Newsletter

April 2014

The beautiful Shorts Calcutta Pete built and flew - a tribute to his immense skill.

Farewell to a Real Modeller.

The club has lost one of its true original thinkers with the passing of Peter Angus. All Peter's models were the product of his own imagination, rendered real by the application of skills that, in these days of the instant model, are becoming vanishingly rare. Peter's choice of prototypes was, to say the least, quirky and few members will have recognised the models even when they were told what they were!

The coming of electric power liberated Peter from the fetters imposed by having to use nasty little glow engines; no longer did he have to build a four-engined bomber with the screaming glow engine in place of the rear turret and dummy props free-wheeling in the breeze. Recent years have seen him turn up at the field with everything from jet fighters to multi-engined flying boats. All Peter's models were at the small end of the modelling spectrum and, as such, were invariably hand-launched – I know because I must have given all of them the heave-ho at one time or another.

One abiding memory will be of Peter arriving at the field one summer afternoon, entering the car park, Loeb-like, in a cloud of dust, having negotiated the special stage that is the access track, and unloading yet another new model. One test flight was often the limit before he would zoom off again to carry out further modifications. Peter the experimenter, Peter the innovator, Peter the craftsman: we will miss him and the club will be the poorer for his passing…

John Higgins

I received this from John Smith:-

Just had a E mail from Steve Warltier who is in Orlando

He says:-

"We have lost a great talent and all round good guy."

From me , I will miss his whimsical smile and his request for me to launch his fantastic creations and watch out for him while he test flies, then the discussion on if is good or needs a little more tweaking, a great loss.

JOHN

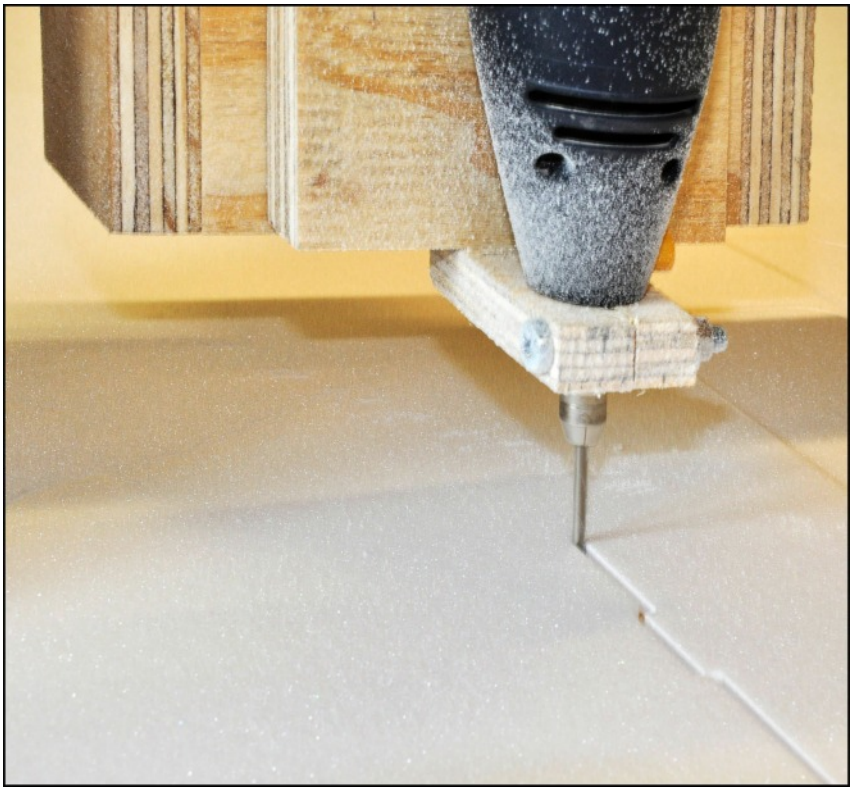
Pete was cremated at the Lytham Crematorium 11th April. The service was well attended, many of his fellow club members being present to pay their respects.

Mark Conlin kindly sent me these pictures from his extensive archive.

Workshop of the Month

The dedicated modeller - how many of us could boast to having their own CNC machine in their workshop.

How many can boast that they had designed and built their CNC machine!!



The Dremel type cutter doing a really neat job of cutting the Depron. This most surely beats

Workshop of the Month

You may well have guessed by now that this is Jason's workshop - your Safety Officer and Vice Chairman. You will all have seen Jason fly at the shows and at our field. He is one of those gentlemen who can truly be described as one of the few 'natural' pilots.

He only started is model flying in 1999 - within his first year he had reached the equivalent of the BMFA 'A'. By 2007 he was awarded the BMFA 'B' certificate. He now flies jets and is a superb display pilot. One day at Elvington, I was taking pictures and he carried on bringing the Sabre low on what the commentators like to call a Farnborough pass. As a result, I was able to get some really good pictures of the model. Jason says he enjoys flying any model - jets, i.c. and electric.

His indoor flying is both exciting and totally controlled. He doesn't show off he simply enjoys the fun of flying. He learned quickly but with very 'ordinary' trainers. He showed me the old Vmar model which is still in one piece. He was already flying a large Extra during his second year. As I said before, he is a 'natural'. Many of you gentlemen helped him in the early days - he told me that whoever was willing and available at the field gave him that early training advice.

He has held the position of Membership Secretary for some years before taking on his current role. He's a clever guy - not many of you could put together a working CNC machine. He says that he may convert it to a laser cutter later but at the moment it is doing a sterling job with the Dremel set up.

Workshop of the Month

Quite a mixture:- Slopers, a Blackhorse Speedair and the Oxalys F3A

Some of Jason's indoor models

Jason is the manager of a research & development team dealing with the design of thermal technologies. No wonder he's so flipping clever. Thanks Jason for letting me come over and your kind hospitality.

Just Another Chuck Glider Contest?

I think that there wasn't a single person who attended that evening went away without a big grin, ear to ear. It was an absolute hoot! Mr Prothero brought with him, the BMFA foamy Dart kits, a paper version of a 757 passenger jet and the usual balsa kits for making your own design model. So these were the 3 classes in which we could compete.

I opted for the BMFA Dart and by the time I'd glued all the bits, I had quite a pretty little model. It was quite surprising just how well these things flew.

The guys who put the paper models together didn't enjoy the same flying performance.

The guy who got longest flight was Mark Conlin with his balsa own design glider. All very technical stuff - his tailplane was canted at an angle to stabilise the model into a decent turn - all highly technical stuff - but it worked.

This was Scott test flying his Dart

Sorry about the quality of these pictures - I didn't bring my camera and was trying to use John Prothero's point and shoot - wasn't easy but at least this picture shows a glider actually in flight.

Chuck Glider Contest Results

Name	Model	Flight 1	Flight 2	Flight 3	Total Time	Rank
Lee Connor		5.11	5.6	5.51	16.22	1
Dave Swarbrick		2.82	2.10	3.24	8.16	2
Jake		2.35	2.81	2.99	8.15	3
Mike Cowburn		1.33	2.50	1.82	5.65	4
John Smith	js1	1.62	0.75	0.00	2.37	5

Aero Jet

Name	Model	Flight 1	Flight 2	Flight 3	Total Time	Rank
Scott Westgate		1.91	2.25	2.72	6.88	1
Sean		1.66	2.52	1.71	5.89	2
Peter Cathrow		1.61	1.91	2.24	5.76	3
Aron Turner		2.29	1.33	1.62	5.24	4
Phil Leech (Proxy)		0.81	2.05	1.98	4.84	5
Paul Cusworth		1.22	1.59	1.57	4.38	6
Peter Eyres		1.33	1.58	1.28	4.19	7
Jake		1.03	1.47	1.38	3.88	8
Geoff		0.50	0.50	2.32	3.32	9
Dave (Tank)		1.10	0.90	1.03	3.03	10

Paper 757

Name	Model	Flight 1	Flight 2	Flight 3	Total Time	Rank
Jason		1.05	1.30	1.00	3.35	1
Frank	757	0.75	0.85	1.10	2.70	2

The Chuck Glider Contest

Mark Conlin being presented with the Chuck Glider Trophy by Dave Swarbrick

Well done John - you organised a great evening enjoyed by all who attended and thanks for the loan of your camera.

Thoughts for the Day

- With modern transmitters being as complex and wonderful as they are, they solve most, if not all, of our radio set-up problems. If you have the sort of model that utilises many different servos on many different channels you probably have all sorts of mixes, offsets and links programmed into your wonder box. Now, if you did all this set-up last week you will have a clear recollection of what you did and what your thought processes were at the time but, if you did all this programming last season (or a few years ago) then getting back into your distant mindset, should you need to make changes, might prove just a little challenging. Let me give you a little tip: "A short pencil is far more reliable than the longest memory!"

- Much discussion takes place on flying fields the length and breadth of the country on the ideal number of models that a modeller should reasonably process. Some say (okay, I do watch Top Gear!) that the ideal modeller should have a model for every inkling and climatic condition. My mother, on the other hand, always had the opinion that I, as a small boy, could only fly one at once and thus should be content to have just the one. Allow me to leave you with a point to ponder. "The number of models you should ideally own is (n+1), where "n" is the number of models you already own". Try to convince your better half as to the sound logic of this thesis. Good luck!

John Higgins

Is This a POR Substitute

I've been using UHU POR for a long time now. It's gives a strong flexible joint to Depron BUT it costs nearly £4 per tube. I read on the web that you could use this UHU Universal adhesive for less than half that price.

Unfortunately, although it glues (and slightly melts Depron) it really isn't as a resilient as POR. I'm therefore sticking with POR.

A VIEW FROM THE HEDGE. (By Will Sparrow)

A little ripple of excitement propagated through the hedge a week or two back; we were to be visited by a "celebrity". The rumour of this visit, for rumour it was, seemed to have originated with the wise old owl who oft-times perches at the end of our hedge. It seemed that the hedge was to be visited on a Tuesday, near the start of the month, by somebody named Bill Oldie (I think I've got the name right) who, together with a BBC crew, was to record the best songsters of the hedge for some radio item or other called "Tweet of the Day". By all accounts this is a very popular inclusion in the early morning Radio 4 schedules and covers the songs of Britain's best birds. What bird does not regard himself as one of Britain's best? Avian egos in this neck of the woods were observed to swell to new proportions as birds up and down the hedge started to practise with gusto (sparrows don't sing, so I'm exempt). Every morning, pre-dawn, for a full week I was dragged from my slumbers by birds singing their beaks off! Reggie Robin managed to give himself a sore throat, whilst the Blue Tit twins made themselves faint trying to outdo each other. When folk get competitive, logic seems to go out of the window – I wonder what I will be able to report regarding the doings of you modellers as your aerobatic competition draws near?

Come the day, the hedge was buzzing well before the sun crawled, reluctantly, above the horizon. Some birds were getting in a bit of last-minute singing practice but most were craning their necks in order to be the first to catch a glimpse of Bill and his crew. We watched, we waited and then we craned some more. The waiting was unbearable. The tension was broken by loud chuckles from the far end of the hedge; they emanated from the wise old owl, who could be seen rocking on his twig. "Don't you lot know what day it is?" he chortled.

A View from the Hedge continued...

"It's Tuesday," we chorused innocently.

"Yes it is; Tuesday, 1st April!" He laughed so much that he nearly fell off his perch.

As mid-month arrived so did the first promise of the summer to come. A fine Tuesday morning dawned bright and clear and it wasn't long before two or three members arrived and wished each other happy new year! Flying progressed at its usual leisurely pace as the modellers tried to remember how to start an engine and what all those switches and knobs on the transmitter actually did. By the time mid-day arrived activity really started to hot up; cars were arriving by the minute, disgorging both models and a few new faces. To my great surprise, a couple of the new faces had strange flying machines (my mate, Jim Sparrow, later told me that these were called jellicopters). These devices were flown and did things that I was unable to comprehend! Forwards, backwards, sideways and up-side-down they cavorted. After a few minutes I was quite dizzy and had to sit back on my twig to recover. The afternoon just flew by as modeller after modeller shook off the winter cobwebs and allowed their models to feel the summer (?) air under their wings. As the last members departed, we hedge-dwellers settled down for the evening with an early caterpillar still wriggling inside to sustain us through the night and the prospect of a good night's sleep to come… I had just nodded off when I was dragged back to consciousness by a general hubbub from neighbouring twigs. Someone had spotted a bright star rising quickly in the west, moving at a fair old lick it was, on a dead straight track. Now, most wild creatures are superstitious by nature, and sparrows are no exception. Within minutes sparrows were predicting that the end of the world was nigh. John Baptiste Sparrow, with a far-away look in his dreamy

A View from the Hedge Continued...

eyes, was announcing the coming of a sparrow messiah and two daft hens (both called Mary, by some odd coincidence) were shrieking and hugging each other. It was at this point that I felt obliged to get a grip on the increasingly hysterical situation; I explained that the fast-moving star was, in fact, the International Space Station and was a 400 ton, man-made object, two hundred miles up in the sky, and travelling at seventeen thousand miles per hour. There was a stunned silence that lasted for several seconds before the hubbub resumed and the shrieking continued! Days later, those two hens were still a bit wobbly and JBS still had a far-away look in his eye. Superstition beats logic every time. At least it does in this hedge!

The summery weather was still in evidence with the coming of the Easter weekend. Good Friday, especially, was a marvellous flying day with next to no wind and balmy conditions, and didn't you modellers take full advantage! Rarely have I seen such a good turnout with continuous activity taking place right to the five o'clock finish. Peace and harmony reigned all day and everyone seemed to take their models home in one piece except for one member who, enjoying a senior moment, drove off leaving his wings behind! He returned later to collect them. I cannot say, in all honesty, that he was bleating and was covered in wool, but he did look more than a little sheepish to my distant view from the hedge.

WS

Telemetry in Practice

Bv Brian Holdsworth

According to the advertising, telemetry is wonderful, giving access to a whole new world of information, but the practical reality is very different. In too many cases, that new transmitter (and sometimes the receiver) needs to be upgraded from the supplier website before the advertised sensors can be used. All too often, these sensors are not yet available and rarely have the performance required for sensible results. It is a legal requirement that the model's flight be observed at all times; reading tiny figures on a crowded transmitter display takes so long that it could result in legal problems in the event of an incident. Some are providing voice output but, without an earpiece, these become very annoying to anyone nearby. The general opinion is that it is a gimmick of curious interest for the first few times and then ignored, but with the capability to cause significant operational problems when poorly implemented! Significantly, Hitec who were the first to introduce telemetry have dropped it from their later receivers (Minima and Maxima).

Most brands show increased latency (delay in control response) which indicates that the telemetry is interfering with the control functions which is hardly desirable, especially for large models; some manuals admit that this will occur. For reliable operation, it is necessary that telemetry transmission from the receiver does not overlap, and so interfere, with the control transmission from the transmitter, but it would seem that this requirement is not achieved. It will be evident that an installation with multiple receivers must have a means of ensuring that telemetry transmission is only generated by one to avoid overlap. After upgrading, Futaba allow up to two receivers with the 18MZ but, for the new 10J, state that telemetry must be inhibited when multiple receivers are used, suggesting that the problems could not be overcome satisfactorily; this means no telemetry if more than 8 channels are used! The other brands seen do not document support for multiple receivers.

There is a distinction to be made between data and information. Information consists of values with defined meaning and usage while data is just numbers with little obvious use without considerable effort in additional calibration etc. Almost invariably, the available sensors only generate data and, in many cases, it is difficult to see how useful information could be derived.

Telemetry in Practice Continued....

The default telemetry parameter implemented is receiver voltage which sounds like a great idea to identify flattening batteries and so reduce the possibility of resultant crashes by incorporating an alarm in the event of low voltage; it is meaningless where a BEC is used from an electric flight battery. Unfortunately, the technical difficulties of determining the state of charge of a battery from its voltage under varying loading are almost insurmountable. The problem for a receiver battery is that its voltage drops noticeably when the servos are driven, recovering slowly when the load is removed. NiMh battery voltage does not indicate capacity very well due to their flat discharge curve; lithium batteries have a more pronounced voltage gradient with remaining capacity so that slightly more meaningful results can be obtained. Some sensors claim filtering to mask these transient changes, but this is difficult to implement properly. If the alarm threshold is set too high, nuisance warnings are generated so that genuine warnings tend to be ignored. If set too low, the battery voltage is collapsing with loss of control before any action can be taken - such identification of the cause of a crash does not help much, as a flat battery in the wreckage is easy to identify! A transmitter presents a constant load to its battery, so that the voltage is more representative of the charge state and such monitoring is widely implemented with an alarm to indicate a discharged battery; unfortunately, Futaba generally set the alarm threshold so low that the voltage is collapsing rapidly leaving barely a minute of operation before loss of control and battery damage; other brands set more sensible thresholds.

Similarly, sensors are available to monitor the voltage of an electric flight battery to determine its remaining capacity, but this is an even greater problem than for receiver batteries due to the high currents involved. Monitoring and accumulating the current drawn could give a more accurate indication but is not easy to implement. A sensor in series with the battery leads is undesirable since this can cause erratic operation of the speed controller with possible overheating and catastrophic failure (shutdown or short-circuit and resultant fire). The ground use of a power meter to measure current draw should not cause a problem provided it is only used for a few seconds.

A display of the received signal strength has the potential to be useful, especially for a new model, to check that the receiver aerials are correctly installed to avoid dead-spots. Interpretation of the values requires a significant amount of documentation from the

Telemetry in Practice Continued.....

manuals which is lacking in the examples seen. The difficulties of practical usage are so great that it is doubtful whether any real benefits can be achieved since any actual problems are likely to become evident from loss of control before any telemetry indication can be recognised. This is a case of trying to prove a negative which is notoriously difficult.

Temperature sensors on items such as engines, electric motors, batteries etc. are generally meaningless and may adversely affect their operation by restricting cooling. In particular, brushless electric motors hold their heat well insulated from the outside, so that specially modified motors with sensors incorporated in the windings would be required for useful readings. The question arises as to what the values mean and when corrective action needs to be taken.
RPM measurement in flight would seem to be another example of data with no obvious practical use.

GPS promises to provide a complete record of the flight path, though why is another question, especially in real-time. It needs straight flight for tens of seconds to give anything like accurate results which does not happen with most models. Deriving height and groundspeed from such equipment under typical flight conditions can give spectacularly erratic results! At least one brand claims to provide Vario (vertical speed) from GPS which, at best, is far too insensitive for our purposes.

Pitot-static sensors to give height and airspeed are available but are very sensitive to installation position errors when mounted on a model. Full-size aircraft undergo extensive flight testing to find a suitable position on the airframe to minimise errors and still require calibration tables; examination of the aircraft at an air show will show a considerable variation in sensor positions giving an indication of the scale of the problem. Again, what use is the information after the initial curiosity?

A sensitive barometric Vario used with an audio interface giving an indication of vertical speed so identifying lift and sink for a glider is the only sensor identified which could give sufficiently accurate results to be useful.

Brian Holdsworth

UK's first drone conviction will bankrupt me, says Cumbrian man

Robert Knowles has been convicted for 'dangerous' use of recreational drone after he lost control of the aircraft near a nuclear submarine facility

Robert Knowles' footage from the 'runaway' drone, showing the moment it nearly hits the Jubilee Bridge on the Walney channel

A TV-repair shop owner who has become the first person convicted in the UK for "dangerously" flying a drone says the fine and legal costs will bankrupt him.

Robert Knowles, 46, of Barrow-in-Furness, was fined £800 and ordered to pay costs of £3,500 at the Furness and District Magistrate court on Tuesday after being prosecuted by the Civil Aviation Authority (CAA). He pleaded guilty to flying a small unmanned surveillance aircraft within 50 metres of a structure – the Jubilee Bridge on the Walney channel – and flying over a nuclear installation, the BAE System submarine-testing facility.

The CAA said that the case raised important safety issues concerning recreational flying of unmanned aircraft, which is legal as long as it is done away from built-up areas and structures.

"The Jubilee Bridge is used by vehicles – this could have hit a car and caused an accident," said a CAA spokesperson. "People have to understand that they are subject to air safety rules and that there are potentially serious safety concerns."

But Knowles told the Guardian that the conviction was "ridiculous". He said that he had been flying his £1,000 drone in a field a mile and a half away from the base on the morning of Sunday 25 August 2013 when the 4 ft, kit-built drone – with a camera on board – suddenly lost radio contact during its seventh flight.

"The radio failed and it flew away down the Walney channel," Knowles told the Guardian. "I couldn't have controlled it. I don't know why the radio failed. It landed in the sea channel, and the salt water ruined it."

He said that he had been flying the drone recreationally, as he had done "for years". His YouTube channel shows around 309 videos shot using a drone – including footage of the "runaway" flight down the Walney channel – including a near-miss as it passes just over the railings of the Jubilee Bridge.

The video shows that the drone flew on for more than three minutes after Knowles apparently lost control.

Knowles insisted that he had not been trying to hide the drone's presence or identity. "It had my name and address on it, and was in bright colours." Workers from the nuclear facility fished the drone out of the channel and passed it on to police.

"I flicked the return-to-home button but it didn't do anything," Knowles said. "It didn't fly anywhere near the BAE Systems facility." But he said that he had effectively been told by the magistrate at the first hearing on 1 March that he was guilty, and that his choices at the hearing on 2 April had been "plead guilty and get a big fine, or plead not guilty and be convicted and get a big fine, or go home and get a big fine." He said that his TV repair business was already running at a loss and that the fine would bankrupt him.

He said that his conviction relating to the nuclear facility made little sense. "A lot of people use cameras on cars and have helmet cameras and they all go past BAE," he said. "My plane didn't go anywhere near it. Apparently there's a no-fly zone which covers it, but there was nothing I could do about it."

He added: "Where I live in Cumbria, you're always going to be near a nuclear dump - Sellafield or the BAE Systems site."

Knowles's case is the first conviction involving recreational use of a drone, though a caution was recently issued against a photographer from Lancashire, for "using a unmanned aerial vehicle for commercial gain without permission". The photographer sold footage of a fire at a school to media organisations despite not having clearance from the CAA to operate the device commercially.

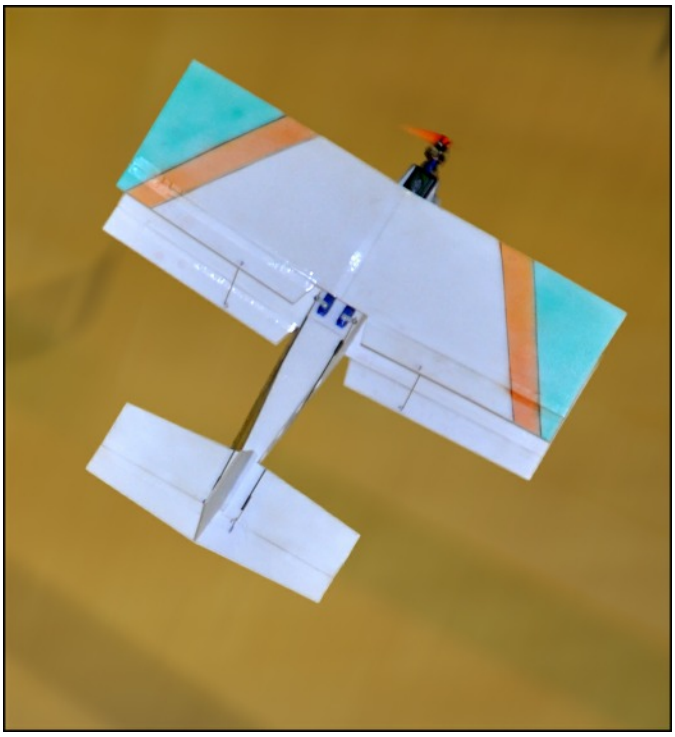
I picked this up from the net after seeing a news item on TV. It is frightening to realise that they can get out of control and lose radio contact. It makes it to my mind such a dangerous pastime which could threaten the whole sport of radio controlled model flying. It is a sobering thought.

Indoor Flying

The Highfield School venue has proved really popular. Large well lit hall with plenty of room height for aerobatics. I still say that this has to be the most exacting flying you will ever do.

I've been gradually improving the design of the biplane. Thanks to valuable advice from Dave Swarbrick and Jason, the model is becoming a more and more capable flyer. The latest one I have built now has flat surface wings and that has made a huge difference - it can fly really fast, loop, roll and 3D (especially when one of those 2 gentlemen actually get to fly it!).

Pete Eyes has now joined our group and is already an enthusiastic member.



Pete poses with his model - and here it is as it took to the air in a rather steep climb out.

For your Diary

7th May commencing 8pm - South Shore Tennis Club

Safe Flying presentation and Aerobatics event briefing. This will be presented by Dave Swarbrick and Jason Reid.

18th May Club Field Weeton

Aerobatic Competition

8th June Cleveleys

Cleveleys Classic Car Show with a static model aircraft display by the BFRCMS.

John Prothero bought this FW190 at the Phoenix Swapmeet - looks good but was initially a bit of a handful in the air.

Shows/Events for 2014

This is not a definitive list of every show in the country - I've kept it to relatively local areas only. If you know of any other shows/events which you feel would be of interest to the membership, please let me know.

LMA

RAF Cosford 19th - 20th July

Elvington - 9th - 10th August

Much Marcle - 6th - 7th September

Other Events/Shows

Weston Park Model Aircraft Show 13th, 14th & 15th June

BMFA North West Area Scale Fly in RAF Shawbury - 9th September

Weston Park Model Show - 13th - 15th June

In Conclusion

The warmer weather is here at last so flying has started in earnest. I've hardly been able to visit the field at all this month. Most of my flying this month has been the indoor variety. Anyway happy flying to you all. Thanks once more to Jason, to John Higgins and Brian Holdsworth for your various contributions. See you at the field.