

# **ADS** + **Short Finals**

No.101



## EDIFICATION

Derek Robertson

Well, it's the final run up to Xmas. It's cold and miserable outside, and I'd love to say that I was sitting in front of a roaring log fire with a glass of sherry in hand, but in reality I'd been sent out to the shed to smoke my pipe. However, now that I'm back indoors and perched upon the radiator, enjoying a mug of hot cocoa, I can reflect on the season past. Not a bad year, but not a particularly memorable one either, apart from the highly successful outing to RAF Kinloss. However two things proved a disappointment for me ..... the general lack of winter flying this year and the realisation of just how little I've learned about the black art of "trimming".

Yes, over the last few of months of fairly persistent bad weather there have been precious few opportunities to get out with the toys. The occasional sortie to Calder Park, and Brimmond Hill was also flown a number of times recently, but those present had to put up snow showers blowing through ..... where's your radiator and cocoa when you need it, eh? Obviously the more senior, retired members within our club were in a much better position to take advantage of any favourable conditions, but as far as I'm aware didn't they get out much either. These lucky guys have got it made don't you think? ..... endless days with nothing to do except the odd trip to the shops with the wife, free bus travel (between strikes) and an annual £250 contribution straight into the "modelling kitty" from our government (amusingly described as a heating allowance!) ..... I can hardly wait to be "old"

Trimming then! Back in the early years if you chucked a glider and it dived

into the ground, it would be too nose heavy, conversely, if it nosed up and stalled, stick a bit more lead up front. Sounds straight forward enough! Moving forward to where I am now (and I do accept this as being correct), if during a dive test the model rears up quickly and stalls, it's too nose heavy. If the dive steepens then there's not enough weight up front. (the opposite of the above initial glide test) Any adjustments I make are usually based on the dive test, but in my experience the results can be variable and sometimes contradictory. Thanks to Barnsie and Brian Ord for their past words of wisdom and patience, but I have to admit I still don't really get it! To echo my school reports "Derek must try harder!" and I will. All of which brings me on nicely to another trepidation filled experience at Calder Park.

Prior to the start of the November windy spell I was on hand to help a fellow member with the first flight of his own design, little, Sp400 aerobat. It was a fairly standard layout, so we had a pretty good idea of the CG position and with all the pre-flight and range checks complete he launched whilst I did my best with the Tx. After a few minutes of fiddling with the trim levers to get the best compromise for handling with both power on and off, the model was flying rather well, so I passed the tranny over to him. Yrret (name disguised to avoid embarrassment) wasn't comfortable with this set-up and put in 3 or 4 clicks of "up" trim ..... not my cup of tea, but he appeared to be better pleased despite the tendency to zoom during turns. A few more minutes of sedate flying gave way to loops and rolls. It was at this stage that the wings decided to part company, leaving the fuz to fly a majestic 30 degree, arrow straight trajectory into the corner of the field! I couldn't help but think that in those last few seconds the model had been far better "trimmed out" than either of our

earlier efforts! Better finish off with a little Xmas cheer. I'm currently at the stage of sanding down all the major components on my Lear jet slope-soaring project, and the wife, quite understandably, insists that this is done outdoors to avoid burying our bedroom and all the festive decorations in balsa dust. Good friend Terry Shields isn't into all this Xmas tat. No tree, lights or fancy coloured tinsel ..... but why bother when he's created such a wonderful upstairs "grotto"! Terry does all his modelling work in an upstairs bedroom and stepping through the door is like discovering a whole new world. You'll find you've been instantly transported to a winter wonderland complete with wall to wall balsa snow. Magic! If you ever have occasion to visit Terry or would like him to pass on your Xmas wish list to Santa, be sure to pop in past his "grotto".

Merry Xmas chaps and all the best for 2009!



## CHAIRMAN'S MEEOW

Neil Davidson

Well done to all who contributed in putting together another excellent issue of Short Finals.

Particular thanks must again go to our budding, if somewhat past it, photographer Derek Robertson for many excellent photographs from his latest Nikon. Of course we also have the services of our other photographers, Willie Findlay and Mike Pirie.

The club, which is now 30 years old, has changed considerably over the years. In particular, we have seen the emergence of electric flight as a viable and popular form of propulsion for our models. We also now have an excellent Internet site which is available at <http://www.fly-ads.co.uk>

Now that we are at the end of another flying season and another year, we can hopefully look forward to an improvement in the dreadful weather that we have suffered, both in this year and in many previous years. In addition to the weather curtailing our flying, we inevitably miss the camaraderie that comes with meeting our fellow club members and many other aeromodellers.

I hope that you enjoy reading the latest edition of Short Finals and will feel able to join us on the flying field at some time in the future.

May I wish you all a Merry Xmas & a Happy New Year.

## COVER PIC

Taken at Cairn O'Mount on 3 May 2008, Mike Pirie has captured the launch of Graham Donaldson's ASW-27 with Derek Robertson doing the honours of throwing it over the edge.

## AGM 2008

11 November 2008

The AGM was held on Tuesday 11 November 2008 in the Cove Bay Hotel. Only 10 members were present.

The usual discussion points formed the agenda and the following is a summary of the main business.

**Committee** – Jim Ruxton (Secretary/Treasurer) and Derek Robertson (Safety Officer) stood down to be replaced by Gerry Mitchell and Terry Shields respectively.

**Subscriptions** – After short debate remain at £12 and £6 for juniors

**Officers' Reports** – All Committee members submitted reports. A common theme was the poor weather over the summer that affected some events. Financially the Club was in a good position. There were no safety issues.

**2009 Events** – Dates were set out and are on the back page.

Other small bits and pieces were covered at the meeting and can be found on the circulated minute.

## FREQUENCIES

BMFA Handbook

The use of both odd and even frequencies by ADS was the subject of discussion at the AGM and it was agreed that this practice would be allowed subject to use of the Adjacent Channel Check as stipulated by BMFA and endorsed by SAA.

The check is quick and easy to do. Flyer A switches on transmitter (with aerial down), then switches on his receiver and stands about 4 metres from his model. Flyer B, on an adjacent channel, switches on transmitter (aerial up) and stands alongside flyer A. No interference should be noted on A's model and it should be under the full

control of A's transmitter. The test is then repeated using B's model and with his transmitter aerial down and A's extended. Note that 'interference' will range from 'glitching' with older sets to failsafe operation with DSP receivers or PCM sets. Any interference noted indicates possible tuning or crystal problems and must be investigated further. The test may save your model as it will give early warning of problems beginning in your radio equipment, usually well before they become bad enough to cause control problems in the air.

## Digital Repairs

Brian Allen

Having had a dance with an OS91 earlier in the year and now fully recovered, I can let you in to my secret Laurencekirk formula on how to regrow body parts.





## Foam Wing Cutting

George Whelan

Following my presentation on cutting foam wings I thought it would be a good idea to do an online presentation as an aide memoir for anybody who fancies having a go. I have been cutting wings for years and my method has evolved from very simple to complex and back to the current simplified method.

### Why Foam

- a) Repeatability, once you have your templates you can very quickly turn out multiple wings.
- b) Variability, once you have your templates you can use them to turn out a variety of wing plans.
- c) Robustness, I believe foam wings can absorb impact energy better than a built up wing, but crash them hard enough and they will break.
- d) Profile accuracy, while the profiles we cut are at best a representation of any particular profile, this profile is constant across the wingspan.

### Materials

- a) Dow Corning Roofmate, Floormate & Wallmate, usually called blue foam, this is a closed cell polyurethane foam which is available in various densities and has good impact resistance. Sheffield Insulation sells this material in packs. There are variations on this foam, I buy a peach coloured version from Inverurie, about £13 a sheet, and you get 10 blocks by 2 wing panels out of a 75mm thick piece, enough to make 5 sets of 100" wings.
- b) Polystyrene foam, this is blown polystyrene, it does not have the same strength as blue foam, ideally look for virgin foam with a bubble diameter of about 3mm. B&Q sell recycled

insulation, be careful, this foam can contain hard lumps which may interfere with the cutting wire.

- c) There are a number of other foams which are less commonly available or are quite expensive, pink foam, spyder foam used for surfboards etc.

**ALL THESE FOAMS WHILE NOT TOXIC SHOULD BE CUT IN A WELL VENTILATED SPACE**

### Bows

- a) Over the years I have used a number of homemade bows, the first was a piece of 2 x 1 hardwood about three feet long, a 6mm hole drilled about 50mm from each end about 5 – 10 degrees from the vertical. A piece of electric fire element wire stretched tightly between the ends of 6mm piano wire inserted into the holes. This bow is quite adequate for the job; the tension is the critical element. My current bow is a variation on this theme made by Feather Cut; this has a metal body and folds into itself for storage and transport.
- b) I also have a bow made from aluminium tubing with fibreglass limbs; this looks similar to a modern composite archers bow. The beauty of this type is that it maintains its



- tension when the wire heats up.
- c) There is a bow based on the old carpenters bow saw, this uses a string windlass to tension the wire, the downside of this is it is not self-tensioning and the cutting wire will slacken as it heats up.
  - d) The bow can be hung beneath the cutting board or suspended above it depending on the length of the board and bow.

I have a variety of bows in different lengths up to about 1 meter long, longer than this the drag on the cutting wire makes the profiles inaccurate. You can still make long wings; you just do it by gluing a number of panels together. I use this method for making multiple taper panels. I used to use a standard car battery charger for powering my bows, this was more than adequate and safe, and they are cheap enough to buy if you don't already



have one. For me using a 240-volt light dimmer switch is scary, take care with anything electric, and remember you will be handling this equipment. Cutting wire is available from the likes of SLEC, you could use a guitar string, and my first source of wire was an electric fire element, just wind the required length of the element. My power supply is a Variac transformer which can be turned up to 275V ac. I have this pegged at a maximum of 24 volts. However I do not use voltage to regulate

the cutting speed I use current, hence the dvm. I have one type of wire that cuts well at 2.45 amps and another that cuts well at 4.25 amps. If you use amps to drive the cutting wire then it will be constant regardless of the length of bow.



- a) These can be made of a variety of materials, thin ply, tufnol, traffolite, thick card with edges hardened with cyano watch out for the fumes.
- b) The form can be in the shape of the aerofoil which is stuck to the foam with a couple of nails or pop rivets, or it can be my preferred method of cutting a separate bottom and top profile and again attach with nails or slotted into some 10mm aluminium channel.
- c) If you use nails or rivets to hold the templates lay them together



and drill the nail holes through both templates, this will ensure alignment between the top and bottom templates.

- d) I print off the aerofoil using Compufoil software and stick this on my template material using double-sided tape. Profili is also good cheap software, readily available on the internet.



Remember to allow for the thickness of your cap strips or veneer if you are bagging your wing.

- e) Wash in can easily be built into the



wing just by tilting the template.

### **Cutting Board**

- a) I have a range of cutting boards made variously from Conti board, insulation

board, and plate glass; the main requirement is for it to be flat.

- b) If you are cutting tapered wings you can use the two handed method where yourself and your colleague each handle one end of the bow and cut according to stations marked on the template, one person must lead the

exercise calling out the marks as they are cut, the other person following. Those of you who saw my demo will remember I used a simple dividing arm. This is a meter stick pivoted at one end and draw wires run from each end of the bow, round a couple of pulleys and attached to the arm. The arm is weighted and when the bow is hot the wire will be drawn through the foam. If you are cutting a tapered wing it is simple to

work out the taper ratio and attach the pulling wire to 2 separate points on the arm.

- c) Using the dividing arm the cutting speed is self-regulating by the weight on the arm, not too much about 0.5 – 0.75 kg is sufficient

Once you have your wing panels you can glue them together, install a joining mechanism and glass and bag them, but that's another story.



## When is a Chipmunk Not a Chipmunk?

Derek Robertson

Mention the word “Chipmunks” to any male of my generation and it’s likely that two things will spring immediately to mind. Alvin and his bloody annoying musical friends and a certain RAF aeroplane if I’m not mistaken? Well I’m delighted to say that Alvin and the Chipmunks` songs played on the radio contributed in no small way to my getting



*If you weren't around in the '60s this photo won't mean a thing!*

out of the house, joining the Air Training Corps and discovering the latter. What's all this got to do with aeromodelling? Here we go then! Apart from the early experiences with control-line models I've never possessed a model aeroplane that could actually ROG, and only recently felt the need to build something a little bigger, that had the capability to take off and land if the pilot was sober enough. As it happened, one of John Barnes's bi-annual modelling clearance sales was taking place and on the

list of goodies up for grabs was a Carl Goldberg Super Chipmunk kit. I have to admit that tears clouded my good eye at the mere mention of the name, bringing back as it did so many fond memories of those years with the 102 Dyce Squadron ATC. Notably performing aerobatics over the Aberdeen seafront in one of three “Chippies” flown up from Turnhouse. Sigh! ..... this of course was way, waay, waaay back in 1964!

Yes, I was vaguely aware that the “Super” Chipmunk was an aerobatic version of the RAF trainer I'd spent

countless happy hours in ..... merely a single-seater variant with a bubble canopy, or so I thought. Naw, not quite! The “Super” had essentially the same wing plan form but with enlarged control surfaces, a different shaped cowling to accommodate the bigger more powerful Lycoming engine, spatted wheels, and a whole new tail assembly. Err ..... em ..... basically an entirely new aeroplane then, which hopefully explains the title of this

story! However, back to Barnsie's sale. The photo on the boxed kit proved irresistible and I had to have it, even if it meant converting it from IC to electric power. Nostalgia and half a bottle of Merlot the previous evening have a lot to answer for!

Well, 2 years passed before I found the time and inclination to finally get the project under way. First the impressive bit. The Carl Goldberg company had



thought of everything and the kit featured all the wood necessary, much of it die-cut, a comprehensive hardware pack, a photo illustrated instruction manual and full-size plans for the model. They even provided jigs for building the symmetrical section wings and neat little gizmos for sanding the LE and control surface profiles. Also good news from my point of view as far as the leccy conversion was concerned, the wings were open structure with balsa D-boxes and the ply fuz sides were mostly holes! So, not much for me to do in the way of lightening the airframe. Brill



Rather disappointingly though (this is the not so impressive bit by the way) some of the wood selected left a lot to be desired, particularly the D-box sheeting which varied so much in density I replaced the lot, and also much of the die-cutting was of poor quality having crushed and split the wood on the rear side of the sheet. The tedious job of going over the die-cuts with a scalpel and finishing with a light sanding was the only way to get a reasonable edge on these components. Even so, the resulting “torn edged” appearance of many of the parts meant I

had to use epoxy instead of the recommended cyano to ensure a secure bond. I see from the Goldberg website that this kit is still currently available and now features laser cutting throughout, so the above problem should have been cured.

Early on in the proceedings Mike Pirie ran some figures through “Moto-calc” for me and it became obvious that there were several brushless outrunner motors available that could handle the job, but that running it on Nimh battery packs wasn’t really a viable option, unless I was prepared to hire a crane to lift the model from the car

onto to the flying field. At this point I contacted John Emms at Puffin Models, gave him the specs for the Chipmunk and he recommended a big Mega motor, a 70amp ESC and 6s 3700mah Lipos. Gulp! ..... this was going to be expensive! Feeling brave I decided to go for the motor / ESC combo right away,

but knew I’d have to pull out all the stops before the wife would agree to shelling out for the Lipos. When it comes to grovelling lads, never buy flowers! It’s almost like advertising that you’re in deep trouble ..... perhaps a few “plastic surgery vouchers” might be a better way to soften her up? Something for me to cogitate over in the coming months, so I did what most normal, well balanced, henpecked husbands would do in this situation and put it off for another day!

The  
airframe took shape  
pretty quickly and  
the whole thing was  
put together as per  
plan, apart from  
substituting the  
antiquated pushrod  
and bellcrank  
operated ailerons  
with a separate  
servo for each and  
the fitting of  
optional flaps.  
Once the fuz  
structure was  
complete, I  
installed the motor  
and ESC, fitted the  
completed wing  
and tailplane  
assemblies so that I  
could work out

battery tray, rudder and elevator servo  
locations for minimum disturbance to the  
CG. I was pleasantly surprised to find that  
everything was hunky dory when both  
servos were fitted at the back end and the  
batteries placed under the canopy hatch,  
just ahead of the CG. Lovely jubbly!

The ABS engine cowl and wheel  
spats were spray painted with all the  
wooden parts being covered in a  
combination Solarspan, Solarfim and  
Solartrim. There are a variety of colour  
schemes available to choose from, but I  
took the easy option and went for the  
aircraft flown by the late Art Scholl. All  
the sponsor names and logos were on self-  
adhesive film provided with the kit, as was  
the instrument panel, but I had to find a  
suitable pilot to finish off an otherwise  
cavernous cockpit. A 1/6th scale latex sport  
pilot from J Perkins was fitted which  
weighs almost nothing, is incredibly  
detailed and paints easily.



### Specification

Wingspan - 64"

AUW - 8lbs

Motor - Mega 41/30/15 brushless outrunner

ESC - Jeti 70 Opto

Battery - 2 x 3s 4800mah Lipos in series

Propeller - 14" x 10" APC electric

As it happens, the cost of the Lipo  
batteries didn't break the bank. By the time  
I'd finished the model, fellow club member  
Clinton Reid was keen to get rid of the  
above packs, along with a charger, for  
much the same kind of dosh my wife would  
spent on a one off beauty treatment. As  
these 'treatments' result in only a very  
temporary improvement, it appeared to me  
that the batteries were a much better  
investment so I bought 'em!

Does it fly? Haven't a clue yet,  
but it probably should! I must confess to  
being a little concerned when I discovered  
my "Chipper's" final flying weight, but it's

not excessive when compared to other similar IC to electric conversions. Indeed, the Autumn 2008 RCM&E features a free plan for a 62" span Hurricane (Tony Nijhuis), using either power system and weighing at 8.5 lbs ..... an encouraging sign then! So, excuses for avoiding the maiden flight so far? Poor weather, waiting for a new Tx & recent unforeseen marital problems!

### Sod's Law

Derek Robertson

I recently had occasion to phone Alan Hulme, a leading light in the PSSA (Power Slope Soaring Association), with a query about a slope soarer I was currently working on. Probably not a name many of you will recognise, but Alan lives in Chester and the relatively nearby Lleyn Peninsula cliff site in north Wales, is a regular mecca for him and his "slope" buddies. (check out <http://www.pssaonline.co.uk>) An excellent location for any type of slope machine, but as the site overlooks Cardigan Bay, the passing years have seen a number of models end up in the sea, and with no way to recover a ditched aircraft Neptune had gobbled them up. During our conversation he informed me that he was about to attend the funeral of a close friend and fellow modeller, and related the following story.

The modeller in question was suffering from terminal cancer and had expressed one wish after he'd passed away. A very novel idea as it turns out, that involved his favourite slope model, a BAE Hawk, be flown as far out to sea as possible before committing it to a watery grave. A farewell to both life and aeromodelling, I would guess!

On the day selected for this "kamikaze mission" the wind failed to turn

up and there was a real concern among those gathered that the Hawk wouldn't even clear the cliff let alone reach the sea. Fortunately someone had brought a bungee along, so, after much debate the model was duly launched, flown as far out as possible and gently pancaked into the water. Respectful silence and meditation however was short-lived! A yacht rounded the headland and the skipper called out ..... "Don't worry chaps, saw it go in, I'll get it for you!" On any other occasion this would be deemed a stroke of good fortune.

It took quite a bit of shouting and gesticulation from the cliff top to convince the perplexed yachtsman to abandon the rescue mission. The Hawk floated for some considerable time before finally disappearing forever! True story!

### Multiplexed

German for the Aeromodeller

**Aircraft** - der fliegenwagon

**Propeller** - der airfloggen fann

**Starter** - der airfloggenfann flinger

**Transmitter** - der tailschwingen  
uppendownen pushenpullen werke

**Pilot** - der tailschwingen uppendownen  
pushenpullen werker

**Student Pilot** - der dumbkoff lernen  
fliegen

**Instructor** - der dumbkoff schtul mit der  
dumbkoff lerner fliegen

**Examiner** - schwienhund ubbenzie  
tauer watchen aller oder dumdkoffs  
fliegen

**First Solo** - trienen gebackonner grund  
mittout kraschen alonen

**Crosswind Landing** - trienen  
gebackonner grund mittout  
kraschen sidevays

## Burgers & Wind

A Natural Consequence

Well as usual, this day was set aside as an ADS events day so it was never going to be perfect, but mind you after the rain we had suffered over the preceding week it was a blessing to awaken on the Sunday morning and find hardly any wind, warm weather and blue sky.

Proceedings were due to get underway at 1100 hrs with erection of the gazebo and stoking of the fire for the barbecue. That was a formality anyway as Jim Ruxton had procured his daughter's equipment for the day all for the cost of a shot of his caravan for a week in Ballater. Oh aye and towing it there and back too!

On driving past Calder Park shortly before ten the early birds of Smith, Masson and Giles were already there enjoying the excellent conditions. By the time the 11<sup>th</sup> hour came the wind had picked up and the sun was fast disappearing behind high cloud moving over from the westerly side.

The Club 100" glider was present

and the winch was laid out diagonally from the gate. A sizeable crowd began to gather including a couple of guests who included a far travelled chap from Huntly.

Terry Shields was first to brave the winch with the club glider and it flew no problem at all thanks to the efforts of Bill Stark in getting her trimmed out in advance. Unfortunately Bill was on holiday and did not get the chance to see her hoist up.

Willie

Findlay had a go and let the downwind leg drift too far into the other park and couldn't bring it back on finals landing near to the barbecue in the adjoining field.

Terry's

Fantasia also coped with conditions well whilst Willie's Riser was just a bit on the light side and blew back in the wind. More ballast required.

A wide variety of models took to the sky from large aerobatic ships like the Sparrow 90 to smaller EDF jets such as the F16 and Sabre as well as a Spitfire, Mustang and brushless gliders.

The cooking was carried out to perfection by Jim's wife Jane and Willie's daughter Emma with a little help from Sheena (above) and the burgers couldn't





get off the grill quick enough as hungry modellers queued patiently. Burgers, sausage and spare ribs did the trick with the chicken drumsticks remaining in the coolbag as everyone was replete with what was on offer. Coffee, tea, pepsi and lemonade were all available in abundance to wash things down. Not bad for £2 for all you can eat and drink.

Despite the wind there was plenty of flying even if it wasn't all gliders. John Masson was throwing his aerobatic Sparrow 90 around the sky. John reckoned this model had been lying about his hangar for the past 10 years or so. On a low and level pass the port wing gave way catastrophically causing the remaining powered parts to enter the inaugural ADS Ploughing Competition. Well done John. You won!!



Pictured above, John shows that he came prepared with that vital piece of equipment required for aeromodelling, a black bag. Although in this instance the intruding snapman looks as if he is about to get it.

Judging the aforementioned ploughing competition were the three wise, men Allen, Smith & Shields pictured above awarding points for entry, fragmentation and debris spread. Mr Allen has a particularly critical eye and considerable experience to rely upon when making his determinations.



Mr Shields awards bonus points depending on wing damage with more points for less damage and top marks if they are in his boot afterwards.

Mr Smith assesses the degree of difficulty based on whether conditions. Aye, Whether it was too windy.

Overall, a good turn out for the barbie and nice to see some visitors along too.

### Blonde Pilot

A blonde went to a flight school insisting she wanted to learn to fly that day. As all the planes were currently in use, the owner agreed to instruct her on how to pilot the helicopter solo by radio. He took her out, showed her how to start it and gave her the basics, and sent her on her way. After she climbed 1000 feet, she radioed in "I'm doing great! I love it! The view is so beautiful and I'm starting to get the hang of this." After 2000 feet, she radioed again saying how easy it was learning to fly. The instructor watched her climb over 3000 feet and was beginning to worry that she hadn't radioed in. A few minutes later, he watched in horror as she crashed about half a mile away. He ran over and pulled her from the wreckage. When he asked what happened she said: "I don't know! Everything was going fine, but as I got higher, I was starting to get cold. I can't remember anything after I turned off the big fan."

## Off The Shelf Fuselage Jig

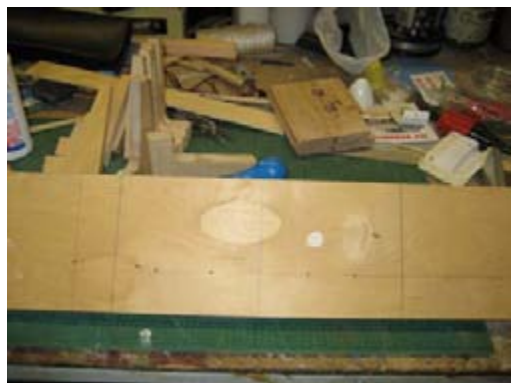
George Whelan

Over the past couple of years I have flown a number of ARTF models from Puffin Models, while these are well made models and good flyers I still like to cut and glue sticks.

As the Winter draws on I decided to set a production line and build an Elektra 7 electric soarer, a Sagitta 600 with ailerons for the slope and a Sagitta 900 model for next years 100S Nationals. These models are traditional construction being entirely built up from balsa, ply and spruce.

Despite having built many of this sort of model I still am not confident in building straight fuzzes no matter how many clamps are applied. The answer is to clamp the fuz to something ie a jig.

Looking on the internet at the available options it was down to the SLEC jig or a build it yourself, many people (Norrie) have used the SLEC for years, but I decided to go down the build your own route. I mulled over a number of ideas including adjustable cradles built onto a tube or box section, however I decided to go for the right angle brackets on a board method.



So to the shed, looking around I came across some good 12mm ply from a chest of draws I demolished, ideal for the brackets. I got some graph paper and drew up a couple of shapes before deciding on a final shape based on the size of wood available, this shape was transferred to the wood giving me 5 pairs out of one piece. Using my band saw and Fostner drills I very quickly cut out the brackets and fettled them up on my sanding disk. I was very pleased with the product and decided to cut up another piece, making one pair extra long for fin alignment.



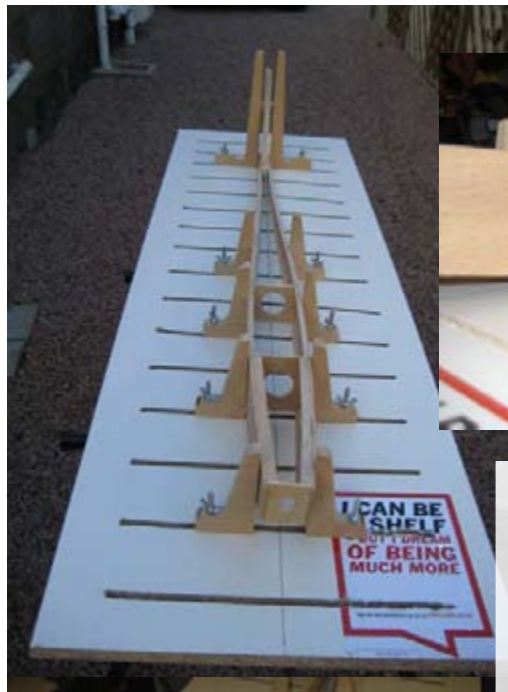
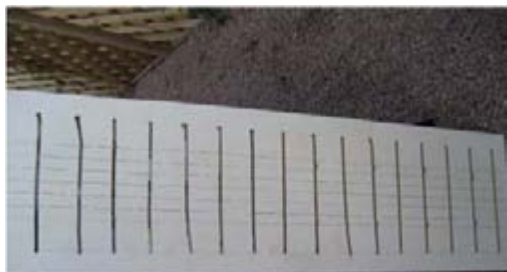
The brackets would be held onto the board with M5 X 60 screws and wing nuts, this meant that any side to side adjustment would need to be incorporated into the board via slots.

The board is a piece of Conti board with M5 slots routed from side to side at 75mm spacing. This was a learning curve for me, She who must be obeyed bought me an excellent router for Christmas 2 years ago and this was the first time I have tried heavy duty routing, probably about 90% success, from the photo you can see the odd wobble, however the whole thing works a treat, straight fuzzes from now on. I have included some photos, which tell a thousand words. The only addition is a

centre line drawn down the board for alignment.

Main lesson learned, use strong clamps for the router guide or it will drag you all around the shed. Wear a mask and goggles as the dust gets everywhere.

Build one while your young and save years of hassle.



## Sig Riser 100

Willie Findlay

Having lost my Algebra and crashed my Sigma in quick succession I was left looking for a replacement sailplane that I could use off slope and winch and after much trawling of the net I decided to go for the Riser 100 kit. This Sig kit was drawn to me by its specification, cost, but more importantly its claim to be easy to build.

Once it arrived a delve into the box revealed full size plans on two sheets, various shapes and sizes of balsa wood, CNC cut lite ply fuselage parts, a hardware pack and a very comprehensive step by step build book with pictures. A parts list is at the back of the book and is well worth visiting at the outset to identify and mark all pieces as some parts are almost identical, but wrong placement causes problems later on as you will find out.

There are two decisions that need to be made in the build, namely whether to include wing spoilers and whether to go for a bolt on or rubber band wing fixing, although you have some time to think about this as you proceed. I decided to include the spoilers and bolt on my wings.

Starting with the fus, the CNC lite ply parts need popping out and deburring before being dry fit and bound with rubber bands ready for application of some CA to the joints. I used a combination of medium



and thin CA for most of the build. I attached the nose block and cover with Titebond wood glue which I have found to be quite strong.



The wings are polyhedral and built in four sections combined into two halves. The two inboard wing root ribs are lite ply whilst the others are balsa. Leading edge is a spruce dowel and the trailing edge is preshaped balsa.





Having prepared the ribs, the spruce spars are secured to them with CA. A dihedral gauge is used to ensure the root ribs are set at the correct angle before gluing. The outboard wing sections are constructed in the same manner but the polyhedral gauge is used to set the root rib angle here. The wing tip is a solid balsa block for which I again used the Titebond glue.

In the case of wingtips and nose block I sketched the desired outline on the block before rough shaping in the band saw and finishing with razor plane and sandpaper.

Before joining the wing sections together, the inboard sections were prepared for the spoilers cutting out the centre ribs and putting in the reinforcement and tubes for the Dacron chord. The wings are then epoxied together keeping the angles in place by whatever means. A brass tube is inserted in the inboard section to locate the steel wing joiner.

The tail feathers are open lattice design and control surfaces are attached with cyano hinges with epoxy used to

attach to the fus. The wing bolt seatings in the wing require beefing up as you might expect and the supplied snakes are fitted into the fuselage and epoxied strategically.

Covering is not supplied in the kit and I used three rolls of Solarspan to complete this task. The fact I only had three rolls dictated my final colour scheme if you can call it that.

Three standard servos were installed for rudder, elevator and spoilers and 6oz of lead placed in beside the battery in the nose to achieve the correct CG.



The maiden flight took place on the Cairn in a 10mph wind and the Riser proved to live up to its name quickly gaining height. Minimal trimming was required and it was gentle in the turn. It looped safely and spun comfortably even though it still appeared to be going up!

Off the winch I was a bit apprehensive about the wings staying put, but even on the windy day of the BBQ, it went up okay and came down okay albeit it struggled to penetrate the wind once off the line.



From start to finish the Riser took two weeks of stop start building to complete and was relatively straightforward. A mistake I made related to the lite play wing ribs which are very similar in appearance but do not have any identifying markings on them. A hole is bored through them at a certain angle to house the brass tube for the wing joiner and maintain the dihedral. As I managed to put them in any old order messing up the angles, I needed to oversize the holes and pack around the tube to get the correct dihedral.

The book suggests trimming the outer snake flush with the fus, but this leaves a long distance to the control horn and the inner snake is liable to flex. I used a cable clip to prevent this. Either extend the outer snake length or use a small portion to glue to the tail plane.

I'm very pleased with the end result as you can see and look forward to flying it on the warm thermally days. My early experience with the model is that it is a Riser by name, Riser by nature. Roll on next summer.



The finished nose job



## Trainer Competition 2008

On A Windy Day in May

The annual Club Trainer Competition was held on Saturday 31 May in windy conditions at Calder Park. The rules were altered slightly this year in as



much as after attempting the optimum 10 minute flight a bonus could be achieved by landing within 30m of the landing target gaining a time bonus of between 5 seconds up to 1 minute for the closest.

A good turn out challenged for the first prize, but the coveted title of Club Trainer Champion meant more than the money to most except for Jim (he wasn't treasurer for nothing you know).

Slots were drawn earlier in the week and Terry Shields (launching above) was first up in the northerly wind which was touching maybe 12 mph at 1105 hrs. Terry seemed to get some good lift, possibly ridge lift, straight out over the Gramps and posted a respectable score of 4'40" on the flying. His landing was well

outside the 30m bonus circle so nothing extra there.

Pirie, Ruxton, Allen, Manson, Findlay, Smith, Ord, Davidson, Masson and Barnes all followed suit, but as the wind increased towards 16mph any lift that was going about disappeared out the back door and nobody could compete with Terry's time. Jim Ruxton managed a 3'55" flight

and a landing of 17m saw him pick up 15 seconds bonus and edge into runner up spot.

The wind got the better of Brian Allen and blew him up, down and all around to the extent that poor Brian handed over the tranny and withdrew.



Brian Ord gave a masterclass in landing and earned a round of applause after coming to rest 700mm from the target and picking up a minute of bonus, but with only a 2'20" flight before that he could not overhaul the little man out front.

Mode 1 flyer and gliding expert John Barnes nervously tried his hand on the Mode 2 set and came a respectable third equal with Abbie Smith with a cumulative time of 3'40".

Landing Distance	
Dist	Score
1m	1 min
5m	45s
10m	30s
20m	15s
30m	5s
>30m	0s



CLUB TRAINER COMPETITION SAT 31 MAY 2008						
Name	Slot	Flight Time	Flight Duration	Landing		Score
			min.sec	Dist	Bonus	
Terry Shields	1	1105	4.40	57.00	0.00	4.40
Jim Ruxton	3	1124	3.55	17.40	0.15	4.10
Abbie Smith	7	1220	3.40	35.00	0.00	3.40
John Barnes	11	1255	3.35	21.40	0.05	3.40
Willie Findlay	6	1212	3.31	35.00	0.00	3.31
John Masson	10	1240	3.29	35.00	0.00	3.29
Mike Pirie	2	1116	3.12	15.50	0.15	3.27
Brian Ord	8	1228	2.20	0.70	1.00	3.20
Iain Manson	5	1206	2.26	9.60	0.30	2.56
Neil Davidson	9	1234	2.25	35.00	0.00	2.25
Brian Allen	4	DNF				



## RAF Kinloss Visit

The Birthday Outing

Looking for a way to celebrate the 30th birthday of ADS, the Committee progressed a visit to a local RAF base and upon being asked RAF Kinloss kindly agreed to grant us entry to their facility.



It was therefore on the glorious 12th, that a ten strong group of ADS members made their way to the Moray camp for close up look of a Nimrod. It is at this point that our thanks are recorded to Graham Donaldson for managing to get use of a minibus for the day and for driving the group there and back safely. Thanks Graham.

A pit stop was made at Baxters of Speyside for light relief and refreshment before arriving at the Guardroom at the appointed hour.

Fiona Carle and Corporal Vicky were on our hosts for the day and after the obligatory do's and don't briefing we were past the man with machine gun and behind the wire.

First stop was at the Moray Flying Club based at a hangar at the north side of

the camp. MFC is primarily for the RAF personnel based at Kinloss and nearby Lossiemouth, but it is permitted to accept a certain amount of civilian members. The Club own two Cessna 152 and a Cessna 172. Also in their hangar you will find two unusual Long EZ canard aircraft, a vintage Woody Pusher and two Vigilant T1 motor gliders used by the Air Cadets. Vigilant T1 is the RAF name for these Grob 109B aircraft.

A close examination of the often modelled Tucano sitting on the apron showed its sleek lines and jet like profile which is hardly surprising seeing as it is the pre-jet trainer. It is a pretty powerful looking machine.

All this time we were being treated to our own flying display of Nimrod 35

doing circuits and bumps, which is just as well as both photographers made a mess of capturing its early approaches. Glad to report that Derek eventually got a beaut as you can see.

On to the Nimrod, picking up Flt Sgt Paddy Roy en route. Paddy (pictured below with Jim and Abbie) knows the Nimrod inside out and 2 weeks from



retirement, pulled no punches as he went over in detail the aircraft you could say he has grown fond of.

He started with an external tour explaining the bumps and boxes on the aircraft. Paddy spoke highly of the Spey turbine of which there are four. Two days to change an engine. I think most of that time is taken up with unscrewing the screws that hold on the panels. Screws to the RAF are what epoxy is to Brian Allen.



We were onboard Nimrod 26 which was flight ready on two hours standby for operational needs. Inside, space is at a premium with flight crew workstations a mass of keyboards, VDU's, panels and switches which is probably what you would expect. All was explained, submarine hunters sit here, navigators sit here and pilots sit here – up at the front in case anything goes wrong. The plane can actually be flown from the back seat by folk with no windows to look out of. A small galley, dining area, toilet and small storage area take up the rest of the room.

How many aircrew are required to take photographs from a Nimrod? Two! One to hold the camera and the other to hold the window open!!

The Nimrod, as most will be aware, is based on the Comet passenger aircraft. What you may not be aware of is that underneath the skin of the Nimrod is

the Comet.

The Nimrod has a dated look on the inside, but still looks the part from the outside. The current fleet are due to be replaced by the latest version MR4A in the new year, and although will look similar externally, it is an entirely new aircraft with only the fuselage pressure cell and empennage being retained.

This was a thoroughly interesting day and our thanks must go to Fiona, Vicky and particularly Paddy for making us feel welcome and passing on their knowledge and anecdotes.

On the way home a detour past RAF Lossiemouth allowed us the chance to see three 100 Squadron Hawks take off at close quarters and get a wave from the pilot.



Tea was had at the Gordon Arms Hotel, Huntly and the food was first class. All in all a super day out.



## Scottish Aviation Twin Pioneer

Sandy Tough

I think that every aeromodeller has a dream of building one particular model; some see their dreams come true, others just carry on dreaming. In my case my dream lasted for approximately fifty years.

It was when stationed at Leuchars -circa 1956- that my aeromodelling really took off. The officer in charge of the club built a free flight twin engine Wayfarer. I can't remember what the engines were, but they were controlled by a pendulum. Some of you old soaks will remember the system. This model impressed me very much and twins have lurked in the back of my mind ever since.

The Twin Pin came into being in 1957 and I remember reading about it at the time and was impressed with its performance. We now fast forward to 1979.

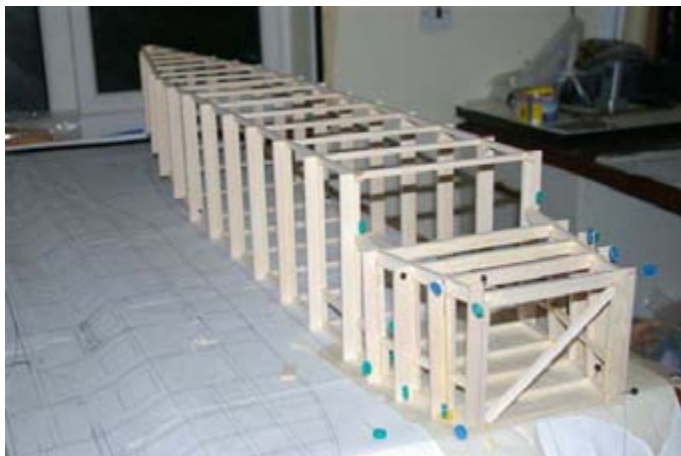
I was getting a magazine at the time called 'Wings' and in part 102 was an article on the Twin Pin. This article convinced me that this was the twin I wanted to build. I immediately sent off to Scottish Aviation to see if I could get some plans. I received an A4 sheet on which was an outline plan. SA explained that this was the only plans that they had and that it was a micro film copy. I then spent a long time getting more information and I ended up with quite a reasonable sized file.

Fast forward to 2006 and having by this time built quite a lot of electric models, I suddenly remembered the Twin

Pin. I started drawing plans for a 76.5" model which was 1:12 scale and one night my good friend JJ came to see me with a copy of an old RCME, in which was a photo of a Twin Pin built by Mike Trew.

I contacted Mike and bought a set of outline plans and a set of engine nacelles. The plans were for a model of 110"! When trying to decide whether to go ahead I quickly realised that things like scale Fowler type flaps would be much easier with the bigger model and the way that the electric scene was progressing, power was not going to be a problem. Hence, with a lot of support from my Pal, the Twin Pin finally was going to be built.

I should say that the plans were only outline plans with no details on Fowler flap mechanism or how to operate the three rudders. Neither were there any real construction details except for wing rib, fin and tail plane sections. The only real construction detail was the fuselage main structure.



The fuselage main structure (above) is a basic square frame made from  $\frac{1}{4}$  square balsa the shape of the fuselage came from formers glued to the main frame and then the whole fuselage was planked with  $\frac{3}{32}$  balsa strips. Mike Trew used  $\frac{1}{8}$  balsa for the planking, but I was concerned about the

weight especially when thinking about batteries. I decided to use the scale hatch at the front, which will house the receiver and the Rx battery. The hatch will also allow access to the rudder and elevator servos.



The fuselage is enormous, but I wanted to try and get the batteries as far as possible up front, so I have made the cockpit removable, which gives more than adequate access. I can actually lose my arm inside the fuselage through the cockpit hatch.

The fins and rudders were quite a challenge as there were no details on how the outer fins were attached to the tail plane and no details on how to operate the three rudders. I therefore spent some time experimenting with different methods for rudder operation, because I wanted to keep the controls completely hidden as in the full size. Finally this was achieved. The next wee problem was the scale hinging; sixteen in all. Each hinge was made from three pieces of  $\frac{1}{4}$  light plywood with a pin through the middle. This took some time to complete and later I almost regretted all the work when I realised that the hinges were almost completely hidden. Having said that it was a labour of love and that's how it should be when you decide on a project of this scale. My workshop is not very big and by this time with the completion of the fuselage and tail plane it was beginning to fill up. I therefore decided to build the

aircraft in sub assemblies and carry out a final assembly when the wings, undercarriage etc were complete.

The next assembly was the undercarriage. Mike used solid balsa reinforced with carbon fibre for the undercarriage support. I thought about that and being worried about weight, decided to build the assembly like a wing with a main spar and ribs skinned with  $\frac{3}{32}$  balsa. The main spar was made with a sandwich of  $\frac{1}{16}$  ply on the outside and hard balsa in the middle with lightening holes. The u/c legs are made of thick walled aluminium tubing with a steel rod a sliding fit in the tube. Springs are used on top of the rods and two slots are cut in the tubing and a pin goes through the slot and is a tight fit in the steel rod. This keeps the two wheel assembly in the correct position ie facing forward. Each leg assembly is then mounted onto blocks up in the main spar. I have to manufacture the springs myself as I cannot get anything to fit commercially.

The wing centre section was next assembly. Again I made the main spar from a sandwich of  $\frac{1}{16}$  ply and  $\frac{1}{4}$  hard balsa. This may sound a bit on the hefty side, but this spar has to carry the two motors (AXI 4120/14 gold line) and transfer the power (about 500 watts per motor) to lift a model of around eleven pounds. I made light ply formers for the engine nacelles. This again had to be my own design as the original plans were for two 52 i/c engines. Two of the formers carry the motors. It was about this point that I read an article in one of magazines about scale plastic engines. The sizes being written about seemed just right for the Twin Pin. I sent off for one engine to see if it would be suitable and on receipt of the engine it was found to be a perfect size for the engine nacelles. It was also about this time that I realised how complicated the centre section was going to be. Motors and



motor wires, two servos with the Fowler flap mechanism, extension cables, wing joiners for the outer wing panels and u/c mountings. I decided that I had better make a checklist otherwise the whisky soaked brain would forget something and complete the sheeting.

The flaps are quite large -16"x3½" approx - and getting material 3/32" thick that would not flex much proved a problem. This was solved by making a sandwich of 3 x 1/32 balsa- cross grained -and tissue in between and glued with a very thin smear of epoxy resin. The Fowler flap mechanism took a lot of experimentation. The first problem was that the normal servos did not give anywhere near the amount of movement required to operate the flaps fully, so the first thing was to calculate the required movement. Not being very bright I had to make a mock up using the true sizes of the flaps and how far they had to travel. It worked out that I would need amplifying arms of a ratio of 3:1. That means that the servo travel was increased by a factor of 3 which gave a movement of about three inches, the amount required.

The next problem, what was going to guide the flaps backwards and downwards? I decided to use U shaped brass. I then made a jig of the correct curve



for the brass guides and heated the brass and bent it into shape. I required eight pieces in all, there being two flaps in each wing. The flaps would have two mountings with two steel spigots which would travel along the brass guides, but how could I get the flaps to travel smoothly down the guides without creeping and jamming. I think the answer is shown in the bottom picture which shows the final assembly.



The picture above, shows the flaps fully extended. I think that these flaps are not so much to slow the aircraft down – the aircraft was slow enough – but act as lift enhancers to give a very good short take off and landing.

The one other thing I noticed also at this stage and that was, even at this size of model the wing section was such that the wing leading edge operational slats were going to be very difficult. I think that is why Mike Trew did not fit them. I thought long and hard about this but finally concluded not to fit them. I think the final decision was made after reading an article about LE slats, where the author said that if you did not get the correct gaps between top and bottom when the slats were open, it made

the model very unstable. I must admit that I am a wee bit disappointed but as I could not guarantee myself that I could build and set up these flaps correctly, that there was no point in taking the chance of making an unstable model. That said it would look nice to see them in operation while the model was static, Watch this space!

I was given a prop size suitable for the motors from John Emms at Puffin and again I read an article on variable pitch props. I contacted the supplier and ended up buying two units. These props are not variable pitch in the true sense; that is, they do not alter pitch during flight, but it does allow you to carry out tests for maximum efficiency. When the props are assembled you can slacken the main central nut and there is a screw in the hub which can be turned by a small screwdriver. Turning the screw alters the pitch of all three blades by

the same amount. On the tests I have done so far it seems to work very well. To give you some idea the difference in 1" in pitch makes a huge difference to the power output! It made me realise that we should definitely experiment more when fitting our props to our motors if we want optimum performance. I will make a table of results when I finish my testing.

The three bladed props look very scale like and really look good on the model.

The tail plane is now fitted and the rudders and elevators are working as they should. With the centre section fitted my workshop is getting very congested with very little room to build the outer wings.

The fuselage fitted with tail plane and wing centre section has taken up residence in the living room. It's a good job I do not have a 'her indoors'.

Till the next time.



## Roofspace Ramblings

Norrie Kerr

Looking back on 2008 it has not been a good year for my preferred type of flying, either glider or electric so after a lot of thought I decided to rejoin the ranks of noisy, smelly, oil burners and to heck with global freezing. The general idea was that even when cold / wet / windy I would manage some kind of stick time. Also for a change and after seeing the cost of balsa at the Nats, I decided to get a kit and eventually bought a Fun Fly from SLEC.

Approximately £60 placed onto



the plastic at the beginning of November saw a plain cardboard box arrive two days later, the contents were a bit of a shock to this old balsa basher, never having built a CNC kit before, I was most impressed, no crushed balsa die cutting, no rock hard or warped balsa just a heap of lite ply sheets with lots of slots machined into them and some excellent quality balsa.

Construction is more like a 3D jigsaw puzzle than traditional building, apart from the wings, but even then, apart from pinning to a building board they also slot together. Tail feathers are a mixture of 3/16" and 1/4" balsa of perfect grade, there is some evidence of crushing on some edges but this sands out easily. When I first picked up the sheets they are so well die cut

you hardly notice the lines. (I believe SLEC have now taken delivery of a laser cutter for this operation, so future kits should not have this problem)

After assembling the fuselage "in hand" as per instructions, out of curiosity I set it up in my SLEC fuselage jig before gluing and was very pleasantly surprised to find it was within less than 1/2mm of being perfectly true.

The wing also turned out perfectly true in all aspects and provided the only real moan I can find. The centre section joining system means that you build one main panel with a couple of bays of the other one

attached, then you add the rest of the second panel, locking in the dihedral brace and wing joining assembly, resulting in a very strong light wing. However this does mean that you are then working with a complete 54" wing, which means you have to be careful when final sanding or you could damage it or other items

in the workshop.

Covered in Red and Yellow Solarspan and with a new Just Engines .37 with a quiet silencer up front, the model balances bang in the centre of the suggested CG range, I have fitted Spektrum radio with the sub receiver fitted into a slot cut in the servo mounting tray which means the twin aerials are parallel to the fuselage sides and a hole drilled through the side lets me see a steady orange light, proving that radio lock is solid.

Total build time was approximately 25 – 30 hours construction with a further 5 – 8 hours for covering and equipment installation. Basic covered weight, minus radio, tank and engine was 2

3/4lbs. With a final all up weight of 5lbs once all the hardware was installed. This I am sure would make an excellent electric aerobat for larger electric motors, I think my Axi 2820/10 would probably fly it with the right Lipo battery. The kit is absolutely complete apart from covering and glue. Tank, motor mount, snakes, all screws, quick links, wheels and even a steerable tail wheel is included, as is a sheet of polythene to protect the plan.

Each step of construction is covered in the instructions with a separate booklet showing each stage in photographs with all parts easily identified. As outlined in the initial introduction it is wise to identify each pre-cut sheet and mark each part in pencil before removing (I recommend marking the part no on the TOP of each part, especially the semi symmetrical wing ribs (don't ask why, just do it). The only problem I had was that the tabs on the trailing edge of the wing ribs were a fraction too high for the slots in the trailing edge, forcing them through could easily split this part; however a few strokes of a file top and bottom, soon sorted them out.

What's next you ask, well I have an Electric Fidget finished waiting for



radio, a Puffin models Pike lurking in its box at the back of the loft and the plans of Tony Nijhuis Hurricane hung up being pored over; enough to keep me going till January. But at least if the rain /snow /

gales stop, I AM going flying somehow next year.



### If Abbie Was a Real Pilot!

A preacher dies and goes to heaven, where he's greeted at the gate by St. Peter. "Who are you?" St. Peter asks. "I'm Joe Brown. I'm a preacher. I've been preaching the Word of God for 50 years!" "Hmmm... Let me go check and see if you can come inside." Peter replies and wanders off into Heaven.

While he's gone, someone else comes to the gate and knocks. Peter promptly returns to the gate and asks the new arrival: "Who are you?"

"I'm Abbie Smith" the guy replies. "Abbie Smith? Abbie Smith 'The Pilot'???" Peter exclaims.

"Why... that's right" our man replies.

Peter throws open the gate and ushers the new arrival inside with an enthusiastic "Come in! Come in!"

"What about me?" asks Preacher Brown.

"Give it a few more minutes - we're still checking" Peter replies, and shuts the gate again.

After what seems like hours, Peter comes back to the gate and opens it. "We have checked, and it's been decided that you can come in," he tells the preacher. The preacher walks in, and while Peter is



escorting him to his eternal reward, he asks, "You know, I don't want to seem jealous or resentful, but I've been preaching the Word of God for 50 years, and it took you forever to decide if I could come in. But you practically pulled that pilot out of his shoes getting him inside Heaven's gate. Why is that?"

"Well... " Peter replies, "for 50 years while you preached, people slept in the pews. But every time someone got aboard an airplane with Abbie, they were praying their hearts out!"

## Always Best to Ask

Derek through his work at the airport got a short notice chance of a flight with the Aberdeen Flying Club to take aerial photos. He was advised by his contact that pilot and plane would be waiting for him at the other side of the airport.

Derek rushed to gather his camera and get across to the other side of the airport, where sure enough, a small Cessna airplane was waiting, pilot in his seat with the engine running. He jumped in with his equipment and shouted "I'm Derek, Let's go!"

The tense man sitting in the pilot's seat taxied out to the runway and swung the plane into the wind. Soon they were in the air, but flying erratically over Bucksburn.

Derek asked the pilot to head for Bridge of Don as he wanted to get a couple of pics of his house whilst up there.

"Why?" asked the nervous pilot.

"Because I'm going to take pictures!" says Derek, "I'm a photographer, and photographers take pictures."

The pilot replied, "You mean eh.. You're not the flight instructor...?"

## Santa & The CAA

It is a little known fact that Santa has to keep his pilots licence current in order to make his deliveries every year and so the old man wasn't to surprised when he got a letter from the CAA informing him that an examiner would be appearing shortly to run him through the usual re-certification procedures.

A detail of elves were despatched to wash and polish the sleigh, another group assigned to inspect service and repair the tack and a third squad started grooming the reindeer. Santa himself got out his logbook and the rest of the paperwork and made sure that it was all up to date and in order.

On the appointed day the examiner arrived and after the ritual cup of coffee he went over Santa's log and the paperwork then followed Santa outside. After a meticulous review of Santa weight and balance calculations, the examiner watched Santa do the pre-flight checks, then followed closely behind him, looking closely at everything from the bells to Rudolph's nose. When finished, he turned to Santa and said: "It looks pretty good so far. Let me get one thing out of my bags and then we'll take her up"

When the examiner got back, Santa was in the sleigh and ready to taxi. As the examiner climbed into the sleigh, Santa noticed that he was carrying a shotgun. "What's that for?" he asked. The examiner looked at him, then winked: "I really shouldn't tell you this, but you're going to lose an engine on take-off."

## Choppy Skies

Chicago Tribune 6 June 1999

Gaby Plattner was travelling with a backpacking group through Africa as they

found themselves waiting in Kariba airport for a flight to Hwange ...

"Our flight was delayed, so we settled down to wait. And wait. Three hours later, we were finally told the plane was ready to board. Air Zimbabwe bought many of its planes second-hand from other airlines, and the one we got into was no exception. Dirty and ancient, the mid-size jetliner was clearly one that no one else had wanted.

Inside, we settled into the seats with 80 or 90 other passengers and waited. And waited some more. Finally, the pilot's voice came over the loudspeaker. 'We're all ready to go ladies and gentlemen. However, we've been waiting for the copilot, and he still hasn't arrived. Since we've already waited so long, we're just going to be flying without a copilot today.'

There was a nervous buzz through the cabin. He continued, 'If any of you feel uncomfortable with this, feel free to disembark now and Air Zimbabwe will put you on the next available flight to Hwange.' Here he paused. 'Unfortunately, we are not sure when that will be. But rest assured, I have flown this route hundreds of times, we have clear blue skies, and there are no foreseeable problems.'

No one in Plattner's group, doubtful as they might have been, wanted to wait any longer at Kariba for a plane that may or may not materialise, so they stayed on-board for the one-hour flight. Once the aircraft reached cruising altitude, the pilot came on the loudspeaker again 'Ladies and gentlemen. I am going to use the bathroom. I have put the plane on auto-pilot and everything will be fine. I just don't want you to worry.' That said, he came out of the cockpit, fastened the door open with a rubber band to a hook on the wall. Then he went to the bathroom.

Plattner continues: Suddenly, we hit a patch of turbulence. Nothing much -

the cabin just shook a little for a moment. But the rubber band snapped off with a loud 'fff-twang!' and went sailing down the aisle. The door promptly swung shut.

A moment later, the pilot came out of the bathroom. When he saw the closed door, he stopped cold. I watched him from the back and wondered what was wrong. The stewardess came running up, and together they both tried to open the door. But it wouldn't budge.

It slowly dawned on me that our pilot was locked out of the cockpit. Cockpit doors lock automatically from the inside to prevent terrorists from entering. Without a copilot, there was no one to open the door from the inside. By now, the rest of the passengers had become aware of the problem, and we watched the pilot, horrified. What would he do?

After a moment of contemplation, the pilot hurried to the back of the plane. He returned holding a big axe. Without ceremony, he proceeded to chop down the cockpit door. We were rooted to our seats as we watched him.

Once he managed to chop a hole in the door, he reached inside, unlocked the door, and let himself back in. Then he came on the loudspeaker, his voice a little shakier this time than before. 'Ah, ladies and gentlemen, we just had a little problem there, but everything is fine now. We have plans to cover every eventuality - even pilots getting locked out of their cockpits. So relax and enjoy the rest of the flight!'

A true story? Who knows, probably not, but who cares if it makes you laugh. Oh, Zimbabwe Airlines failed to laugh !!

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Not quite up to the standard set by Cary Grant in Hitchcock's "North by Northwest" movie, but Mike Pirie astride his Royal Enfield does his best to outrun John Masson's huge 50cc powered Yak!



Bill Stark with his Gladiator, Derek's Mako II, Jim Ruxton's Middle Phase and Terry distracted by Alan Stewart's heli at Kerloch.





(Left) A deer crash that one as Graham D's Maule ends up in the other field. (Below) Graham before his maiden Catalina flight at Calder



Bill Stark underneath the wing of a Nimrod (a)  
Abbey Smith with his Bedlam (r)  
Norrie Kerr with Bushwhacker (b)



## 2009 Events

Tuesday 13 January – Ham Radio, Brian Allen

Tuesday 10 February – Speaker / Demo TBA

Tuesday 10 March – Bring and Buy Sale

Saturday 11 April – Slope Day

Saturday 9 May – Fly In

Sunday 7 June – Trainer Competition

Sunday 12 July – 100S Competition

Sunday 26 July – BBQ & Fly In at Calder Park

Saturday 15 August – Slope Day Knock

Sunday 20 September – Fly In

Saturday 3 October – Slope Day

Tuesday 10 November – AGM

*Changes and additional events  
will be notified via website*

