### Newsletter March 2015

Welcome to the firebirds club newsletter see below for a clickable table of content headings.

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#### **Poplars Flying Times**

#### Summer (BST):

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
13:00-18:00 QF	13:00-18:00 All		13:00-18:00 All	13:00-21:00 QF	10:00-14:00 All	10:00-13:00 All
18:00-21:00 All						

#### Winter (GMT):

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12:00-18:00 QF	12:00-18:00 All		12:00-18:00 All	12:00-21:00 QF	10:00-14:00 All	10:00-13:00 All
18:00-21:00 All						

### **Committee News**

Here's the latest from the committee room.

#### **Firebirds Membership Renewal and Newsletters**

Please be aware that if you were a member last year and you haven't re-joined yet, then the March Newsletter is the last one you will receive. Anyone wishing to join on or after the 1<sup>st</sup> April will be treated as a new member in accordance with the constitution.

### **Club Night 19th February**

Eighteen members attended the club night on February 19th and all enjoyed watching the video record of the clubs flying site activities in 2014. Alan Shergold had made an

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excellent job of it, as you would expect of a professional who used to film marriage ceremonies. However, he did acknowledge that models fly a lot faster than wedding couples walk! The club owes a big vote of thanks to Alan for all his hard work and for providing the equipment to present the result. He has also agreed to do the same for 2015, so make sure you don't crash when you see him wandering about with his camera!

#### **Future Club Nights**

**19**<sup>th</sup> **March** - Paul Adams will be giving advice on using Simulators and how to make the most of them. He will also give advice on trimming and aerobatics. Any questions will be very welcome.

16th April - Bring and Buy sale

21st May - Talk by John Hoddinott on electric flight power systems

**June, July, August** - Barbeques. To allow flying to take place, these will be scheduled on the Monday of the week in which the third Thursday falls. If rain is forecast, they will take place on the Friday of the same week, but only electric flight will be allowed. If the Friday weather forecast is also doubtful, the meeting will take place in the Hamble Club, where limited indoor flying can take place and new models can be shown off! Members will be kept informed by email.

17th September - Talk on gliding and Slope Soaring

15th October - Bring and Buy sale

November - Balsa Brain competition (to be confirmed)

**December 10th** - Christmas Party (date to be confirmed)

### Old News

If you need to look something up in an old newsletter, I have been putting them on the firebirds website <a href="http://www.firebirds.org.uk">http://www.firebirds.org.uk</a>. Just click on the "News" item on the left menu and all the newsletters I've done are on there.

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### **Down at the Field**

St. Valentine's Day at Poplars. Proof that most of the club are a romantic bunch of old softies.



For the most part only Matt and myself were present. Alan and newcomer Tony also put in brief appearances. The weather was superb for mid-February, mild with a gentle breeze.

We both got some great flying in but upon trying to start my biplane for another flight I discovered that there was no compression whatsoever. I have written up this experience in the Fly Past article of this newsletter.

Sadly Tony having only just gone solo, lost his aircraft due to what appeared to be a failure of the TX aerial. It felt like it had snapped off the PCB internally.

My next visit was on the weekend of the 8<sup>th</sup> March. I'm always a bit apprehensive when the forecast is for a 14mph wind because it doesn't take much more to make

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flying difficult. The good news was that the direction was forecasted as straight down the strip, which turned out to be correct.

I arrived with two new planes (two!), a Hangar 9 Blue Nose Mustang and a Seagull Dewoitine.

I've done the best research I could manage (in five minutes) on the pronunciation of Dewoitine and found that it is pronounced "Duv-Wah-Teen".

Here she is post flight with Matt and Rob in the background still airborne.



My first flight with this plane was hair raising as it seemed rather uncontrollable in the pitch department. At the point of getting ready to try and land, Justin suggested trying a stall test to avoid any horrid surprises prior to touchdown. I climbed up, levelled off and killed the throttle. I was ready to feed in some elevator for the stall but the plane immediately pitched up on its own, which gave away the cause of my pitch control problem.

The motor thrust line was clearly angled down too much and was pulling the plane down under power. When I trimmed for level flight at half power, I was actually applying up elevator to counteract the poor motor alignment. I gave it 2.7 degrees of up thrust by adding some washers to the lower motor mount screws. Now she flies great.

I've used an electric setup for the plane but the large cowl seems to have a ton of room for the suggested 120 FS glow setup. The motor I selected was a <u>Turnigy SK3</u> <u>5055/430</u> sold by HobbyKing and it's powered by a 6s 5000mah LiPo.

The plane is a hefty 5kg (11lb) but the 70" span wing has no problem with the weight and she's actually quite floaty.

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Recent joiner Bob was on hand and keen to fly. I was able to provide instruction for three flights with him and was hands free for most of the time while he flew circuits. This is good going given that he only has a handful of flights under his belt.

In this pic, Bob is prepping to fly with my cowl-less P51 in the foreground.

The P51 was undergoing shakedown tests on the motor (a Saito 115) after a few running problems. She seems OK now but the first couple of flights will be minus the cowl so I can fiddle if required.

After recently lunching on some Poplars Farm dirt, Rob's cleaned up Irvine 46 was fired up on a test bench. After a few tweaks and some help from Matt, all was well. So it's ready for another airframe now.

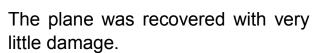
Rob definitely got the prize for smooth landings that day. It was a little gusty and I couldn't seem to get a sweet landing at all. Rob on the other hand was doing perfect touch and goes.



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Matt was having a good day with his boomerang until a landing approach brought him into contact with one of our lovely trees.

The plane was perched very high up but luckily Matt knows tree surgeons. A quick phone call and a long wait paid off when his tree-hugger mate turned up to rescue the Boomer.



BOOMERANG



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### **Safety Matters**

Once again we have a LiPo battery charging horror story that did result in a fire and very nearly a significant one.



It all started when the blue and silver charger near the centre of the picture was being used to charge the Turnigy Orange TX directly in front of the charger. OK, I hear you saying "what Orange TX?" Well, it's that rectangular mess that is actually just the PCB and a few miscellaneous components that weren't completely annihilated by the fire.

Further towards the front of the bench and to the right we have a few more lipos that were either pre, post or actually on charge. They were also destroyed and of course added fuel/heat to the fire.

The circular item near the front left is the remains of a Lander EDF unit. Only the aluminium part remains, all the plastic bits melted/burned away.

Near the top right a blue upright aerosol type can is visible. This is a can of gas for a blow torch. Shelving units immediately to the left (not in the above picture) also house a can of blow torch gas. Add to that a garage full of foam models, various glues, solvents and paint products and it's a wonder he didn't end up with a Fukushima style accident.

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Fortunately, the fire did burn itself out. The MDF worktop seems to have inhibited rather than added fuel to the fire. There must have been some serious heat so I was impressed that it didn't burn.

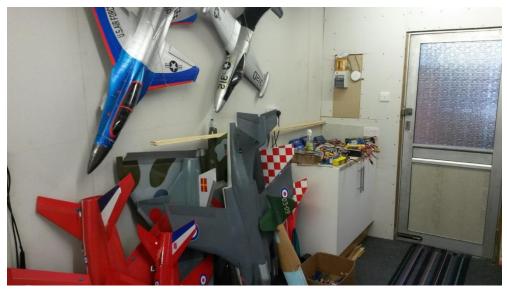
Directly above the charging Orange TX was a brand new Spektrum DX 9. This suffered some heat damage (partially melted handle) and a fair amount of smoke damage but is still quite usable.

Pete is unsure of exactly what transpired but he's guessing that the Orange TX batteries may have been very low before they went on charge (having been using them quite a bit that day). It was an old battery and it is possible that the TX was left switched on before charging commenced.

As with my own fire/explosion experience a few months back, this event reinforces the fact that LiPos really don't like being discharged below a certain threshold and get angry if they are.

The insurance company inspected the damage and did pay a reasonable sum to compensate for the damage to the garage and the model gear within.

Builders were organised and work commenced on a new garage interior. As it happens the builders didn't seem to be qualified to deal with anything more complex than a hammer. They actually managed to add to the damage by smashing a glass door panel. After some bungled plasterboard work, Pete decided to do the repairs himself. The insurance ended up paying a little extra for that.



All the garage work has now been completed and includes a new, more fire resistant charging area. The opportunity for a Spring Clean wasn't missed too, so a lot of rubbish went off to the landfill.

Pete has added new Orange and Spektrum DX8 TXs to his fleet.

Pete said that his main lesson learned was to not leave LiPos unattended during charge. We've all done it but it's a bad habit that the manufacturers themselves advise against.

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## Fly Past

I had an odd failure on the 14<sup>th</sup> of Feb when I tried to start my new favourite plane (the Great Planes Skybolt) ready for its fourth flight of the day. As usual, I wound the prop

backwards until it was against compression before applying my starter. However, I was surprised to find that there was now no compression at all from this nearly new OS 91.

After doing basic checks on the glow plug and valve rockers (by removing the rocker cover) and finding nothing apparently wrong, I decided to give up and took her home.

When I got the plane apart at home, I discovered that the intake valve was not operating correctly. It wasn't springing back up, at least not fully. The engine head was removed and the spring extracted. It was in two pieces.

This was not a failure mode I've come across during my short time in the modelling world. I was very surprised, especially as this engine is nearly new.



I expect that most are familiar with the process of removing valves but if like me you've never done it before, then what you have to do is support the valve from underneath (I just used a finger but wood is a good alternative), then compress the valve spring by pressing down on the retainer cap.

This will allow the two tapered collet halves to drop out. However, because the collet halves have a fairly gentle taper, they grip the retainer cap and I was unable to push hard enough with my remaining fingers to release it. I ended up using an

M3 nut driver to push down on the retainer, which popped down with quite a snap as the taper released. Using the nut driver also had the advantage of catching the two collet halves before they flew off somewhere.

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In the picture above you can see the now empty intake valve guide on the left and the assembled exhaust valve on the right.

A new spring was purchased from Just Engines and cost about £2.50 I think. Trouble is they had a minimum order price of about £6 so I bought some other little bits and got it all delivered within two days.

Reassembly was fun. I was able to hold the valve spring and its retainer cap down while holding the valve itself up using my fingers but this only left my face available to put the collet halves back in. If I took one hand away, I couldn't hold the spring retainer down long enough or with enough stability to get the collets on.

I needed a spring compressor. After a couple of minutes thought I wondered if the threaded hole used to secure the rocker cover could help me out.

It was very close to the valves, so I thought that a screw with a washer could be used to press on the spring retainer.

In the picture you can see the arrangement that worked for me



(taken after I got the valve assembled). As the screw was one of the actual rocker cover screws, it was a bit long for this job, hence the nut and other washers acting as spacers.

It's not ideal of course because it's only pressing on one side of the retainer. Initially, the retainer and spring tried to escape sideways from under the washer so I used my thumb on the other side to stabilise it. Of course this method also compressed the exhaust valve spring too (forcing the valve down a bit) but that didn't matter.

Once the spring is compressed far enough, the valve guide tube prevents the arrangement moving sideways. This was all done with the valve in its guide but just resting on the work surface. Frankly, it could have been left out altogether. Once the spring was compressed far enough, the valve was pushed up and the tiny, tiny little collet halves were placed and held (by finger and thumb) in the groove. The screw was then wound out, which allowed the retainer to ride up and encapsulate the collet halves.

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All that remained was to reassemble the top end of the engine. During this process, I was slightly bemused by the gasket on the intake tube. It doesn't matter which of the four possible orientations you use, it just doesn't match the shape of the port and the location of the mounting screws. Who designed that?

The reassembly went smoothly and compression has now returned.



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### **External Events**

This section details events in Hampshire (or further afield if they are significant events) that might be of interest to club members.

### The Great Southern Model Auction – 22<sup>nd</sup> March

See website for more details. Pre-booking of auction lots is strongly recommended. This is a popular annual event with hundreds of lots. If you haven't visited before; come and see what you've been missing!

Disciplines: Electric, FPV, Gas Turbine, Indoor, RC Fixed Wing, RC Helicopters, Scale, Slope, Soaring

The doors open on 22/03/2015 at 9am, auction starts at 11am and the event closes at 4pm. Entry £5, under 16s free. Refreshments available. Minimum lot £10. Call to pre-book lots.

All enquiries to Paul Bench on 07500 175 897 or email at: auction@hmfa.hampshire.org.uk

Website: www.hmfa.hampshire.org.uk/

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#### Salisbury Model Flying Club Swapmeet – 18th April

Salisbury Model Flying Club Will be holding a model aircraft Swapmeet dealing with all types of flying models, engines, radio control equipment and accessories. etc. Now is the time to sort out those unwanted models and turn them into spending money!

Doors Open on 18/04/2015 at 9.30am until 12.00 noon. 9.00am for vendors only. Tables only £7 includes admission for one person only. Admission - Adults £4 Juniors Free Refreshments available - Tea, Coffee, Bacon Roll. For

Venue: Alderbury Village Hall, Southampton Road, Near Salisbury, Wilts, SP5 3AD

All enquiries to Kevin Easter on 01725 552 873 or email at: <a href="mailto:easterislandbb@tiscali.co.uk">easterislandbb@tiscali.co.uk</a>

Website: www.salisburymodelflyingclub.co.uk

#### Wings & Wheels Model Spectacular - 27th & 28th June

The longest running RC Model Show in the UK - 29th year. All flying disciplines, boats, hovercraft, tanks Trade, Bring&Buy etc.

Starts: 27/06/2015 at 09:30 Ends: 28/06/2015 at 17:00

Venue: North Weald Airfield, North Weald, Nr Epping CM16 6AR

All enquiries to Jane Stephenson on 01242 604126 or email at: admin@wingsnwheels.net

Website: www.wingsnwheels.net

#### **Bournemouth Air Festival - 20th-23rd August**

OK it's not a model show but we don't have many local air shows so I thought it worth a mention. Find out more on their website: <a href="http://bournemouthair.co.uk/">http://bournemouthair.co.uk/</a>

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### **Club Information**

This section gives a summary of club services and contact details. Apart from the "Future Club Night Programme" most of the info here is fairly static.

#### **Future Club Night Programme**

#### 19<sup>th</sup> March 2015

Simulator and "Experts" forum.

#### 16<sup>th</sup> April 2015

Our spring Bring & Buy sale.

#### 21st May 2015

Talk by John Hoddinot on electric flight power systems

#### **Cheap Glow Fuel**

Fuel is available through the club and supplies are held by the club. All grades of fuel are available to order. Terry holds many other useful items: glo-plugs, propellers, glue, fuel tubing, wing bolts etc.

Contact: Terry Jacobson on 023 8040 2080 or see him at the field.

#### **Club Clothing**

A number of items of club branded clothing are available from a local supplier. The current prices are:

Sweatshirts £14.25
Polo shirts £12.50
T shirt £ 8.50
Caps £ 7.95

All shirts are Fruit of the Loom and available in all sizes up to XXL & most colours. There is also a huge range of quality outwear that can be embroidered with the club logo.

Contact Justin on 07572 613190, email windgyber@hotmail.com or see him at the field.

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Our meeting venue is the Hamble Club at this address:

Beaulieu Road Hamble Southampton Hampshire SO31 4JL

The entrance to the club is on Hamble Lane, only a short distance from a pub called The Harrier. The club looks like this:



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### Firebirds Club Committee

The following are the contact details for the Committee. Each has given permission for their phone number and email addresses to be included in this Newsletter.

Chairman	Pat Parsons	023 8056 2611	patrickparsons.parsons3@googlemail.com
Vice Chair	Russell Lewis	023 8056 1397	russell@pilot1.co.uk
Treasurer	Paul Adams	023 8069 2729	paul.adams10@tiscali.co.uk
Secretary	Roger Stanton	01489 784152	roger-stanton@sky.com
PRO	Peter Clark	01489 692881	psclark911@hotmail.com
Flying Site	Dave Hoppe	07704 826343	davehoppehome@gmail.com
Rep.			
Safety Officer	Geoff Griffiths	023 9265 5931	gcgriffiths@hotmail.com
Membership Sec.	Roger Stanton	01489 784152	roger-stanton@sky.com



Remember...
Safe flying is no accident.