

# Fly **Radio** Modeler



## Depron Dambuster!

*John Ivory's RCM&E Lancaster with a difference – see page 46*

## Christmas Party

*Report by Derek Woodley – see page 6*

**Scale at Buckminster**  
Dave Knott was there – see page 20





# Contents

Contents and Contact .....	2
From your Chairman, <i>Derek Woodley</i> .....	3
Diary dates .....	5
SRFC Christmas Party, <i>Derek Woodley</i> .....	6
SRFC Noise Limits – Rule change, <i>George Evans</i> .....	10
Power Competitions 2023, <i>John Ivory</i> .....	14
Ads .....	15
Ivan Thomas’s model sale, <i>Les Crane</i> .....	16
Euro Scale Masters & British Scale Nationals, <i>Dave Knott</i> .....	20
Outing to Tangmere Military Aviation Museum, <i>Derek Woodley</i> .....	28
USAF Aviation Quiz .....	31
USAF Aviation Quiz, answers.....	32
SRFC videos online.....	33
Gliding Summer 2023, <i>Robin Strange</i> .....	34
Peter Plank Memorial Fly-in, <i>Clive Upperton</i> .....	36
Small Steps, <i>Les Crane</i> .....	40
Helicopter stuff, <i>Jerry Hansen</i> .....	44
Depron Lancaster!, <i>John Ivory</i> .....	46
Hanky Planky – autumn update, <i>Clive Upperton</i> .....	51
FPV Indoor Drone Racing, <i>Myke Pinker</i> .....	54
SRFC Committee .....	56

Cover: John Ivory with his 38" wingspan Dambuster Lancaster. Based on the October 2023 RCM&E plan but built from Depron instead of balsa. See page 46.  
Photo: Tom Gaskin

# Contact

Grahame Pearson, *Editor*

Email: [grahame.pearson.srfc@gmail.com](mailto:grahame.pearson.srfc@gmail.com)

*FlyPaper* is published at the beginning of January, April, July and October.

**Submissions for the April issue must be submitted by 15th March.**

Text for articles should either be in a Word document attachment or simply as plain text within the email message. Photos should be high-resolution JPGs.

*FlyPaper* back-issues may be downloaded from the SRFC website: [srfc.bmfa.org](http://srfc.bmfa.org)

If you would prefer your name not to be in the website version please notify the Editor when submitting your article.

© SRFC 2024. No part of this publication can be copied or distributed outside the club without permission of the Editor.

# From your Chairman

*Derek Woodley looks back... and forward*

It has been pleasing to see the club continuing to run so smoothly in recent months and indeed throughout the year.

This state would not exist without the efforts of those folk that tirelessly look after our flying sites and the equipment used in their maintenance. This results in us enjoying what must be the one of the best flying sites in southern England. Thank you so much, gentlemen, you know who you are.

We have enjoyed some very good flying sessions this year, but also endured many periods of bad weather, particularly the wind and rain that has curtailed some of the club’s planned flying events and competitions. Climate change?

So, overall an average year I guess?

By the time you read this we will have held our last indoor club night of 2023. There is no meeting in January.

The next meeting will be on 2nd February when we will be enjoying a talk by past SRFC member Rod Walker. Rod was a keen model glider flier but he has also flown

full-size gliders for many years and has a remarkable 6,000 gliding hours in his logbook! His talk will describe the formation flypast of gliders and their tugs that took place in 1994 over Southsea and the ‘Fleet’ that was anchored in the Solent, to commemorate the 50th anniversary of the famous Pegasus Bridge glider landings on D-day in 1944.



Read all about the glider landings at Pegasus bridge here: <https://warfarehistorynetwork.com/article/pegasus-bridge-operation-deadsticks-glider-assault>  
Above: Pegasus Bridge today



A reminder that the Club AGM is on 1st March. This is your chance to have your say and to debate any issues that concern you.

### CAA proposals for UAV regulation

You will all be aware that the CAA have been tasked by the Department for Transport to suggest a framework for the regulation of UAV (unmanned aerial vehicles) operating in UK airspace.

Unfortunately, model aircraft fall within the definition of a UAV in the eyes of government, so much head scratching has been taking place within the CAA to consider how to permit the uninterrupted continuation of our hobby within the new legislation.

You will recall that a 'Call for Input' was published in August by the CAA to allow them to gauge the needs of both the drone and model aircraft communities. Thank you to all SRFC members that responded.

The CAA have now analysed the results of this consultation and published a summary of findings and their thoughts on the way to proceed in the regulation of UAVs.

In general, I get the impression that model flying will be able to continue as in the past from recognised BMFA affiliated club flying sites without the burden of on-board 'Remote ID' equipment. Drones (of all sizes) are, however, likely to be much more closely controlled and restricted.

There is now another opportunity for model fliers to reflect and comment on the proposed regulation as now presented by the CAA before a definitive document is forwarded to the DfT for enactment into law.

The BMFA and LMA (Large Model Association) have carefully considered these latest proposals and the link below will take you to their response suggestions which is well worth reading, and provides excellent guidance for individual submissions.

[https://bmfa.org/wp-content/uploads/2023/12/BMFA-LMA-Response-to-CAP2610-8-Dec-2023\\_.pdf](https://bmfa.org/wp-content/uploads/2023/12/BMFA-LMA-Response-to-CAP2610-8-Dec-2023_.pdf)

If some answers seem strange or irrelevant, bear in mind the BMFA are representing leisure drone fliers as well as model aeroplane fliers in their responses.

Can I please ask all SRFC members to take the time and trouble to make a submission to the CAA by the closing date of 10th January.

Feel free to use your own words in the response you make, but please take note of the BMFA's views.

There would be no harm in copying some of the BMFA's words, but it would be much better to paraphrase if possible, and make sure you respond as an individual and are not submitting the views of an organisation.

The most important thing is to respond.

The number of responses received will influence the thinking of the CAA and add weight to any negotiations with the BMFA. To respond go to this link:

<https://consultations.caa.co.uk/rpas/review-of-uk-uas-regulations-consultation/consultation/intro>

Please, please take the time to support our model flying hobby by making a submission.

Enough from me!

It just remains for me to say I hope you had a great Christmas, that Santa was kind to you, and to wish you all a Happy and Healthy 2024.

# Diary dates

## Indoor meetings at Worthing Leisure Centre BN12 4ET

2nd February	<b>Pegasus Bridge landing re-enactment</b> 7.30-9.30pm By Rod Walker
1st March	<b>AGM</b> 7.30-9.30pm Your chance to become actively involved in the running of the club. More details nearer the time
5th April	<b>Spring Auction</b> 7.30-9.30pm Sell unwanted models or bits and bobs and stock up for summer flying

---

## Indoor Flying at Worthing High School, South Farm Road, Worthing, BN14 7AR

27th January	<b>Indoor Flying Evening</b> 8.00-10.00pm £5 to fly, £1 to spectate
17th February	<b>Indoor Flying Evening</b> 8.00-10.00pm £5 to fly, £1 to spectate
16th March	<b>Indoor Flying Evening</b> 8.00-10.00pm £5 to fly, £1 to spectate

### Indoor flying notes

This is an indoor event with hard walls so keep the planes small and light. For helis/drones a rule of thumb would be if you're not prepared to stop the rotor with a part of your anatomy (arm, leg, etc) then neither is anyone else.

Rules are kept to a minimum. However, in the event that inappropriate aircraft are brought along the committee reserve the right to request such planes are not flown.

Slots will follow previous practice and will separate R/C fixed-wing from helis/multi-rotors, ultra lights and free flights in probably 15-20-minute slots but will be flexible depending on who/what is there on the night.

***It's all about having fun – £5 to crash, £1 to watch the crashes!***

The club thanks Dave Knott for organising these indoor sessions.



# The SRFC Christmas 'Bash'

*Derek Woodley reports on a very well attended Christmas party/raffle/awards ceremony on 1st December*

On Friday 1st December we held the last SRFC indoor meeting of 2023 and our club Christmas Party at Worthing Leisure Centre.

A very convivial atmosphere was apparent, I think everyone enjoyed the evening.

The number attending was in the mid-40s which represents a good turnout. It was also encouraging to see so many spouses present.

We had requested catering for 50 but, as those of you who were there witnessed, there was masses of food, probably enough to feed 100! Quality was excellent too.



Club competitions had taken place during the flying season and trophies were presented to the worthy winners.

Although the results have been placed on our website for some time I'll repeat them below.

## The Power Competition Shield

This is presented to the person accumulating the greatest number of points during the series of six events during the year, each with a different task.

1st place  
2nd place  
3rd place

Clive Upperton  
Chris Foss  
Tom Gaskin



Power Competition Shield. Winner: Clive Upperton



Gliding Competition Shield. Winner: Mark Vale



### The Gliding Competition Shield

This is similarly presented to the person who acquires the most points during the year's club competitions for eGliding.

1st place  
2nd place  
3rd place

Mark Vale  
Robin Strange  
Clive Upperton

### The Annual Gliding Competition Trophy

This is awarded to the winner of the eCaprice single-type model duration event. This year's winner is Derek Woodley.

### The Builder Trophy

This year the Builder Trophy was awarded to Ivan Thomas whose skill in building and finishing model aircraft has been apparent to us for many, many years.

### The Graham Aldhurst Cup

This went to Mark Snow this year who, although he finds time constraints prevent him from getting to our flying fields to enjoy flying, agreed to take on the demanding task of renovating the ride-on mower used at Poling.



*Builder Trophy*



*Gliding Competition Trophy. Winner: Derek Woodley*



*Builder Trophy. Winner: Ivan Thomas*

### The Spirit of Peter Plank Award

In memory of our much missed past club member Peter Plank this is awarded by Clive Upperton, Paul Gladstone and Pim Smith to the person who during the last twelve months has most replicated the persona of 'Planky'. This year's winner is Mark Vale.

There is one remaining trophy to be presented and this is for the 'Hanky Planky' Power Competition series run by Clive Upperton during the winter. As not all rounds have taken place this cup will be presented at the Club AGM on 1st March.

Congratulations to all winners, perhaps we will see some new names on these trophies in 2024?

I would encourage all members to 'have a go'. All our competitions are run in an atmosphere of having fun although I'm sure winners will agree, luck can play as big a part in winning our club competitions as skill!



*Photos: Robin Strange*



*Graham Aldhurst Trophy. Winner: Mark Snow*



*Spirit of Peter Plank Award. Winner: Mark Vale*



# SRFC Noise Limits – Rule change

## George Evans explains the need for a Rule change: Rule 6.1 Model Aircraft Noise limits

This article fulfils the requirement to publish rule changes and amendments in the club newsletter as per section 3.2 of the SRFC Handbook.

### Reason and background for the rule change

Over time the general public have become more sensitive to the levels of pollution in the environment, this has included noise pollution. In our current locations we have been very lucky in that we are 'out of the way' and have had very few complaints about noise. However, luck in the past does not mean that will be the position going forward. Whilst there are no known plans to build near our Coombes site, houses are being built closer to our Poling site. It is therefore sensible that we look at the mitigations in place to manage the noise that we generate.

Our handbook currently sets the club limits at a maximum reading of 87dB with an average of 85dB (averaged across four readings on front, left, right and rear of an aircraft) at 7 meters. There is a code of practice for noise from model aircraft (Control of Pollution act 1974 Part III Noise, Code of Practice on Noise from Model Aircraft 1982) which sets guidance that noise should not exceed 82dB at 7 metres. Bearing in mind that each 3dB increase represents a doubling of noise power, our current club levels are significantly above the code of practice guidance. It should also be noted that two aircraft in the air together would potentially increase the noise level by approximately 3dB and any additional aircraft will also increase the noise experienced but by smaller amounts for each additional aircraft.

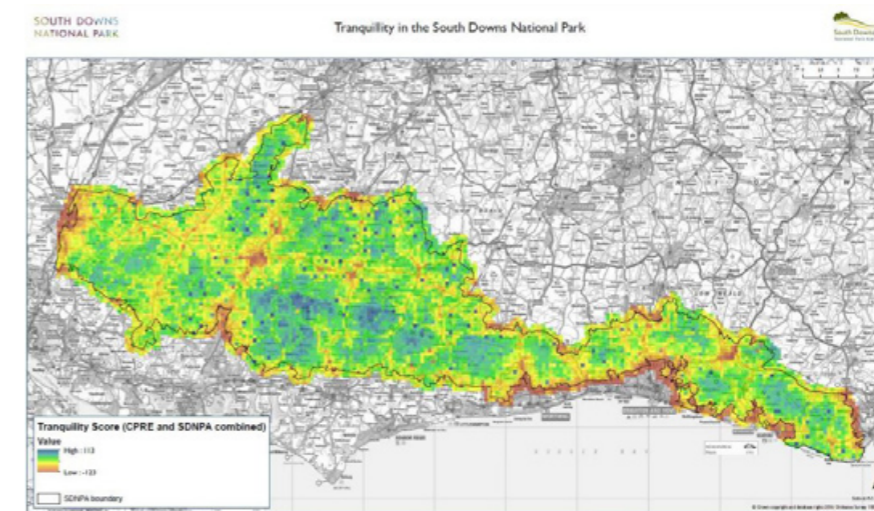
### Other factors

We have as a club, for a number of reasons, moved to more electric powered aircraft including Electric Ducted Fans (EDFs) and with this change the noise profile has also changed. Anecdotally we are generating less exhaust-based noise but more blade-based noise. Also anecdotally, the move to electric has the potential for us to be operating at higher relative power levels, for any given installation, than we might with an Internal Combustion (IC) installation. While a 10cc IC motor may be running at 40/60% power for most of a flight (having been tested at 100%) an EDF may be at 85% or higher for most of its flight. Other factors to consider are the use of 4-stroke IC as opposed to 2-stroke engines and the relative rigidity of an IC airframe as opposed to a lighter one for electric power impacting on resonant and sympathetic noise from the wing and fuselage surfaces.



### Routes for complaint and relevant legislation

There are two main routes to complain about noise. The first is the Environmental Protection Act (EPA) 1990. The second is via the South Downs National Park Authority (SDNPA); at Coombes we are very close to an area regarded as medium to high on the SDNPA tranquillity map. (This is reproduced below – apologies for the low resolution, that is the best that could be found. Ed.)



If a complaint is made to the local authority under the EPA, they have a duty to take reasonable steps to investigate a complaint of noise. The normal course of action when a complaint of noise is made is to serve a notice which halts the activity in question whilst an investigation is completed. This can take many months.

If a complaint is made to the SDNPA (for Coombes), they would, in the first instance, take it up with the farm and that in itself would give us a problem.

Additionally local authorities can use their powers to deal with anti-social noise under Anti-Social Behaviour, Crime and Policing act (2014, 2017 and 2022) and the Environment Agency also have powers to control noise nuisances. However, it is unlikely that these would be applied to us.

The Government website says: 'Model aircraft noise – If someone flying model aircraft on trade, business or industry premises gets a noise abatement notice, and they've complied with the code of practice on noise from model aircraft, they may be able to use this as grounds for an appeal or as a defence in court.' Whilst this does not directly apply to us it shows that the code of practice has some relevance.

Whilst we are not in compliance with the code of practice our ability to defend against any complaint, whether it is valid or not, is limited. If we are compliant with the code of practice and can show that we've taken steps to comply with the code it changes, and significantly improves, the response the club and the BMFA can give in the event of a complaint.

Our certificate of continued use for Poling will not be a defence against a complaint of excessive noise.

Based on this the committee will be recommending that the club changes its current noise limits to comply with the code of practice. This will also mean that we will need to test a number of model/engine combinations in the early part of the 2024 flying season. We have a noise meter and any member of the committee or person



agreed by the committee can complete the test. The noise meter is currently in the box at Coombes but arrangements to test helicopters either at Poling or by bringing the helicopter to Coombes for testing purposes can be made.

### **Committee recommendation on a change to rule 6.1 of the SRFC handbook**

That noise limits applied to models on SRFC flying sites are reduced to align with the code of practice on Model Aircraft Noise 1982.

### **Proposed new rule (6.1)**

All IC power models must be fitted with effective silencers. The normal silencers supplied by the engine manufacturers are rarely effective except on very small capacity engines. Most models require additional silencing to meet the Club and environmental noise limits. Other steps may need to be taken with electric-powered models including but not restricted to use of an appropriate propeller.

There are inexpensive ways of reducing model aircraft noise and models may not be flown on any Club site unless they are within the Club's noise limit in force at the time.

The Club has noise measuring instruments, which can be made available for checking models. Four measurements will be taken:

- one from behind
- one in front and
- one to either side of the model

The maximum noise level permitted is 82dBA in any direction, measured at a point 7 metres from the model.



## **Background information and extracts**

### **Code of practice**

[www.gov.uk/government/publications/code-of-practice-on-noise-from-model-aircraft](http://www.gov.uk/government/publications/code-of-practice-on-noise-from-model-aircraft)

### **UK Government EPA guidance page**

[www.gov.uk/guidance/noise-nuisances-how-councils-deal-with-complaints#model-aircraft-noise](http://www.gov.uk/guidance/noise-nuisances-how-councils-deal-with-complaints#model-aircraft-noise)

### **Extracts from code of practice (selected)**

#### **Legal controls over model-flying**

2.1 The sport of model-flying is subject to various legal controls which should be carefully observed at all times.

c. Local authorities may make byelaws, subject to approval by the Secretary of State for the Home Department, prohibiting or restricting model-flying on certain municipally owned land or on land subject to certain provisions of the National Parks and Access to the Countryside Act 1949 and the Countryside Act 1968.

d. Under sections 58 and 59 of the Control of Pollution Act 1974 local authorities or magistrates' courts may restrict or prohibit model-flying at a particular site if the noise caused by the activity amounts to a statutory nuisance.

#### **Method of use of this code of practice**

3.1. This code of practice contains guidelines which, if followed, should ensure that undue disturbance is avoided in most circumstances. Its terms are not intended as hard-and-fast rules to be applied to every site; local circumstances differ, and more stringent or less stringent controls may be appropriate in individual cases or on the same site over the years.

a. Where a site has been used for some years without causing complaint, there will normally be no need to require the pattern of use to be modified, unless external circumstances or the character of use alters significantly and disturbance is caused as a result.

b. Where complaints have been received about existing sites, the code is intended to guide local authorities, model-flyers and others on the ways in which intensity and manner of use may be adapted to allow the use to continue, if possible, without causing further disturbance.

### **Notes**

#### **Definitions**

I have used the abbreviation dB when referring to noise measurement as this is the abbreviation used in most (but not all) of the legislation and guidance. The correct abbreviation should probably be dBA as A-weighted decibels, abbreviated dBA, are an expression of the relative loudness of sounds in open air as perceived by our ears and is the value used in most open space environmental measurement.



# Power Competitions 2023

## **Power Competition Secretary John Ivory reports on a year of competitions at Coombes with bad weather being the winner!**

There were six dates set for the power competition in 2023. However, we didn't get off to a good start as the first round in April was first delayed then cancelled due to poor weather.

May managed to go ahead with six members taking part for the deadstick event. Conditions were not the best for the three rounds with a wide variation in the results, George Evens being the winner.

The June competition had to be cancelled due to bad weather.

The next competition was in July and for once conditions were reasonable. Landing on an aircraft carrier deck 60x12 feet – one of my favourites – with three rounds. Scoring is the distance from the start of the deck to where the plane stops, each round counts to give a total distance. The winner of this event was Clive Upperton.



*11th August: waiting for the rain to stop. It didn't!  
Photo: John Ivory*

The weather forecast for the next round on 11th August was rain to clear by midday. However, it failed to do so, with drizzle and low cloud persisting. The picture shows all of us waiting for the weather to improve. After a hour we called it a day.

The last competition of the year (September) was also cancelled, this time not due to the weather but the number of competitors with only myself, Clive Upperton and Chris Foss present. The general rule was to have a minimum of four to call it a competition.

I would like to thank all those who took part in the 2023 Power Competition. I hope to see more take part and have fun in 2024 – weather permitting!

### OVERALL RESULTS FOR 2023

12th May		21st July		Final Results		
George Evens	1st	Clive Upperton	1st	Clive	3+1 4	1st
Chris Foss	2nd	John Ivory	2nd	Chris	2+5 7	2nd
Clive Upperton	3rd	Tom Gaskin	3rd	Tom	4+3 7	3rd
Tom Gaskin	4th	Derek Woodley	4th	George	7+1 8	4th
Mark Vale	5th	Chris Foss	5th	John	6+2 8	5th
John Ivory	6th	Mark Vale	6th	Mark	5+6 9	6th
		George Evans	7th	Derek	8+4 12	7th
		Robin Strange	8th	Robin	8+8 16	8th

## Ads

### For Sale



**Ben Buckle Matador.** 1.18m wingspan. Airframe only (was originally I/C but could be converted to electric.) Offered for sale by Rob Stanley, Chairman of Slope Soaring Sussex. Rob runs a prostrate charity; a small donation to this will secure the model. Tel: 07917 472166.

### Wanted

**Field box and other equipment for I/C** including engine starter, 12V gel battery, power panel, glow fuel, glow plug igniter, etc. Tony Stock. Tel: 07419 310627, e-mail: nbjubilee@gmail.com



# Ivan Thomas's model sale

## *Les Crane reports on the recent sale of Ivan Thomas's models*

As many of you will already know, long-time member, Ivan Thomas suffered serious medical issues late in the summer and spent several weeks in hospital, at one time his life being in danger. A small number of us visited him in hospital on several occasions, seeing him improve slowly but it became obvious that his modelling and flying days were probably over. Ivan was worried that he and his family (mainly his daughter Amanda) would not be able to sort out his models and equipment and sell them, in fact so worried that he just wanted to give them away. Grahame Pearson and I knew that he had quite a number of superb models which would attract good prices so, on one hospital visit, we offered to sort out, advertise and sell his collection for him, an offer which he and Amanda quickly accepted. As his house was also on sale there was a degree of urgency with the sale.

On our first visit to Ivan's home in Bramber, 'Merlin', we soon realised the enormity of the task we had agreed to undertake! He has a room in his home which he had converted into a modelling room with workbench, cabinets, drawers, shelves, tools and a large jig-saw. On the shelves were at least twelve fairly large models of 60" span or bigger and leaning against the walls, several gliders. Easy! Then we were taken into his bedroom where, in a wardrobe, there were several more models including a large P-47. Yeeessss, OK. Then we were showed into a shed-like lean-to



attached to the garage where there were several more models including a 60" Sopwith Camel and Extra 260. Beginning to get the picture? Of course there was the garage itself which did not contain any models but cabinets of bits, tools and several I/C and electric motors. Phew, got there – until Amanda said we needed to look in the loft. I couldn't believe it when I got up there. Several more large models plus a 60" bare airframe Ugly Stick and a bare airframe Stampe of about 7' span, neither of which were covered, had any hardware or power train but were beautifully made. There was also a large box of balsa and another large box full of Brian Taylor plans plus three boxes containing fibreglass Brian Taylor cowlings for a large Spitfire, Bf109 and Typhoon, with metal spinners and canopies.

Believe it or not, at our third visit Amanda produced another glider wing and a drawer full of Solarfilm/Solartex from her bedroom. Thankfully that was the last of the surprises.

One of the first jobs was to match the various wings to the respective fuselages and ensure that there were the relevant wing joining rods or bolts – and they weren't all with the models – and photograph them. Grahame did all the photographic work. In addition to the models there were a number of I/C engines, some never run, various electric motors, battery chargers, and the aforementioned large jig-saw, lots of LiPos and various tools. We told Ivan that there must be at least £2,000 worth to sell – boy, were we wrong!

We asked the club if they would host a sealed-bid silent auction in the same way as they did for Peter Plank and they agreed and Ivan offered the club its usual auction commission. Grahame and I agreed reserve prices where applicable and Grahame produced a PDF which he sent to George Evans (Secretary) to circulate to club





members with a closing date.

As the club was also just about to hold its autumn auction I sorted a few small items to take to that and they raised about £90.

Ivan had offered Grahame and me first choice of anything we wanted for free in recognition of what we were doing and our many visits. We chose a number of items but insisted that we paid him. In total we paid him around £1,400 for models and bits.

There were 55 items in the sealed-bid auction and virtually everything sold. We re-advertised the unsold items and, in the end, all bar one model and a couple of engines sold, raising a grand total including the money Grahame and I paid plus the auction £90 of just short of £6,000 – not bad for items Ivan had wanted to give away!

George did a great job with the advertising, taking the bids, notifying the winners and preparing a schedule for collection of items from 'Merlin', two sessions being required. Grahame, George and I ensured that all the winners received what they had paid for.

At the time of writing the Brian Taylor cowlings and plans and the remaining engines are still to be advertised on the BMFA classifieds website.

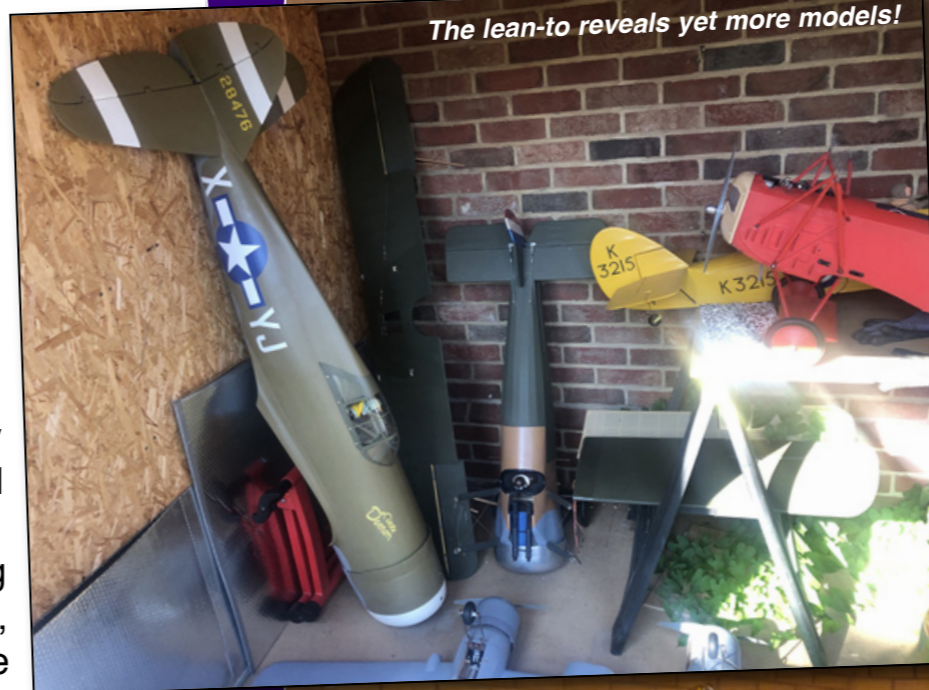
In addition, Grahame and I have visited Ivan several times since the auction to sort out the remaining mass of non-saleable items, throwing away much 'dross' and separating his ordinary tools from the modelling ones. There were some drawers containing loose nuts, bolts, screws, aileron horns, scrap balsa and ply, etc which we took.

The one unsold airframe is a Flair Giles 202 which belonged to Ivan's late son, Jason. All the hardware and the power system has long been removed and the airframe is very tired so, although not a model I am really interested in for myself, I have taken it and intend to renovate it and convert it to electric with the intention of

letting Ivan see his son's model flying again. So far I have removed the cowling, sorted where I would put a battery (actually not an easy job despite the space), measured up for a new firewall/motor mount and fitted and tested new servos for the rudder, elevator and ailerons. See my article on page 40 for more on this and photos.

Grahame and I made sure, via Amanda, that Ivan attended the SRFC Christmas party raffle and awards presentation at the Worthing Leisure Centre on 1st December where he was deservedly, and delightedly, awarded the annual Builder's Trophy.

Sadly, the chances of seeing Ivan at Coombes in the future are slim, especially when he sells his bungalow and goes to live with Amanda some distance away but some of his models will still grace the field.



Derek Woodley awards Ivan with his well-deserved Builder's Trophy. Photo: Les Crane





# Euro Scale Masters & British Scale Nationals

***Dave Knott took two Hurricanes to the scale competitions at Buckminster, 6th-10th September...***

The weather for the competition week was probably the best week of the year with sunshine and light winds. All of the models were assembled and stored in the hanger, which is also where the static judging took place with a fair number of entries from mainland Europe. The Euromasters was a practice run for the Scale World Championships which now has BMFA approval for 2026 and is awaiting FAI approval early in 2024.

I decided to enter the F4C class with my 1/5 scale Hawker Hurricane which is a few years old now but has had several issues during that time. Until recently it was powered by a Laser 240 (40cc) V-twin glow engine, but this was not really powerful enough due to the over 2kg of lead in the nose to obtain the correct CG. In addition it overheated due to lack of airflow to the engine.

I had intended to make a new fuselage and fit a 60cc gas (petrol) equivalent motor that I had bought some time ago but ran out of enthusiasm part way through the build. I could not see a way to convert the old fuselage without destroying it. I decided to



*Dave's Hurricanes (1/6 scale foreground, 1/5 scale behind). All photos: Dave Knott unless otherwise stated*

give it a test fly at Coombes with the Laser after it was rebuilt by Laser Engines. It ran the best it had ever done, but on the landing approach the engine just stopped dead and I landed a long way out with the ground not visible and, as it turned out, a lot lower than expected. Many thanks to Les Crane who helped me retrieve the nearly 15kg model from which the Laser had now departed complete with bulkhead. Luckily the model was otherwise not too badly damaged.

Rather than repair the nose and reinstate the Laser now seemed a good time for an electric conversion and a suitable motor was duly fitted. Eventually we got some good weather and a test flight was made at Coombes using 12S 10,000mAh LiPos. The model flew well but sounded like a Harvard. The landing, however, did not go as planned when the model suddenly fell the last few feet and badly bent the undercarriage and doors. More repairs and more pitch was put on the 24" three-bladed variable pitch propeller.

Another short test flight ensued at Coombes. It now sounded a lot better and flew and landed OK with plenty of power left in the batteries showing I had enough flight time for a competition flight. As the model was showing promise I thought I had better get a spare set of batteries which arrived a few days before we set off for the Championships though I was conscious I had not flown a competition schedule under electric power.

On arrival at Buckminster the Hurricane was assembled in the hanger and I was pleased to find I had not left anything at home unlike a couple of flyers. The static judging takes place before the models are flown, so at least everyone gets a static score! The three judges luckily liked my Hurricane and gave it the highest marks in the class, which was a good start.

The following day it was off into the sunshine for some flying. However, as I was pulling the Hurricane along across the gravel en route to the flying area the undercarriage collapsed, knocking off the starboard wingtip light assembly. Not the best start, caused by me forgetting to pump the air tank up; the mechanical lock did not take the vibrations. Sadly, I then remembered I had done exactly the same thing a few years ago at a previous Nationals. If you look at the picture on the front of December's RCM&E you will see the missing wingtip light, or rather you won't! Anyway, static was already done so no problem.

Being a glutton for punishment I also decided to enter my over 20-year-old F4C 1/6 scale Hurricane into the F4H Stand Off Scale class. This Laser 120 powered model is now looking a bit worn, but still did well in static in this class coming 3rd overall and top in UK Nats – I managed to get this one out to the flight line without breaking it! This model has had a tendency to nose over on grass so I decided to move the CG rearwards and having done a test flight at Coombes with this set up all seemed good.

So the flying began in the beautiful calm sunshine. Steve Jackson flew his lovely Avro 504K and it was the best flight I have seen him do, achieving highest flight score in the first round. Bert van Eijk also made a good flight with his Bowers Fly Baby and









went on to get the highest flight scores in rounds 2 and 3. My first flight with the big Hurricane was its first complete flight under electric power so I decided to keep it as short as possible so it was a bit rushed but went reasonably well. When I had landed and checked the batteries, I had loads of capacity left, so no need to rush it next flight.

Later in the day I also flew the 1/6 Hurricane and again it was a reasonable flight, but it could have been better. This turned out to be my best flight with this model as in the following rounds I had trouble on the approach and landing with over sensitive elevator resulting in ballooning and ending in noseovers, but no damage. However, I did lose 30% of my landing score which has a high K factor. Hmm, more test flights required at Coombes to see if it's me or if the CG needs more fine tuning.

The second flight of the big Hurricane was better but not without incident. After a big torque swing on take-off, part of the way through the flight the model suffered an unplanned disassembly (as they call it now) when the top cowling/battery cover departed the model. I also had trouble with not being able to trim the elevator as it kept changing. However, I managed to complete the flight and get a slightly higher score than the first round. On subsequent examination of the model, I found some play in the elevator control at the tailplane end. As it is a major job to remove the tailplane and fin to sort this out, I decided it was a workshop job and did not



Above: Dave was presented with this wall clock, personalised with the Airspeed in 'Knotts'



A pair of Avro 504s, Martin Fardell's 504N in foreground with Steve Jackson's 504K behind

risk it for a third flight, but at least I had made them removable for international freight if required.

The standard of models and flying was generally very high helped by the excellent weather that lasted till the end of the competition where a thunderstorm kindly waited until we had all cleared the flying field before normal UK weather resumed. The top three in F4H class were lovely models that were also flown very well as was Bert's model in F4C.

#### F4C Euro Champs results

Bert van Eijk	Bowers Fly Baby	1904.6	
Steve Jackson	Avro 504K	1872.7	1st UK Nationals
Dave Knott	Hurricane Mk1	1868.1	2nd UK Nationals

#### F4H Euro Champs results

J Malarski	Saab T17	1490.5	
Pawel Makac	Sukhoi SU26	1437.69	
Radaslan Olesky	Fokker DR1	1422.2	
Dave Knott	Hurricane Mk1	1341.15	1st UK Nationals
Martin Fardell	Avro 504N	1311.46	2nd UK Nationals



Bert van Eijk's Bowers Fly Baby



Steve Jackson's Avro 504K



J Malarski's Saab T17



Pawel Makac's Sukhoi SU26







# SRFC visits Tangmere

## *Derek Woodley reports on a well attended visit to Tangmere Military Aviation Museum in October*

Our SRFC visit to the Tangmere Military Aviation Museum took place on Wednesday 11th October. There was a good turnout with around 18 club members plus a couple of wives attending.

We were expecting just an initial introductory talk from one of the museum volunteers but were actually treated to more in-depth descriptions of some of the exhibits by our appointed guide. This at times became quite amusing, and provided good entertainment, as some of our SRFC members seemed to know more about the exhibits than the museum guide! It is remarkable what a depth of aviation knowledge our fellow club members possess. I have the greatest of respect for the impressive wealth of information that lurks within our ranks.

The museum contains an impressive collection of military hardware from the 1917 days of the WW1 biplanes up to the jet fighters of the Cold War.

There is emphasis placed on the aircraft and RAF squadrons that operated from Tangmere during its heyday years from 1940 until the closure of the station in 1970. It was always a fighter base and Spitfires and Hurricanes were flown during the Second World War years, but it was also the wartime airfield that hosted the Lysander squadron that dropped agents in fields in occupied France at night. Douglas Bader commanded a wing of Spitfires at Tangmere during 1941 and some fascinating artefacts from those times are on display.



**Tangmere Military Aviation Museum** was opened by a group of aviation enthusiasts in 1982 to promote public awareness of the United Kingdom's military aviation heritage, to educate present and future generations in military aviation and to serve as a memorial to airmen and airwomen who gave their lives in the service of this country. Since that time it has been managed and run mainly by volunteers and in 2017 was awarded the Queen's Award for Voluntary Service.

Now one of the UK's leading aviation museums, it is home to an impressive display of historic aircraft and has a unique collection

of aviation memorabilia stretching from the First World War through to the Cold War. There are numerous interactive displays and aircraft cockpits and simulators for visitors to experience.

Light refreshments may be purchased in the Museum's Cockpit Café.

### **OPENING**

The museum is open every day between 1st February and 30th November.

March to October: 10am to 5pm

February and November: 10.am to 4.pm

(Last admissions are one hour before closing each day)

### **Gamecock Terrace**

**Tangmere, near Chichester**

**West Sussex PO20 2ES**

**Tel: (01243) 790090**

**E-mail: [info@tangmere-museum.org.uk](mailto:info@tangmere-museum.org.uk)**

**Website: [tangmere-museum.org.uk](http://tangmere-museum.org.uk)**



*Volunteer guide entertaining.  
Photo: Jonathan Halford*



Tangmere remained a Fighter Command base until closure in 1970, operating various aircraft including Hawker Hunters and night fighter Gloster Meteors.

I also happen to know that Tangmere was the airfield that was used when Prince (now King) Charles was learning to fly in a Chipmunk in 1967. All other flying from the airfield was cancelled and an exclusion zone was established around Tangmere so that nobody could get in his way, and also to avoid any paparazzi intrusion!

The RAF High Speed Flight was formed at Tangmere in 1945 and on display is the specially modified Meteor that was used for the successful World Speed Record flights in 1946. Also displayed is the impressive streamlined Hunter, painted red, used by Neville Duke to regain the record for the UK in 1953. This aircraft is the centre-piece of the museum, but other jets on show include the Meteor, Supermarine Swift, English Electric Lightning, Harrier, Phantom and many more.

Overall I think those of us that visited thoroughly enjoyed our day.

Thank you and well done, the volunteer staff at Tangmere for maintaining such a fascinating collection of aviation memorabilia.



For some the excitement proved too much...  
Photo: Jonathan Halford



Lysander.  
Photo: Jonathan Halford

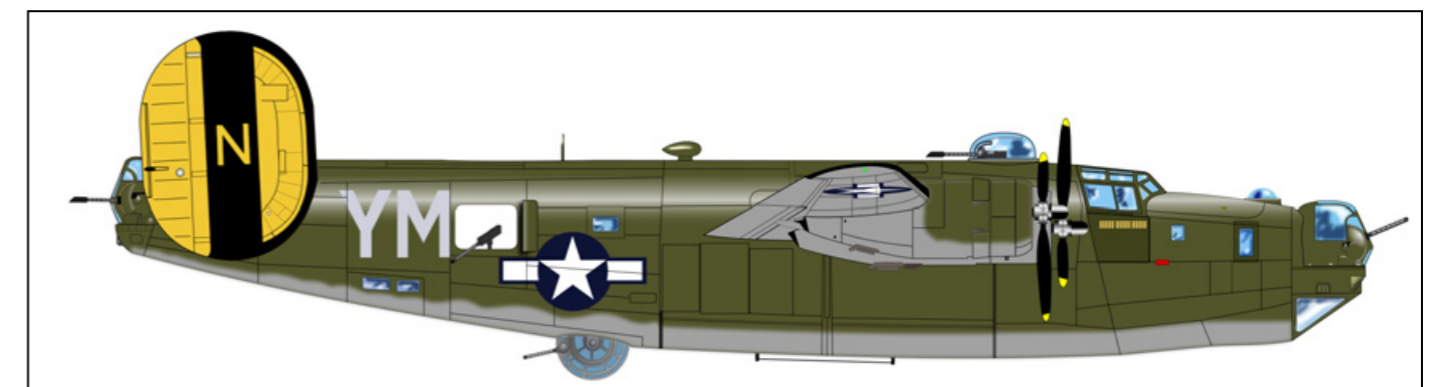
# USAAF Quiz

*By an anonymous SRFC member*

*You can Google the answers but we urge you not to*

**Answers on page 32**

1. Which USAAF P-47 pilot had a cousin flying in the Luftwaffe?
2. Name the famous film star B-24 pilot of the 445th bomb group.
3. Raids on Schweinfurt and Regensburg were infamous for the casualty numbers. What was made at the targets?
4. Identify the following heavy bomber bases in England:  
P-----k; T-----m; K-----n; T-----h; K-----l; R-----l; S-----m; G---t A-----d;  
W-----g; B-----e; M-----h; G-----n U-----d; T-----e A-----s.
5. Name the following top commanders of the USAAF:  
'H' A; I E; C I M; J D; C S.
6. The first B-17 raid was on Rouen airfield. Who was the lead pilot (later very famous in 1945)?
7. Who was the pilot of the *Memphis Belle*?
8. What two British designs turned the P-51 Mustang into the superb long-range fighter it became?
9. What was the nickname of the 100th Bomb Group?
10. What was the standard number of crew for the following?  
B-17; B-24; B-25; B-26.
11. Name the companies which designed the following:  
B-17 Flying Fortress; B-24 Liberator; B-25 Mitchell; B-26 marauder.
12. Who were the Carpetbaggers?
13. What was Aphrodite?
14. Which 'famous' pilot was killed on an Aphrodite mission?
15. What was the famous boast made about the Norden MkXV bombsight?
16. What was the main visible difference between the B-17F and the B-17G?
17. Name the first heavy bomber to complete 25 missions over Europe.

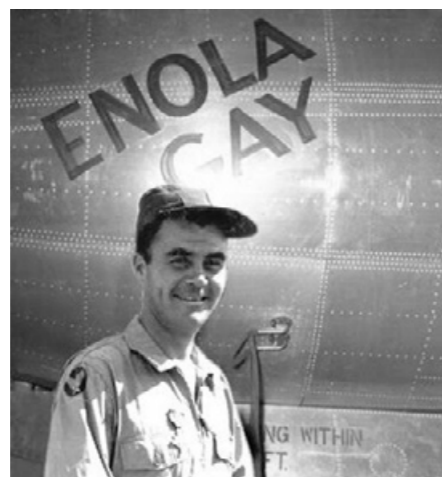




# USAAF Quiz – answers

Quiz is on page 31

1. Col. Hubert 'Hub' Zemke of 56th Fighter Group.
2. Major (then) James Stewart.
3. Schweinfurt – Ball bearings; Regensburg – Bf109s (Me109s OK).
4. Polebrook; Tibenham; Kimbolton; Thurleigh; Knettishall; Ridgewell; Shipdam; Great Ashfield; Wendling; Bassingbourne; Molesworth; Grafton Underwood; Thorpe Abbots.
5. 'Hap' Arnold; Ira Eaker; Curtis LeMay; Jimmy Doolittle; Carl Spaatz.
6. Paul Tibbetts who later piloted the *Enola Gay* which dropped the atom bomb on Hiroshima.
7. Robert Morgan.
8. The Merlin engine and the 108-gallon paper drop tank.
9. The Bloody Hundredth.
10. B-17 – 10; B-24 – 10; B-25 – 5; B-26 – 5-7 (mission dependent).
11. B-17 – Boeing; B-24 – Consolidated; B-25 – North American; B-26 – Martin
12. Although USAAF, they were *de facto* the air arm of the OSS (Office of Strategic Services), forerunner of the CIA.
13. It was the codename for the use of radio-controlled bombers (usually B-17s or PB4Ys) as precision-guided munitions against bunkers or other hardened/reinforced enemy facilities.
14. Lt. Joseph P Kennedy Jr., USNR, elder brother of JFK.
15. That it could hit a pickle barrel from 20,000ft. In fact, at that height not only would a barrel be invisible but the cross-hairs on the bombsight would completely cover it and some surrounding area!
16. The G model had a ventral nose gun turret.
17. A B-17 named *Hells Angels* of the 303rd Bomb Group, four days prior to the B-17 *Memphis Belle*. However, the *Memphis Belle* went back to the USA after its 25 missions whereas *Hells Angels* did not return until 1944 after 48 missions.



# SRFC videos online

*We now have over 100 videos for you to watch!*

If you have not yet discovered the club's YouTube channel you are in for treat. Just search YouTube for 'Sussex Radio Flying Club (SRFC)' or go to the club's website – [srfc.bmfa.org](http://srfc.bmfa.org) – for a direct link to the channel or click **here**.

The videos will play on any device but the bigger the screen the better. Tip: Consider 'subscribing' to the channel – once on the SRFC page hit the 'Subscribe' button. Subscribed channels are those you visit frequently and saves you from having to search each visit (a bit like Favourites or Bookmarks on your web browser). Additionally, if you click the 'bell' icon you will be notified via your smartphone whenever a new SRFC video is uploaded. A message will pop up on your phone's screen together with a 'ping' but you can easily turn off the 'ping' if you find it irritating or obtrusive and just retain the visual notification.





# Gliding Summer 2023

## *Robin Strange looks back on the gliding competitions held in the summer*

As you read this it will be the short days of winter and thoughts of the long summer days will be lost in the mists of our memories. We managed to fly both our single-type and our normal bi-weekly gliding competitions but regrettably both competitions were badly affected by the weather. For the single-type competition we managed to fly only four of the seven days (57%) totalling nine rounds whilst for the bi-weekly competition, of the planned 24 rounds we managed to fly 14 rounds (58%); it could be a lot better. However, whilst the weather did its best to ruin our competitions – and it did seem at times the weather was winning – we had a very competitive series of events and most importantly we had good turn outs and enthusiastic attendees.

The single-type competition used a modified free-flight Kiel Kraft Caprice. The model is best flown with as little control input as possible and to leave it to fly itself – after all, it is a free-flight model. Initially we were worried that the model, being so light (in the range of 270 to 320g), would pick up thermals and disappear over the horizon

*Capricious flyers pause for a photo during the single-type competition. Left to right: Derek Woodley, Robin Strange, Clive Upperton, Jonathan (Jon) Halford, John Ivory, Mark Vale and Keith Miles. Photo: Tom Gaskin*



at a great rate of knots and that is still a possibility but the motor-on time was left to be decided on the day and it was decided that on days of high thermal activity a shorter motor-on time would be set. In the event, this last year we kept to 30-second motor runs. The winner this year was Derek Woodley with four wins followed by Mark Vale and Robin Strange with two wins apiece.

Interestingly, Clive Upperton opted for a flat bottom to his Caprice wing whilst the rest of us stayed with the original heavily undercambered design. Clive's model certainly penetrates better in windy conditions but the results indicate that it wasn't a game changer.

The mid-week gliding competition for gliders of up to 2.5m span using height limiters set to 150m has again been very competitive with Robin being 79 points short of Mark who had a total of 13,590, a mere 0.6% difference. Third, fourth and fifth positions were again very close with Clive coming in third with 11,606 points.

Whilst the competitions are competitive (!) we all fly for fun and to enjoy ourselves. Even if you might not be of a competitive nature please do consider joining in this year, competing will improve your flying and hopefully you will have fun, which is the main aim.

*Robin, Clive, Mark and Truffle. Kiel Kraft Caprice proved an excellent choice for the single-type competition. Photo: Jonathan (Jon) Halford*





# Peter Plank Memorial Fly-in

*Clive Upperton reports on the second fly-in held in memory of long-time SRFC member, Peter Plank, on 16th September 2023*

Whilst many of you knew Peter through his role as our Membership Secretary, there may be a number of you who were unacquainted. Peter was a life-long aeromodeller and like many of his age started out as a youngster building free-flight models. Later graduating to radio-controlled models, it was a passion that remained until he passed away in September 2021. His long service as a member of the Committee was recognised after a 14-year stint dealing with the club membership administration.

Throughout his time with SRFC Peter was a prolific builder and like so many of us, his collection of model aircraft grew and often he moved models on to club members, some for a give-away price or simply free. An active flyer he enjoyed being part of the competition side of our activities especially the summer gliding events. With his loss a number of his close weekday flying buddies decided to remember Peter with an annual get-together to remember Peter and to fly his models.

And so it was that the second Memorial Fly-in was to be held on Saturday 9th September. As I sit here typing this in mid-December, whilst it is windy and wet outside, it was hard to believe the event was called off due to the high temperatures. Fortunately, the following Saturday proved to be ideal as we were blessed with sunshine and cooler temperatures and a breeze enabling up to approximately a baker's dozen of Peter's models to be displayed and in most cases flown.

The accompanying photographs taken by Stuart Duncan provide a sense of the occasion which was enjoyed by those in attendance and illustrate the 'Spirit of Peter Plank'.



*Peter Plank and Clive Upperton with Peter's Wot 4 and piggy-back Radian UMX. Photo supplied by Clive Upperton. All other photos: Stuart Duncan*



*Left to right: Paul Gladstone, Tom Gaskin, Clive Upperton, Mark Vale, Keith Miles, John Ivory, Alan Caldecott and Jerry Hansen*





Several Hanky Plankys were flown as a tribute to Peter Plank. Left to right: Tom Gaskin, John Ivory, Pim Smith, Robin Strange, Clive Upperton, Paul Gladstone and Mark Vale



# Small Steps

## ***Les Crane reports from his workshop, taking advantage of poor flying weather to catch up on building***

Since my last article I have not had as much time to build and fly as in the summer due to weather, personal commitments and dealing with the sale of Ivan Thomas's models but I have made some progress. I am still trying to improve my flying skills such that I can try the B test but am aware that I still have a way to go! In fact, trying to be clever, I lost control of my Acro Wot requiring four days of repair but all is fine now.

On the build front I have completed the Crescent Bullet and maiden it on 22nd November. I had a quick first flight and landed to make some aileron servo throw changes then a longer flight to make final trim adjustments, following which I had a third flight performing simple rolls, reversals, etc which were fine although the rolls were slow. I had set throws at the recommended levels but obviously need to increase those on the ailerons. For those who see me land regularly, I even managed a greaser on the last flight!



*Crescent Bullet.  
All photos: Les Crane  
unless otherwise stated*

I have also re-commenced work on the Miles Gemini's rear fuselage and empennage. Being twin fin and rudder it took a while to understand the linkages to the rudders as shown on the plan, which were new to me. The plan shows a central pivot driving rods to each fin where a 90-degree linkage attaches another short rod to the rudder. So far I have built and shaped the fins and rudders, attached the fins



*Gemini's rudder linkage*

to the tailplane, connected but not fixed the rudders to the fins and am working on sorting the actuating mechanism which is trying! The elevators have also been built, shaped and attached but not fixed to the tailplane. The central pivot is supposed to also extend through the bottom of the fuselage to encompass a steerable tailwheel. I couldn't make it work so fitted a separate free castoring tailwheel. Prior to this I had joined the rear fuselage to the front

section by the method shown on the plan and adjusted the front fuselage and windscreen former to get a close joint. You will recall from previous installments that this model is unusual in that you don't build a fuselage and bolt on the wings in the traditional manner, you build a front fuselage with the wings attached as part 1 and the rear fuselage and empennage as part 2 and join the two together using pegs at the bottom of the fuselage and pins through a fuselage wide tube halfway up the sides. Very awkward but the joint is tight although I plan to add three more attachment points to spread the stress. Believe me, the traditional method would be easier to make and less stressful on the builder! I also checked the alignment of the tailplane – which was fine but I did not yet attach it – before commencing work building the fins, rudders, elevators and operating mechanisms.



*Gemini airframe nears completion*



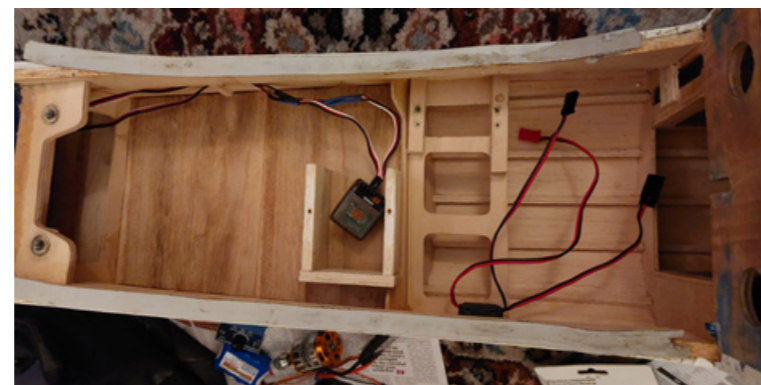
Flair Giles 202. This model was much flown by Ivan's late son, Jason. It is now being given a new lease of life by Les. Photo: Grahame Pearson



Next is the Flair Giles 202 which I acquired from Ivan. I have started the conversion to electric. I have fitted new servos to the rudder, elevator and wings and a Spektrum Rx (it was previously Futaba 35MHz), removed the fuel tank and engine servo/actuating rod. Sadly the large plastic cowl is badly cut away and requires a lot of remedial work. There is only one place to put a battery without needing to remove a wing to replace it and that requires building a battery board/box plus further significant cutting of the cowl for access, so there is a lot of thinking and work to do on that.



Above: electrifying the Giles. Right: installing receiver, etc



Superb quarter-scale Stampe. As with all Ivan's models, construction cannot be faulted



Another ex-Ivan airframe, this time an Ugly Stick

I have included photos of two airframes I bought from Ivan, a superb quarter-scale Stampe and an Ugly Stick.

I am a glutton for punishment! The club recently received an offer from another club of three vintage models. Despite my, now, extreme lack of storage space, I looked at two of them and bought them. Both are a bit tired and with no power train having been I/C I am going to convert them to electric. I have two suitable motors which I bought from Ivan.

The models are a Red Zephyr, 72" span, and a Quaker of similar span (not the 84" model). Both are in my garage awaiting their turn.



Red Zephyr. Photo: Rob Stanley



Quaker on balance rig



# Helicopter stuff

## Jerry Hansen reports from SRFC's helicopter site at Poling

Since the last *FlyPaper* things have been looking up at Poling. We have two more members helping out with mowing and hedge cutting along with other things, so thanks to Dan and Gareth. Both have put in a lot of effort recently, and thanks to Mark for servicing the mowers.

Keeping Poling nice and tidy takes a bit of time and you all can join in if you can spare 20 minutes or so after flying. At the moment the hedge is cut back (thanks Dan) and the field is well mown so all is well .

If you are a new member and fancy a bit of dabbling in the black art of heli flying we can help you with that, just ask.

### Unexpected Spektrum issues

The following may be well known to seasoned Spektrum users but may help those who have recently switched to the brand.

Recently turning on my DX7 transmitter it appeared to not bind with the receiver, the servos just chattered. This happened on several occasions and with various receivers.

I initially thought my mobile phone had wiped the model memory or the bind. However, this was not the cause.

John at Logic RC tells me that this lack of connectivity is because the transmitter was too close to the receiver when turning on. This results in the receiver being swamped by the transmitter signal; moving the transmitter a little further away solves



Dan flying his Align 600 at Poling.  
All photos: Jerry Hansen

this problem.

I also sometimes have a 'bind failed' call-out from the Tx. On re-binding again, with the Tx further away all was fine. I guess the Tx is rather powerful, my phone is not guilty!

On another Spektrum matter, my transmitter DX6 LiPo battery was discharging after about a week which was highly inconvenient. John at Logic RC was again

contacted. He told me that a LiPo is designed to self-discharge 50% after 72 hours and 100% after a week. Having had a flat battery several times when I went to go flying I changed the LiPo for a Lithion Iron (Li-ion) battery which has resulted in no more problems. Sussex Model Centre sell a Spektrum 2000mAh Li-ion battery – pictured, left – for £35.99.



A portable table saves you getting all muddy and losing stuff in the grass



An Align 600 flying at Poling. Note the AstroTurf area for take offs and landings



# Depron Dambuster!

**John Ivory builds a 38" wingspan Lancaster from the RCM&E plan, but swapping its balsa construction for Depron**

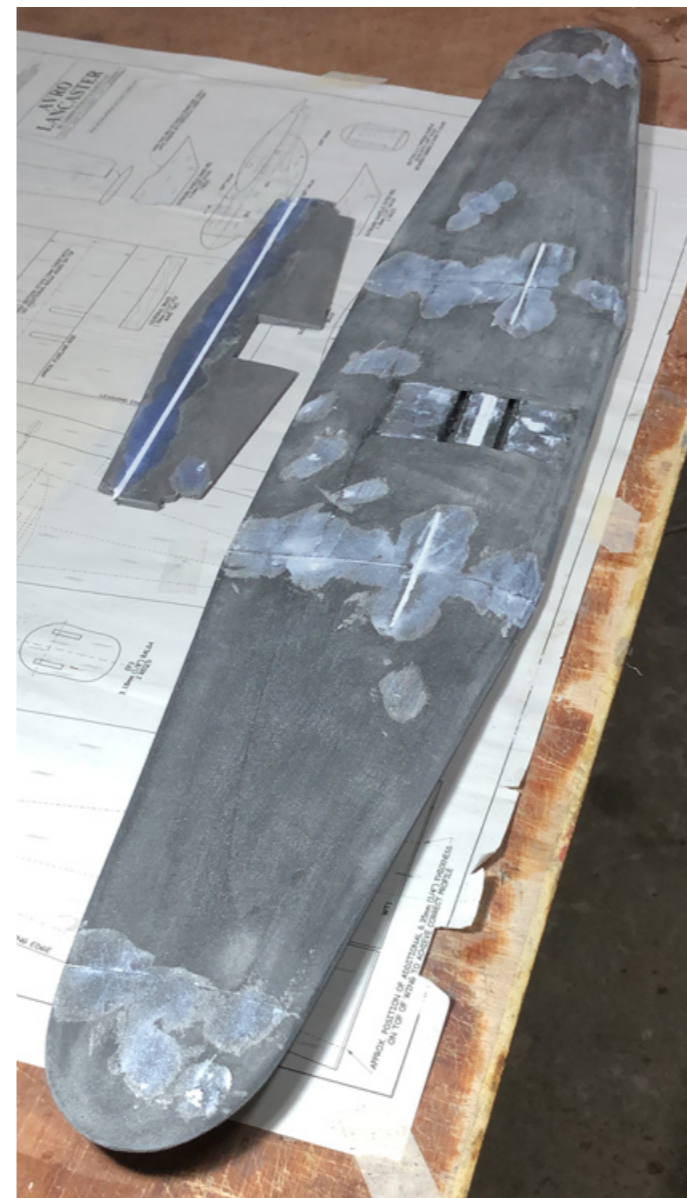
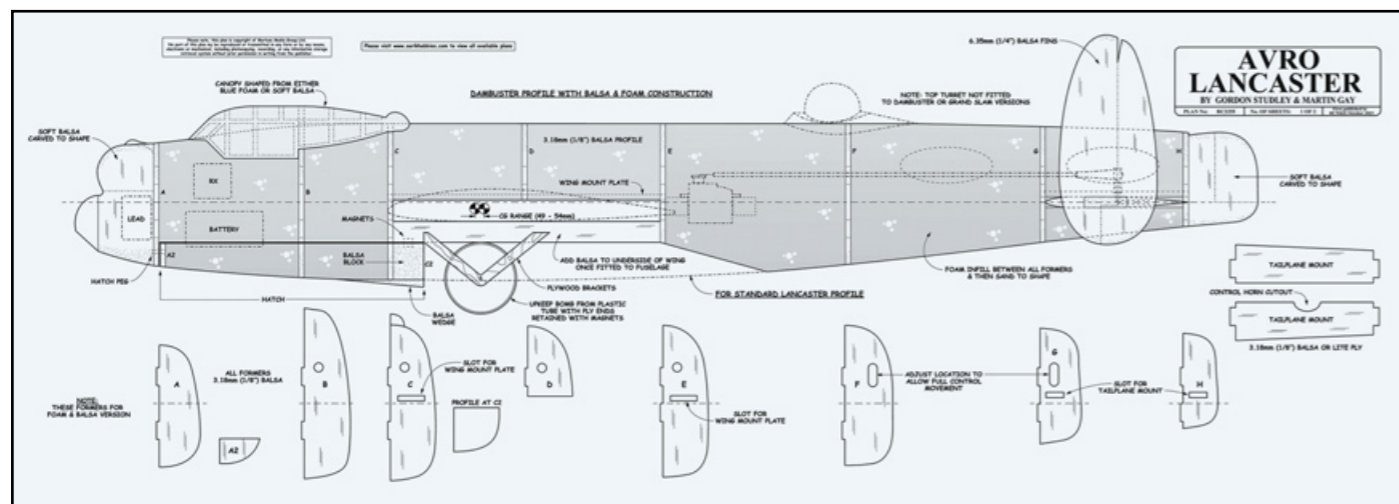
It all started with a text from George Evans: "I've just seen the next build for you." What was George talking about? But in a very short time I had a number of messages from other club members asking the same question. George finally came back explaining that October 2023's RCM&E magazine contained the plan for a small Dambuster Lancaster as either a slope-soarer or electric powered. Clive Upperton and Robin Strange both informed me that they had the magazine with the plan which I could borrow if I decided to build one. Part of the plan is reproduced below.

Some days later when we were all flying at Coombes I saw the plan for the first time. George was right, the model was just the size and type I like to build. It was 1/32 scale giving a wingspan of 38". I decided on the electric version but would not build it out of balsa but Depron.

It didn't take me long to start the build. I ordered the two small brushless motors and ESCs. I already had enough 6mm grey Depron, receiver and three 4.1g servos but before putting knife to Depron I had to consider how to go about translating the 1/8" and 1/16" balsa specified on the plan to the 6mm Depron I was planning to use.

First I started on the wing, tailplane and fin. After tracing these out on tracing paper for templates I cut the sections out. Three layers were required to be laminated together for the wing with the inner layer requiring slots cut to allow for a carbon-fibre spar, aileron servo and ESC wiring. My first attempt at laminating the wing didn't go well as the spray contact adhesive solvent attacked the Depron. However, my second attempt went much better – this time I quickly spread the adhesive out before it had time to attack the surface.

Once laminated and shaped to the correct profile I glued the wing sections together ensuring straightness and the required dihedral. The tailplane and fin were straightforward being made from 6mm thick Depron with the addition of a carbon-fibre spar added to the tailplane.



Constructing the fuselage was more of a challenge due to the fact that I was using 6mm Depron, with the numerous thickness corrections this entailed. Nevertheless, the centre section and planking of the fuselage quickly came together.





It was now time to work out how to attach the wing to fuselage, I chose to use M4 screws with captive nuts mounted on liteply in the fuselage and plastic screws with 4mm inside diameter aluminum tube mounted in the wing to stop the wing being crushed when the screws were tightened. Next was to glue the tailplane assembly to the fuselage, again ensuring the correct alignment.

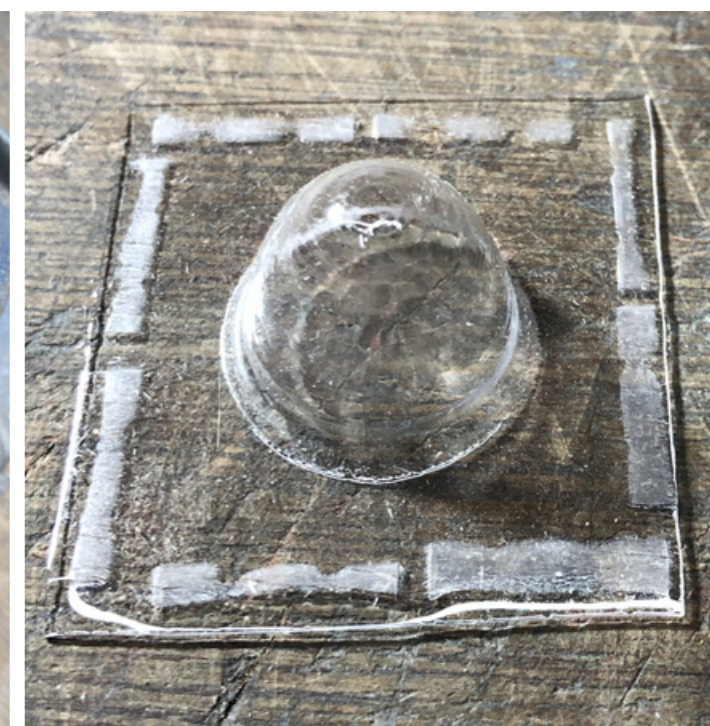
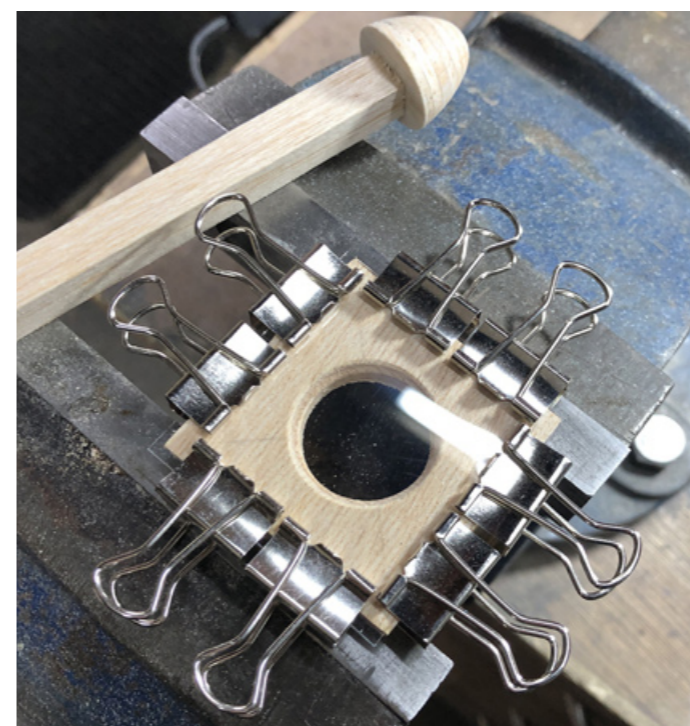
To finish this stage of the construction I covered all parts using 17g glasscloth using a water-based laminating resin.



The four nacelles, two of which had motors and ESCs within, were made from balsa as Depron would not have sufficient strength. This was quite a time-consuming job as the fit to the wing was not the easiest. One of the issues I ran into was the recommended motors were too large to mount within the nacelles so I decided to use smaller ones, being a 2211 2300kV which I have used before as it has a rear mount that allows the motor to be attached afterwards. The propeller adapter that came with the motor would be very difficult to use and mount the spinner, to overcome this problem I turned some new adapters on the lathe with a 2mm screw thread in there ends.

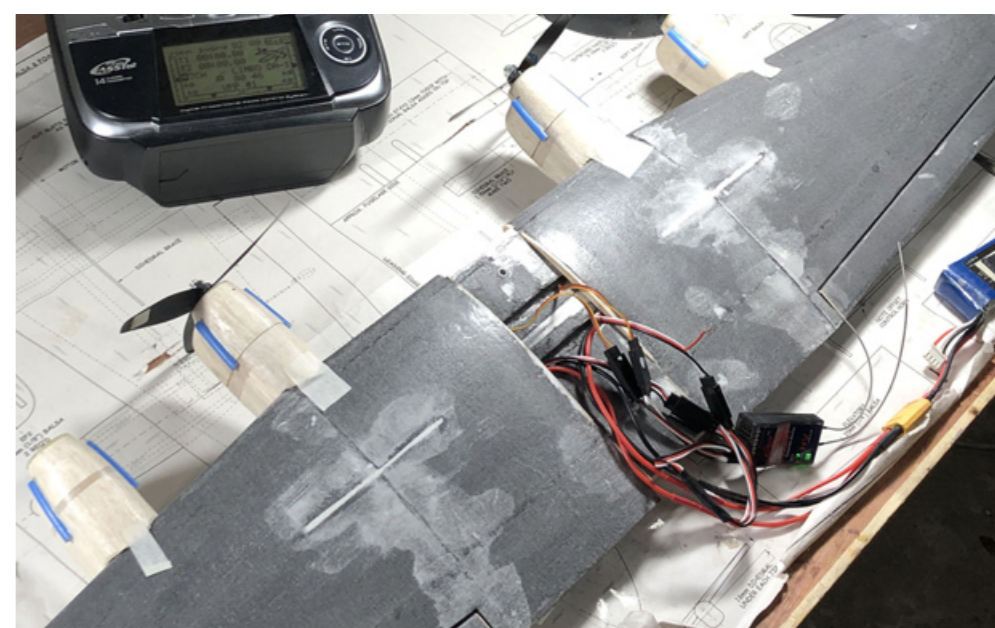


Off the shelf spinners are always difficult to find so I decided to vacuum-form my own from 0.5mm plastic sheet. After making a spinner former, mounting the sheet on a frame with a central hole, holding it in place with bulldog clips. I then heated the sheet and plunged the former into the sheet. I have used this method many times; it works well for small mouldings. To mount the spinner, I turned a thin fibreglass disc with a 2mm hole in the centre and glued it within the spinner. Using a 2mm screw the spinner was fitted to the propeller adapter.



It was now time to fit and test the ESCs, set motor direction, also the aileron and elevator servos were installed as access would be impossible after final assembly.

Painting was carried using acrylic spray paints and masking film. Cockpit framing was from black self-adhesive film cut into







The finished Lancaster – another amazing creation in miniature from John Ivory.  
All photos: John Ivory

1mm and 0.5 mm strips placed in position and fixed using clear lacquer. The roundels were printed using inkjet matt white vinyl self-adhesive sheet.

With all construction finished, servo movements and direction checked the last job was to set the CG by moving the 3S 1350mAh battery position. That done all I needed now was a calm sunny day for a test flight.

Well, I could not believe it – the forecast for the coming Tuesday was just that! Off to Coombes with the Lancaster. A number of members were already there flying. Clive helped to check the plane out just in case I had forgotten something. Last but not least was to carry out a range check. Following a pre-maiden photo (See cover. Ed) the time had come for the test flight. With Clive holding the Lancaster in the launch position, me standing behind him and motors at full power I gave Clive the nod. Off it went, straight as a die. I must admit I was very nervous and could feel my legs shaking but all went well for its first flight. Soon it was time to land, losing height the Lancaster landed but I ran out of elevator just before touchdown. With the elevator throw increased the second flight was much better allowing the Lancaster to flare before landing.

# Hanky Planky – autumn update

*Clive Upperton with a round-up of the competition scene – Hanky Planky style*

In November 2022 the ‘Hanky Planky’ burst upon the modelling scene as a free plan designed by Terry Anderson and published in *RCM&E* and latterly an alternative version from Ron Gray using predominantly Depron, details of which were available on-line.

In early 2023 rummaging through my collection of *RCM&E* magazines I re-read the article and remembering our late clubmate, Peter Plank or ‘Planky’ as he was often called, made me think of running a mass build using the Hanky Planky, the purpose being to investigate whether this model would be suitable for a competition at the annual Peter Plank Memorial Fly-in held in September. Research on the internet provided information that a number of clubs around the country had already built Hanky Plankys in quantity and that a series of competitions called ‘Wacky Races’ was in full swing.

My proposal was put to a number of Coombes’ regular weekday flyers and the response was varied with some keen to give it a go; others were less enthusiastic. This varied response did not surprise me as I think this model is very much a Marmite model – you either like it or hate it.



Hanky Planky may not be for everyone but if you enjoy a fast model which is a challenge to fly well you should give it a go.  
Photo: Clive Upperton



Anyway, with a handful of members on board and with plenty of build time before the September Fly-in building commenced.

Differing materials were used ranging from traditional balsa, the Depron version and even liteply and built-up wings with Depron tailplane. Time moved on and by the summer, despite the slow build for some of us, the models were completed.

Maiden flights were undertaken during which it was quickly established that the model in its various forms was challenging to fly and significant time was spent trimming them – an activity that I still keep doing to this day. The model is very sensitive if the throws are not kept to the minimum and several models showed a tendency to climb when under power, even to the point of performing a perfect loop.

The period before the inaugural competition in September was spent trying out the various tasks which a couple of models failed miserably to achieve. A three-task competition called the 'SRFC Hanky Planky Triathlon' was held on 16th September. Five members participated: Mark Vale, John Ivory, Paul Gladstone, Tom Gaskin and Clive Upperton. Each competed in the Spot Landing, the Pylon Racing and finally Climb to Height (deadstick, last down to win). The winner was John with Paul runner-up.

This first competition was voted a success by the contestants and as a result it was agreed in consultation with the Committee to run a winter competition once a month from October to March.

The weather conspired against us in October and despite an alternative date insufficient members were available on that day so the event was cancelled.

Moving to November the appointed day was again weather affected but a discussion on WhatsApp agreed that Friday 17th November looked better, which it proved to be.



November's round. Easy to stand under the Limbo tape, not so easy to fly under it!  
Left to right: Clive, George, John, Robin and Tom  
Photo: Pim Smith

Five members competed, John, Clive, Tom, George Evans and Robin Strange.

Again, another three tasks were flown: a Deadstick landing nearest the spot, Breaking Bread (snapping faux bread sticks stuck in the ground) and Limbo (highest number of low passes in two minutes).

The first task, deadstick landing nearest the spot and possibly starting out as the easiest proved harder than certainly I thought with distance ranges from 18.65m to 1.3m from the spot.

The second task involving low flying and cutting up to six faux breadsticks resulted in no cuts and one person only touching one stick. More practise needed!

The third task, the limbo, often a model-breaker was not so on this occasion. However, only two flyers managed to pass under the tape. Six passes being the winning score with the runner up five.

Collateral damage by the end of the round was one model with wing and fuselage damage meaning it could not compete in round 3 and several broken propellers, but no safety issues so well-done flyers. The winner was John with Clive runner-up.

At the time of writing, members who have built a Hanky Planky are: John Ivory, Mark Vale, Derek Woodley/Colin Lucas, Paul Gladstone, Tom Gaskin, George Evans, Robin Strange, Ken Harmer (in build) and Clive Upperton. With competitions still to run in January, February and March (and no doubt this will run and run) why not join us? *FlyPaper*, June 2023 tells you all you need to know about the model, construction details and parts needed and where to obtain.

The next round is planned for 14th December and, weather permitting, this should have taken place by the time you read this.



Hanky Plankys flown in the inaugural competition.  
Photo: Clive Upperton



# FPV Indoor Drone Racing

**Myke Pinker gives an insight into the fast growing sport of FPV drone racing**

Back in 2006 when I started running indoor flying events in the big hall at Portslade Sports Centre we used to get an average of 15 flyers, and more some nights, flying anything from foamies, micros and helis. Things grew and by 2014 we were even seeing tri-copters.

These were the first edition in FPV flying. FPV – or First Person View – is where the pilot wears special goggles linked to a camera installed on the model to give the experience of actually being in the cockpit.

Then came the heavy quadcopters with reasonable CCD cameras and huge VTXs.

Jump to today and these machines are so well developed that my little 'Tiny Whoop' weighs in at an AUW of just 28g! This includes the frame, an analogue camera, four motors and – on one single board – a receiver, four ESCs, VTX and the 'brain', a Betaflight control system, the configuration of which is almost limitless to tune to your own flavour of flight and at a cost of only £70-90. They have many modes that you can change on the Tx including a 'turtle' mode for uprighting the model if you're upside-down after a crash on the track. They are also very resilient to lots of hits and crashes as they are so light – and we do crash a lot. All telemetry is sent to your goggles live with very little latency. The latest upgrade is that the camera/VTX is digital. The quality is just fantastic, like viewing SHD TV.

FPV racing is now very competitive and needless to say with huge amounts of money. Several years ago the first world's open competition took place in Dubai – the track alone cost one million dollars and most countries sent a team. The winner was a 15-year-old boy, Luke Banister from the UK, and he won \$250,000. Today this



would not be possible as you need to be 18 years old to own and fly (unless you have a parent overseeing and being ultimately responsible). There are many live FPV racing groups online – this is where you meet the fast lads – again lots of prizes and money to be won.

Here are some clickable links to YouTube videos:

**Tiny Whoop Racing:**

<https://youtu.be/iSbHfQxZIIA?si=uFAiRcB351IBDk1c>

**The World's First \$1 Million Drone Race:**

[https://youtu.be/pZ0viMxYDA4?si=uVlpyW\\_wqNOOEdGQ](https://youtu.be/pZ0viMxYDA4?si=uVlpyW_wqNOOEdGQ)





# SRFC Committee 2023/24

**Chairman**

**Derek Woodley**  
chairman.srfc@gmail.com

**Secretary**

**George Evans**  
srfcsec.srfc@gmail.com

**Treasurer**

**Shaun Tatchell**  
shaun.tatchell@gmail.com

**Membership Secretary**

**Mark Vale**  
memsec.srfc@gmail.com

**Glider Competition Secretary**

**Robin Strange**  
robin.srfc@gmail.com

**Power Competition Secretary**

**John Ivory**  
john.ivory.srfc@gmail.com

**FlyPaper Editor**

**Grahame Pearson**  
grahame.pearson.srfc@gmail.com

**Training Co-ordinator**

**Mark Vale**  
memsec.srfc@gmail.com



Derek



George



Shaun



Mark



Robin



John



Grahame

## Non-Committee Positions

**Poling Representative (Helicopter  
Rep & Field Maintenance)**

**VACANT\***

**Field Maintenance (Coombes)**

**Ken Hamer**

**Social Events**

**VACANT\***

**Website & Data**

**Robin Strange**

**Safety Adviser**

**Dave Knott**

**Safety Marshall 1**

**Paul Gladstone**

**Safety Marshall 2**

**John Wase**

**Safety Marshall 3**

**VACANT\***

*\*If you feel you can fill a vacant position please contact the Secretary for details*