

Thames Valley Silent Flyers



LIFT

ISSUE 72

JULY 2013



IN THIS ISSUE



Building the Swallow
Part 2



Wales
Memories



Moments from the past



Terry Antell

Easthampstead School Bracknell 1982



- 4** **Editorial**
Tony has his views
- 4** **Chairman's Chat**
Graham's words of wisdom
- 6** **Obituary**
John Harris
- 7** **Nostalgia still ain't what it used to be** Vic Thomas
- 9** **A Slope Lift Assessor**
Alan Butterworth
- 10** **Recent Competitions**
- 11** **Slingsby Swallow Build Part 2**
Steve Elkin
- 14** **Diary Dates; Trevor's Predictions**
July to September
- 15** **A Day at Middle Wallop**
Colin Hutchinson
- 19** **Club Night Activities**
March - June
- 26** **Wales re-visited**
Paul Vale / Colin Hutchinson /
Graham Stallard
- 34** **Topaze Scale Glider---Part III**
Clive Learwood / Bill Cooke
- 36** **The Final Toast**
CNN Contributor Bob Greene.
- 38** **It's all the Editor's fault**
Vic Thomas
- 39** **Fun Time**
Various
- 41** **TVSF Puzzle page**
Ridler's Riddle
- 42** **All Rounder**
Position at 14th June 2013

IN THIS ISSUE



TVSF Committee

Chairman	Graham Stallard (GS)	01344 481275
Vice Chairman & Safety Officer	Chris Moynihan (CM)	01753 889825
Secretary	Steve Elkin	01628 605510
Treasurer	Richard Thornton	01189 629168
Competitions Secretary	Trevor Hornby (TH)	01252 870677
Membership Secretary	Ian Lancaster	01189 760523
Records Officer	John Skinner	01189 730717
Newsletter Editor	Tony Ridler	01252 542720
Other contacts;		
(JP) John Price 01189 414766;	(MF) Mike Fantham 01483 282747	
(PW) Peter Williams 01252 842120	(TM) Tony Morgan 01189691027	

Edited by: Tony J Ridler, 109 Pierrefondes Avenue, Farnborough, Hants. GU14 8NZ

Email: tonyridler@sky.com, Phone: 01252542720, Mobile : 07989243599

The views expressed in this Newsletter are not necessarily those of the Editor or the Club Committee. All material published in 'LIFT' is copyright of the Author of the material but may be reproduced, except where a copyright is shown, in club newsletters provided that both this Newsletter and the author are given credit. The authors permission must be obtained before using an item commercially

Cover Picture is
Clive Learwood's
Topaze on its maid-
en flight.
Photo -
Chris Williams



Do you know someone who would like our club newsletter? To order a copy of the next issue (November 2013) send a cheque to Tony Ridler, 109 Pierrefondes Ave, Farnborough, Hants. GU14 8NZ for £4.00 which covers P&P. A few back issues are available @ £2, email Tony for availability. Make cheque's payable to Thames Valley Silent Flyers. Orders must be received by the cut off date. - **23th October 2013 for the November Publication.**

Editorial

By Tony Ridler



Summer has last arrived and the Competitions underway although in my case it is “must try harder”. But what a change to fly in half decent weather rather than battling with the elements.

Blackbushe this year was even bigger and better with some very skilful flying, the highlight for me was the Paritech gliders.

Wales was a real challenge for me this year with less flying for me due to the strength of the wind, however your chairman and a few other stalwarts relished in the 40 mph plus wind speeds. The CBA club were in attendance behind their new see though wind break.

The Farm Open Day went well with plenty of interest, I have included a few pictures on the back page. John and Vic kept the vittles' coming to satisfy the troops.

Being in our 30th year our guest speaker being a “founding father” and the first chairman, Terry Antell , gave an interesting talk of the early days and the growth of the club from the 4 ex members of BADMAC to our present total of 70. See *Club Night Activities*.

Well I have to leave some space for our present Chairman and his Chat, fly safely and I will see you at the flying field. →

Chairman's Chat *By Graham Stallard*



Hello All,

Change has arrived and we have completed a spell of flying from Pidwells rather than Oldlands due to cattle on Oldlands. The surrounding tress at Pidwells makes flying a little more challenging than Oldlands.

However it is flyable with the first two rounds of both Friday Leagues taking place successfully in Pidwells. Some evenings have been decidedly windy at first, calming down later in the evening. Finding lift in Pidwells has been interesting with some magic late evening flying. Some sunsets have been quite picturesque bringing the evenings flying to a relaxing end. As always it is intriguing to see peculiar types of lift. Some ‘zero’ lift has been available where one just works the air for all you are worth to just hold height, which of course is better than coming down. Then there has been soaring over Broadricks where the Rape seed crop produces a steam of low level lift just enough to hold or rise a little then occasionally form a bubble to ‘pop’ at 70 feet. The Friday Night comps provide a relaxed opportunity to fly a specific task, but the real bonus is flying in varied conditions and seeing what can be done. So pop along and join in, flying or helping or just to watch.

A few club members enjoyed a cracking day’s slope soaring on the NE bowl of Watership Down on the 5th June. It was a bit of a spontaneous thing for me but a number of club

members tend to go sloping on a Wednesday. Steve Elkin was keen to maiden his scale Swallow so with a good forecast we went to Watership Down.

The maiden went well, see photo, and Steve is one very pleased builder/pilot. The conditions were interesting, as with the wind blowing straight onto the face there were occasions where the lift went off. This was due to thermals coming through reducing the wind strength. This caught a few of the pilots out, landing out down the slope, including other pilots at the slope, but without serious consequences. If you could stay up the lift became very good as the thermal passed through. It was interesting to see the right hand end of the slope regularly produce booming lift where I was able to take my ASH26 to over 1000' on a number of occasions to then burn the height off in a low pass. It make a wonderful sound as it comes in and fly's through. All the guys flying that day had a good days flying. I must try and get more of these in.



The farm Open Day ran this year on the 9th June. The weather was kinder this year with no rain but a bit on the windy side. I would like to thank the following club members for making the day a success, flight line director Chris Moynihan, static display co-ordinator Clive Learwood, Pilots Richard Thornton, John Price, Tony Ridler, Colin Hutchinson, Paul Harvey, club representatives Mike Fantham, Steve Elkin, John Skinner, Vic Thomas, Vic Harris and Ian Lancaster.

The event went off without incident and judging by the response from the visitors was a success. At the end of the day Innes came by and asked that his thanks be passed on the club for supporting the Farm Open Day. Well done guys it was a successful day.

See you flying soon.

Graham



John Harris

I first met John in the late 70's when he joined the newly formed MVSA club.

During his time with the club he served on the committee as competition secretary for a number of years and for some years we worked together as I ran the slope competitions as CD.

John was always helpful and willing to help out and we always got on well. In 1992 the club was recruited to run the BARCS slopeglide competition which both John and I run between us, John was the Event Director and also checked in the competitors on the Sunday and for my sins I was made CD of the first F3F.

John's main interest was slope soaring but sometimes you could persuade him to do some thermal flying from the field.

John worked as Contracts Manager for a small Engineering Company at Sunbury-on-Thames, his work colleges remember him as having a good knowledge of the product and was also good at chasing the progress of the various parts from the sub-contractors for the smooth running of the works.

He also liked a bit of mischievous fun and would go into the stores and move a part to a different location before asking the storeman for that part, and keeping a straight face when the storeman came back having failed to find the part.

Roger Critchly

I first met John at my first XC in 1989 at Butser Hill (MVSA). I had made it to the first gate where John talked the newbie (me) to the gate giving guidance to get round and the signal the task was complete. Over the years we met at various comps with a passing chat. Then John joined TVSF and would quite often come along to various comps and help with the timing and talking. John was a regular attendee at club meetings with a quiet point to make from time to time. John was a gentle man and a pleasure to know.

Graham Stallard

In 2002 John took over as CD Thermals competitions at TVSF until 2005. You could still see him at the field on many competitions and a frequent member at club nights until recently when he was unable to continue due to poor health.

I found John a colourful character and will be missed.

Tony Ridler



Nostalgia still ain't what it used to be

By Vic Thomas



I left you hanging on a string regarding my adventures with the ex Chris Junior 60. I tried the traditional f/f route with an ED Comp Special at Middle Wallop where it met Mother earth due to my ignorance of larger f/f trimming, and so it was reconverted to electric RC. This was fine once the bugs had been cleared, but utterly boring.

To cut a long story short I advertised as a free offer the J60 and two vintage f/f gliders in the New Clarion, the on-line monthly journal of SAM 1066 and delivered them to the respondents at the October MW meeting. I look forward to seeing all three flying at some future date.

This latest nostalgic burst relates to a “fairy tale” visit I paid to the Reading model shop. I was given a nicely built but very yellowed and dusty Mercury Matador, uncovered but complete. It has been stored in my loft for months but now it is almost complete in preparation for the Middle Wallop season, (puffy white clouds?).



Originally the Matador was designed for an ED 1.46 diesel for which the engine bearers are even drilled. However, my final decision is for electric power with an electronic gizmo to control rpm and motor run. My Mam'selle is similarly electrified and flies well.

The structure as built seemed flimsy to say the least with very floppy wings: not well suited to my sort of flying. However, not following “sailor” John's advice to add lightness I have

stiffened things up with a 1/32 sheet LE, top only and now, with covering it should stand reasonable f/f landings, back to the puffy white clouds again.

The web world came up with a plan, and a forum on the Matador's flying capabilities, weights, CG, etc. but the articles were pre lipos and brushless. The motor is dictated by what is in the cupboard, the set up I used for a stretched Tomboy, a Dualski XM2830CA-12, whatever all that means, 980rpm/v. From here on in it is suck it and see. The lower powered Mam'selle runs on a 600 3s lipo and I have bought two 1000 batteries for a 30 sec. motor run so that decision is made too. The measured amps are 13 max. on a 10X5, which with 1000mAH should give over 10 flights at 30 secs a go, by which time I will be exhausted! The all-up weight is 21 ozs. giving 100 watts /lb. If it sounds too good to be true it probably is...



The main change, apart from butchery to fit the motor, will be to incorporate a DT and timer. My experience with the standard i.c. Tomboy is that they fly away all too often. Back to my exhaustion again.

Roll on the summer weather, slight breeze, warm and sunny all day!! →

(I guess you do not have too many dinner party's if you have to clear the dining table - ED)

A Slope Lift Assessor

By Alan Butterworth



All slope soarers will have stood on the edge of a hill pondering over those vital questions such as is there enough lift, do I need ballast, is the wind on the slope? In the absence of the first volunteer to launch a disposable foamie, birds such as gulls and crows can give some indication. But remember that they are much more efficient than your models and, as a final insult, can just start flapping to get out of trouble, often leaving the poor pilot with the long walk of shame to collect their model. I reckon birds often do it on purpose.... So let me introduce to the ultimate slope lift assessment device – a spaniel.

Most spaniels have ridiculously long ears, known, I am reliably informed, as leathers, which appear to have some aerodynamic properties. The device is easy to use: simply encourage them to stand on the edge of the slope and watch the said ears. For safety reasons you must remember that spaniels were last in the queue when brains were handed out, so attaching the assessor to a safety harness is a must to prevent them leaping off if they spot a rabbit at the bottom of the slope.



Reading the ears is easy:-

- Ears hanging down – lightweight soarers or electric assist only.
- Ears horizontal – lovely lift, most models will fly.
- Ears vertical – heavyweights or ballast required.
- One ear up, one down – wind off the slope, beware.

The drawback to this device is their expensive upkeep – vet bills are ruinous - and the continuous maintenance required in the form of long walks. Unfortunately, you can't just switch them off and chuck them in the bottom of your flight box →

Recent Competitions

Sun 2nd June - Open eSoar.

11 participants, great day, Chris Moynihan the overall winner. Paul Harvey topped the e2m section.



				Rnd 1	Rnd 2	Rnd 3	Rnd 4	Total	Open	2M
2	Chris Moynihan	Pulsar 3.6	Open	1000	1000	995	1000	3995	1	
5	Terry Pelling	Pike Maxa	Open	1000	1000	1000	993	3993	2	
11	Graham Stallard	Supra	Open	1000	941	995	990	3926	3	
8	Glyn Chambers	Pulsar	Open	538	1000	1000	1000	3538	4	
3	Paul Harvey	Swift 2M	2M	995	522	980	1000	3497	5	1
10	Tony Ridler	K2 Light	Open	584	675	1000	968	3227	6	
1	Terry Weeks	Pike Perfect	Open	962	557	546	1000	3065	7	
9	Steve Elkin	Radin Pro 2M	2M	1000	608	958	427	2993	8	2
7	Colin Hutchinson	Pulsar 3.7M/Ava	Open	625	1000	952	0	2577	9	
4	Peter Chance	Pulsar 3.2M	Open	752	520	1000	293	2565	10	
6	Roger Critchley	Big Swift 2M	2M	703	726	0	0	1429	11	3

Tuesday 11th June - Chuckie

Five chuck glider flyers enjoyed a pleasant evening on Oldlands. It was breezy and the southerly wind took planes across the field towards the crop. Lift was clearly marked by the lulls. Pre contest trimming was difficult on the day because of the wind.



The results clearly reflect the amount of pre contest preparation. Mike was flying a well trimmed new plane and won by a mile with most flights landing in the crop, well done. Colin also had a new plane and although he had been flying it recently it was inconsistent in the wind. Peter flew the same two planes as last year without any trim changes and just a couple of pre contest launches (not enough). His best flight was lost in the jungle on the bank. Graham and Paul were similarly lacking pre contest practice.

1	Mike Fantham	172.7 seconds	2	Colin Hutchinson	105.2
3	Peter Williams	92.6	4	Graham Stallard	62.9
5	Paul Harvey	54.8			

→

Slingsby Swallow Build Part 2

The air brakes were a very time consuming item to make, about 6 hours each, by the time I had to keep taking them apart to get them to work smoothly and not bind, I had to end up putting a return spring on the operating rod, to assist in the closing, because they where such a snug fit, and the servo would not close them completely. (see photo)



Next went on the top sheeting of the wings, after detaching the ailerons, then the wing servos were installed for the ailerons and air brakes, along with wiring, I have used Multiplex 6 pin plugs to make the electrical connection between the wing root and the fuz.

After the servos and wiring was finished in the wings, the bottom sheeting went on, followed by the leading edge, with I had to carve out of 1" x 1/2" balsa



Next went on the wing covering, I used Ora-cover to cover, followed by the rudder and tail plane.

Back to the fuz. I decided to fit an aero tow attachment into the nose, while I was doing the build, (not on the plans) with the idea that maybe later on, in my flying experience, I would like to try aero towing it, with the help of Clive Learwood!!

I could now finally cover the side of the front of the fuz with 1/32 ply, the rear is open frame, and the whole of the fuz was then covered with the Oracover, finally I made the skid from 2 layers of 1/16 ply, with rubber hose as the sus-



pension blocks.

The final part to make was the cockpit cover, I was scratching my head for a long time, trying to work out how to make the Perspex canopy, this was no longer available, as the plans are over 35 years old,

I came across the Traplet Publications Ltd. selection of preformed canopies, and contacted them about my build, and the canopy problem, and a very helpful chap there, said if I send him some pictures with dimensions on, of the cockpit cover frame work, he would do his best to try and find the nearest one of their stock canopies that he thought I could properly use, which I did, and he came back with just one suggestion, after looking through the entire range they have, it looked good to me so I ordered 2, just in case I made a mistake with one, (save the postage)

When they arrived, they looked pretty good, too big, but about the right shape, and with a bit of trimming, they fitted a treat, it looks as if it was made for the job.

Cockpit detail is still to be completely finished; I am awaiting a 1/5 half pilot, from AD Designs, The Pilot People, 12 week delivery!!!!!! (must be a big demand) and the instruments



were from a company in the Czech Republic, called Aerocockpit.com. The total fuz was then covered with the white Oracover, with red striping trim, the numbers on the side of the fuz, refer to the original Radio Modeller plan number, I felt I had to put something on the side of the fuz. and this was as good as everything, as I write this, I am still waiting to maiden it, with the help of Graham, hopefully by the time you are reading this, it will have had its first successfully flight, with aero towing still to come.

All in all, a very challenging winter building project, that kept the grey matter churning over and active, while the snow, wind and rain were busy doing they thing outside!!!!!!



Maiden Flight

Diary Dates

Date	Day	Item	Contact
02-Jul	Tuesday	Club Meeting - Ian Parker - Human Flight	
05-Jul	Friday	eSoaring FNL 5	PW
12-Jul	Friday	Thermal FNL 5	GS
14-Jul	Sunday	Xcountry eSoaring	TH
16-Jul	Tuesday	Mini Glider L 3	JP
19-Jul	Friday	eSoaring FNL 6	PW
26-Jul	Friday	Thermal FNL 6	GS
28-Jul	Sunday	Xcountry eSoaring res	GS
02-Aug	Friday	eSoaring FNL Reserve	PW
04-Aug	Sunday	Thermal 100" & BBQ	CM
06-Aug	Tuesday	Club Meeting	
09-Aug	Friday	Thermal FNL Reserve	GS
11-Aug	Sunday	Miniglider L 4	JP
13-Aug	Tuesday	Mini Glider L reserve	JP
16-Aug	Friday	eSoaring FNL Reserve	PW
17-Aug	Saturday	TVSF Open F3K (2) - National	MF
18-Aug	Sunday	Thermal Open	CM
23-Aug	Friday	Thermal FNL Reserve	GS
24/25/26-Aug	Sat/Sun/Mon	BMFA NATS	
01-Sep	Sunday	100"/Thermal Reserve	CM
03-Sep	Tuesday	Club - Photo Competition	
05-Sep	Thursday	Slope Day	GS
08-Sep	Sunday	TVSF Open eSoaring (2) National	M Bell
15-Sep	Sunday	Miniglider L 5	JP
22-Sep	Sunday	AMC Open eSoaring (2) National	M Bell
28 Sep/05 Oct	Sat - Sat	Wales week	CM
5/6-Oct	Sat & Sun	TVSA Middle Wallop 2day (5/6)	
08-Oct	Tuesday	Club Meeting	
13-Oct	Sunday	Mini Glider L 6	JP
20-Oct	Sunday	Mini Glider L res	JP
27-Oct	Sunday	Slope Xcountry Res	TH
03-Nov	Sunday	60" Pylon Res	JP
05-Nov	Tuesday	Club Meeting	

A Day at Middle Wallop

By Colin Hutchinson

A few pictures from the aerotow at Middle Wallop on Saturday 18th May.



An old RobbeVampyre making aerotowing look rather too easy for my piece of mind. I will just have to look more closely at my Vampyre and make it fly!



Three of the tugs ready to go on Saturday. The Cub in the background was large and had awesome power



Bill Cooke's 5 meter Topaz coming in for a smooth landing



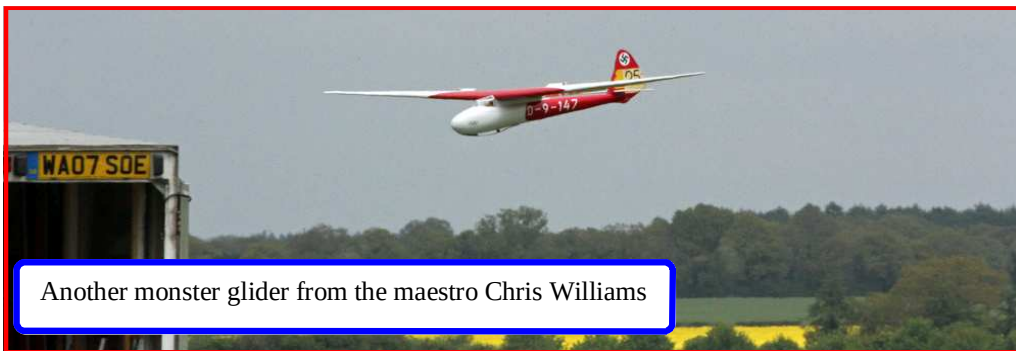
Here is a picture especially for Trevor



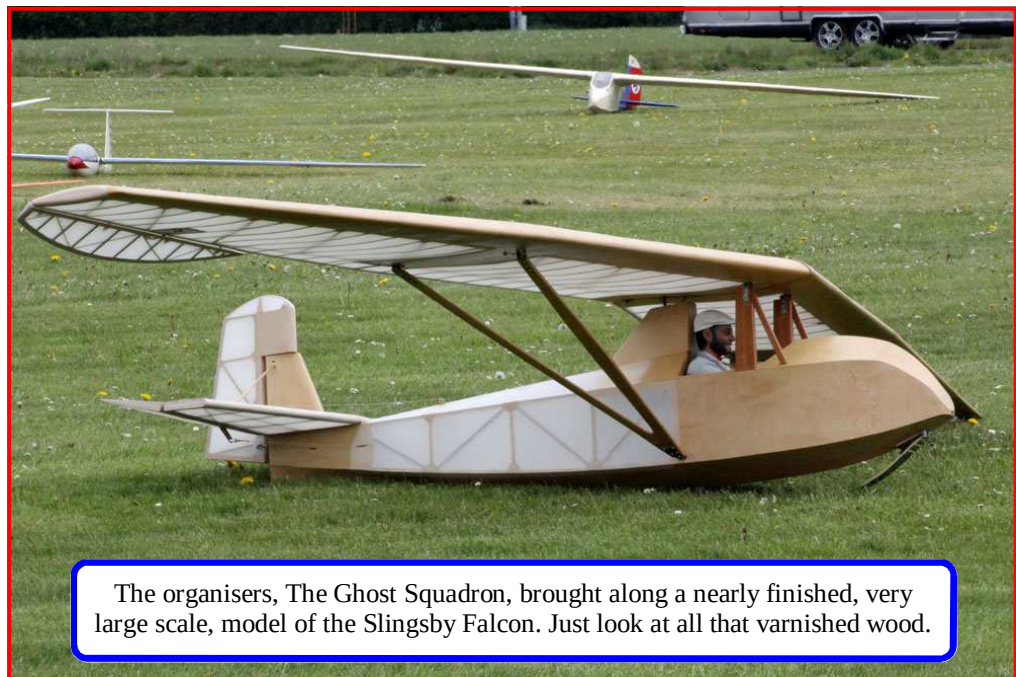
Slingsby Petrel – probably one of the most beautiful gliders ever designed



No idea what this glider is, but it looks good with the hangars in the background



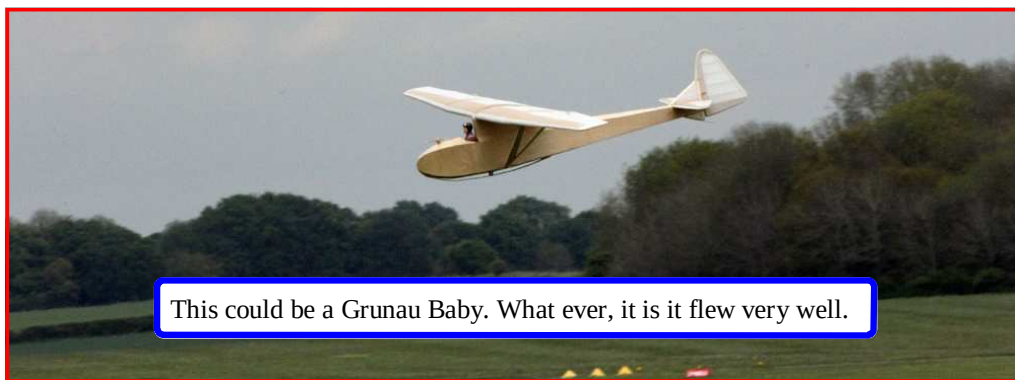
Another monster glider from the maestro Chris Williams



The organisers, The Ghost Squadron, brought along a nearly finished, very large scale, model of the Slingsby Falcon. Just look at all that varnished wood.



Another large scale glass ship. Clock those bendy wings.



This could be a Grunau Baby. What ever, it is it flew very well.



Fabulous red glider!



Just look at the wonderful woodwork on the Petrel.

CLUB NIGHT ACTIVITIES

April club night was a talk by Mike Clews of the Joystick Club.

He introduced himself as “being interested in all sorts of aviation” and started his talk with a number of early models he made.



After Ground school he flew Vickers Vicount's and BAC 111's. He then kept us amused with various anecdotes.

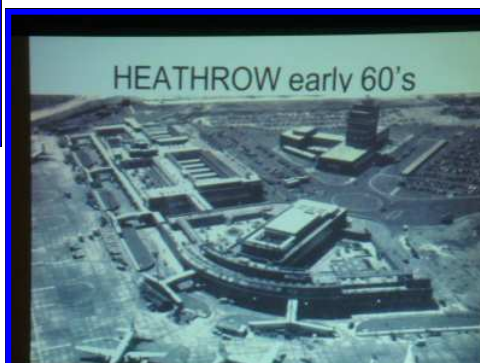
One he illustrated with various slides. When coming onto the parking stand it is usual to shut down one engine on the side that is closest to the gantry. However he said to the first officer “shut down 2” meaning shut down number 2 engine but the first officer thought he meant 2 engines which left the aircraft 10 foot short and they had to wait for a tug to pull them onto the stand.

The Joystick club have been involved with a number of young people promoting aviation projects such as 2 years working with Yatley school building a light aircraft, sponsorship coming from Boeing.



After leaving Grammar school he started his flying schooling with the RAF and learnt to fly at Bristol in a Piper PA-22.

He continued his flying with the Collage of Air training. He joined BEA and was based at Heathrow in the 60's





Another project was being given an old Piper Tomahawk which was no longer serviceable and the wings were cut off and the cockpit renovated to provide simulated flight.



Last winter they made a number pedal planes which they took to flying events promoting aviation to young persons, scout groups etc.

A very entertaining evening, Mike is a witty speaker and combined a lot of facts with an abundance of humour. His latest project is depicted below, all built with his fair hands. →



May Club Night - The Early years

Our guest was a founder member of TVSF and gave us an interesting talk on how the club was formed with amusing antidotes to wet our appetites. Rather than try to précis his talk I have reproduced his notes.

Bracknell And District Model Aircraft Club was a breakaway group from the Wokingham Club (who became the East Berks Club).

We met at a scout hut in Bracknell. I remember how cold the room was. After the meeting we all used to visit The Boot pub in Bracknell. Power flyers in one corner and glider guiders in another. There was little love lost between the 2 groups.

I joined BADMAC in 1970 and instantly became Hon Treasurer for one year. I was then Chairman for many years. When I joined there were 15 members, when I left there were 76 members. The committee were all glider guys!

A motion was voted through to ban gliders, and therefore bungees from the flying site on Sundays. Gliders could fly Saturday mornings and Wednesday evening.

Dog training went on, on a Sat morning, Wednesday evenings were only any good in summer months.

The now late Norman Boyd, John Skinner, another guy whom I can't remember and I decided to start a group who were interested in all forms of model gliding.

1st – We needed a meeting place

2nd --- We needed a field

3rd --- We needed insurance

4th --- We needed a name

5th --- We needed a committee to administer the Association

Yes, it was an association of like minded glider flyers.

I choose Thames Valley Silent Flyers. Didn't want a name associated with a town, etc. Also needed all words in the heading to be equal in lettering. Makes layout easier with old fashioned computers of 1983.

We first met at The Victoria, Binfield, but had to move as it became an eating place.

We moved to the Elephant & Castle, Hurst, for a while. Next it was The Roebuck Inn, Binfield. That went in the great storm of 1987.



Terry in full flow



An oak tree went completely through the room we used. It wasn't replaced.

The Road Research Lab, Crowthorne was next on the list. This was arranged through Ian Lancaster for many, many years. You were still meeting there until I left the area in May 2003. [We still use the TRL club for our February Chuckie meeting - Ed]

People soon joined TVSF. Initially from BADMAC. Norman Childs, George Gilchrist, Martin Smith & I think Andy Marshall. Soon after this we were joined by Chris Moynihan, Ian Lancaster, Vic Thomas, Trevor Hornby, Richard Thornton & Tony Morgan.



After commencing thermal soaring on a site a few miles past Henley, in Oxfordshire we found a school called Wargrave Piggot where a few FNL's were flown. We also used a football field near Hurst. Then another private field opposite the Elephant & Castle. Eventually a 20 acre field at Binfield was secured by a member. It was F.O.C. A few years earlier BADMAC used this field at £500 a year, paid in two halves in advance. They only had the field for 3 weeks!!!! Noise complaints lost them the field AND they didn't get their £250 back.

The field owner put a limit on the club of 10 members. This was increased to 15, then 20. As no complaints were forthcoming the owner forgot about limits – so did we!

It was Trevor Hornby who produced the club logo, it being a swan, a slope and a flat area. The swan being The Royal bird of the Thames Valley.



Chris Moynihan introduced the Friday Night League AND slope soaring holidays.

The first one was in October 1984 to Anglesey. Entitled "Five Go Mad in Anglesey". Chris Moynihan, Terry Antell, John Skinner, Martin Smith and I think it was Andy Marshall who made the first trip. We went on a Thursday and returned home on the Monday (a long week-end). The house was damp & cold, but very cheap! The following spring I arranged a week in the South Hams area of Devon.

In those days I can't remember any member being in the BMFA (SMAE as it was). All were in BARCS as that really catered for glider guiders.

Thank you Terry for a most interesting evening. ➔



A few nostalgia pictures from the early years. It may be difficult to identify some of the hairy members of yesteryear.



June club night was by Graham Stallard. Graham gave a talk in March which outlined the use of 2.4 GHz in thermal soarers, in particular the importance of correct location of aerials to maximise the receipt of the transmitter signals. The key point being the receiver aerials need to be mounted in a 90 degree angle with satellite aerials covering the remaining orientations. This talk demonstrated quite dramatically the importance of correct installation of 2.4GHz receivers in Thermal Soarers.



2.4G radio in Thermal Soarers Part II

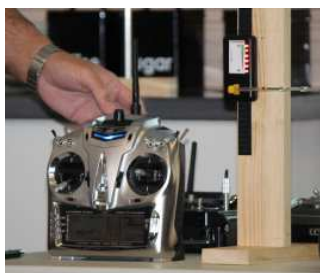
The part II talk on 2.4G came about as a result of acquiring a Signal Strength Meter (SSM) for 2.4G radio. Mike Ridley of ModelRadio Workshop found the need for a simple meter to establish the RF output of 2.4G transmitter. Mike designed one for workshop use and now sells these through eSoaring Gadgets. This is the web page;

http://www.esoaringgadgets.co.uk/index.php?main_page=product_info&cPath=2&products_id=6.

I bought this out of curiosity and found it demonstrated very graphically the key point I could not demonstrate in the first talk. It just had to be followed up. To summarise my experience of 2.4G has suggested there are important considerations when operating any 2.4G radio with regard to aerial orientation and position.

The ability of Spektrum DSM2 radio to read out aerial performances provided a clue. I had 4 aerials in my 1/4 scale Nimbus and the vertical fin aerial showed the lowest number of fades compared to the others. This situation was reversed when my transmitter aerial was changed from vertical to horizontal where it became the worst.

The demonstration on the night showed the signal strength when the aerial is aligned with the SSM, then at 45° and 90°. When aligned all the LED's on the SSM are on, at 45° just 2 LED's on and at 90° no LED's. This is a worst case situation and our aerials are more sensitive than this. However at range our aerials will behave in the similar manner. See photos.



Aligned



45°



90°

This effect of alignment was demonstrated with a JR X11 Zero, Futaba, Multiplex Cockpit, DX6i, DX8i, DX18i, FSky and Multiplex transmitters. They all exhibited the same RF performance when the TX aerial was aligned, at 45° and 90°.

The next stage was to demonstrate the impact of various materials on the RF performance. The ex-

amples used were a sheet of tin, a sheet of carbon, a 10m Aluminium rod and a hand in between the Tx and the SSM. Each of these were progressively introduced and the SSM LED's went off in proportion to the amount of material introduced. Each of the objects completely blocked the signal. All radios behaved in the same manner.



Metal



Carbon



Metal Rod



Hand

The demonstration using the 10mm aluminium rod showed the directional sensitivity of the signal as the SSM gave a minimum reading only whilst the rod was directly between the TX aerial and SSM recovering to maximum when moved just a few millimetres. My analogy for this is that the receiver aerials are linked to the TX as if connected by a long piece of string and that anything that blocks the string blocks the radio signal.

The SSM behaves as a single aerial so a model with just one aerial would have a shorter range when the aerials are not aligned rather than aligned. Most 2.4G RX have more than one aerial which provides a more robust performance providing they tend to be aligned. So for a glider is normal flight with two aerials mounted horizontally at 90° to each other with the TX aerial horizontal provides a situation that covers most attitudes the model is likely to fly with the exception of a vertical dive where one aerial would vertical (minimum) and the other possibly pointing away or toward the TX (minimum). In this last situation a third aerial would now be aligned and receiving. However all this assumes there are no other items are reducing the received signals and the demonstration showed that the human body reduces the transmitted signal and even thin strips of metal so battery packs etc. will have the same effect. This suggest the optimum setup is three aerials aligned 90° to each in the X, Y and Z planes (corner of a box) and well away from items that can block the signal. Not easy.

The demonstration showed that all radios behaved in a very similar manner and therefore could experience lapses in received signal if the RX aerials are not placed appropriately. Whilst much is made of the protocols used to transmit, frequency hopping and so on it becomes academic if there is no radio signal to work with. However due to the data rate 2.4G allows and the processing being carried out, momentary lapses are accommodated without obvious changes to the flight path.

To conclude all makes of radio performed in a similar manner so no partisan bias. Personally I shall always do my utmost to get an aerial in the top of the fin, assuming it's not carbon, in which case it will have to stick out the top with a further two in the model all at 90° to each other. From my research the aerials are also best placed apart from each other which is a bit tricky in a thermal machine. So do give careful thought to your aerial locations and orientation.

Thanks to Tony Ridler for the photographs and thanks to Richard Thornton who has shared many gems to enlighten my path on learning about 2.4G radios. ➔

Sketchbook from wales

BY
Paul Vale

Cleanit
(not the team that left a dirty saucepan)
CBA Member
General P*** Artist



Sketchbook from wales

Well the traditional Wales trip got off in fine form when I tried out my new purchase and it all worked perfectly!



The windbreak worked a treat - even silenced Terry Pelling for a few minutes!

Following Graham's slick landing of the huge Nimbus Peter Chance looked up at the last minute and saw a carbon wing just about to remove his legs - what he did next reminded me of a clip from Crouching Tiger Hidden Dragon!



As if this wasn't enough excitement for one holiday, we had tales of a Yeti! - Clive went off in his new Yeti to search for fresh farm eggs (the TVSF don't slum it when it comes to food). Whilst driving towards the farm shop, his Yeti hit an unidentified lump in the road, causing some damage to the underside and I imagine a series of choice expletives!



Clive was shell shocked!

The Yeti also got hit by a glider which had strayed from the landing path whilst parked on Rhiw mountain....ouch!
No wonder Yetis stay out of sight!

TORA TORA TOR-OFF-A-WING TIP!



Rhiw also saw some great flying with light winds and everyone up in the air. A combo of good air and loads of gliders also produced some spectacular air incidents. Colin was flying his new Ava - I say flying he really had only just launched when Peter who had called a left to right pass did so at some speed - the result two gliders down, Peter's destined for the bin and Colin's requiring a new tip. Apologies in advance for the pic, but it was inspired by Chris telling me Colin had Japanese roots!



Chief Cookit Graham lost it at breakfast and ranted at the cleanits when he found a dirty saucepan then admitted to the nickname 'HITLER' at work hmmm....

Wales with TVSF *By Colin Hutchinson*



Saturday 13 April - Arrived late afternoon due to travelling via Doncaster to collect a twin engine amphibious float plane that I had bought on eBay. I had a most entertaining hour chatting to the owner/builder in his garage, drinking tea, and then laughing with him and his neighbour when I found it very difficult to fit it into the car, despite having left room for it!!

It started raining in the early afternoon as the forecast said it would, and although I had thought about stopping at the Great Orme, the accurate forecast prevented this!

I was not surprised that there was snow in the fields and moors on the A57, the Peak District, and around Wrexham, but I was surprise how deep it was in places. One road in particular had at least 6 foot drifts either side of the road for some miles. I hate to think what it might have been like a couple of weeks earlier.

Sunday 14 April - Ceiriad

There was a good breeze blowing on Sunday, although not enough to put too many of the CBAers off. Can't remember much about the day, except that Graham James did a passable impersonation of the Angel of the North.



Ooh, and Ray Jones arrived in the afternoon. His helper began by throwing a rather nice Ha-bicht at him, rather than down the slope. Having fixed it he threw it in the correct direction and the model flew very well, in the stiff breeze, and landed comfortably on the steep middle field of Ceiriad.

Monday 15 April - Ceiriad

Lambs very frisky in the increasingly warm conditions during the day. We flew from the top/right field at Ceiriad, which is good for large gliders and those flyers of a nervous disposition, ie those that like a long approach. In fact the big jobs of Glyn Chambers, and Terry Pelling were out in force, and Graham Stallard flew his 6m Ashe in the late afternoon.



Walked down the cliff with Alan to photo the waves/flowers, and ended up at the end of the headland watching the huge waves break up the cliff.



Tuesday 16 April - Ceiriad

Flew from the left field. Very windy, but the landings were remarkably smooth. In fact they were so smooth I had

several launches just to check I was not dreaming about the smoothness of the landings. Only myself, Alan, Graham S and Terry P flew from TVSF, the CBA disease was beginning to set in, or was it the beer from the night before!

Walked back to the end of the headland to view the even larger breakers breaking up the same that Alan and I had watched the day before from the cliff.



Wednesday 17 April

Wednesday was forecast to be the wettest day of the week, and the morning proved to be exactly as predicted, so escape plan A was instigated. At Llanbedrog a few miles east of Abersoch there is an exhibition centre called Oriel Plas Glyn y Weddow, and a National Trust café on the beach that serves delicious scones and cream. The weather was so bad that the café was probably closed so we went into the exhibition to view some paintings by Elsi Eldridge, wife of R S Thomas (the poetry lovers – are there any? – will know who he is). The paintings were very interesting, and the café served excellent coffee and a good selection of cakes.

Remarkably the weather started to clear up whilst we were eating cakes and drinking coffee, so in the afternoon Alan and I ventured out to Ceiriad. Alan measured the wind speed at around 38mph gusting 46!! flew my Gulp for a couple of minutes before the light rain drove us back to our cars, and Alan flew his hat! The evening was highlighted by my one and only win at Scrabble.

Thursday 18 April - Annie's

Slight cross wind at Annie's, but flyable. Walked to the end whilst flying, along with Graham Stallard and Alan. Fab views, and walked back also whilst flying.



Friday 19 April - Rhiw mountain

The calmest day of the week saw the biggest turnout of flyers. Monster thermals interspersed with monster sink! However, a great days flying to finish the week. Very warm out of the wind.

(Editor - Tony R and Richard S had a minor coming together, no damage on Tony's model and just a snapped aileron horn on Richard, both very lucky compared with Colin's AVA. On its maiden flight out over the wall, Peter Chance was doing a fast pass across the slope with the result Colin's model lost the outer wing panel but he skilfully landed with no further damage unlike Peter's which was totalled.)



Saturday 20 April

Rose at 4.30, left at 5.10 and drove all the way to Bala looking at an increasingly red sunrise. It was just fabulous over the mountains around Ffestiniog.

An excellent week of slope soaring, roll on September. →

Colin

Graham Stallard.

It is difficult to say what the best bit in Wales was, but Thursday, flying on the south west face of Cilan, was a high point. The wind was 25mph+, SW and flying the ¼ scale Long Fox was a dream. The lift was elevator lift and you could fly any manoeuvre you could think of. Knife edge, outside loops, rolls, invert, whatever. The lift band is 1.8Km long with the best lift is around the middle, which is 300M and goes out some 500M and up about 200M. Off centre the lift was good, just with a bit of cross wind component to work with. It was well worth the walk.

The luckiest bit is easy. The wind moderated on the Tuesday afternoon and the conditions were good to fly the ¼ scale Nimbus, all 6.6M of it, at Ceiriad. Terry gave me a perfect launch. Wow it is such a pleasure to fly, very different from all my other models. Eventually



it was time to land. I had checked out the 'runway' before launching and knew what the plan was. Alan and Peter were keen to photograph the landing, so no pressure! The trick is to forget they are there. If there is one aspect of flying this model I need to work on, it is the landing. You need to keep the air speed up, yet manage the momentum. Anyway, I walked back 100M then brought the model back a further 150M behind. Crowded to get on the glide path and brought the Nimbus in. Peter and Alan were clicking away when I worked out the model was going to fly on a bit. I called out to clear as the model approached. Alan was already clear and I was going to be out of the way but Peter was watching the model through his view finder. Peter heard the call, looked up and worked out he could not outrun the wing before the model arrived and concentrated on a reaction jump, just like skipping. Peter's timing was perfect and Alan caught it on camera. As the model passed I nudge it down and it rolled out in a pretty short distance. Wow that was lucky. The lessons from this are make the runway is clear of obstacles, especially people or get ones with good jumping skills. Do not land a ¼ scale Nimbus on a slight slope. Its glide angle is just too good. And finally double the approach pattern. We'll see what happens next time.

The final day was a very memorable day for various reasons, some of which others may cover but for me it was the fantastic thermal lift on Rhiw Mountain. I was bit late getting the slope that day. The wind was about 12 mph NW so spot on for Rhiw. I flew my ¼ scale ASH26, great glider. The slope lift was adequate to soar but later on the thermals really got going. I thermalled to well over 1000 ft. to then burn off the height with a fast past, stooge around then hook another ride on the next thermal. Ace. The slope lift dropped off a bit in the afternoon and I called it a day, but goofed the landing. Really could not end the week on such a poor landing. Back to the face and lob off, oops, lift was a bit weak, but the model soon made height as I pushed out. Round for another landing only to find the model too close, mainly due to the lack of wind, so an overshoot. Back out and that gorgeous lift was still working. Height gained and round again, this time further back and in on the glide to finish in a very acceptable landing.

Yet another week of life long memories written. *Magic.* ➔

"The budget should be balanced, the Treasury should be refilled, public debt should be reduced, the arrogance of officialdom should be tempered and controlled, and the assistance to foreign lands should be curtailed, lest Rome will become bankrupt.

People must again learn to work instead of living on public assistance."

- Cicero , 55 BC

So, evidently we've learnt sod all over the past 2,067 years.

Topaze Scale Glider---Part III

By Clive Learwood with input from Bill Cooke

To recap. In **LIFT** issues 70 and 71 (November 12 and March13) we covered the majority of the construction process for the two planes. This final instalment covers the finishing and maiden flights of both planes.

In part II we also mentioned covering materials and possible colour schemes to be used. Bill in the end went for white Solartex all over with a blue painted stripe on the wing tips and tops of fin and rudder. Bill decided to over paint in white the sheeted cockpit area, however this did not prove entirely successful. The fuselage was then recovered as far forward as the ply sheeted cockpit area. Bill had previously fibre glassed this whole area including the nose section. It was thus a simple job to paint this whole area white. Bill's Topaze can be seen in picture 1.



As Bill was itching to get his plane in the air the model made its maiden flight at the first Aerotow event of 2013 at Siege Cross farm near Newbury on the 28th April on a cold and blustery day. The Topaze went up easily behind the tug O.K. but on release it clearly needed more trimming, due to a severe nose down attitude when the spoilers were deployed. Adjustments were made for the next event to be held Middle Wallop over the 18/19th May weekend. After a few more trimming flights it was flying smoothly and responsively. The model weighs 5.9 kilos and flies quite fast so landings have to be made with care but the roll out is long and quite satisfying.

I had committed in a new build thread on the Scale Soaring UK forum back in June 2012 that I had started, for my Topaze to make its maiden flight at the Middle Wallop event on

18th May. My Topaze had lagged well over a month behind Bill's throughout the building and finishing process, so as time progressed meeting the 18th May date became a challenge. Oratex was the chosen covering material for my Topaze with a combination of white, clear and Corsair blue.

Fortunately my Topaze was finished in time for the weekend of 18th/19th May. The weather gods were also with us with good flying conditions all weekend, no rain, light winds, except for later on the Sunday afternoon. As to the maiden flight, well the Topaze was off the ground quickly easily following the tug. The first flight indicated that the CG required moving back, nose weight was removed over the course of the next few flights to achieve the desired handling conditions.

My Topaze can be seen in Pictures 2 and 3. Pictures by Chris Williams the Topaze designer

What next. Bills plane can be seen with registration markings and still requires a clear lacquer applying to help keep it clean. My Topaze needs the inside of the cockpit finishing including the addition of a pilot and clear lacquer applying.



The Final Toast

By CNN Contributor Bob Greene.

It's the cup of brandy no one wants to drink.

On Tuesday the 7th of April, in Fort Walton Beach, Florida, the surviving Doolittle Raiders gathered publicly for the last time.

They once were among the most universally admired and revered men in the United States. There were 80 of the Raiders in April 1942, when they carried out one of the most courageous and heart-stirring military operations in the America nation's history. The mere mention of their unit's name, in those years, would bring tears to the eyes of grateful Americans. Now only four survive.

After Japan's attack on Pearl Harbour, with the United States reeling and wounded something dramatic was needed to turn the war effort around. Even though there were no friendly airfields close enough to Japan for the United States to launch a retaliation, a daring plan was devised. Sixteen B-25s were modified so that they could take off from the deck of an aircraft carrier. This had never been tried before -- sending big, heavy bombers from a carrier.

The 16 five-man crews, under the command of Lt. Col. James Doolittle, who himself flew the lead plane off the USS Hornet, knew that they would not be able to return to the carrier. They would have to hit Japan and then hope to make it to China for a safe landing.

But on the day of the raid, the Japanese navy caught sight of the carrier. The Raiders were told that they would have to take off from much farther out in the Pacific than they had counted on. They were told that because of this they would not have enough fuel to make it to safety. And those men went anyway.

They bombed Tokyo, and then flew as far as they could. Four planes crash-landed; 11 more crews bailed out, and three of the Raiders died. Eight more were captured; three were executed. Another died of starvation in a Japanese prison camp. One crew made it to Russia. The Doolittle Raid sent a message from the United States to its enemies, and to the rest of the world: We will fight. And, no matter what it takes, we will win.

Of the 80 Raiders, 62 survived the war. They were celebrated as national heroes, models of bravery. Metro-Goldwyn-Mayer produced a motion picture based on the raid; "Thirty Seconds Over Tokyo," starring Spencer Tracy and Van Johnson, was a patriotic and emotional box-office hit, and the phrase became part of the national lexicon. In the movie-theatre previews for the film, MGM proclaimed that it was presenting the story "with supreme pride."

Beginning in 1946, the surviving Raiders have held a reunion each April, to commemorate the mission. The reunion is in a different city each year. In 1959, the city of Tucson, Arizona, as a gesture of respect and gratitude, presented the Doolittle Raiders with a set of 80 silver goblets. Each goblet was engraved with the name of a Raider.

Every year, a wooden display case bearing all 80 goblets is transported to the reunion city. Each time a Raider passes away; his goblet is turned upside down in the case at the next

reunion, as his old friends bear solemn witness. Also in the wooden case is a bottle of 1896 Hennessy Very Special cognac. The year is not happenstance: 1896 was when Jimmy Doolittle was born.

There has always been a plan: When there are only two surviving Raiders, they would open the bottle, at last drink from it, and toast their comrades who preceded them in death.

As 2013 began, there were five living Raiders; then, in February, Tom Griffin passed away at age 96. What a man he was. After bailing out of his plane over a mountainous Chinese forest after the Tokyo raid, he became ill with malaria, and almost died. When he recovered, he was sent to Europe to fly more combat missions. He was shot down, captured, and spent 22 months in a German prisoner of war camp.

So now, out of the original 80, only four Raiders remain: Dick Cole (Doolittle's co-pilot on the Tokyo raid), Robert Hite, Edward Saylor and David Thatcher. All are in their 90s. They have decided that there are too few of them for the public reunions to continue. The events in Fort Walton Beach this year marked the end. It has come full circle; Florida's nearby Eglin Field was where the Raiders trained in secrecy for the Tokyo mission.

The town is planning to do all it can to honour the men: a six-day celebration of their valour, including luncheons, a dinner and a parade.

Do the men ever wonder if those of us for whom they helped save the country have tended to it in a way that is worthy of their sacrifice? They don't talk about that, at least not around other people.

The men have decided that after this final public reunion they will wait until a later date -- some time this year -- to get together once more, informally and in absolute privacy. That is when they will open the bottle of brandy. The years are flowing by too swiftly now; they are not going to wait until there are only two of them.

They will fill the four remaining upturned goblets. And raise them in a toast to those who are gone. ➔



It's all the Editor's fault

By Vic Thomas



You will recall that the cover picture on the last Lift showed a triumvirate of Members launching a Slingsby T21 at White sheet, in 2001!. The more mature members among us will remember the model, a quarter scale Chris Williams design, which had taken me forever to build from scratch, no laser cutting in those days. My main trouble arose because I had a Ford Cougar at the time and without dismantling large parts of the interior the T21 simply would not go in it. This brought on one of life's mistakes. I sold it to one who shall remain nameless who, I believe, flew it until he managed to insert it into the Channel. All this was 12 years ago.

I thought I had got it out of my system but the Editor's choice of cover picture brought it all back.

A Google search, and I was in possession of a laser kit of parts courtesy of Cliff Evans, delivered within days. A search of the loft and up came the original plan.

Whilst waiting for the kit I made the two fuz sides, $\frac{1}{4}$ square spruce, and then, bliss, all the formers cut to exact size and the familiar shape began to emerge. I remembered from last time that it was the Devil's own job to bend the stringers in for the stubby nose. I am not a steamer or soaker so I resorted to a series of cuts which worked then. But this time, probably because the spruce was of different quality, it proved impossible. I cut two semicircles from the plan view of ply and grafted them onto the stringers, success. The whole is sheeted with 1/16 ply so there is plenty of strength in reserve. The weight is irrelevant because the short nose requires the whole noseblock to be lead anyway.

After just seven weeks the main structure of the fuz is complete; it now awaits the fin. The joys of laser cutting, or did I say that before? As yet I have no completion date, originally I had about a year in mind but that now appears too pessimistic. When is the last Middle Wallop aerotow meeting?

To be continued..... Well now, all that was several weeks ago... initial progress has not been sustained because several breakages of other models have required repair and the T21 rudder has proved to be a swine to get right. Because of its taper it cannot be made in the board and so has to be assembled "in the hand". Several attempts later it is, at last, straight and the tailplane awaits shaping. Oh, and I went on holiday for a week!

Watch this space. →



Good Deeds

One day a florist went to a barber for a haircut. After the cut, he asked about his bill, and the barber replied, 'I cannot accept money from you, I'm doing community service this week.'

The florist was pleased and left the shop.

When the barber went to open his shop the next morning, there was a 'thank you' card and a dozen roses waiting for him at his door.



Later, a cop comes in for a haircut, and when he tries to pay his bill, the barber again replied, 'I cannot accept money from you, I'm doing community service this week.' The cop was happy and left the shop.

The next morning when the barber went to open up, there was a 'thank you' card and a dozen doughnuts waiting for him at his door.



Then a Member of Parliament came in for a haircut, and when he went to pay his bill, the barber again replied, 'I cannot accept money from you. I'm doing community service this week.' The Member of Parliament was very happy and left the shop.

The next morning, when the barber went to open up, there were a dozen Members of Parliament lined up waiting for a free haircut.



And that, my friends, illustrates the fundamental difference between the citizens of our country and the politicians who run it.

From my anonymous friend.



A bloke walks into a Glasgow library and says to the prim librarian,
'Excuse me Miss, dey ye hiv any books on suicide?'

To which she stops doing her tasks, looks at him over the top of her glasses and says,
'Bugger off, ye'll no bring it back!'



Polo Shirt

Heavyweight Pique Polo Shirt



Sweat Shirt

Raglan Sleeve Sweatshirt



Fleece

Full Zip Outdoor Fleece



Order options: Tick one box in each section.	Polo Shirt	Sweat Shirt	Fleece	Bronx Hat	Base Ball Hat
Price	£11	£12	£18	£7	£6.50
Quantity					
SIZES					
S : 36"				NA	NA
M : 38"-40"				NA	NA
L : 42"				NA	NA
XL : 44"				NA	NA
2XL :46"-48"				NA	NA
COLOURS					
Head wear all one size.					
White					
Burgundy					
Yellow					
Black					
Smoke / Grey					
Green					
Blue / Royal					

Baseball Cap

6 Panel Structured
Brushed Cotton
Baseball Cap



Bronx Hat

Acrylic Knitted
Thinsulate
Bronx Hat
With Turn-Up



ORDERING

send you requirements to:
Richard Thornton:
rickthornton@ntlworld.com
Or see him on club night.

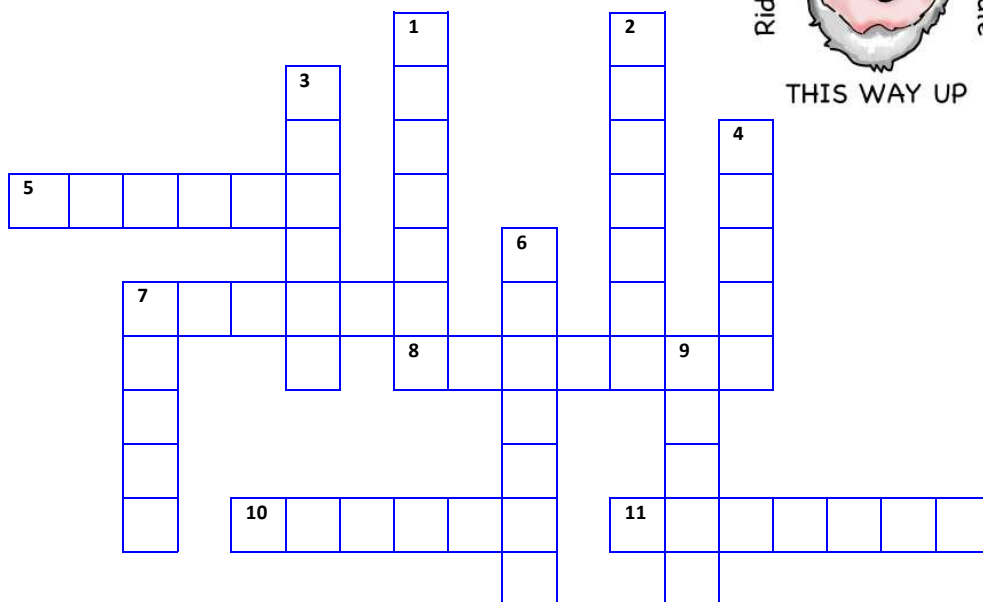
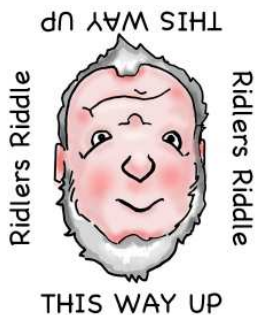
Don't forget to give a contact telephone

Thames Valley Silent Flyers



TVSF Puzzle Corner

Models from yesteryear.



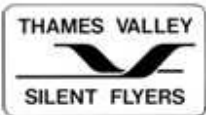
DOWN

- 1 Recently in the news at Rome.
- 2 Marine mammal by Keilkraft
- 4 The name of a Douglas Scooter by Frog.
- 3 Five foot model by Keilkraft
- 6 First planet from the Sun by Keilkraft
- 7 Glider by Jasco
- 9 Small glider by Keilkraft (preparation for Army)

ACROSS

- 7 Control line by Jasco
- 8 Sedan by Mercury
- 5 Veron's model of a Navy Turbo Prop
- 10 Skyleada- Silhouettes range
- 11 Buzzing control line by Veron

All Rounder at the 16th June 2013

		Indoor Chuckie	Hand Launch F/F	Friday Night League	Electric Xcountry	Electric FNL	Electric Thermal	F3F	Annual Pylon (foamie)	Thermal Allrounder	Electric Allrounder	Slope Allrounder	Club total points
2013 Pilots Name		10	10	15	10	15	10	10	10	100	35	50	185
Maximums >>		10	10	15	10	15	10	10	10	100	35	50	185
				Fly 2		Fly 2							
Graham	Stallard	3	7	14		15	8	10	8	24	23	18	65
Peter	Williams	10	8	10		12		8	10	28	12	18	58
Colin	Hutchinson	8	9	15		7	3	7	7	32	10	14	56
Roger	Critchley			13		10	1	5	7	13	11	12	36
Chris	Moynihan	1		9		14	10			10	24	0	34
John	Price	2				13		9	10	2	13	19	34
Paul	Harvey	4	6				7	6	7	10	7	13	30
Tony	Ridler	1		12		8	6			13	14	0	27
Graham	James	1		8		9			7	9	9	7	25
Trevor	Hornby	9							7	9	0	7	16
Peter	Wood	1				11				1	11	0	12
Joel	West			11						11	0	0	11
Terry	Weeks					5	5			0	10	0	10
Mike	Fantham		10							10	0	0	10
Terry	Pelling						9			0	9	0	9
Peter	Chance					7	2			0	9	0	9
Richard	Thornton	7								7	0	0	7
Steve	Cope			7						7	0	0	7
Alex	Gow	6								6	0	0	6
Steve	Elkin	1					4			1	4	0	5
Richard	Edmunds	5								5	0	0	5
Bill	Cooke					4				0	4	0	4
Andrew	Horne	1								1	0	0	1
John	Skinner	1								1	0	0	1
Ian	Lancaster	1								1	0	0	1
2013 Participants		17	5	9	0	12	10	6	8	21	15	8	25

That's all for this issue of LIFT, to be sure to get your articles to me early for the next issue number 73, available at the November Club Meeting.

Action (or the Lack of) at the Farm Open Day



June 9th 2013