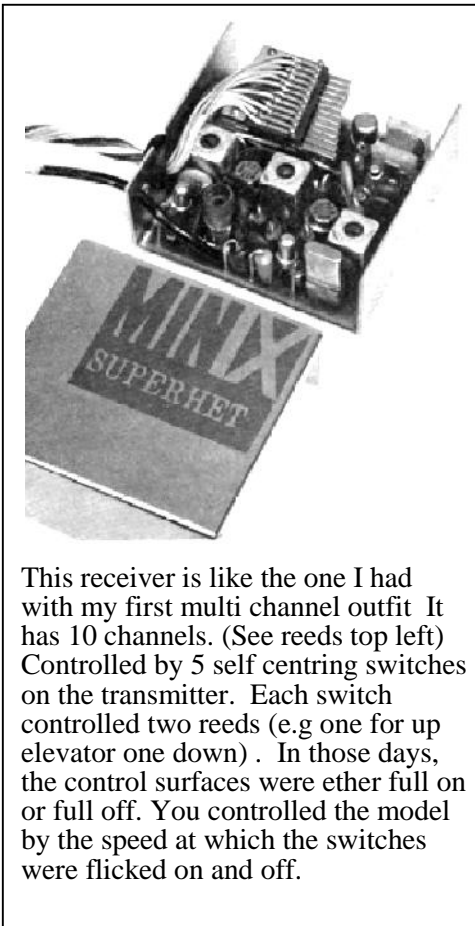
Scale Weekend



A big thanks to Ant Jervis for organizing yet another great weekend's scale fly-in. Saturday got off to an iffy start with the wind coming from a north westerly direction. Because of the difficulty in landing some of the big scale models at the gate plus restricted car parking space Ant decided to fly from the pool site. Full report in our next newsletter.

All our Yesteryears

I was thumbing through a 1962 RCM&E mag the other day and although I've glanced through it quite a few times since I bought it, I'm always left with a feeling of amazement at the advances radio and materials have made since those early days. Today we take it for granted that we can do an infinite number of mixes simply by adjusting the transmitter settings and what about telemetry?. It doesn't seem all that long ago to me since I had to get the soldering iron out, strip a



This receiver is like the one I had with my first multi channel outfit It has 10 channels. (See reeds top left) Controlled by 5 self centring switches on the transmitter. Each switch controlled two reeds (e.g one for up elevator one down) . In those days, the control surfaces were ether full on or full off. You controlled the model by the speed at which the switches were flicked on and off.

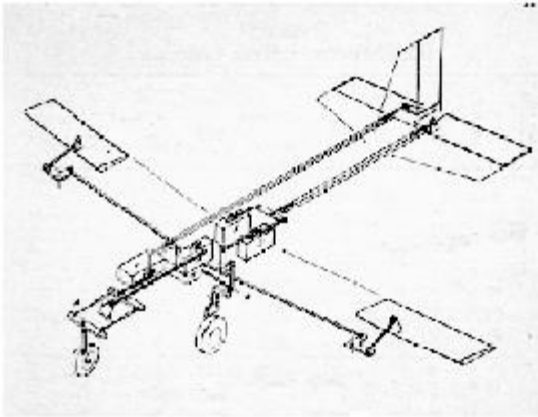
servo down and reversing the positive and negative wires on the motor just to reverse the servo throws. And; the number of wire bending conundrums we had to do to mechanically couple the aileron servo to the elevator servo in order to get those tighter loops; it was a daunting task at times

Since I read that article by B. Smith in the June's newsletter **"An Ancient Modeller's Tale about Tails"** I've been in one of my reminiscing modes.

It was during one of my visits to the past that I thought, "What would I miss the most if for some reason my modern equipment suddenly reverted back to the

first proportional setup I had? (a Micron' four channel kit that I spent several nights checking drawings and soldering umpteen components to PC boards)

This is a copy of a diagram from the 1962 RCM&E showing the layout of the push rods from servos to control surfaces . Note the bell-cranks on the ailerons , these could be used not only for changing the direction of thrust but also for aileron differential (More up than down)



I wonder how many of our members can still remember the time when a 500 mAh rechargeable DEAC battery was the standard airborne battery pack for most models. It was that or a pack of dry cells

As wonderful as telemetry is, I think I can manage quite well without some sexy females voice telling me I've just lost 50 feet in some invisible sink, and, as for those goggles that lets me pretend I'm sitting in the plane ~~~ Narrr! I still like to see the silhouette of my model getting smaller and smaller against a background of those cumulous clouds.

From a sheer practical point of view, the thing I would miss most of all would be the servo mixes that lets me, at the flick of a switch, do things like setting up crow breaking; rudders on V tail and mixing ailerons and flaps. If you have never trimmed and flown a model with

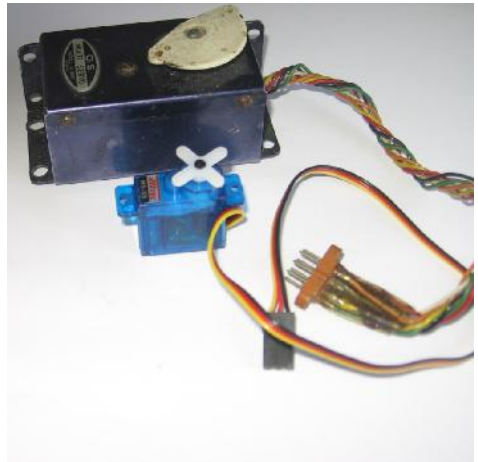
one of those early sets of radio gear, I don't think you can fully appreciate today's transmitters and receivers.



This was my first multi-channel ratio gear. ~ a 10 channel “OS Minitron” which was made in Japan. Needless to say at the time it was my pride and joy. The round mark at the bottom left hand corner was caused by a slow discharging battery ~ I put the tranny in the attic after I bought my first proportional gear and forgot all about it until I had a clear-out years later so be warned, never store models or radio gear for a long time without removing the battery.

To give some idea of the size of servos I had with the OS gear above; this is a picture of one alongside a HiTec 55 servo

Note the number of pins on the plug ~ there are 7. In those days it took two channels to operate this servo, one to pull and one to push the push-rod. Sometimes I ask myself “What on earth was good about the Good Old Days”?



The first model I put this gear in was a 6ft span two channel rudder/elevator model. I'd already decided that ailerons were a step too far for a starter. As a matter of fact I'd been trimming and flying free flight gliders so long that I felt more at home trimming and launching this, my first multi-channel glider with the radio switched off than on. Can't believe it now but this is what I did.



Rex Collier and Brian Lee ~ Brian is either warming his hands or showing Rex how a well trimmed model should really fly



Roger Moreira wrapped up snug and warm taking it easy between flights. A typical day in June ~ Cold wet and windy



Left::: Martin Lawrence with concentrated look on his face . I think he's flying one of his 4m scale jobs, I'm not sure ~

Right::: Stuart Howard about to launch his well worn Salto

Building a Jet Provost - with the PSSA Mass Build 2014

by Peter Garsden

Obviously I am too young to remember the Jet Provost ("JP"), in that it used to be flown by Red Arrows aerobatic pilots in the 1950's and 60's at air shows. It was the forerunner to the Hawk - another of my models which I will feature in another article for the Newsletter.

Graham Gibbons sent me some photos he took of a full size JP at an air show, so there are still a few of them still flying. I like aerobatics, thus the JP was an ideal choice of build for me.



When I returned to the hobby 3 years ago I was amazed at how things had moved on over 35 years. I come from the world of "if you can't build, you can't fly". The most admired club members at Rivington Pike in 1972 were the best builders,

whereas now, it is arguably the best pilots. I joined the Power Scale Soaring Association ("PSSA"), firstly because it was free, but secondly because they are all good builders. I have learned such a lot from them - www.pssaonline.co.uk

The PSSA Mass Build of 2014 started in December 2013. By the time I heard about it, in April 2014, there were only two months to go before the Mass Fly-In at the Great Orme. Could I do it in time? Well only if my wife was prepared to put up with it - a moot point as it

turned out.

A big thank you must go out to Phil Cooke for allowing me to use his build pictures from the RCM&E Blog. He runs the PSS website, builds to a much higher standard than me, and has a fabulous camera. To read more of my building blog go to <http://www.modelflying.co.uk/forums/postings.asp?th=94590>. In the PSS Master Folder there are also some very interesting threads to read. Be my guest - you are guaranteed to learn something new

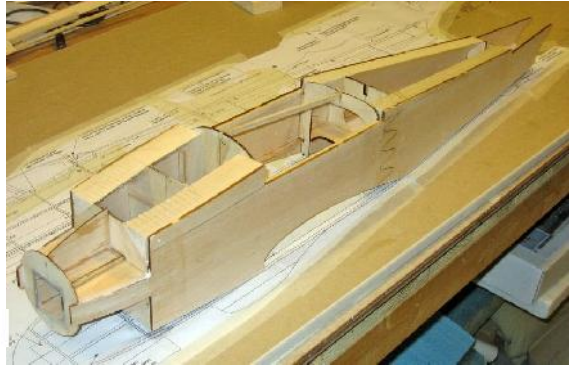
The Fuselage

So - to the build. I started with the fuselage as always. It is a conventional slab sided structure built over formers, with wide triangular stock in the corners to aid the curvy shape of a traditional jet fighter. There is a very clever internal box to house a 4 cell battery, to get it right into the very blunt nose of the aircraft, and avoid the need for a hatch. As a consequence I hardly needed any weight balance at all.

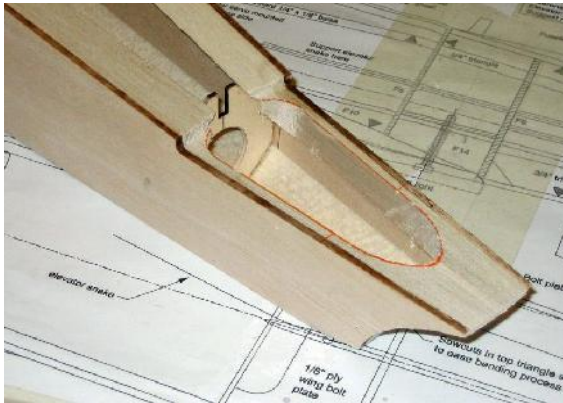


The upper curvature of the fuselage behind the canopy was constructed from 1/4 inch planking. I had ordered the magazine insert from Traplet publications, together with a plan

(£11.99), canopy (£6.99), and woodpack (£64.99). Helpfully, it explained that one should use cyano to hold the curvature of the planks at the ends, and aliphatic, or white glue in the middle. Good advice



because it avoids the need for pins. The curves of a jet don't really

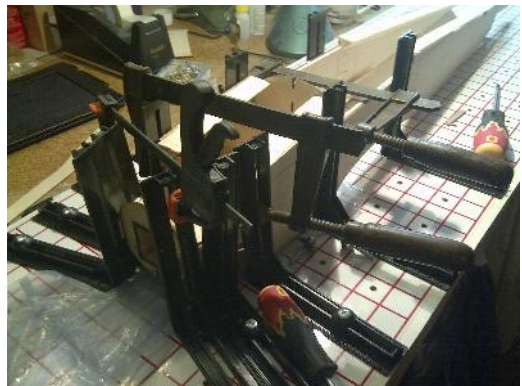


lend themselves to wood. I did contemplate making a lost fibreglass mould version, like the Alpha Jet (as in a previous newsletter), but in the end plumped for balsa.

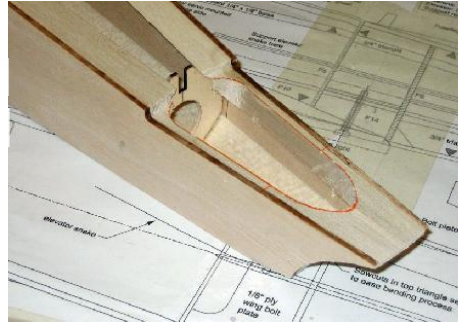
This meant, however using a mixture of hot

vinegar and water to soften the wood, and lots of clamps to hold the fuselage in position whilst the epoxy dried.

A good example of why an SLEC jig is not enough on its own! The jet outlet at the tail end of the fuselage is very difficult to craft in balsa, and left a very thin delicate wall if planed to scale.



One has to remember to insert the plastic control tubes before the top and bottom sheeting are attached. I used Sullivan parts. I just can't understand why they insist on making them out of red and yellow instead of white. I decided I would add a rudder, as I like stall turns. Others didn't bother



After a lot of domestically unpopular and cough inducing carving and sanding, the fuselage was finished. The tailplane and fin are straight forwardly cut out of sheet balsa. Only the elevator joiner was a little tricky. It is crafted out

of 2 lengths of wire bent over at each end, and joined in the middle with solder to brass tubing which is then flattened and drilled to accept the elevator clevis, which sticks through the rear most former. Gluing it in position using vaseline to stop it sticking is a challenge in itself, but passed uneventfully.



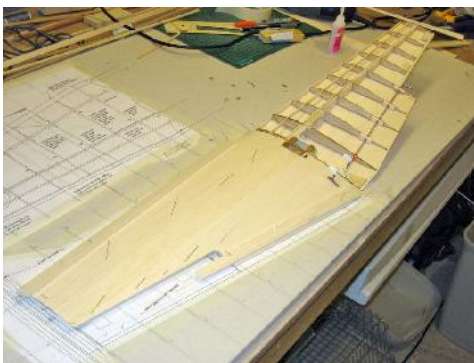
The Wing

Next the wing. Cleverly it is constructed over a slotted central spine of 1/8 inch balsa, which avoids having to build over a plan, but does involve the marking up of the bottom sheet of wood before you start. Cap strips between each rib further strengthen the box as does the



top sheeting. The easiest way to build, as I discovered eventually, is to put the parts in place dry, then wick cyano in between the joints.

The trickiest part was inserting the torque control rods. I wondered why PSSA regularly use centrally mounted servos instead of putting them in the wing - the answer is purely scale effect. The torque loss for such a short wing is minimal in this example (38 inches)



The ailerons are integral to the wing which makes them more attractive to look at. The plan suggests that they are made out of separate pieces of 1/4 inch balsa lined with spruce. Some members made their ailerons off

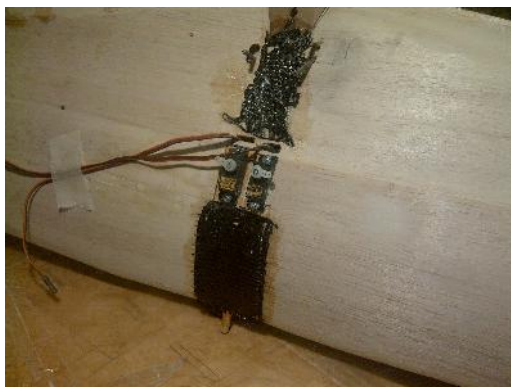
plan then cut them out. I opted to follow the plan.



I strengthened the wing halves with carbon tape, and resin, though diluted PVA was recommended. I opted to use two Savox Micro metal geared servos in the centre of the wing, so that I could use them as airbrakes as well. I

program in some down elevator mix and attach it to a switch. In a very high wind at the Orme they proved an invaluable method, and I am glad I opted for them. The aircraft seemed to float down all on its own, and land safely.

I sourced my pilots from Pete's Pilots on Ebay. At £7.98 for the pair a bargain! The wood pack even included parts for the seat backs and headrests! I got my decals from Pyramid Models, who charge about £30. I tried to swap them, as I changed



from the very popular red, white, and grey version, to the grey and fluorescent orange type. I tried to swap the decals but Pyramid refused. I have not used them since, as Tim at Model Markings (www.modelmarkings.com) charges about a third of the price.

I never seem to have enough time to finish my models in time for a deadline, and thus choose an easy scheme, which one can do in Solarfilm. The fluorescent orange stands out really well in flight, particularly when it is sunny, but fades easily. Some builders used Oracover, which is thicker but more difficult to stretch over the curves.



This time I decided to follow the PSSA trend and mark the panel lines - it was a scale competition after all. Before you ask, I lost dismally. I used a Sharpie marker, which actually



was too thick, but all I had available at the time. I have since used a Pilot V5, which is much thinner and better, but takes longer to dry. It is important to keep the flat of the ruler away from the surface, to prevent smudging. Also new to me then was the sourcing of bits from the internet such a cockpit layout, which, to the scale boys, is the most interesting bit. This is one I found and printed out for my cockpit.



Flying

The big day arrived for the mass fly-in - 1st June 2014 - after being becalmed for most of the morning a 30mph wind suddenly arrived at 2pm, to everyone's delight. Keith helped launch my JP as you can see from the photo. My rose-tinted spectacted memory nearly a year later is that it flew straight out of the box so to speak.



Everyone experienced the same sensation at first - there were 13 JP's on display on the grass and as many as 7 in the air at once - everyone avoiding desperately to fly each other's model - a good level of concentration required. The elevator was very sensitive - not surprising if you look at the surface area, so I experimented with a lot less, which was too little, and some expo which probably helped more.

That little model with its ugly bulbous blunt nose flies at an amazing speed with so much momentum. Far more than anyone expected. I am sure it is a testament to not only the designer, but also the original aircraft. PSSA designers generally change both the wing area by enlarging it as well as the aerofoil section to make it more amenable

for a slope soarer. It rolls very quickly, loops, stall turns and does everything apart from fly inverted - in common with most PSS models to be fair.

Do I like it - absolutely. Would I recommend it as a beginner's model - no not at all. It does tend to be buffeted quite easily in blustery conditions, but is one of the few PSS models which flies successfully on LMMGA slopes. Most of them need the booming lift of the Orme. Don't get me wrong. It is not a floater, though some who build lighter than I do, claim it can perform in winds of less than 10mph. That is not my experience. Like the full size, it does amazing wing overs at the top of a climb. It would make a good intermediate or first aileron model if properly trimmed so as to make it less sensitive to control input. The construction, on the other hand, I would say, is more straightforward and could be attempted as a second scratch built model. I reckon the cost, including all the gear, servos, film etc came out around £150 - a bit cheaper than your average mouldie?

If you decide to build one, then email me webmaster@lmmga.co.uk and we can do some formation flying wearing our anoraks?

Peter Garsden April 2014 - webmaster@mmtg.co.uk



I'm pleased to see that there's has only been a little or no litter left on the sites this year. As you know, with us being regular visitors to the sites we will be blamed for any trash left on or around the site's particularly where the cars are parked. So please keep taking empty drink cans etc home with you even if they're not yours and please don't put rubbish in the metal box by the gate Thanks. You.

A DAY IN EARLY JULY AT THE GATE

At times I think slope soarers are a bit like flowers; they come out when the sun shines and a warm wind is blowing. ~ Who can blame them??



Terry Simpson all the way from Barnsley to fly his 1.5m Blade



John Beech with a rudder elevator oldie



Malcolm Carter sorting out his trusty Ace. Another rudder elevator oldie.



July and it's the first time Gary Furnivall has put in an appearance on the slopes this year. Shame on ya Gary!!

I can see at least three of the Derby Mafia in the shot.. Dave Read, Ken Buckley (taking it easy,) and Phil Clarke



Dave Gains doing a wee bit of maintenance on his 4m Fox



I think it would be more accurate if we changes our club's name from Leek and Moorland Model Gliding Association to Leek and Moorland Debating Society





Keith Burgess about to launch this Mean Machine



Billy Griffiths with a nicely finished foamy We'll have to start calling Mr Griffiths 'Lucky Billy' because he keeps on dropping on some great new Ready To Fly bargains all for around the 50 quid mark.



I want one of these sweat shirts

John Day with what looks like his flying draughtboard ~ I think it's a Halfpipe Big change in size from your 3.2m 'Storm' John





It's nice to see Graham Gibbons on the slope again after his recent illness ~ The old thumbs haven't lost their magic Graham!! Peter Garsden and Billy Griffiths' in the background..

Bill Taylor with his Apache 'Both Bill and the Apache haven't been on the slopes for a long time ~ A very long time. ~ What's it like to stand on the Leek hills again Bill instead of that patch of grass for smelly IC engines



Ian Webb with what looks like his Needle It's a 2. metre plus model. It can certainly shift in the right condition:

I think there should be a warning with some of these types of models

" Definitely not suitable for beginners"