

Leek & Moorland Model Gliding Association

Web Sites: - <http://lmmga.org>

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



June 2012



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Your Newsletter

Most of you are probably aware that second class stamps now cost 50p. When you add this to the cost of paper, printing, envelopes and labels, it takes quite a chunk out of the club's annual budget. Unless the number of hard copies sent out can be significantly reduced, the club will most likely have to increase next years annual subscription.

Fortunately, many of our members now have their newsletters sent to them electronically; these emails cost the club absolutely nothing. If you have an internet connection and still receive your newsletter by post; **Please** let me have your email address and I'll send you a trial copy of the newsletter to see what you think.

Send your e-address to

i.bradbury2@ntlworld.com

Dates for your Diary

June 24th	Fly for Fun
Aug 18th19th	Scale Weekend
Sept 21st	F3F
Oct 21st	Spare Day

The scale weekend is well worth a visit ~ There were some cracking models at the 2011 event and if the weather and the flying turns out to be as good again this year, you can't afford to miss it

Front Cover This is Dave Gains Schwalbe (swallow) The full size gullwing has a 16m span and was made in Austria around 1938 . I believe only two or three were made ~ The model has a wingspan of 2.64m 104" There's something appealing about these oldies

What a Spinner!

Sometime earlier this year, Stuart Howard (our Safety Officer) asked me, in a sort of casual way, if I knew anything about fibre glassing. Was he asking out of interest I thought, or, was crafty old Stuart out on a fishing expedition?. Turned out he was doing a bit of fishing because as soon as I'd said "Yes I did know a little bit about fibre glassing" I realized I'd swallowed the complete hook line and sinker. It turned out that Stuart had tried fibre glassing way back in the dark days and he'd instantly become allergic to the smell, sticky furry fingers and a rough textured finish.

To cut a short story even shorter, I ended up promising to make him a fibreglass spinner for one of his power planes providing he made the pattern; ~ after all, spinners are only 3 or 4 inches in diameter at most.

A week or so later I was flying at the Gate when Stuart came walking up to me with what I at first thought was a large wooden fruit bowl in his hand. It turned out to be the pattern for his spinner.

When I got it home I thought, surely something with a 245mm diameter can't possibly be a spinner; Stuart must have meant a cowl not a spinner. I couldn't for the life me see something as big this bombing round at about 8,000 plus rpm, and, what size prop was he going to put on it for goodness sake ? A quick phone call to Stuart confirmed that it was indeed a spinner.

I know that most of you are unlikely to be making fibreglass spinners in the near future but most fibreglass jobs follow a similar procedure to the one that I'll be following while making this spinner so I thought I'd do an article on it to give some idea of what's involved when making something in fibreglass. It might be of interest to some of you.



This is the pattern (sometimes called plug) The plug is the most important part of any fiberglass job . Remember it is much easier to put a fault right on the plug (using filler ~ sandpaper etc) than it is to remove it on the mould or the finished article. AND, you only have to do it once not on every repeat. Fibreglass will reproduce the slightest fault even print off a newspaper ~ slight exaggeration but you get the meaning.

I've put the AA battery in to give some idea of size



First the plug is fixed firmly to a base-board ~ The worst thing that can happen to a budding fibreglasser is for the fibreglass mould and the wooden plug to stick together. Resin after all is a first class glue and it can stick like sh*t to the proverbial blanket. I've had this happen to me so I'm now paranoid when it comes to applying a release agent.

I first wax and polish the plug with a suitable wax. NOT A SILICON WAX. IF I'M

USING AN EPOXY RESIN. Epoxy resin only has to get a sniff of silicon and you end up with 'fish eye' a sort of orange peel finish . I've never had this problem with polyester resin no matter what wax I've used. (Polyester resin is the smelly stuff you get from stores like Halfords as part of a fibreglass repair kit)

After waxing I applied a water based release agent specially designed for fibreglass ~ it's blue in colour and dries leaving a skin over the plug a bit similar to what PVA glue leaves on your hands (it doesn't stick and will peel off easily) ~This only take half an hour or so to dry ready for the next stage

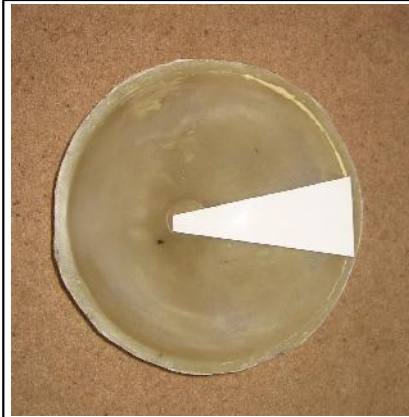


The plug is first coated with a gel coat and allowed to dry until barely tacky . This prevents the cloth breaking through to the surface Gel coat is just a thicker type of resin. I had no gel so I gave it a liberal coat of ordinary resin not enough for it to flow in curtains. When the gel is at the tacky stage I used a

layer of surface cloth followed by three layers of heavy chopped mat. (This amount of cloth will make a ridged enough mould for a small shape like this spinner.....It is important that a mould is ridged and twist free. The flange round the top edge of the mould will add extra strength and prevent any flexing. I used polyester resin for the mould ~ it's much cheaper than epoxy and with weight not being a critical factor for the mould there's no need to skimp on resin in the wetting out stage..

The mould separated from the plug. Note the remains of some of the blue release agent on the plug and the trimmed flange round the top edge of the mould that helps to prevent flexing





This shows the mould with a paper template in it . I was concerned about the balance of the finished spinner (didn't want an eccentric load bombing round at 8,000 plus rpm) so to minimise any imbalance as much as possible I cut the glass cloth into 12 segments for each layer using this template ~ It gave a slight overlap on each segment. Laying up using the segments made negotiating the glass round a compound curve easier and there was a better chance of getting a uniform thickness.



The mould has now been coated with the blue release agent (allowed to dry)

Then a coat of gel coat which is also allowed to dry to a tacky state ~ Colour can be added to the gel-coat but if it is not a major job it's hardly worth getting the proper pigment. Cheaper to spray.

The picture shows four segments of surface cloth (95grm) These will be stippled with resin, using a brush, until thoroughly wetted ~ this

process will be repeated until I have laid up all the surface cloth plus two more layers of 160grm cloth I used epoxy resin for the spinner because the setting time is longer and more predictable. I've found that polyester resin curing time is more sensitive to a change in ambient temperature.

It is important to wet the cloth/mat thoroughly but resin should be used sparingly. It is all too easy to overdo the amount of resin used. Remembered that there is little strength in resin only weight. Make sure that no air is trapped between layers ~ shouldn't be a problem with cloth but with chopped matting, it's more likely to happen.

One surface cloth plus two layers of 160grm cloth would make for a very strong glass fuselage but after removing the spinner from the mould I thought it flimsy so I stiffened it up with a further layer of chopped matting



The laid up spinner ready for the surplus glass to be trimmed off ~ use a sharp scalpel/Stanley knife for this

Don't leave the resin to go hard and brittle before trimming off the surplus ~ catch it at the hard putty stage



The finished job ~ Spinner and mould

Having made the spinner I can't help wondering if it will become a permanent part of Stuart's model (by the way the model is a Bristol M1 monoplane)

The reason I say this is because Stuart has an incredibly difficult job of balancing it up. The static balance won't be the problem, it's the dynamic balance that will give him the headache.

I'm prepared to make a small wager!

If Stuart can get the engine to go from tick-over to full chat without the firewall shaking itself to bits ~ I'll swim the English Channel, on my back, under water, smoking a pipe ~ I hope I have to grease up and get my costume on Stuart.



This is Ian Webb piping a mix of epoxy and micro-balloons along the main spar of one of our own designed glass models. The two halves of the wing can be seen in their respective moulds. After piping along all the contact surfaces the two halves are married together and placed in a vacuum bag. This is just one of the many glass models we made over a 10 year period.

As a result of this experience, my advice to anyone contemplating building their own fibreglass model would-be ~ if set-backs and disappointments kill your enthusiasm, don't even think about it. There's a great deal of skill required to produce a model anything like a bought one, and, even if you discount all the time you put in; the total cost of making the pattern, the mould and the finished plane will probably be as much if not more than an equivalent bought one especially if it's only a one off you're making.

Something like Stuart's spinner is an ideal project to start with. It's a simple shape ~ not too big ~ not too costly ~ not too time consuming and if you knacker it up, it's not the end of the world. In any case a spinner like Stuart's is not something that you can find on a shelf in the average model shop.



Stuart Howard's Bristol M1 with the fibreglass spinner roughly taped in position and below; Stuart with his 151" 'Phase Lift' a Chris Foss design.

Now this is what I call a real model Stuart... ~ No noise, no smell, and will fly on the proverbial 'Gnats Fart' Throw that noisy vibrating inefficient thing away mate !!



I heard on the Grapevine that Ant Jervis had taken delivery of yet another chuck-glider see picture. It turned out to be a 6m ASW 15 Below shows what he found in the box.... It looks the absolutely dog's danglers Ant



I can only assume that a chap who prefers to show a face like this rather than his own must have something to hide

Just For Beginners

A few weeks ago, I overheard someone moaning about the lack of information/advice in RC mags for beginners. He said that he'd seen little information on the choice of models and what there was, editors seem to think that everyone started off with electric. He'd seen no tips on flying techniques and as far as slope soaring and beginners were concerned, he'd drawn a complete blank on all fronts.

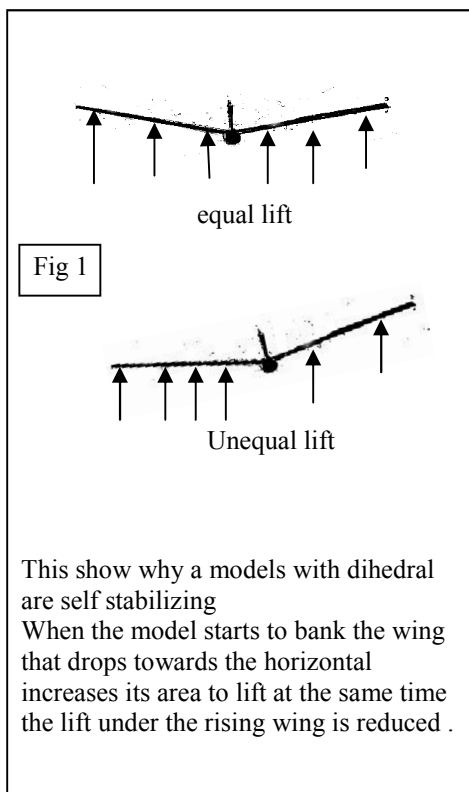
With not subscribing to any of the current magazines for the last few years I couldn't comment on this but I did concede that during my slope soaring years, I'd seen the technical jargon (RTF. ARTF. D/Sing. Telemetry. etc) slowly increase to that of a fair size dictionary which itself must be confusing for beginners.

With between 8 and 10 new members joining our club each year (most with no flying experience at all) I thought it time to do my little bit for the beginner so here goes... I hope some of this will be helpful

Where to start.

The ideal starting point for any beginner should be a visit to a flying site in order to ask few questions about the hobby and models. Might not get all the right answers but at least they wouldn't end up walking out of a shop with an inappropriate model just because it happened to be something they'd got in stock.

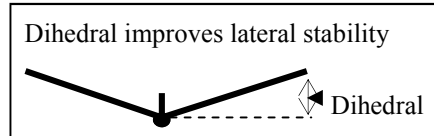
The problem beginners have in choosing a suitable model is that they don't know how a model works/fly's. If they did, they would be able to make a more informed choice for themselves. So! I think the best place to start



This show why a models with dihedral are self stabilizing
When the model starts to bank the wing that drops towards the horizontal increases its area to lift at the same time the lift under the rising wing is reduced .

is to go back to a time when models flew without any controls and were still able to fly and make landings that most of our members would be proud of. After all, a stable platform with a bit of control would make the ideal beginners model. The biggest danger these free flight models faced were trees, hedgerows and walls because there was no directional control. Stable flying and landings were no problem.

- What makes these free flight models so stable? The first thing in their favour is that they have plenty of dihedral and, the rudder is set for a very gentle turn to the left or right so that they make big lazy circles when released from the tow line. There is no pilot whacking excessive amounts of movement on the control surfaces



- The biggest problem most beginners make is that they over control ~ Probably the reason for this is that with only small amount of control input there is a slight delay in the response time between stick and model movement. This is particularly true with the more stable models. (rudder elevator type)

- The centre of gravity (CG) on the free flight models is a tad further forward than we have on RC models (Nose heavier) ~ Reason>>> This makes

Wind direction ~ speed 15mph

A

Model's flying speed is 20 mph

B

Fig 2

A free flight model has only one flying speed. ~ it can't be speeded up by trimming the elevator ~ Most beginners can't grasp this one speed concept because they have difficulty separating flying speed from ground speed ~ Take models A and B ~ The ground speed of model A will be 20mph -15 mph wind speed = 5.mph ~ where as the ground speed of model B will be 20mph +15 mph wind speed = 35.mph This means model B can still stall if the ground speed is less than 35.mph because it's not flying fast enough yet model A is quite happy with a ground speed of 5mph ~ Difficult for us land based chaps to get our heads round this

the model more stable to pitch so that if it is buffeted by turbulences it stops any porpoising developing into a full blown stall ~ With most RC models having their CG further back, potential stalls have to be corrected by the pilot.

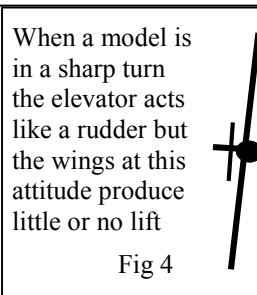
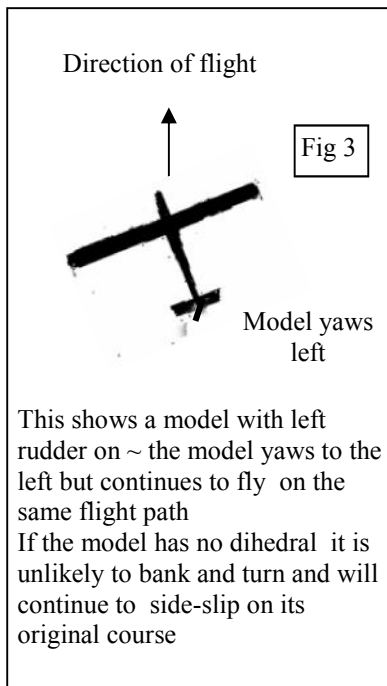
- Why don't we have the CG more forward in RC models? ~ There's nothing to stop a pilot from having this set-up, and it's advisable for a beginner to start with a slightly nose heavy plane; but because most RC fliers prefer models to have a lively performance, a forward CG would make the model a little too sluggish for them.

- The most stable hands-off models have plenty of dihedral making them ideal for beginner. These models are usually rudder elevator models. (see Fig 1

- A model with no dihedral needs both ailerons and elevator to turn. ~ The ailerons rotate the model about its axis and the elevator then acts like a rudder (Fig 4 shows the elevator vertical like a rudder) These and other high performance planes have to be continuously flown (they are not innately stable) plus there are usually more moving surfaces to cope with:: this is the reason they are not suitable for a beginner.

- The wing of a model in a sharp turn (similar to fig 4) produces little or no vertical lift ~ so unless the model is travelling much faster than its normal flying speed it will drop its nose and go into a steep dive and will lose quite a bit of height before it reaches enough speed to recover ~ this type of over control is a common mistake beginners make. ~ they should try to keep the wing as flat as possible throughout a turn.

- Take a careful look at Fig 2. Other than landings; steep downwind turns are the major cause of more grief than anything else. This manoeuvre is yet another example of a model rapidly losing height, as a result of over controlling. This plus the sudden change from a head wind to a tail wind



means that there's a fast acceleration in ground speed and before the pilot has time to get his wits' about him the model is below ridge height and heading towards the hill side on a self destruct mission.

Therefore, in the early stages all 360 degree turns should be done at a safe height and far enough out so the turn can be completed in front of the pilot

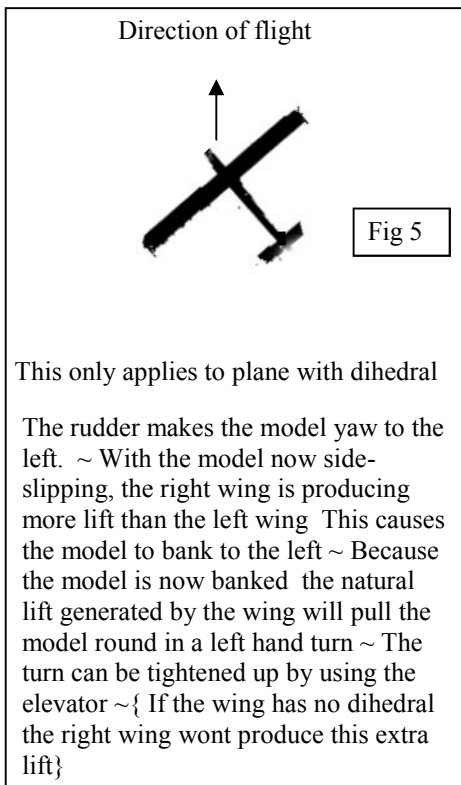
- I've put Fig 5 in to show you how a rudder with dihedral turns a model . It might help to explain why there is a slight delay in response time. It also explains why models with no dihedral don't turn with just rudder, they only yaw

- So! Which model? ? -Ideally it should be - - Something that's not too expensive because according to Sod's Law it will have a limited life

Something that is easy to fly so that with a reasonable amount of luck the beginner will get a fair bit of quality slope time in before it ends up in a skip. Something that is a bit more substantial than an eggshell ~ it should be able to stand a few hard arrivals ~ Note! I didn't say crashes!!!

Here I have a bit of a dilemma in recommending specific types of models but in my opinion, the easiest models to fly in a normal range of wind speeds are the a rudder elevator types. If this is the model you go for I would recommend a slab sided fuz with foam/veneered wings of about 50'' span. Then with a few pieces of balsa wood, Stanley knife, sandpaper, and a 2'' fibreglass bandage you will be able to keep it flying for ages, and, once the model has been repaired a couple of times your flying will show a remarkable improvement ~ Reason? You'll stop worrying about the model and start to enjoy the flying

However, and I mean a big however! Models made from Expanded Polypropylene . (EPP) are much more crash proof than the one described



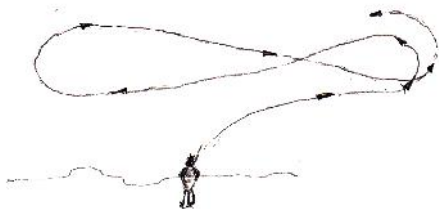
above particularly the wings (Zagi and Wildthing types) EPP models will take one hell of a pounding before they give up the ghost. This makes them the number one favourite for most beginners and I can't fault their choice .

There are however several draw backs with a delta/wing shaped model.

- They are not as easy to fly as a rudder elevator model. Most are not innately stable so you can't relax because they need a constant control/correction input
- They are controlled by 'Elevons' ~ ailerons that also double as the elevator ~ no problem setting this up with today's modern transmitters.....
- They are not as easy to see at a distance It is quite easy for a beginner to get disorientated with delta's or wing shaped planes.
- The CG is more critical and they are more sensitive to pitch so they need little movement on the elevator control ~ Definitely need help setting one of these up for the first time; but that's what club members are for
- In the last newsletter March , there was a picture of two models that would suit a beginner The Multiplex Easy Glider, a 2m foam model with ailerons, rudder, elevator (Not EPP foam) ~ I found it extremely stable with no vices ~ There was also a picture of a Soarcerer, a 48" span rudder elevator model. with a slab sided fuselage and open structured wings.
- So there you have it ~ You pays ya money and takes ya pick.

Flying Tips


When beginners first start they struggle just to keep the model in the air let alone controlling it. (A bit like a friend of mine with his Alsatian dog. The Alsatian takes my friend for a walk not the other way around.)



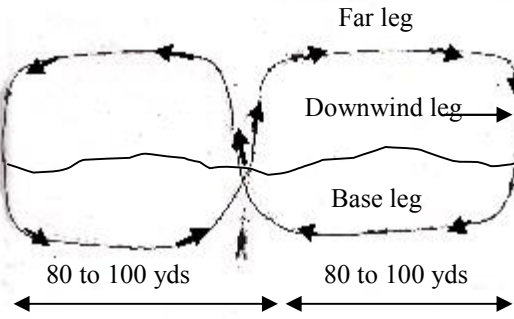
But soon you'll begin to get the hang of it and start to fly figures of eights across the slope (See Sketch) Note:: always turn into wind away from the slope and never just fly randomly, always have an aim. ~ e.g. Try keeping

the figures of eights all the same length, and try to superimpose one eight on top of the other as though the model is flying on rails ~ much harder than you may think but its good practice ~ Next ~ Fly these same eights at varying distances from the slope and try to keep them parallel to the slope ~ Most beginners tend to drift further out on each turn ~ It will take several visits to the slope before you feel proficient at this

Make this about 100 yards



Landing is the biggest model wrecker so practice your landing approach by bringing the figure of eight closer to the slope (see sketch) ~ Repeat this over and over again **at a safe height**, (say 100 feet) Then slowly reduce the height as your confidence grows ~ Getting your approach right is the hardest part of landing ~ If the approach doesn't look/feel right GO ROUND AGAIN.
Never practice this close to the flight-line ~ It is not only bad practice to fly close to other fliers, it is extremely dangerous.



This is the traditional method of a landing It's called 'A square approach' ~ The model is flown directly away from the pilot and turned left or right in a large rectangular/circle.

If you build up a bit of speed on the far leg you will have more control of the model on the downwind leg ~ at first, aim to make the approach (base leg) in line with your left/right shoulder turning into wind before the model reaches you ~ Again practice this at a safe height and do both left and right hand circuits.

- Better to ask for help with your launches and landings than trashing a model
- Try to avoid being blown too far down wind ~ It usually means a land-out
- When flying toward you the rudder/aileron controls are reversed ~ most beginners get in a tis-was sorting this one out ~ . an easy way to remember what to do is to move the transmitter stick towards the falling wing as if using a prop to hold the wing up.
- If you want to improve your flying there's no substitute for stick time and never just stooze around the sky, always fly with a purpose ~
- Fly safely!! Models are replaceable ~ Flight lines are irreplaceable

Letters

Ivan,
Reading about the Canberra in the March newsletter brought back memories of when I worked for 'Air Work Services' many years ago at



Rex

R.A.F. Manby. I was an inspector and was allowed to do ground runs on the Meteor 8s and the Canberra. During runs I had to do Slam Checks which meant pushing the throttle fully forward to see how long it took to reach Max revs (14,000)

On Midlands or Central TV, I saw an item about the Canberra at Coventry Airport. It said that a trust wanted to restore it to flying condition, ~ I hope they do.

Rex Collier.

The pitfalls of buying abroad with top marks to Simprop

Or

A tale of two servos and a very uncooperative hobby shop

I don't buy a lot in the model line nowadays, but when I do I prefer to buy from an established model shop, Tony Hill would be my first port of call and if he hasn't got or can't get what I need Gliders at Newark would get my next phone call, after that I would search on the internet to see if the item needed was listed and then perhaps compare prices and carriage costs.



Keith Rathbone

Last year I decided to treat myself to a new Glider, I had seen a Simprop Intention belonging to Pat Kennelly on our slopes; this was going to be my new model.

Unfortunately when I started to look and enquire in July 2011 there were none to be had, no one had stock and it appeared that the model was to be discontinued, however Andy's Hobby Shop had them listed, further enquiries advised that they were due in shortly, the shortly turned out to be September, when I eventually got the kit,

I looked at my servo stock and decided to lash out on six new servos, I chose the dearer double ball bearing type suggested by Simprop in the assembly instructions, I checked several UK suppliers and had no luck so I ordered them from Andy's Hobby Shop, the servos were delivered promptly with a small acceptable carriage and handling charge, up to this point I was unable to fault the service of this company.

I have a servo tester which I use to centre the servos before installing them, two of the new servos turned out to be faulty; they drove to one end and would not return they were further checked with a receiver with the same results.

I parcelled them up and returned them in early January 2012 with a letter explaining the fault and requesting that they be examined for possible repair or preferably replacement under warranty, I enclosed copies of the invoices which came with the servos.

This company Andy's Hobby Shop had contacted me by email in the past, I had expected an acknowledgment but after two weeks I had had no response and I was beginning to wonder if my parcel had arrived safely so I emailed them again still no response.

At the end of January I wrote a letter which I proposed to send by recorded delivery until I found that the cost of this service to Germany was over six pounds. So it went first class post

Still no response so I spoke to Brian Lee (his wife Lisel used to teach German) I composed a further letter and Lisel translated it into German and this was again sent first class post.
Still no response.

Had I purchased these items in England a telephone call and perhaps a note in a small parcel and the problem would I'm sure be resolved quickly and quite painlessly

If anyone purchases a new product in the UK the buyer's recourse is directly

with the retailer and his recourse is with his supplier, I believe that the same rule applies in Europe, the purchaser does not normally approach the manufacturer. They if contacted will usually point you back to your place of purchase. Although the ultimate responsibility is the manufacturer.

But I decided it was worth a shot to bring my problem to the attention of Simprop.

I wrote sending copies of my invoices the letters and the email sent to Andy's Hobby Shop and five days later I received an email dated 10th of February which said and I quote: your servos are on the way to us." Andy's Hobby shop is very sorry they forgot.

Still no contact from Andy's Hobby Shop so on the 20th of February I wrote again to Simprop and asked if the had received my servos, I got a reply by email dated 22nd of February saying that they had received my servos and they would be replaced next week,

On the 29th of February Andy's Hobby emailed me to say that they had dispatched two servos to me, two new servos were received on Friday 2nd of March.

I am grateful for the assistance given by Simprop. **There is a lesson to be learned here**, I realise that in the situation where the retailer fails to respond to letters or emails there is very little I could do.

The items were purchased with a **debit** card which I always do, had I used a credit card or Pay Pal, I could have put pressure on the Retailer for replacements or a refund through Pay pal or the credit card issuer, Beware this option is not available with a **debit** card.

The lack of positive communication by Andy's Hobby Shop is a very short sighted policy and they will ultimately loose business using these tactics,

Keith

Re: Sh*touse...

Hi Ivan, Just a little snippet for the mag but going by the title...not a nice one. I've always said that this hobby seems to attract the nicest possible people you could wish to



Ant Jervis

meet, the banter is "par excellence"..The p*ss taking has everybody in stitches and everybody can give as well as take it. The kindness and helpfulness is second to none as well as top camaraderie. We sometimes get abuse from passing motorist...noteworthy is the idiot in the distinctive Land Rover...always at speed though but all in all nothing to moan about....until now. On Friday afternoon 30th March I went flying at the Gate, I took a wooden scalie and my trusted Mini Corado...my first mouldie of 10 or 12yrs and fav'. The conditions were a bit blowy so didn't risk the scalie and chucked up the Corado. After about 1/2 an hour the conditions worsened and my little mouldy was being blown all over the show, so decided to bring her in. Landing approach started...across the face, turn downwind and on to base leg when I realised I'd gone just a tad too far back and found myself above the wall about 50-60yds from the Gate and could tell that she was being buffeted by the wall curl-over...so I just kept the wings level and gently let her down, she landed on the road just over the wall. Immediately I looked to see if any cars were coming from the Mermaid Pup.....there wasn't and looked left towards the Pond where upon I saw a lorry coming...so I ran back to the Gate and through it to alert the driver but when on the road I looked toward the pub and noticed my glider had settled on the slope side of the road some 60yds away...phew I thought...no need to alert the lorry driver as he came over the brow. But as I watched him pass me walking to pick up the Corado he veered across the road and deliberately ran over the glider....well you can imagine what I said. It happened that fast I didn't even get the make or number....B*ST*RD. I checked the model over and there was no damage caused by the roadside landing what so ever...just a completely trashed starboard wing. Just goes to show..All the nice people fly Gliders...

Ant

**Keith Rathbone is thinking of sending off to the USA for a Halfpipe (48" EPP wing) ~ apparently there's a big saving on model cost and P&P if you order three models at the same time ~ Keith is looking for two other guys who would be interested in making the order number up ~
Contact Keith 01782 515128 or e-mail: keith@gmx.com**

April's X Country Event

Richard Campbell Trophy

The weather forecast for Sunday 22nd April was par for one of our competition days ~ Cold with the possibility of low cloud and a high risk of heavy showers.... Hate to say this but those clever sods at the BBC got it spot-on again! ... Despite the forecast of woe, seven diehards tuned out to do battle. The low turnout number plus the weather conditions led to an iffy start ~ "Should we just stooze around and forget the comp, or, should we give it a whirl??" ~ Ian Webb took the bull by the horns and set out the course with a series of flags on poles. After a short pilots briefing we all lobbed off together, mass launch style, with an assortment of models that ranged from Ian Webb's 4m Sharon to Mark Ollier's 48" HatchlingGarry Furnival set off at a cracking pace with Webby and yours truly bringing up the rear..

The wind was almost due west; producing excellent slope lift ~ The first three flags were a breeze although walking backwards up to the trig-point (third flag) was a bit challenging for me. ~ Had to walk backwards so that I could keep my eye on the model way out in the lift at the front of the slope ~

On the way down the track it starts to spit with rain accompanied by a really strong squally gust ~ After the gust the wind suddenly swung from due west to north north west and was now blowing down the road past the Gate from the pool direction. This killed all the slope lift stone dead and both Webby and I had no other option but to land. No sooner had we landed than the heavens opened and we had to take shelter behind a stone wall for a while.

Garry Furnival got as far as the fifth flag before the lift went closely followed by Scott and Dave Gains, both reached fourth flag,.

Despite the dreadful conditions we all thoroughly enjoyed the challenge and said we must have another cross county competition later in the year.



I'd like to say Gary's win was due to skill and knowledge. Truth is it was his long legs



Dave and Scott were in joint second place when the lack of lift and rain stopped play