

February 2015

Newsletter

It's that time again that brings me back to my trusty computer to put together your first newsletter for 2015. To any of you who I haven't already seen this year, I wish you a very Happy New Year.

We had a couple of entertaining social evenings - the first one where you brought your new models along and the other put on by Scotty all about aerobatic/3D flying. I took my camera along to both events and got some pictures. Firstly the new models:-



This first one is the Ripmax Xcalibur - there were two of these, one belonging to Dave Swarbrick and the other to Scotty.

Scotty had already flown his and said that he had been surprised by its speed. It's a really pretty design and is easily transportable because it breaks down into six

convenient parts.

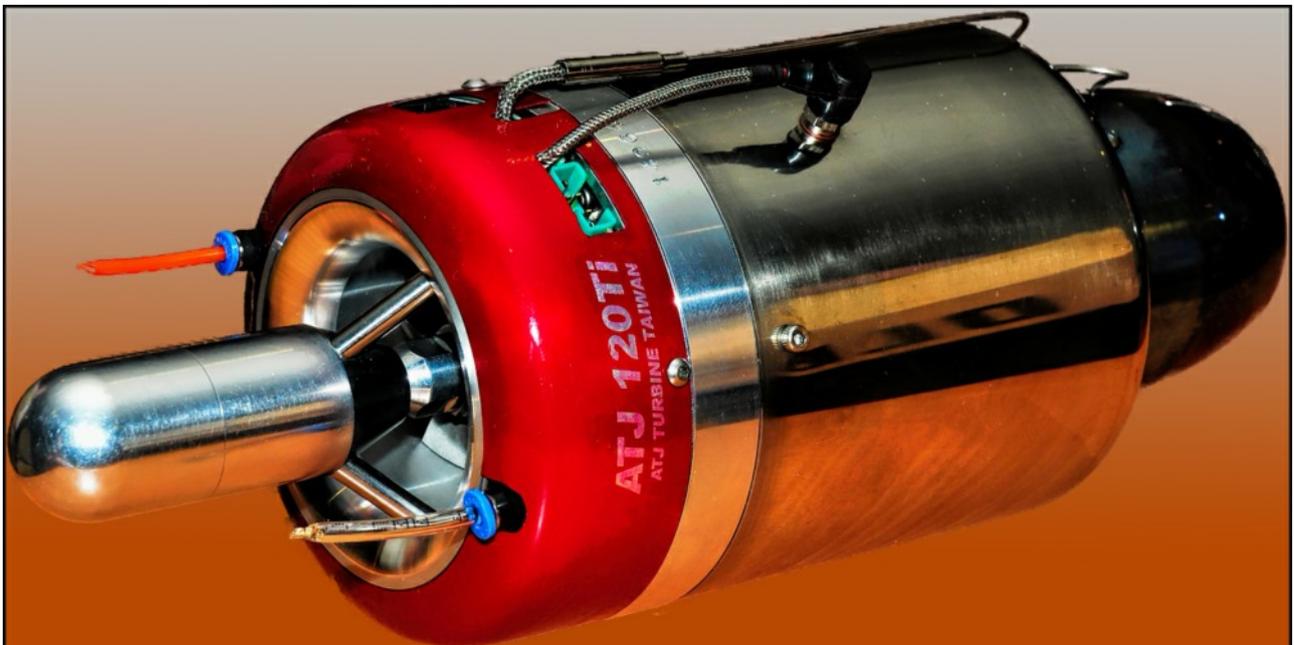


Mark Conlin brought his new Sebart model, the Avanti S. Another state of the art sleek jet but this time with vectored thrust. Mark said that it had presented many problems in mounting the jet engine - he had to make up jigs to be able to correctly align the motor within the very cramped space available. What he described to us sounded to have been a bit of a nightmare.

February 2015



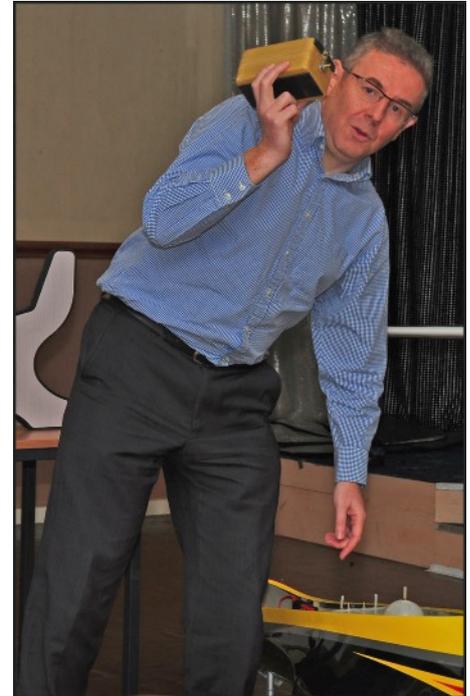
Jake brought along his new F16 EDF. It's 'only' a foamy but just look at the detail in the moulding. It should make a really pretty model.



This is Dave Swarbrick's new (secondhand) turbine - the ATJ 120Ti

February 2015

One of jigs which Mark had to construct in order to install the gas turbine in his Avanti S



A Word from the Chairman

An incident occurred at the field recently. A non member turned up at our field, unpacked his model and started flying. The guy could obviously fly and when spoken to by one of our own members said that he was thinking of joining.

We very obviously welcome new members. However, if you are faced with such a situation, please make sure he/she does hold BMFA insurance. Ask to see their BMFA card.

Nearly all mobile phones these days can take pictures, so you could take a photo of the card. We are then covered - we have taken all reasonable steps to establish his status. We must know that he has passed at least his 'A' certificate but if he hasn't, then he would need a suitably qualified pilot to stand with him.

He/she would also need to know where they can fly in accordance with Club rules.

Under the Club's constitution, a prospective member is welcome to visit the site once - after that, he/she must then join.



February 2015

DSM2 and FASST

Article by Brian Holdsworth

From the beginning of 2015, it became illegal in the EU to sell newly-designed equipment using these protocols, with existing units still able to be sold and used. Under the standards, the 2.4 GHz band is divided into 80 channels and, to allow reliable shared usage, limits are placed on the channel occupancy together with a requirement to avoid using busy channels. As part of the certification process, the companies produced declarations which were found to be somewhat inaccurate - perhaps understandably, they seem very quiet on the subject!

DSM2 (Spektrum) selects two quiet channels on start-up and alternates between them to provide resilience in the event of interference. To achieve adequate range with their receiver implementation, digital gain is implemented by transmitting multiple copies of the data resulting in high channel occupancy in breach of the standards; several countries including Japan, did not allow the equipment to be sold and JR implemented a variation (DSMJ), not available in UK, which was accepted and later developed into their DMSS. It was initially denied that DSM2 imposed a limit of 40 sets operating simultaneously, but this was eventually admitted and DSMX introduced with reduced occupancy using 13(?) channels, determined via the unique ID; this produces improved performance and allows many more simultaneous users (200 claimed). Genuine Spektrum receivers, even on DSM2, seem to have better performance than the clones and this is particularly evident with the newer transmitters such as DX6 which is reported to be erratic when used with clones. DX6i, DX7, DX8 are obsolete, replaced by the new DX6, DX9 and DX18 using essentially identical user-updatable software supporting telemetry and DSMX with DSM2 available for compatibility with older receivers, though these are probably overdue for replacement.

FASST (Futaba) uses all 80 channels sequentially with no monitoring of existing



February 2015

DSM2 and FASST Continued

Article by Brian Holdsworth

usage. The claims of "Rolls-Royce" operation are somewhat exaggerated since the implementation has several weaknesses (as well as not conforming to the standards), though it is more resilient than DSM2. To implement dual receiver aerials, a preamble is transmitted before the data to allow the receiver to determine the signal strength at each aerial and select the strongest, resulting in high channel occupancy. Many of the early transmitters (6EX) and the modules for 35MHz transmitters did not have a unique ID (a fundamental requirement of the standards) with consequential interference between them. This was claimed to be a manufacturing error, but the standards require that transmission be inhibited for an invalid ID and it was evident that this had not been implemented as claimed; most of these units were recalled and replaced. 6EX, 7C and 8FG(S) are obsolete and presumably no longer manufactured though existing stocks may still be sold and used; 6EX transmitters are still widely available - perhaps the replaced units refurbished?

The FASST implementation has been modified such that the transmitter still sequences round the 80 channels but with gaps where busy channels are excluded. This increases the latency when busy but this should have little observable effect for small numbers of channels; the effect with 10+ channels is likely to be more noticeable. The current receivers (R617 etc) have a different implementation from the original R606 receivers which are no longer supported; R6014 receivers were also changed after the early units with no obvious external indication.

FASSTest is an extension to FASST to include telemetry and seems to include channel monitoring; the manuals mention increased latency though not giving the reason. The continued high channel occupancy presumably precludes future development suggesting that this will be a short-lived protocol.



February 2015

DSM2 and FASST Continued

Article by Brian Holdsworth

The position where the transmitter software is updated by the user seems ambiguous though Spektrum (via Horizon Hobby) updated older units to support DSMX and replaced older receivers if returned for service. Futaba modified FASSTest implementation via user update for early 18MZ and may have to update FASST in user updates for 14SG and 18MZ. The description of update changes is often truncated and omission may not mean that no change is being made, especially as the brand is presumably somewhat embarrassed about its status! There have been reports of Frsky clone receivers freezing in flight after transmitter update, presumably due to excessive latency and consequential internal timeouts. If correct, this presents a significant potential problem since there are no practical tests - range-checking etc is meaningless. Ignoring clones, most other brands including Hitec use a form of FHSS which is an extension to the 2.4 GHz standards. Some RTF models, often labelled TX-R, include a generic FHSS receiver to operate with any conforming transmitter though determining such conformance is difficult since the brands seem reluctant to identify this. Perhaps inevitably, some brands have included additional flags in the data in an attempt to preclude this cross-operation but some now support it - the new Hitec Flash 7 includes the SLT protocol which is one of the labels applied to the generic receivers. The Futaba FHSS systems (6J, 8J and 10J) and 14SG, 18MZ in FHSS mode are reported to conform though Futaba seems very quiet about it!

Reading the runes, FHSS will probably become the main protocol, though some brands will try to preclude cross-operation. However, the large world-wide market share of Spektrum and their considerable investment suggests that DSMX will be around for some time to come.



February 2015

A VIEW FROM THE HEDGE. (By Will Sparrow)



Well, hibernation, as a winter survival strategy, might be just the thing for small, furry animals but it is a dead loss for small, brown birds! You might remember that my mate, Jim Sparrow, and I were determined to give the hibernation strategy a go. We had everything prepared (sturdy twig selected, supply of snack-seeds nearby etc.), we popped the Wise Old Owl's special berries and were away in no time at all. The very next day we awoke with thumping headaches, feeling slightly dizzy. The problem was that since we expected to awake at the start of spring, we thought that it really was spring. We greeted fellow sparrows with cheery spring-like chirps and couldn't understand why we only received grunts and mutterings in return as our hedge mates snuggled ever-deeper into their feathers. Reality did eventually dawn, of course, and two chastened birds resolved to behave like proper sparrows for the rest of the winter. I've never been called a twerp before; I expect that I'll get over it!

As you know, our hedge gets the odd visitor from afar (indeed, this is one of our chief sources of news as to what is happening in the wider world). The other day one such visitor arrived. He said that he was a Bearded Tit and, although he spoke with a strange accent, we could get the gist of what he had to say. He told us that he was from a hedge far to the east and that he had journeyed west to give us all hope and to enlighten us. Well, he certainly enlightened us! By all accounts, in his hedge, all birds had to face east, seven times a day, and chirp incantations to something he called "The Great Winged Prophet". Dissenters could be driven from the hedge, hens could only leave the hedge if given permission by a male



February 2015

A VIEW FROM THE HEDGE.

relative and could be pecked to death if they merely looked at another male sparrow, who was not their mate, during the nesting period. It was at this point in his evangelizing that one of our feisty hens, Rosie Sparrow, gave him an almighty clout round the back of the head! The last I saw of him was as he fled for his life pursued by a posse of very angry sparrows. We will have nothing to do with Bearded Tits in this hedge I can tell you!

Winter is not all gales and rain, sleet and snow; there are some days that present ideal flying opportunities. One such day occurred on the very last Sunday in 2014. The ground was frosty-hard and there was no wind at all. My faith in you modellers was restored as a dozen of you turned out to take the air – some of you even brought models! Of the two that were not powered by the modern miracle that is electricity, one was a jet and the other petrol-powered. The jet suffered a flame-out but landed safely, due in no small measure to the skill of its pilot. The petrol-powered model seemed to be suffering from something called “carb icing” (I couldn’t quite hear) and had a couple of dead sticks. One caused it to nose over and break its canopy, the other resulted in an out-field landing. What of the electric fliers I hear you ask. Well, they just seemed to get on with the flying...

The following day served up a repeat of the excellent flying weather and ground conditions and, again, I was not to be disappointed. I watched with interest, from the roof of the hut, as a large biplane, ominously called “The Beast”, was assembled on the bench; this day was to be the day of reckoning – the model’s first flight. I remember my first flight; I was nervous and full of apprehension but, once I had air under my wings all fears were replaced by joy and elation. “The Beast” took to the air and performed beautifully... another welcome addition to the kilowatt club!



A VIEW FROM THE HEDGE.

February 2015

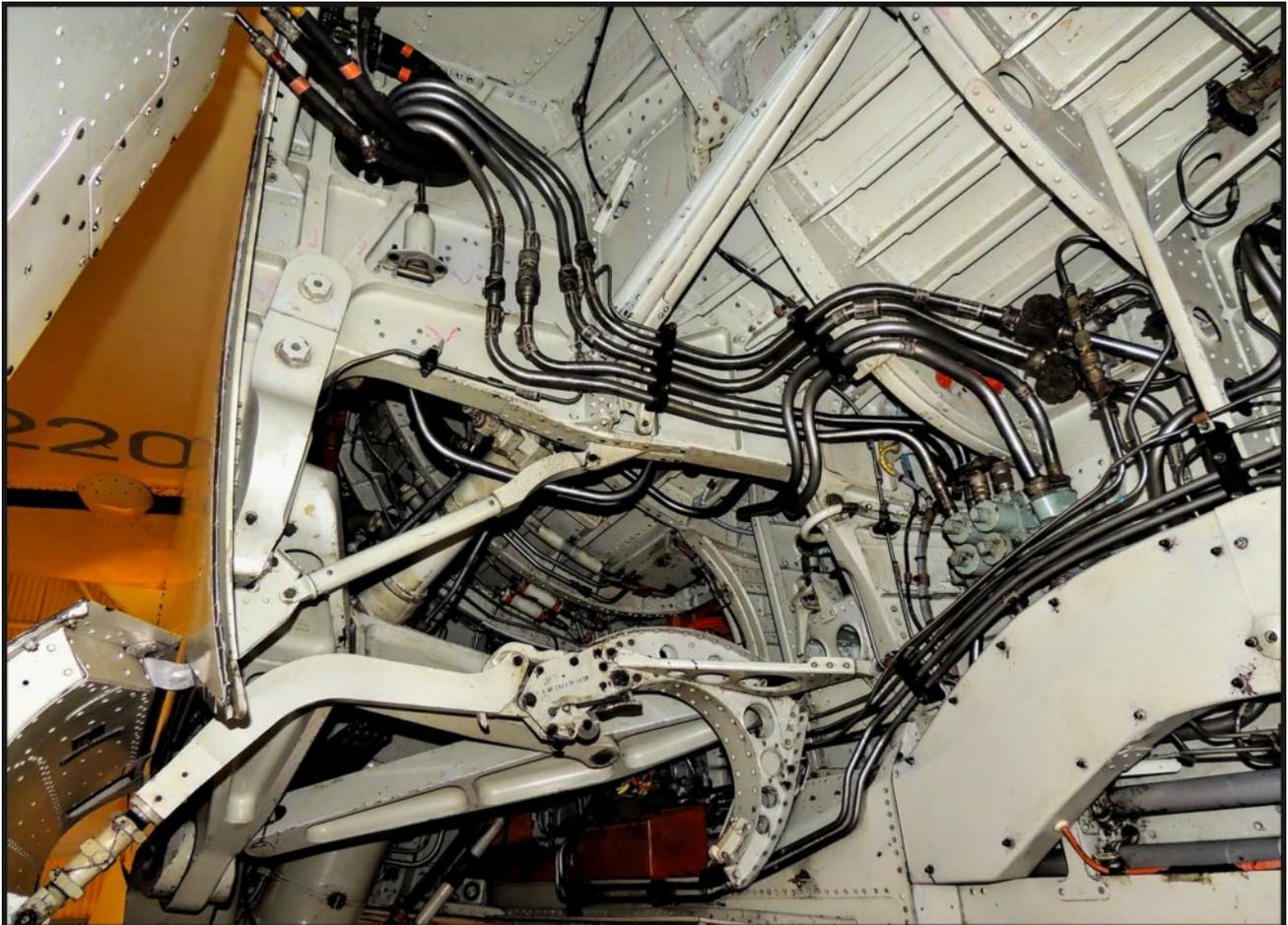
The benign flying weather continued into the New Year; a couple of really good Sundays were smiled upon by the weather gods and the field was, once again, populated with modellers. On the first of these occasions, a freshly-purchased, second-hand sports model was being flown by one of your long-standing members, noted, shall we say, for his ability to test the integrity of any airframe. He was doing just this when there was an almighty bang that made me jump on my twig. The wing had failed. Half of it headed for the railway line while the other half, still attached to the fuselage, buried itself in the strip. I managed to get a look at the wreckage; weedy, balsa spars, inadequate ply braces and what seemed like a total absence of glue! The second Sunday was a beautiful prospect that was shortly to be blighted by rain. It was cold – too cold for a new jet having its first outing. The Lipo that powered the starting system was having a tough time and refused to come out to play. Still, there will be other opportunities... and better days are just around the corner.

We are now almost at the end of February, the birds are starting to sing (we don't, of course) and spring is almost upon us. The grass has recently been cut by some chap using your little mower – dressed in one of those black ski-masks, he looked like a bank robber to us in the hedge! The long period of dry weather has enabled the track to dry out and firm up so you shouldn't get your wheels too dirty. Grab the flying opportunities when they present themselves, get some air into your lungs and give your models some exercise... or you could just vegetate in your armchair and throw another log on the radiator!

WS

February 2015

John Smith Challenges You



John took this superb picture during his visit to Cosford Air Museum. His challenge is to **name the aircraft.**

He sent me a few photos - here is one of them - a lovely Sunderland at Windermere.



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John Prothero kindly sent me these pictures of old catalogues he has - they do make fascinating reading. I will publish a couple each month.

This is what they were doing in Russia in 1947

February 2015



Free Flight Jet !!

Fascinating stuff John and thanks - got any more??



February 2015

BMFA Info

A couple of bits of information you might like to hear about !

You might be interested to know that, after many years without a Manchester Airshow at Barton airfield (full size!), it is being resurrected in 2015!

The details can be found at <http://manchesterairshow.co.uk/>

The other bit of news is that the BMFA Classified advertising pages are going to be up and running very soon!

Details are at <http://www.bmfa.org/Shop/Classifieds> ***** **THEY ARE NOW UP AND RUNNING*******

Please can you pass this information around your members.

Regards.

David Lloyd-Jones

Hello All!

We have been asked to publicise the following Model Aeronautical Swapmeet to everyone in the North West.

It is a long established event, and although in a temporary home due to the redevelopment of the usual venue in Northwich, it is still worth a visit - even if you don't wish to buy anything!

Regards.

David Lloyd-Jones

30th Annual Northwich Swap Meet.
Sunday 1st March 2015.

Doors open at 9.30 am until 12.30.

Held at Middlewich Civic Hall, Civic Way, Lewin Street , Middlewich,
Cheshire . CW10 9 AS.

Full details and booking forms at: www.northwichswapmeet.co.uk



February 2015

PHOENIX MAC SPRING SWAPMEET

The Deanwater Hotel

Woodford, SK7 1RJ

**WEDNESDAY 4th MARCH 2015 at
7:30pm**

(Table-holders set up from 7:00pm)

The Deanwater Hotel is located near the former British Aerospace Plant at Woodford, between Stockport, Wilmslow and Macclesfield, on the A5102, 1.2miles south-west of the Aerodrome.

ENTRANCE: £2 per person

The Hotel Bar will be open, and food will be available in the Restaurant

Tables: £3 each
plus standard entrance
For table bookings contact:
Terry Mason on 0161 439 3816.



February 2015

Scott's 3D Evening

Scott (and Arran) gave us an excellent evening - highly entertaining and very well run. Scott went through a very well prepared presentation to ensure every single point was covered.



The first part of the evening, he covered 3D helicopter flying. Although he explained the basics, I for one came away realising that this is a branch of model flying that I could never ever achieve - you've just got to be good to do that.



I was fascinated by the bits that control the main blades - the heads. Lovely precision bits of gear and fascinating to photograph.

He got lots of heckling which he fielded with great control and he got lots of genuine questions from his audience.

February 2015

Scott's 3D Evening

The second part of the evening concerned fly fixed wing models. I've watched Scott flying 3D both helis' and fixed wing at LMA events. Needless to say, he is very very good at it.

Again, it was a well presented talk and one which interested me greatly since I now have the MXS which I hope this year to get to grips with.



Mark Conlin's Hangar 9 Inversa



This is Arran's Sebart Wind S

Members were asked to bring along some of their aerobatic models - here are some of the pictures.

Scott, you gave a great talk - well done and we all enjoyed the evening.

*Mark's choice of pilot
for he Inverza*





Social Evening

February 2015

Wednesday 4th March Simulator night - an evening to test and perhaps improve your flying skills.

Shows for 2015

LMA

East Kirkby Model Show	1 st - 4 th May
Strathaven Model Show	26 th - 28 th June
Cosford Model Show	18 th - 19 th July
Elvington Model Show	8 th - 9 th August

Other Shows

Weston Park International Model Airshow	19 th - 21 st June
Nothwich Sweapmeet	1 st March
Phoenix MAC Spring Swapmeet	4 th March

Wrexham MAC are running a relaxed scale competition 10th - 12th April. I have the info on this - please drop me an email to p.cathrow@sky.com and I'll send it to you.



Dave sent me this joke - I just had to laugh!

February 2015

A group of model flyers, all in their 40's, discussed where they should meet for lunch. Finally it was agreed that they would meet at Hooters because the waitresses were young, good looking, had big breasts and wore short-shorts.

Ten years later, at age 50, the buddies once again discussed where they should meet for lunch. Finally it was agreed that they would meet at Hooters because the food and service was good, they had many televisions to watch games on, and the beer selection was excellent.

Ten years later, at age 60, they again discussed where they should meet for lunch. Finally it was agreed that they would meet at Hooters because there was plenty of parking, they could dine in peace, and it was good value for the money.

Ten years later, at age 70, they discussed where they should meet for lunch. Finally it was agreed that they would meet at Hooters because the restaurant was wheelchair accessible and had a toilet for the disabled.

Ten years later, at age 80, the friends discussed where they should meet for lunch. Finally it was agreed that they would meet at Hooters because they had never been there before...

In Conclusion

Thanks to each and everyone of you who have contributed this month - John P for his bit of nostalgia, Will Sparrow from the hedgerow, Brian Holdworth for the technical stuff Dave Swarbrick and John Smith for his interesting and very well taken pictures. Thanks also to Paul Cusworth for his advice on new members.

As ever, I appeal to you guys for contributions. Please, please please - surely you have a story to tell!!