

Leek & Moorland Model Gliding Association

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



June 2006



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Chris Hunt, Webmaster for www.lmmga.co.uk has informed me that the web site has been passed on to a third party for hosting and he no longer has access to the site either to add or delete information. At some later date the site will be up & running again from a new server. In the mean time current information about the club can be obtained from www.lmmga.org

Front Cover

'The Eagle is Landing' It was a real treat to watch this bird in action. The way it flew with such ease in conditions that at times was pushing model flying to its limits. It was truly amazing

Competition Info

Tony Hill Model

Tony Hill has kindly sponsored the Scale Fun Fly that is being held on August the 26th & 27th at the Mermaid

142, High St,
Talke Pits,
Stoke-On-Trent,
Staffordshire
ST7 1QG
Tel: 01782 788778

Remaining Dates for AI's Hobbies F3F Summer League

are as follows::

8/6, 22/6, 6/7,
20/7, 3/8, 17/8, 31/8.

Start Time is 19-00Note

All dates fall on
Thursdays

We must be an ungodly lot in the LMMGA as far as competitions go because out of the first five events for 2006, four have had to be called off because there's been virtually no wind. The first Sunday event (F3F) was a complete non starter - Not a breath - The Cross Country on Sun. 4th June was a real teaser. It kept promising all morning but didn't get

Remaining Sunday Competitions

Pylon -----Sun **July 2nd** ----
-Organised by Mark O'Conner

Fly For Fun -- -----Sun **July 30th** ---
Organised by Ian Buckley

Scale Sailplane Fun Fly - **Aug, 26/27th**
Organised by Simon Cocker

it's act together until well after dinner when we'd agreed to call it off and just concentrate on keeping our models up in a free for all. -- The mid week F3F hasn't faired much better with two out of three meeting being called off again through lack of wind.--- Fingers crossed for the rest of the year!!

Obituary

It is with deep regret that I report the death of Ray Holliday who died suddenly at his home on the 14th March, age 70.

Ray was a true all round modeller who regularly flew an assortment of planes including electric, IC and many types of indoor models.

I first met Ray on the slopes 13 or more years ago. He was a mid-week slope soarer and was very rarely seen on the slopes at

weekends. It was when I asked about this that I found out how much modelling meant to Ray. He said “Well I fly power most Saturdays and Sundays and on Tuesdays and Fridays I fly indoors at Rolls Royce”

Ray was Secretary/ Treasurer and main organiser of the Rolls-Royce (Derby) Model Club which only flew indoor models. He also organised the hire of the sports hall at Alfreton once a month for indoor flying for anyone willing to go. He was also a member of the Swadlingcote club where he flew power including a gas turbine powered Enforcer.

It's the small things I will remember Ray for – The way he always launched his Zaggi off the ground with his foot – Shouting instructions to Bonny his dog as it retrieved one of his models, and, arriving at the slope one day to find him wearing a bright yellow helmet with an aerial taped to the top of it with a wire trailing to a video recorder. He was receiving aerial pictures from the plane and apparently it needed a directional ground based aerial to receive a strong signal. (Truly Ray at his inspirational best)

He will be sadly missed and not only by LMMGA members.

Ivan

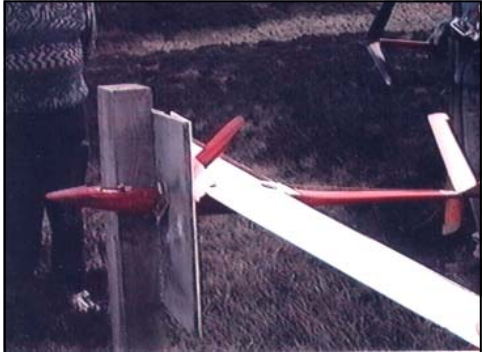


Safe Flying

From time to time I feel obliged to put something in the newsletter to remind members about the possible dangers of flying too close to the flight line.

The realisation of what damage a model is capable of was hammered home to me sometime in early 1998 when I saw what happened to one of the deep water signs that used to be on the edge of the pool.

These signs were about 3 ft high and the notice board itself was constructed from 16 mm thick marine plywood faced with 3mm hard plastic.



This picture is off a video recording taken by Graham Gibbons

One of the more challenging stunts the brave used to try at the end of a day's flying was to get the model up as high as possible in the lift, turn down wind and then try to dive it low enough

over the pool so that the model caused a ripple affect on the surface of the pool as it skimmed the surface (Maybe the bright ones amongst you know why it was always left to the end of a flying day to attempt this)

This particular day the model, a Javelin, (pilot will remain nameless) struck the sign punching a hole through both ply and plastic as can be seen in the picture

The model was undamaged at this point but the barbed affect in the ply caused by the model punching its way through it, prevented the model from being withdrawn. Despite a lot of hammering, pulling and pushing it wouldn't budge. A collective decision was eventually made to cut the nose off the model where it went though the ply.

When I see some of these all moulded models fully ballasted screaming down close to the flight line it never fails to remind me of the Deep Water Sign and I can't help thinking; 'if a model did that to a lump of 16mm ply face with 3mm of plastic, what would it do to a human??'

Flying with a Golden Eagle

I don't suppose there are many people in the country who have ever seen a real live Golden Eagle let alone soared along side one. On Sunday the 2nd of April I saw this 4 X 4 pull up on the track by the pool. Two guys got out and opened the rear doors. I couldn't see what they were doing but after a few minutes I saw this big bird tracking over the ground at a height of about eighteen inches. This was in the



area to the right of the pool behind the track where most people land their large precious model because there is usually loads of compression blow to slow the model down and no lift. The surprising thing was that the bird was soaring; I didn't see a single flap. After several minute of this ground hugging it pushed forward and flew out towards the right hand ridge quickly gaining height. A few minutes later the owner of the bird (at that time we weren't sure what it was) came down to the 'Butts' for a chat with us. It was then that we were told it was a Golden Eagle. The owner whistled the bird and it swung round over the pool and hovered for a second or two over the high ground at the back of the Butts before dropping down low over the parked models in the gully and swooped up to land at our feet as we stood at the launch area.

The wind speed was 35 gusting 45 mph and this bird had just flown low through a section where you find the worst curl-over (Turbulence) on the slope as though it had been on rails - Not a flutter!!

It flew along side models that were only feet way - at times it hovered just over our heads and wasn't at all intimidated by a high speed Mini Dragon or the whistling noise it made. It flew with us for about forty five minutes in all and made several landings through the turbulent zone. Throughout the flights I never saw the eagle flap its wings once even on takeoff; it just spread its wings and off it went.

It was truly a once in a lifetime treat to see something so at ease with its environment. - Magic!

After the eagle had been put back in the car, I tried to fly my model on the same landing approach the eagle had made look so easy just to check that there was still turbulence in the gully, I was beginning to doubt it.

As soon as my EPP model hit the Curl-over, it was smashed to the ground as though it had been pole axed. I tried it a second time just to make sure the turbulence wasn't intermittent; it wasn't.

As I picked my model up for the second time, I had this feeling of wonder, amazement and respect for the bird and an acceptance that Modellers haven't yet scratched the surface of real controlled flight



Woodvale Trip

Note to all the regular 'Woodvalers.'-- The Classic Bus Trip to Woodvale is on again this year. Date:: Sunday 6th August. The bus will pick up at the usual place; by the bus stop outside St Andrews Church Porthill at 8am prompt (plenty of car parking in the area)

All club members and their family are very welcome.

Woodvale is a cracking show with something for everyone including children. If you haven't been to one of the club outings to Woodvale Show before, ring or email me for detail (see below)

Note to regulars::> If you are thinking of coming on the bus would please let me know so that I can book you in

i.bradbury2@ntlworld.com
Tel 01782 851896



They say a picture speaks a thousand words and it looks as though this one is saying that Webby has just made an 'Oh Shit!!' Landing

The Magic Roundabout

(More ramblings from an Ancient Aeromodeller)

I'm beginning to wonder whether or not my memory has become slightly fuzzy since I became eligible for my free bus pass. Am I starting to suffer from the dreaded nostalgic fever that affects the old into thinking that it (whatever 'it' may be) could not possibly qualify for 'The Golden Years' if it didn't happen at least thirty or more years ago? Take slope soaring for example. Was there really a greater sense of pride and achievement when you had to spend weeks sometimes months building, covering and painting a model and then eventually fly it with radio gear so basic that to reverse the output on a servo you had to reverse the wire polarity on the servo motor by doing a soldering job.

Was there a more level playing field between modellers particularly in competitions pre the age of ARTF models? Was the whole ethos of modelling in the late 60s and throughout the 70s really more ----- eeerrr ---how shall I say? -- More fun and exciting and yet more relaxing and easy going or could it possibly be that I'm still suffering from the long term effects of breathing in all those dope fumes and picking balsa cement off fingertips with my teeth? What ever it is, from what I have read in the model aircraft press and BMFA literature recently, I get this gut feeling that things are not so free and easy in the modelling world today as they were back in 'The Golden Days'

In the 70s, if memory serves me right, we only had three rules in the L&MMGA club.

a):- No Noise (only gliders no IC motors)

b):- No Litter, (take all your rubbish home with you including trashed models)

c):- No Damage (walls fences and gates etc)

Now I get the impression that in all clubs, rule books are getting thicker by the year in an effort to keep pace with either new legislation or in an attempt to cover up backsides against the sort of legal touting seen on TV. Only this year literature has been circulated from the BMFA to affiliated clubs telling them that - 'They must have an effective policy for the protection of children and vulnerable adults in place by 2007 or they will not be covered against claims arising from this area.'

I seem to remember that in 'the good old days', if there was a problem, a little discussion and the application of a bit of common sense could sort most of them out. In fact, my old boss always used to say "Someone with an ounce of common sense is ten time more useful to me than someone with a handful of these bloody university degrees".

Today, if you attempt to sort out a problem by using commonsense, you run the risk of putting your head on a legal chopping block. Problem solving with commonsense now equates to liability; it has been superseded by 'The Book'

Everything must be done according to The Book and, if by chance it isn't in the book you are usually warned that the use of initiative and commonsense carries a health warning.

Many moons ago when I was an apprentice in the building trade, our firm had a contract with the local authority to carry out all maintenance and repairs to the police houses in the area. These houses were found in most villages or small communities. They were the typical detached three bed lounge and kitchen with a small office at the front.

PC Plod spent most of his time pushing a bike around his patch, chatting and getting to know the locals, and, generally keeping his eye on things. The rest of his time was spent in his office, fiddling his expense sheet (allegedly) – taking notes and recording complaints etc.

One day the Wise Ones who are paid huge amounts of money to 'Think', came up with what is now a very familiar word called Reorganisation. Reorganisation in this case meant that they fazed out all these local bobbies, sold off their police houses and replaced them with a couple of what was then called 'Panda Cars' We were assured that these were going to be far more efficient and effective in cutting the crime rate than local bobbies on their bikes

Last week I read in our Evening Paper that we were going to have a fully equipped police office built in our neck of the woods staffed by the local bobby. We are told that this will be for the convenience of the local community and it is hoped it will help to build up a good relationship between the public and the local policeman. This in an attempt to cut down on the rise in crime rate. -- Wouldn't be at all surprised to hear that a pushbike was part of his essential equipment

Who knows! Maybe in another couple of decades, The Wise Ones will have another think and come to the conclusion that 'The Book' has now become so thick, complicated and unmanageable, it should be scrapped and replaced with Common Sense. They may even suggest that in an attempted to cut down on all the time and expense of dealing with ASBOs; local bobbies should be allowed to clip a young unruly kid around the ears at an early age in order to keep them on the straight and narrow. (God!! I'm bloody showing my age again)

This coming weekend, I'm going to go to the local model shop. (not mail order) I'm going to buy some balsa wood, balsa cement and some tissue and dope. That's if they still sell it !

In about six or seven weeks time I shall mossy off up to the slopes with my brand new model in its gloss paint finish; lob it off, and, hopefully watch it do a few gentle figures of eight across the slope as I control it with my good old OS 10 channel (reed operated) radio gear powered by DEACs . --- Can I hear some of our younger members saying "What the hell are DEACs" ?

Writers in the Sky

This month's subject is Wayne Haycock. Wayne kindly filled in and returned his questionnaire to the Ghost Writers so that we could turn the spotlight on him. This is what he has to say about his interest in model aircraft and how he got started in the hobby



He first became interested in aeromodelling when one day during a school holiday, he was asked to help a fellow class mate to fly a control line model. This was sometime around 1971 and to quote Wayne, "From then on I was hooked"

The first model he built for himself was a Mercury Viper; this was a control line trainer which was fitted up with a 1cc diesel DC spitfire engine. Because it was the first model he had ever built he said that the standard of building wasn't all that good. As a matter of fact it didn't fly too well either. This was partly due to his lack of knowledge and experience on flying control line models. Wayne forgot to put any off set on the fin or any side thrust on the engine. Wayne said that when he let the model go it shot off and the lines went tight for a second and then suddenly the model turned inwards making a bee line for him and his friend. Fortunately it hit the ground before hitting either of them. The model was completely trashed and beyond repair.

It was some months later while on a trip to Hanley with his mum and dad that they happened to stop at Hobby World a model shop owned by Denis Martin. They went in and asked what would be the best way to get started in RC. It was suggested that a RC boat would be the best bet. Wayne came out of the shop with a semi scale target towing launch made by Veron that was powered with an Enya 09 engine. The radio gear he used was the Horizon single stick two channels. This got Wayne started in RC modelling and into racing boats

After 18 months of boat racing Wayne's interest once more turned to aircraft. Both he and his dad started to go up to Cannock Chase at the weekends just to watch a group of fliers who regularly met there. He didn't watch them many weeks before he was trading in his boat stuff at Bagnalls Stafford for a DB Tyro Major kit with an OS 25 Max engine up front and controlled by a 4 channel OS Cougar radio.



It wasn't long after this that Wayne said the group were stopped from flying on the Chase; this was sometime in 1975-6. About this time Wayne's dad, who worked with John Matthews a club member, got chatting to him about the problem they were having at the Chase and John told them about slope soaring up at Leek and said that one day he would take them up. After that first day, Wayne decided to join the LMMGA club and as been a member on and off ever since. ***



Wayne is also a member of two other clubs, both power, but these days Wayne says he has retired all his IC engines and only flies electric. He's been a member at one of the power clubs for 25/26 years and has been a member at the other club, which was only set up a couple of years ago; from day one.



During the dark nights of autumn and winter, Wayne only flies slope soarers but when the light nights come around he mixes his time between slope and power. The reason for this is that both power sites are only a few miles from where he



Wayne's motto must be "To get ahead get a hat"

lives and during the summer he can pop over to the power sites straight from work.

Besides power, Wayne's hanger contains a multitude of different types of gliders. These range from scale, foamies, glass moulded ones and the occasional unusual quirky model like his current 19" span miniature. However, his favourite type of model is scale, and, out of all the scale models he's had, his current Schwa be is the one he likes flying the best. This is a one off performance glider built in Germany around 1938; Wayne says, it not only looks nice it flies well too. (*Details of the Schwalbe are on page 14 in March 2006 newsletter IB*)

He builds most of his models himself; these range from kits, plans and occasionally he designs his own, both power models and gliders. Most of the ARTF models he flies are electric power ones.

**** Wayne, I looked in the record book that I kept from 1973 to 1984 (This was the time I was Sec/Treasurer) You and your dad joined the club on the 25th June 1976. IB*

Letters

A tribute to Ray Holliday

I received this letter from Phil Clarke who amongst LMMGA members probably knew Ray better than most.

Dear Ivan

Ray's sudden death on March 14th was a shock to all who knew him. He had a large circle of friends, all modellers of one kind or another.

I had known Ray through work at R.R in the 1970s but never knew that he was a model aircraft man until we met one day down at the Mackworth flying field after we had both retired. We immediately became firm friends.

Ray was interested in nearly all aspects of model flying and on one occasion (the early 90s I think) I decided to visit one of the indoor meetings at Nottingham and asked Ray if he would like to come along and help to fill the car. I think that at that time, indoor flying was something that he had not tried so he was keen to come along and you know the rest. He became the instigator and co-ordinator of indoor flying in and around the Derby area and attended all the meetings at Derby , Alfreton and Nottingham and also made trips to Cardington where the Indoor 'Nationals' are held. Having tried his hand at indoor free flight he soon moved onto r/c and was forever trying to make smaller and smaller models and used infra-red techniques before the more conventional r/c became sufficiently miniaturised for his purposes. As well as propellers he also used ducted fans, some of which were less than one inch in diameter and powered by pager motors. His current projects in the indoor field were vertical take-off and landing with 'Pogo' type models which he had just about mastered.



Bonny, Rays dog retrieving his Zaggi. - It was incredible how she managed to carry the model through the tall rushes.

Ray was a member of the Derby Model Club (Indoor), Derby Model Aero Club (Mackworth), the club at Swadlincote and the Leek and Moorlands Model Flying Club. With regard to outdoor flying Ray would fly whenever the weather was suitable and sometimes when it wasn't. His enthusiasm for building and flying model aircraft was boundless.

When I started my own 'retirement project' -the 1/4 scale Cessna 337 Skymaster- I encountered many problems which, at the time, I had no idea how I was going to solve. If Ray could help he would; if he couldn't, he knew someone else who probably could and he would point me in that direction He is already sadly missed.

Phil Clarke

How's Your Set-Up ??

Is your model set up to perform to its best potential? – Whether we build models from kits, a plan, or just stick the gear into one of these ARTF models; most of us religiously follow the instructions regarding centre of gravity (CG) - control surface throws and all that, - lob it off on a suitable day and it flies. Surprise Surprise!! But, I go back to the first sentence again. Is your model set up to perform to its best potential??

The reason I ask this question is because from experience, I find models that are set up exactly to the designer's specification, rarely suits all fliers. My philosophy is to use these instructions as a sort of 'Safe Mode' – a starting point that any average flier can cope with.

I've lost count of the numbers of times I've heard someone say of two identical models "Why does yours fly better than mine"?

Other than pilot skill, the main reason why one model flies better than the other is that one pilot has probably spent quite a bit of time finely tweaking the model to suit his style of flying. (Fine adjustments to CG and control surfaces)



Ken Buckley comparing his new FF9 transmitter with Phil Clarke's

Never be in a hurry to come to a conclusion that there is no more room for improvement. Flying conditions on the slope can change from day to day, sometimes from hour to hour making it impossible to accurately assess whether or not the model is on song from its performance during one flight. It can take several trips to the slope and quite a few flights before you can be sure you have finally got the trim spot on for your type of flying.

I know there are quite a few 'Old Dogs' in the club who have sniffed at every tree and lamppost on the block and left their mark on most, but, in a club as large as ours there are always a few who are on that first rung of the ladder. Collectively our 'Old Dogs' have a huge reservoir of knowledge that could be used to shortcut newer members to success instead of letting them start off by making too many square wheels.

Hopefully this article will knock a few of those corners of the wheels and maybe if a few more contributed to these pages, we could make those new wheels completely round.

At the Work Bench Stage:

When the construction stage is finished or in the case of an ARTF model when we reach it out of the box, we mentally think; - "All I've got to do now is to stick the gear in and I'm away". However, if we have any sense we should accept the fact that installing radio gear and linkage in any model is an important and usually a time consuming job and you rush it at the models peril.

Points to remember:-

a) There must be no stiffness in the control linkage. (Causes poor control surface centring - excessive loads on the servos that draws extra current from the battery)

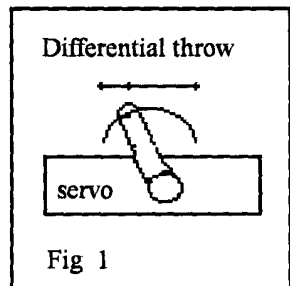
b) No oversized holes on servo output arms or elevator/aileron horns; they must be slop free. (Causes poor centring – control surface flutter particularly on fast models – lack of sensitivity to fine flight adjustment with transmitter sticks and trim)

c) Make sure that both ends of the outer rod on snakes (push rods with an inner and outer) is securely fixed at both ends (Causes See b) could even cause loss of control as pressure builds up on moving surfaces in a dive) If there is any stiffness or free movement on control surfaces when the radio is switched on it is much better to fix it at the bench stage, it will save time and frustration late

Control surface movement: -

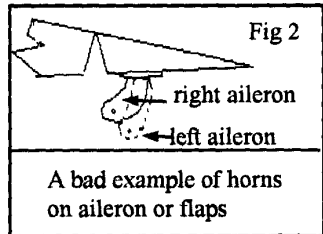
Ailerons, Flaps and Elevators on 'V' tails come in pairs. (One on each panel) It is well worth spending a bit of time getting the throws on the matching control surfaces the same. To do this we have to pay attention to the positioning of the horns on control surfaces and output arms on servos. Fig 1 shows how a differential throw can be built in by off setting the output arm at neutral trim.

This is fine if it is intentional. It was often used



before the modern computer control transmitter was available to get a wing servo to produce more up than down on aileron movement. However, if the output arm is carelessly fitted off centre during installation, it can cause all sorts of problems making smooth manoeuvres extremely difficult to perform

Fig 2. Shows 2 aileron horns with different centres; this causes unequal throw on control surfaces resulting in things like the model skewing out of loops – turning to one side in fast dives – extra drag and generally it makes for a lacklustre model to fly. (This can also apply to Flaps and ‘V’ tails)



Having seen many models on the slopes in my time, I think that lots of modellers tend to rely too much on the modern transmitter to sort out some of these built in mechanical problems.

Balance:-

Whether you buy kits, build from a plan, or, buy an all ready to fly models, they all give a position where the model should balance (CG). Many modellers who are just starting in the hobby tend to think this position applies only to the nose to tail balance and never think of checking the wing tip to wing tip balances at the same point. If a model is flown with one wing heavier than the other it will need some offset trim on the ailerons to get it to fly straight and level at its normal flying speed. This offset can cause several problems depending on the speed or manoeuvre the model is performing. The two most common ones are that the model will need aileron correction to prevent a turn as it builds up speed in a dive and, there is tendency to screw out of loops. (This screwing out can also be caused through too much elevator throw).

Many instructions these days give two positions for the CG; one giving the maximum forward position and the other a maximum rear position. The rear CG makes the model more sensitive to elevator control and slows down recovery from a dive when the stick is returned to neutral



Graham Gibbons new Half Pipe in action. Wings are very sensitive to the CG position - A small change can have a profound affect on pitch control

position. It also needs less elevator movement for a given response). The more forward the CG is the less sensitive the elevator becomes and the model recovers from a dive faster, a tendency to zoom up when the stick is returned to neutral position. Somewhere between the two CGs you will find a position that suits your type of flying best.

The greater the number of control surfaces you have on a model (elevator – flaps – ailerons – rudder - crow braking – spoilers etc.) the more complex setting up becomes. Tweaking these control surfaces takes time and patience because one control input can have an unexpected effect on the model's flying attitude. An example of this is usually found when a model is fitted with crow brakes (upward movement on both ailerons at the same time as downward movement on the flaps) When crow brakes are applied the model will usually pitch nose down, this movement will need to be countered by a few degrees of up elevator to get the landing approach just right.

Just two words of warnings about changing the settings on models

1. Only make one change at a time – this way you will know if that change improved the performance or not. If several changes are made at the same time, it is almost impossible to return to the original settings if those changes made things worse
2. Only make a small change at a time, after all we are only talking of fine tuning.



Peter Barnett launching his RCM-Pelikan Filip Sport 400 Highlander at the Roaches



My newly recovers Extreme
Photographed by
Wayne Haycock

Glitches and Things

No doubt most of us have had the odd glitch or a sudden loss of signal. If this is a one off and it happens at a reasonable altitude, the model usually survives and we brush it aside as one of those unexplained things that happen from time to time. However, it is a little more worrying if the glitches are constantly repeated at irregular intervals; we tend to start to lose confidence in our radio and we find ourself constantly flying in that uncomfortable anticipation mode

I've just been looking at an interesting piece on the internet about installing radio in planes, and, how to avoid many of these intermittent glitches. -- This is a summary -----

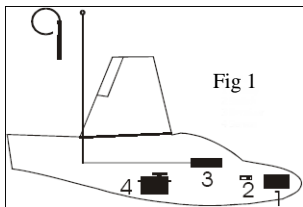


Fig 1 shows the standard radio installation that most manufacturers advocate

1. Battery -
2. Switch
3. Receiver
4. Servo

The author also shows a whip Rx aerial on the top of the fuselage. According to him, this would give the best signal reception because it avoids running the aerial close to wires from other equipment plus it prevents the Rx aerial ever pointing directly towards the transmitter, (end on.) this apparently causes very poor reception or temporary loss of signal. However, he admits that Whip Aerials aren't a practical solution.

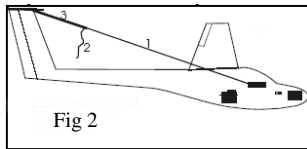


Fig 2 shows the aerial tensioned to the fin by means of a rubber band allowing the surplus 10 or so cm to hang loose. This is also a recommended method.

It is also a good idea to deploy the aerial as far away as possible from servos, servo leads, linkage wires and the power supply from battery to receiver. Deploying the aerial inside the fuselage is permissible provided that no steel wires or other electrically conducting servo leads or linkage components run parallel to it. (Impossible with some of these slim high performance fuselages Ed.)

Note that carbon fibre in the fuselage has a shielding effect, and in this case the aerial must be deployed externally, ideally a long way from the fuselage, as the fuselage itself will have a shielding effect when the model is in particular positions.

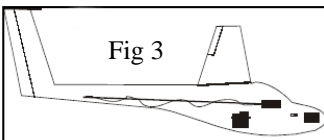
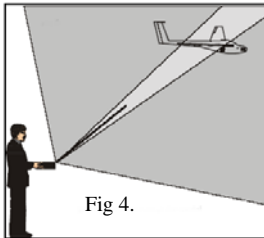


Fig 3. Shows the aerial loosely coiled down the fuselage; this helps to prevent the aerial being in an end on position as could be the case if stretched

out tight.

Field strength fluctuations can occur if the aerial is allowed to swing about in the air behind the model, the field strength at the receiver aerial input will fluctuate widely. This can be difficult for the receiver, although modern circuits are very good at handling such problems; even so, you can make the receiver's work



easier by avoiding such fluctuations. (See Fig 2)

If a standard telescopic transmitter aerial is used, the radiation pattern shown in Fig. 4 applies. This is a broadly panoramic characteristic whose only drawback is a very weak signal directly along the line of the aerial; for this reason you should never point the tip of the aerial straight at the model, as the receiver picks up the weakest signal.

In contrast to the standard aerial, a short (helical) transmitter aerial has a strong directional pattern combined - in some cases - with slightly reduced range. This means that it is actually better to point the aerial at the model.

Adjacent channel interference:> - In fact these problems should never arise, for all receivers on the market are designed for 10 kHz channel spacing, which means that the receiver works without problems even when all adjacent channels are in use at the same time. We know of no receivers which do not fulfil this requirement, with the exception of many slow-fly types. These are generally advertised as offering "full range", but many manufacturers seem to think this is 300 m or 500 m; in any case, these receivers do not work at 10 kHz channel spacing. However, if you experience adjacent channel problems, there may be any of a number of reasons -- The pilots may be standing apart, instead of in a group; it is basically essential that all pilots **MUST** stand together in one group. - If the distance from the model to "its" transmitter is, say, 100 metres, and the distance to the adjacent channel transmitter is 10 metres or less, then this represents interference : use ratio of 10:1. - This is the standard limit with virtually all receivers - even high-quality types, and no manufacturer can guarantee reliable operation of his equipment in such a situation. - Another transmitter operating two or more channels away, rather than on the adjacent channel, may cause interference to your model at this close range.

Full range / slow-fly receivers:> - Slow-fly receivers are heavily advertised, but you usually get very little technology for your money. Full range - what's that, anyway? In our terms it is at least 1000 metres when a transmitter on an adjacent channel is switched on. You may think that a receiver with a stated range of 500m is good enough for general flying, but you are in for a nasty surprise when your model crashes just 50 m into the flight on a club flying day, when several transmitters are also switched on. Every additional transmitter reduces the effective range of your system, and this applies in particular to receivers which - for reasons of weight saving and economy are of unsophisticated design. If the

manufacturer omits RF filters - and this is the only way to save weight and money cheaply - this philosophy can certainly be dangerous, And did you know that typical slowfly motors are generally serious sources of interference? With that in

mind, cutting down on the technology is by no means sensible, and may even be hazardous.

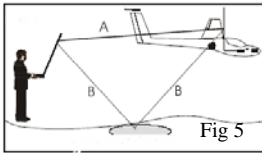


Fig 5 is an unusual one; I put this one in because one of our members Malcolm Oeppen experienced something like this while flying over one of those temporarily electric fences

farmers use Ed.

The author says -- At some flying sites it is known that particular locations at a particular distance are hazardous, with repeated crashes reported. Whether everything might have been in good order on all the crashed models is a moot point, but the regularity of the crashes at a particular location is striking. Based on measurements at a number of sites, the cause is usually wet ground, or even areas of standing water, which can reflect the signal and cause what is know as run time differences (see Fig. 5). The direct reception path "a" is shorter than the reflecte dreception path "b".The author goes on to say that this is very unusual and there is usually more than one culprit --

The reason I included this article in the newsletter is because we all fall short of the author's recommendations on radio installation in some form or other and I thought it may give you a checklist of things to try if you are one of those who are having the odd glitch problem. Ed.

Mark Ollier is just about getting to grips with his new acquisition: 'Kalblutin'



Graham Gibbons Hawk and Ian Buckley's Mustang P51 on a fly past