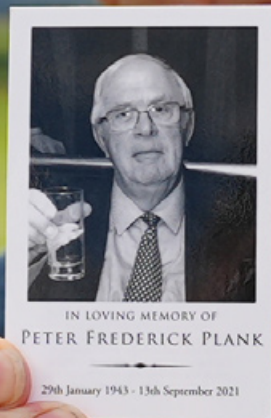


Flypaper



Peter Plank Memorial Fly-in

Coombes, 10th September – see page 16

BMFA online auction
Models under the hammer – see page 22



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Cover: Pim Smith remembers Peter Plank. See page 16. Photo: Alex Blok

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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

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

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Chairman's Report

Les Crane reports on the conclusion of an enjoyable year

The summer club evenings have been and gone and have been replaced by the winter indoor meetings. We have moved from the Golf Club back to the Leisure Centre, in the main due to the cost of venue hire and whilst this venue was much better for holding the auction it is not as 'comfortable' as the Golf Club. However, it is significantly cheaper and is booked for several months ahead at the time of writing.

The auction at the October meeting was much better attended than other recent ones – Auctioneer Colin Lucas's merciless sense of humour may have helped – and there were a good number of items for sale with most being sold. Several of my models found new homes and have made some much needed space available for new builds.

We continue to attract a small number of new members and training continues satisfactorily but if anyone would like to become an instructor please let us know.

For those who didn't get there, we had a terrific talk from Derek Woodley on a typical Concorde flight from London to New York and you missed a treat, but it would be good to see more people attending the club's indoor meetings.

The Christmas Party meeting and the handing out of prizes takes place on 2nd December, around the time this issue of *FlyPaper* hits the Inboxes, so congratulations to those who have received trophies in the various categories. There will be a report of this meeting in the next issue.



Photo: Robin Strange

Old Warden Revisited

Clive Upperton visits the hallowed Bedfordshire airfield for 2022's second Model Air event on 18th September

Regular *FlyPaper* readers will recall my report of the May Model Air event at Old Warden, Bedfordshire, home of the Shuttleworth collection of historic aircraft, cars, motorcycles and farm equipment. (See *FlyPaper*, June 2022. Ed)

The second Model Air event of this year took place over the weekend of 17th, 18th September and reflecting on the promise I had made myself in 2020 to build a single-channel, rudder-only model to fly in a SAMS 35 spot landing competition, now was the time to do so.

The model – a Vic Smeed ‘Poppet’ – was subject of a previous article (See *FlyPaper*, March 2022. Ed) and had only recently been successfully test flown and with the encouragement of Derek Woodley – the owner of an identical model – we agreed to attend the Sunday session. I received confirmation regarding weather conditions and with the addition of Colin Lucas (who had supplied Derek with a DC Dart 0.5cc diesel engine), the three of us travelled up the Old Warden on Sunday morning. We had lots of chat on the way and arrived at our destination late morning and being eager for that mid-morning coffee made our way to the restaurant and the inevitable comfort break.

It was obvious early on that wind strength was going to be an issue for our lightweight models but with model flyers’ usual optimism we decanted our equipment having signed in and now wristbanded allowing access to the flying areas.

Derek met up with an old friend and exciting single channel goodies were handed over amid much discussion over this early RC technology.

At this stage we found out that the Spot Landing Competition was delayed for two hours until 3pm. One assumed that a wind improvement could be expected but in fact such optimism was misplaced.

We conducted a test run of our engines – both Darts – with the inevitable starting issues usually followed by the comment, “Well, it was OK yesterday”. Once the brief trials were complete lunchtime was called after which we visited the trade stands resulting in much rummaging with real coinage changing hands.

With time moving on we returned to the flightline to find that many of the flyers had decided not to participate due to the wind strength. Fortunately, seven contestants made the choice to fly including myself with Derek and Colin flying Derek’s model.

Being first timers, we only had a vague idea of the rules, and I for one am normally keen to understand them from the get-go. For your information, the rules for the day were:

1. The model must be a Vic Smeed design.
2. The model must be diesel-powered, not exceeding 0.75cc.
3. The model must be single-channel rudder-only.
4. The minimum motor run for a minimum of 30 seconds’ flying time.

5. The model nearest the spot is the winner.
6. The pilot measures the distance once landed in paces.
7. The Contest Director (CD) will allow a re-fly if the thirty seconds flight is not achieved.

The pilots drew numbered pegs for flight positions with Derek first, me second and Colin last.

The sound and smell of diesels starting filled the pits area but this was swiftly blown away by a moderate breeze making the spot landings particularly challenging, and not without a large chunk of good luck, usually a lull in the wind strength.

*Derek (left) and Clive with their pair of Poppets.
Photo: Colin Lucas*



Colin launched Derek's Poppet which made slow progress into wind while under power and climbing away from the launch point. Having attained the obligatory run time, the engine cut and the model commenced circling downwind and while banking into a landing approach the wind strength prevented landing close to the spot, hence he landed some distance from the spot. Derek paced out the distance to his landing at 20 paces.

Up next, my re-tuned engine started and was self-launched into wind, and while I was guided back to the flightline by the official who was timing my engine run, the model went through the sun and flew downwind and with me being slightly disorientated (well, that's my excuse) the model went into a spiral dive and nosed in damaging the model. In with a chance of a measured distance I had failed to meet the minimum engine run of thirty seconds. However, on returning to the Flight Line the CD advised me I could re-fly but regrettably there was too much damage for a quick field repair so 'nil points'.

Contest Director Wes pronounces Derek the Spot Landing winner.
Photo: Colin Lucas



The other contestants flew in the less than favourable conditions with the flights causing light-hearted amusement from those watching.

Colin flew last with the model enjoying a long flight exceeding the minimum engine run and using his well-known flying skills to maintain a lengthy glide but being far downwind he landed a long way downwind, in fact 80 of his paces.

With a simple scoring system, Wes, the Contest Director, was quick to thank all those

participating and pronounced our man, Derek Woodley, the Winner.

It was now time to pack up, say goodbye and return to the car for the trip back to Sussex, after what was a most enjoyable day in good company and among like-minded folk who enjoy the sport/hobby of aeromodelling.

Diary dates 2022/2023

**Make a note of these dates for events at
Worthing Leisure Centre, Shaftesbury Avenue, BN12 4ET**

- 2nd December Christmas Get-together and Party
7.30-9.30pm**
Come along to our pre-Christmas get-together and party with buffet supper, raffle and prize-giving
- January No meeting**
- 3rd February TBC but probably First Aid orientated meeting
7.30-9.30pm**
- 3rd March AGM
7.30-9.30pm**
Your chance to become actively involved in the running of the club. More details nearer the time
- 14th April Spring Auction
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. If you missed the first session in
November come along to the December session**

- 10th December Indoor Flying Evening
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.

Gliding 2022

Robin Strange, Gliding Competition Secretary, reports on an enjoyable year of gliding

Another year of gliding has come and gone and what a year it has been with major changes to the competition rules. Regrettably I cannot report that more members are taking part in gliding but those of us that do have had another active year and a very competitive competition thanks to the rule changes.

Thermal soaring still takes place at both Coombes and Ashurst though the former is the most popular location as it allows members to fly power and gliders on the same outing although Ashurst remains the better location for thermal soaring. Most of our thermal soarers have been around for a while with one notable exception – Mark Vale’s hybrid that uses a Topmodel Prelude wing and a pod and boom fuselage built from parts obtained from Hyperflight and what a model it has turned out to be.

We go to the slopes when the wind blows from the right direction; we have visited Bopeep, Firle Beacon and Itford in East Sussex and Beeding Bowl and Chantry Hill nearer to home and of course Keith Miles has been flying at the Long Mynd in Shropshire as reported in *FlyPaper*, June 2022. We have been flying a variety of slope soarers from Mark’s 3.748m Diana-2 to smaller models such as SAS Aztec, Chris Foss Phases Middle, 5 and 6, also Derek Woodley’s venerable but unnamed (!) own design glider from 1964 using his 1960 F&M Hercules 10 channel 5-valve 27MHz transmitter (to be the subject of a future *FlyPaper* article. Ed), Cirrus and LS3 and of course a great variety of Wildthings.



Coming in to land at Ashurst.
Photo: Derek Woodley using camera mounted on his NAN Shadow



Derek Woodley’s unnamed 9 foot wingspan own design glider was built by Derek in 1964 and restored during COVID lockdown, seen in the top two photos flying again in 2022. The centre photo, above, shows Derek in 1964 with the same model. It was flown with a then-state-of-the-art F&M Hercules 10 channel 5-valve transmitter operating on 27Mhz that required three batteries: two 67.5V and one 1.5V dry cell. The receiver is an F&M Midas transistorised 10 channel reed superhet running on a 7.2V NiCad battery. This equipment was manufactured in the USA and imported by Harry Brooks. Harry was using this gear when he was joint winner of the 1963(?) World Championships, held in the UK. There was no comparable equipment manufactured anywhere in Europe at that time. Above photos, left and right: Amazingly Derek still flies the glider with the same 27Mhz radio gear, albeit modified to run on modern LiPo batteries!



Mark Vale’s Diana-2 taking-off at Itford, East Sussex.
Photo: Robin Strange

Mid-week Competition

The competition began in April as usual and then after one outing the competition took a break till June thanks to the weather's intervention. We began the season flying to the old rules using a 20-second power climb with an altitude limit of 900 feet, our Coombes limit, which favoured gliders able to climb like a rocket – not very fair in a thermal soaring competition.



Cockpit of Mark Vale's Diana-2.
Photo: Robin Strange

After consultation within the gliding fraternity and the passing of some weeks, new rules were implemented introducing limiters to cut the motor off at a height limit of 150m and with a maximum power on time of 30 seconds. A relaunch is now allowed and a flight time can be recorded if the landing of the model can be seen, whereas before one had to land in the field.

The changes outlined above made for a far more competitive set of competition days and although it meant everyone flying needed a limiter at a price of close on £50 (some were lucky as they had limiters already but not the author and changer of the rules). The club committee allowed us to buy two additional limiters for use by anyone wanting to try the competition before buying one themselves.

Who	Total	April 14		April 28		May 12		May 26		June 9		June 23		July 7		July 21		Aug 4		Aug 18		Sept 1		Sept 15	
		R1	R2	R1	R2	R1	R2	R1	R2	R1	R2	R1	R2	R1	R2	R1	R2	R1	R2	R1	R2	R1	R2	R1	R2
Mark Vale	12691	1000	1000							849		982	878	695	1000	1000	1000	956	417	914	1000			0	1000
Clive Upperton	11250	798	791							1000		0	0	1000	1000	710	1000	952	524	1000	606			869	1000
John Ivory	10864	865	0									939	1000	662	631	849	612	1000	1000	840	792			918	756
Robin Strange	10233									798		1000	687	826	654	884	932	983	605	0	952			1000	912
Paul Gladstone	8498	911	875							531				964	508			965	601	705	623			961	854
George Evans	7622	520	515									933	830			884	791	924	805	496	924				
Derek Woodley	5787													1000	884	1000	903	1000	1000						
Jonathan Halford	5632																	929	800	1000	1000			1000	903
Keith Miles	4946	889	719							833								470	784	477	774				
Rob Garcka	1765																							786	979
Ivan Thomas	666	347	319																						

The competition finished in mid-September though the weather decided that the first competition day in September would be too windy. Overall, we managed 15 rounds out of the planned 24, i.e. 62%.

Mark with his hybrid was the man to beat this year and in the event he held on to the lead till the end. Well done, Mark. Competition for second and third positions were more competitive and once again Clive was in the running taking second with John Ivory third.

Dates for the 2023 competition can be found on the club's website.



Mark Vale's Diana-2 at Itford.
Photo: Robin Strange

Something different

Away from the club sites I enjoyed two weekend outings to aero-towing events at Buckminster, one in May and one in September, with my Flamingo, which were great fun. Both events are organised and run by the Ghost Squadron. For the first we had great weather, the second had a rather poor forecast and the turnout wasn't that great but as it turned out the weather was a lot better than expected leading me to getting into a very strong thermal and maxing out at 1500 feet before I escaped the lift, which then of course turned into a significant downdraft and I ended up with a flight time shorter than many of the other flights.

Robin Strange's Flamingo
at Buckminster.
Photo: Gill Strange



The 'A' Team

Mid-September saw Derek, Clive, John, Mark and I flying at Ashurst with Tom Gaskin's support to attempt and take our Silent Flight (Electric) and Silent Flight (Thermal) 'A' tests.

The electric version requires two flights: taking off, stalling, three thermal turns left and three thermal turns to the right, an aborted landing followed by a circuit and landing within 20m of an agreed point and then do it all again. All five of us passed.

Derek and I then took our Thermal 'A' tests in deteriorating conditions. The thermal test requires three flights with much the same requirements other than the aborted landing – a bit difficult without a motor. I am pleased to report we both passed. Derek was flying his Cirrus and I flew my Bird of Time, which incidentally was lucky to survive as on the first bungee launch it decided to fly off to the right at very low level intent on finding *terra firma* – somehow I evaded the ground and got off the bungee and landed close by in one piece. Phew! Subsequent flights went well and the 'A' was completed successfully.

Now perhaps we should have a go at the Silent Flight (Slope) 'A'.

Membership Report

Mark Vale reports on a successful membership campaign

Since the last AGM, there has been a constant drive in an attempt to increase club membership with considerable success.

One of the ways we have done this has been to maintain an advertisement (*left*)

British Model Flying Association
Members Classified Listings

Sussex Radio Flying Club – Membership Vacancies
Affiliated Club Notices / Posted 3 days ago by Mark Vale / 563 views / Popular

Sussex Radio Flying Club (SRFC) currently has vacancies for new members. Particularly welcome are part-trained and experienced flyers, possibly from other clubs in West Sussex who have lost their flying sites – we can help you get flying again with just a brief check-flight!
We are also currently offering 'Taster Days' for inexperienced or ab initio pilots, though membership may be subject to a waiting list.
Our fixed-wing flying field at Coombes is second to none (see photo). We also have dedicated glider and rotary-wing sites at Ashurst and Poling respectively.
Please see our website srfc.bmfa.org and send us an email via its Contact Us page or reply direct to this ad. We look forward to hearing from you.

in the BMFA classifieds throughout the year with a view to gaining pilots with some flying experience.

In an addition, we submitted an article to *BMFA News* magazine that was published a few months ago. Thanks to Les Crane and Grahame Pearson for putting together the article and classified ad.

Initially, this campaign led to about four or five enquiries a month – much better than previous attempts to boost membership. Inevitably, as the year has gone on, this tailed off somewhat to the odd one or

two a month – few people join the club in the later part of the year, preferring to wait until the new year to get the full value of the membership fee.

As to be expected, not all the enquires turned into membership, but enough have that has made the effort well worthwhile, especially as the BMFA article and advertisements are free – you can't ask for a better return on investment than that!

On behalf of the club I welcome all those who have joined in 2022.

One of the other drives for greater participation and camaraderie within the membership, is to encourage as many as possible to join a WhatsApp group.

Members of these groups generally post when they plan to go flying. I find that I enjoy model flying and learn so much more if I am not flying alone. It makes it so much easier to get to know others and form friendships.

If you would like to find out more, or join a group, please let me know and the wheels can be set in motion. (See *FlyPaper*, June 2022, page 45 for a list of groups.)

The club flying and barbecue evenings held at Coombes throughout the summer months were well attended. It was good to reacquaint and meet with members who are not seen as often.

Membership renewal

We are finishing the year 2022 with 139 members which is very close to the membership of 2021. It has therefore been decided by the committee to keep the membership fees the same for a further year.

SRFC Membership fees: Senior: £52.00, Junior/Students: £12.00

The preferred method of payment is via bank transfer to the following account:

**HSBC (Business account): Sussex Radio Flying Club
Account No: 21428527
Sort code: 40-47-25**

Important: please do not pay your SRFC subscription until the 1st January. You can of course set-up a BACS payment now and defer the payment until 1st January.

The 2023 membership renewal form has been e-mailed to all members as a Word document. You can open this in Word and fill it in and email it to me, or you can print it out (or the one on the next page), fill it in by hand and post it to me. My post and e-mail addresses are in the top-right corner of the form.

Please use the BMFA portal bmfa.justgo.com/Account.mvc/SignIn to pay your BMFA and CAA fees. These are of course completely independent of the SRFC membership fee and can be paid early if you wish.

If you experience difficulties in paying the whole club fee so soon after Christmas, especially in light of the current economic climate, please make contact in the strictest confidence so that we may sort something out to keep you flying.

I wish you and your families a Merry Christmas.



SUSSEX RADIO FLYING CLUB

Application to Renew Membership 2023

Membership Secretary SRFC
Mr Mark Vale
23, Grand Avenue
Lancing
West Sussex
BN15 9PX
Tel – 07536 979494
email memsec.srfc@gmail.com

Please provide your full name and address in Capitals

PLEASE NOTE
Membership and insurance expire on
31st December 2022
No one may fly or use our sites until the
Membership Secretary has received your
renewal documents and fees.
YOU ARE NOT INSURED

DOB (required re insurance)

You can pay your subscription online by bank transfer, cash or cheque to the membership secretary. SRFC Bank Details

SENIOR CLUB	£52:00	JUNIOR CLUB	£12:00	HSBC (Business acc) Sussex Radio Flying Club Account 21428527 Sort 40-47-25
	Visit https://bmfa.azolve.com		Visit https://bmfa.azolve.com	
If you pay by bank transfer, please put a X in the box and advise date of payment →				Date:

IF YOU ARE AN EXISTING MEMBER OF THE BMFA PLEASE COMPLETE THE FOLLOWING.
PROOF OF CURRENT BMFA MEMBERSHIP WILL BE REQUIRED IF THE SRFC ARE NOT THE AFFILIATING CLUB

BMFA NUMBER	BMFA PILOT RATING	AFFILIATED CLUB NUMBER
-------------	-------------------	------------------------

Please fill in all the required box above then read the following declaration and if acceptable to you, sign and return the completed form to the membership secretary, who will then issue you with a **Current membership card** either by post or in person. Any unendorsed applications will be returned and membership facilities suspended pending reapplication.

HOME PHONE NUMBER	MOBILE PHONE NUMBER <small><u>This will be used for Club text messages unless requested not</u></small>	E-MAIL ADDRESS
-------------------	---	----------------

This is to certify that I wish to join the “SUSSEX RADIO FLYING CLUB” and whilst a member will comply with the current rules and recommendations in force at the time of both the “SRFC & BMFA” It is each member’s responsibility to read and understand both SRFC & BMFA handbooks.

Data that you supply may be shared with Members of the SRFC Committee and / or other trusted club members as required (for instance, for flight training purposes)

SIGNED..... **DATED**.....

When complete, please email, post or hand this form with your subscription to the membership secretary.
memsec.srfc@gmail.com A complete, emailed form will be considered as signed.

Peter Plank Memorial Fly-in

Robin Strange looks back at this memorable occasion

On 10th September 2022 the club held a day at Coombes to remember our old friend and club colleague Peter Plank who died in 2021. (Obituary, see *FlyPaper* December 2021. Photos of ex-'Planky' models, see *FlyPaper* September 2022. Ed.)

The main object of the day was to bring together club members with models previously owned by Planky and to fly them, which is what we did; there was a very good turnout of models and people to remember him.



Ex-Planky Twin Tub, now owned by Tom Gaskin. Photo: Robin Strange



Ex-Planky Filey Flyer, now owned by Clive Upperton. Photo: Robin Strange



Robin Strange and Derek Woodley. Photo: Alex Blok



"Here's to you, Planky". Photo: Alex Blok

Two of Planky's models were small gliders that needed a piggy-back to get them into the air and both were successfully flown. Mark Vale used his Wot Trainer to carry aloft the orange and white RCM&E Bitty glider now owned by George Evans but in his absence flown by Robin.

Clive Upperton has Peter's Mini Radian and he and Paul Gladstone managed to get that aloft though the



Mark Vale prepares to take-off: Wot Trainer with ex-Planky Bitty atop. Photo: Alex Blok



Ex-Planky Mini Super Sixty with piggy-backed Mini Radian, both now owned by Clive Upperton. Photos: Robin Strange

Non-Planky models were of course welcome. Glen Tennant with vintage Diamond Demon. Mills diesel up front – lovely!
Photo: Alex Blok



Above: ex-Planky Filey Flyer, 3-point landing: 2 wheels and prop!
Photo: Robin Strange



Right: Robin Strange with his Friendlito.
Photo: Alex Blok

takeoff of the carrier plane was more than a little interesting as it didn't want to go in a straight line on the field. Once aloft the wings of the poor little glider were almost clapping hands above its head so to speak but it flew remarkably well and Paul, when all looked lost, managed to get it back to the patch in one piece.

There were a great variety of planes and helicopters (thanks to Jerry Hansen) on show, most of which flew during the day, and two competitions were held, one for gliders and one for power models.

Seven of us took part in the gliding, which was a simple format, last down wins. So much for simplicity... Paul found some tremendous lift over to the north-west corner and we were all convinced that Peter was up above helping him because he was flying one of Peter's old



Ex Planky Slow Poke, now owned by Ron Prevett.
Photo: Alex Blok



Top: ex Planky Wot A Duck canard, now owned by Jerry Hansen.
Middle: Gliding competition winner, Paul Gladstone.
Photos: Alex Blok
Bottom: ex-Planky Jet Provost, now owned by Clive Upperton.
Photo: Robin Strange



Gliding competition mass launch.
Photo: Alex Blok

Power Competition Results

1. Clive Upperton 22 seconds
2. Derek Woodley 25 seconds
3. Pim Smith 28 seconds
4. Tom Gaskin 29 seconds
5. Keith Miles 31 seconds
6. Mark Vale 32 seconds
7. Paul Gladstone 38 seconds
8. John Ivory 48 seconds

models and the rest of us spent the whole time in anything but lift. Needless to say Paul won hands down – well done to him, with Clive coming second.

John Ivory organised a simple power competition which involved taking off, doing three rolls followed by three loops and landing; the flight achieving the manoeuvres in the shortest time wins. John led the way and convinced himself that he had done three rolls but he hadn't, so with much banter following him he was allowed to fly again setting the target time of 48 seconds. No planes were lost in the flights, much fun was had and a winning time of 22 seconds took the prize – well done Clive. There is an excellent video by Alex Blok of the



Top: Jerry Hansen provided variety with his helicopters.
 Photo: Robin Strange
 Middle: Glen Tennant with his OS26 FS-powered Cambrian-Models Pioneer – Planky would have approved!
 Bottom: Mark Vale, barbecue king
 Right: Keith Miles
 Photos: Alex Blok



competition on the club's YouTube channel: 'SRFC Peter Plank fly in power comp'.

In the middle of the day Mark Vale fired up the barbecue and kept the multitude fed and watered for which we all thank Mark for his efforts.

The weather was kind to us, a good day was had by all and to finish the day off our chairman Les Crane brought his newly built Hurricane out for its maiden flight flown by Pim Smith. A successful flight took place though Pim reported it was reluctant to roll and many souls spent some time post-flight debating why.



Grand finale of the day was Pim Smith's maiden flight of Les Crane's Hurricane.
 Photos: Robin Strange

BMFA Auctions

George Evans bids at the BMFA's first online auction and comes away poorer but impressed

As a new venture the BMFA have started running auctions of model related lots; the first was held on **Saturday 29th October**. The format was a combination of advance bids, live online auction, and physically being there to bid in person.

At the time of writing the page giving information for the October auction has not been taken down so it may be worth having a quick look at this juncture:

bmfa.org/bmfa-national-centre-model-engine-and-aircraft-auction-update

For a first attempt the organisation for the event was pretty slick with online viewing of all lots available a week in advance. A catalogue could be viewed online or as a downloadable PDF to browse and drool over offline at leisure.

They had over 300 lots, mostly engines, but airframes and part built/unstarted kits and memorabilia were available as well. I'm sure that as the auctions becomes more established over time the number and variety of lots can only grow.

I had been following the forays into small modified free flight/single-channel small diesel-powered planes by Derek Woodley, Clive Upperton *et al* so I thought I would have a go but upon checking my box of old engines discovered that all the aero versions were knackered while those that seemed OK (i.e. were not seized and had compression) were marine versions.

Hmmm, I'm was in need of a motor and there was an auction coming up. It seemed too good an opportunity to miss.

You register on line and get sent a number which is used to record your bids. Sounds simple enough. I put in an advance (commission) bid on three motors, two of which got beaten ahead of the auction.

On the auction day a professional auctioneer donned a period RAF cap and off we went at a furious pace – with 300 lots to get through he wasn't hanging about. We had a few (only three or four) hiccoughs early on as to who had won and missed bids from the floor or online but these was quickly resolved and the whole process was slick.

My first advance bid came up and I thought I'd lost it to another online bid. So, still in need of a motor, I went to bid online for one of my reserves. I lost the first one but then won the next. Result!

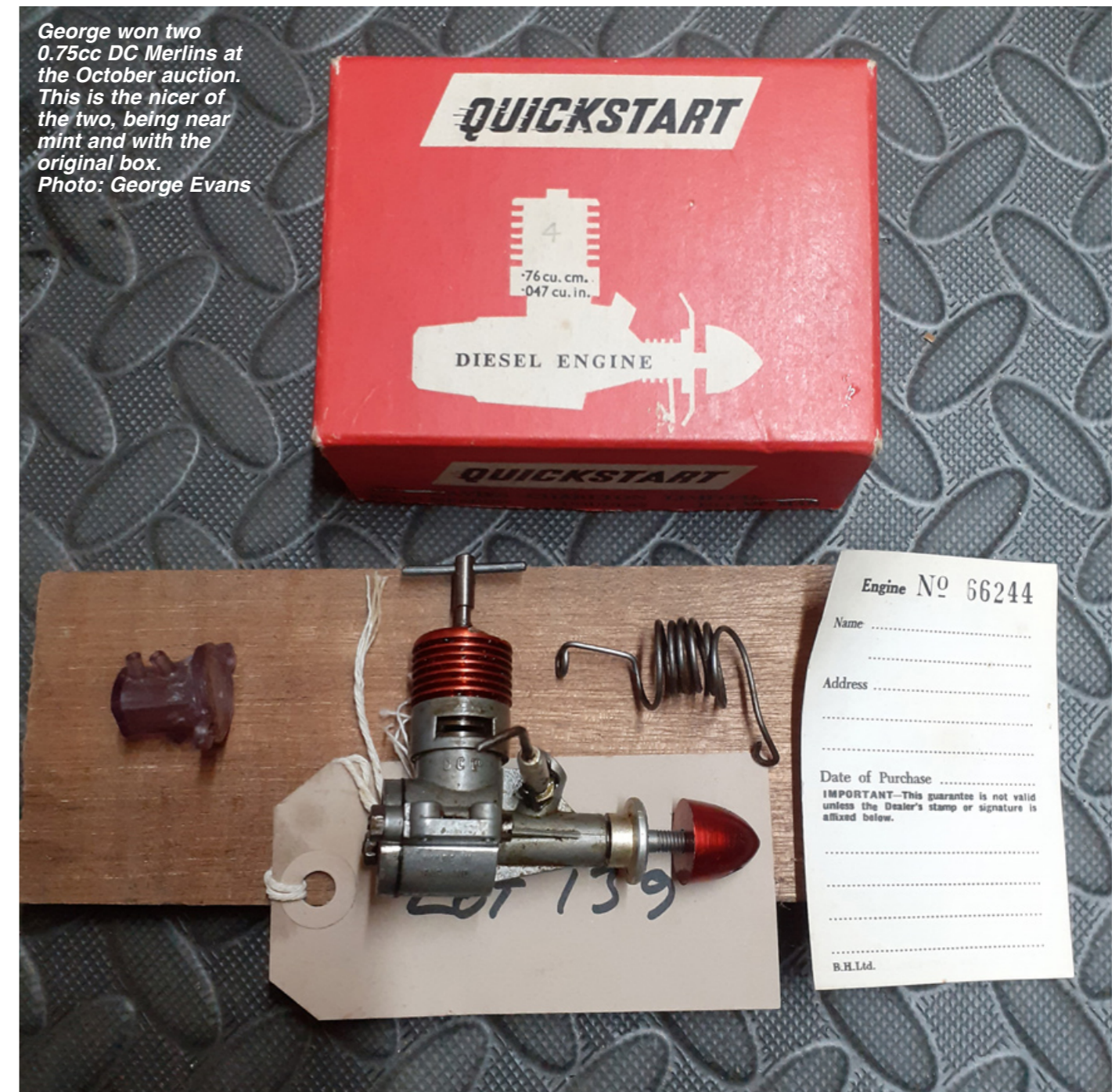
When the e-mail confirming the results came through it turned out the online bidder who won the first of my lots I bid on was me!

Payment is not yet automated; you ring up and pay by credit/debit card. Final price paid is the bid price plus 10%, plus they package it up and send it to you at home for the cost of the delivery. The two lots, including the one in the photo, with delivery and commission was just £95!

So, I have two small diesels. Now I just have to get building the plane! I have a plan already printed and on the board. All the wood came from my stash but it's been so long since I built anything with a tissue covering all my dope/sanding sealer, etc

was solid. A trip to SMC for sanding sealer, dope, thinners, fuel, etc cost nearly as much as the two engines!

I have now committed knife to balsa, watch this space!



On 17th November BMFA announced their next auction. As a BMFA member you should have received an e-mail. Key points are as follows:

It takes place on **Saturday 7th January**.

BMFA are currently accepting lots for inclusion in the auction. The closing date for last submission of items for lotting is **16th December**.

Terms and conditions will be the same as for the previous auction and can be viewed at: nationalcentre.bmfa.org/auction/terms, along with the full catalogue. The page contains a link to pre-register for the auction (essential). Commission rates are 10% for buyers, 5% for sellers.

All you need to know can be found at nationalcentre.bmfa.org.

Competitions at Coombes 2022

Power Competition Secretary John Ivory reports on an enjoyable year of competition despite weather setbacks

What fun we had this year – I hope those taking part enjoyed themselves just as much as I did.

There were six competition dates published at the start of the season but due to adverse weather two had to be cancelled.

The first competition to take place on 7th April had two parts, a guess 100 seconds while flying timing event, followed by the second part being three rolls then three loops again being timed.

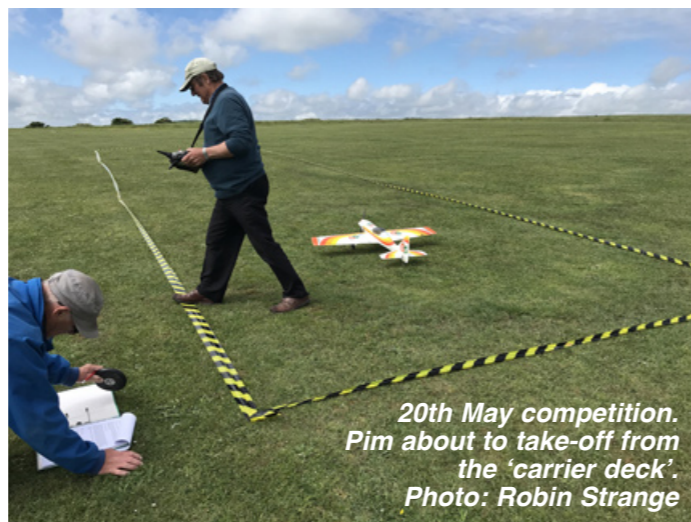
The second event, on 20th May, was landing on a simulated aircraft carrier deck marked out with black & yellow tape. Sounds easy but not in windy conditions.

The third event, on 1st July, was simply three touch and goes, shortest time wins.

The last event of the year, on 9th September, was a deadstick competition: take off, fly for 60 seconds, cut power and land as close as possible to a target on the patch, closest to target wins.

Over the four power competitions a total of 13 members took part with a hard-core taking part in most of them.

The winner for 2022 Power Competition was Chris Foss, second being myself and third Clive Upperton. I would like to thank all those who took part.



20th May competition.
Pim about to take-off from the 'carrier deck'.
Photo: Robin Strange



20th May competition.
Fun-flies and Wot 4s dominate.
Photo: Robin Strange

Next year it would be great to see more members who have not had a go before. You don't need a high-performance plane to take part; any fun-fly model will do. Most fly the ubiquitous Wot 4 Foamie. Remember, it's all about having fun with the winner of each event on the day being rewarded with a prize of biscuits!

OVERALL RESULTS FOR 2022

Name	Event 1	Event 2	Event 3	Event 4	Total	Position
Chris Foss	2nd	1st	1st	1st	5	1st
John Ivory	3rd	6th	4th	4th	17	2nd
Clive Upperton	13th	4th	7th	2nd	26	3rd
Robin Strange	13th	5th	7th	5th	30	4th
George Evans	5th	3rd	13th	13th	34	5th
Grahame Pearson	1st	13th	13th	13th	40	6th
Pim Smith	13th	2nd	13th	13th	41	7th
Dave Knott	13th	13th	2nd	13th	41	7th
Derek Woodley	13th	13th	3rd	13th	42	8th
Mark Vale	13th	13th	13th	3rd	42	8th
Alan Caldecourt	4th	13th	13th	13th	43	9th
Keith Miles	6th	13th	13th	13th	45	10th
Paul Gladstone	13th	13th	7th	13th	46	11th

You will notice that there are a lot of 13s included in the results – there were 13 members that took part in 2022 and those that did not turn up for those events scored 13. I found this being the easiest way to calculate the final results.



Participants at the 9th September competition.
Left to right: Clive, Robin, Mark, Chris (winner) and John.
Photo supplied by Mark Vale

The Experience of Wind

Keith Miles presents a different view on some alternative flying

On a windy day late in October a message went out from Robin Strange on the Gliding Whats App group: “Does anyone fancy flying at Beeding Hill?” The forecast showed a wind speed of around 20mph. Mark Vale and I were the only takers so we agreed on a time.

I was the first to arrive. I had taken a range of models with me and after getting out of the car and battling with the wind strength just to reach the rear of the car I decided on the one model that is ideal for these conditions: the popular Wildthing. Those who have one will know that this glassfibre postage tape wrapped model designed by SRFC member Alan Head can take a knock or two.

Having arrived at the slope it was a bit of a challenge in trying to hold onto the model with the wind trying to wrench it from my grasp. I put the model on the ground to prepare for flight only to find it had been whisked up the slope by the ensuing wind. Launching was also tricky and once in the air all sorts of flying challenges were

thrown at me, but overcoming them made for some really enjoyable flying.

Robin turned up next and had a similar experience. Mark then arrived, launched his model and immediately walked back up the slope almost to the car park to retrieve said model!

I checked the wind speed and was surprised to see that it registered 26 mph. In this type of wind you need a very special glue to keep your hat in place and you have to learn to lean into wind a little more than usual otherwise you could be flying while laying on the ground. In all years that I have been slope soaring this was certainly the strongest wind that I have flown in.

We all agreed that the challenges that these conditions offer make for an exhilarating experience and that more people should try their luck and fly in them. Just make sure you have a strong model. Needless to say, we all flew our Wildthings.

It is said that if you can slope soar it will make it easier for you to fly fixed-wing power models, so come on you Coombes trainees, give it a go.

Our session was cut relatively short when the wind moved round to a more southerly direction which at Beeding Hill causes lots of downdraft.

The next day the three of us went to Coombes. The wind strength was gusting 15mph. However, after the day before it felt like a gentle breeze.

Following our joint experiences on this occasion I feel we should now be known as the ‘Flatulent Three’ – now there’s a thought for a club trophy to be awarded!



Top to bottom:
Wildthings of Mark, Keith and Robin

Spectacular Beeding Hill.
Photo: Robin Strange

More Progress!

Les Crane reports from the workshop – and the field!

A lot has happened since the last bulletin...

Firstly, the Hurricane is finished and has flown. I am pleased with the finished model but the maiden was not as successful as I had hoped, although satisfactory as far as it went. Pim Smith maidenized it and it flew fine with a few trim adjustments but, despite the control throw settings being as per Tony Nijhuis's recommendations, it would not roll and needed increased throws which I hadn't provided for. At home I increased the aileron throws and sorted out the trim adjustments and re-centred the transmitter trim settings as per Pim's recommendations.

Two weeks later I went to Coombes to practise my landings (never the best!) and took the Hurrie with me more in hope than expectation. Apart from the 20,000 sheep and 1 million droppings (no exaggeration I assure you) there were three of us, one of whom happened to be Dave Knott and he agreed to re-fly the adjusted Hurrie. It took off straight and level and, apart from a little up trim, required no further trim adjustments. Dave flew a number of circuits plus loops and rolls in both directions, demonstrating that it would now fly hands-off.

Thanks Pim and Dave. What would we lesser flyers do without help from members like yourselves?

*Pim brings Les's Hurricane in for a perfect landing following the maiden flight.
More photos, see page 21.
Photo: Robin Strange*



Secondly, I have had to effect a repair to my Aerotech Tiger Moth caused by my poor flying and a moment of pilot error. Fortunately the damage was limited to sprung joints in the nose construction so the major repairs simply required cleaning the joints, re-epoxying and clamping tight until set. The plastic cowl required a few cracks to be repaired but once re-assembled it looks almost as good as new.



*A 'bad thumb' moment. We've all been there...
Photo: Grahame Pearson*



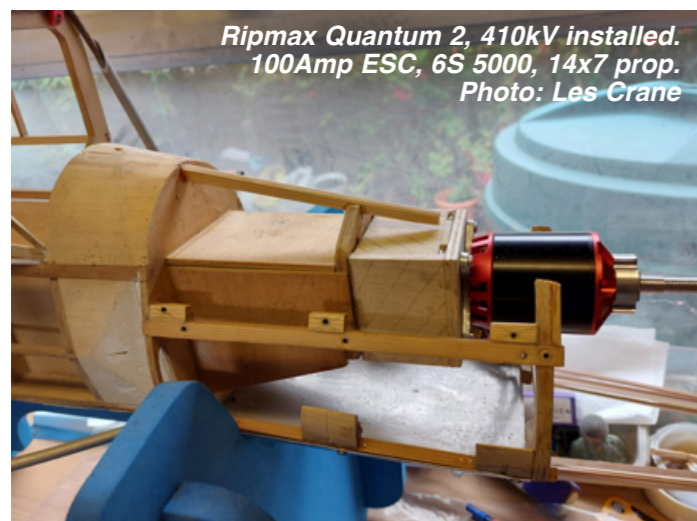
*An easy repair. Nose now stronger than before
Photo: Les Crane*



*Les's Aerotech Tiger Moth flies beautifully
Photo: Grahame Pearson*

Finally, completing the Hurrie and repairing the Tiggie allowed me the time to start my latest build which I have been looking forward to with some trepidation for some time. Earlier in the year I bought a large, part built, Fieseler Storch which was hanging from the ceiling in SMC but there were no plans, building instructions or parts (e.g. canopy and window/gun mount moldings) to complete the model. The major parts – fuselage, wings and empennage – seemed completely built but more of that later. A Google search provided a lot of information on the kit and, a real stroke of luck, a complete set of plans and build instructions for £15 which I snapped up and, without which I would not have been aware of a major construction omission.

The model has a complex sprung undercarriage which was attached to the fuselage but it was not functioning correctly on one side so both sets were removed and renovated and set aside for later re-assembly.



The model was designed for I/C but I only fly electric so a complete power train was bought. After careful measuring a new box firewall was built and attached to the existing I/C firewall, with a small section of the wooden nose cowl being removed to allow a fit to be obtained, all hidden under the aluminium cowling.

An examination of the fuselage seemed to indicate that all was fine except for a few loose joints which were quickly repaired although I did think that

the top rear joint between the fuselage wing box and the rear fuselage was small and flimsy. The fitted tailwheel is steerable via a closed-loop system for which the wires were attached but no servo and it has a rudder push rod as part of its internal construction and, although the tailplane and fin are attached, no servos or pushrods were fitted so the first job was to complete those systems, all fairly straightforward apart from the rudder pushrod being a good inch too long. It had to be carefully shortened *in situ* with a Dremel and a new clevis attachment soldered in place.

The only place for the 6S battery is in the cockpit in front of the C of G so a battery plate was glued there and to hide it a removeable balsa plate with the pilot attached was positioned above it. At this point a thorough check of the fuselage construction was made against the plan and I was horrified to find that my earlier suspicions about the wing box/fuselage joint were well founded. The builder had completely missed off on both sides a ¼" square rectangular framework around the cockpit joining the cowling, wing box, lower cockpit and the rear fuselage. It was necessary to remove various cockpit framework struts to install the required framework, after which the structure was very much more solid and rigid. Without the plans I would not have known about this and the first hard landing could have been disastrous.

There should be a moulded cockpit canopy/windscreen but that was missing so a wooden framework was made to which to attach sectional acetate panels.

I have decided to make this Storch the ambulance version so a bench was made to which a stretcher would be attached and this fitted at the rear of the cockpit. The

stretcher is made of dowel over which brown fabric for the blanket and white for the sheet and pillow are attached. On the full-size the stretcher would extend into the rear fuselage but as this would have meant cutting a rectangle in a major former I stopped the stretcher at the former thus it being only representative. The whole structure has been constructed so that it hides the elevator and rudder servos and pushrods. The instrument panel is not replicated but is simply to show one.



Two removeable hatches have been made for the cabin roof to allow access to the battery box or the servos and linkages.

Having completed the fuselage build apart from the hatch magnets and glazing I was able to start finishing the wings which, on first inspection, looked complete but it was evident that fitting and finalising the flaps, ailerons and the actuating mechanism required doing. Firstly the metal wing struts were removed and minor rust cleaned off. The Fowler flaps moved down but needed the servos and push rods fitting. The Fowler-operated ailerons moved down fine but no, or very little, up was possible and as I have no experience of this mechanism this was going to be a learning process. It was evident that the issue was a very tight fit between the aileron and wing trailing



edge and this was sorted in three ways. First, part of the flap shrouding was cut away which allowed some movement so, secondly, the top of the flap was sanded a little but movement was still restricted. Lastly, I had to enlarge the pivot slots and file down part of the metal hinge fitment which was restricting further movement and this gave a little more up which I hope will be sufficient as there is no more scope for adjustment. Fitting the servo, pushrod and clevises and adjusting so that it all works was difficult as it was all a tight fit and only flying will determine if there is adequate aileron throw but there is no scope to adjust any more without major surgery. The interesting thing is that the servo arm moves in the opposite way to 'normal' ailerons to give up/down movement. Fitting the flap servo, rod and clevises was equally awkward but easier to set up as only down travel is required. Tested, it all worked fine. That is the right wing done. The next article should cover the port wing followed by fitting the leading edge flaps, fitting the wings to the fuselage, connecting all the cables to the receiver, glazing the cockpit, Oratex covering (mortgage permitting!) and final setting up ready to fly.

The Boulton Paul Defiant almost flew! I took it to Coombes where Pim agreed to maiden it but, as I was fitting the wing, he noticed that I had not fitted the small screws attaching the servo arms to the flap servos so it was prudent not to fly it. So, we conducted range and C of G checks. I have now fitted the screws and added a flap/down elevator mix.

At the time of writing there are 40mph winds outside and bad weather forecast for a long period so plenty of time for the workshop.



*Les's Defiant awaits maiden flight.
Photo: Les Crane*

Helicopter flying at Poling

Jerry Hansen gives an end-of-year update for SRFC's rotary wing flyers

After the recent November gales we had a couple of issues at Poling; the ride-on mower cover was damaged and some fencing blew down. All fixed or underway now, so all is well at Poling.

We have a new housing estate rather close to the flying field that's almost completed, so we may have noise issues in the near future; it would be prudent if we don't fly too close to avoid complaints from residents – noise annoys. It's always better to prevent a problem from occurring than to fix one that has already happened.

If you fancy a go at helicopters or drones we have two helicopter trainers and a drone trainer that can get you going if needed. Just e-mail Marc Bowden, Training Co-ordinator (see back cover.)



Above: Three helicopters owned by Jerry Hansen. On the left is an Equirell, a scale helicopter, 30-sized body with a 50-sized engine but with an engine governor to tame the power of the 50. The yellow helicopter is 50-sized, a Thunder Tiger Raptor trainer. On the right is another 50-sized Raptor with an Align head and a governor to maintain head speed – this one loops, rolls and flies well for a low-cost model.

Photo: Robin Strange (photographed at September's Peter Plank Memorial Fly-in)

*Right: Mark Snow flying a Raptor trainer helicopter on a wireless buddy box.
Photo: Jerry Hansen*

Aviation Quiz

By two anonymous SRFC members

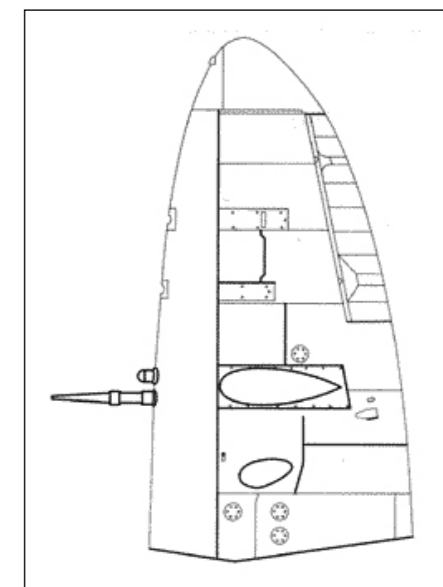
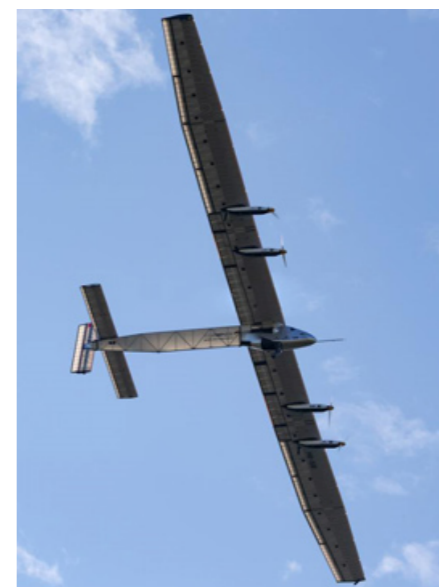
You can Google the answers but we urge you not to

Answers on page 36

1. Two aircraft were developed by Hawker as a potential successor to the Hurricane. One was the Typhoon, what was the other and what engine did it use?
2. Which Hawker Tempest pilot had his initials RB as his markings?
3. What engine powered the Tempest 2?
4. The prototype Spitfire bore the number K5054, what number did the prototype Hurricane bear?
5. Who was its pilot for its maiden flight?
6. Which British aircraft won the 1931 Schneider Trophy race?
7. Who was the pilot?
8. Which Australian 'Dambuster' pilot went on to become an Air Marshall?
9. In 1957 which government minister produced a white paper saying that there would no longer be a need for manned fighter planes in the RAF (in favour of missile technology)?
10. Which plane earned the nickname 'missile with a man'?
11. The first aircraft to go officially supersonic was nicknamed the 'Orange Beast'. What was it?
12. Who was that pilot breaking the 'sound barrier'?

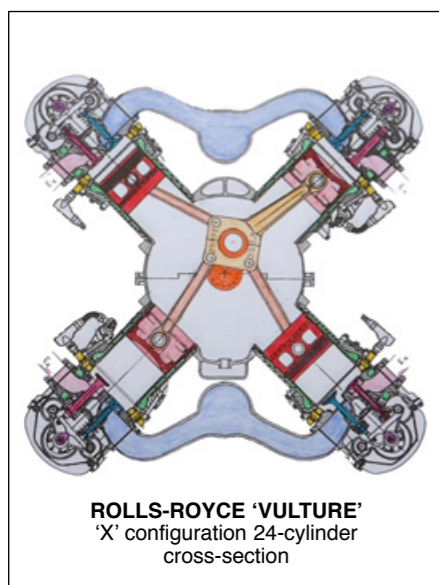


13. Aircraft designers need to take account of two types of drag, IP and PD. What do these initials stand for?
14. Non-supersonic PD is comprised of three types of drag: FD, ID and SF. Again what do these initials stand for?
15. What year did Orville and Wilbur Wright make the world's first flight?
16. Where in America did their flight take place?
17. What is the name for an aeroplane with its wings flapping up and down like a bird?
18. Despite its name, what is the colour of the black box in an aeroplane, which is also known as the Flight Data Recorder?
19. In 2015, how many days did the Solar Impulse 2 aeroplane travel crossing continents non-stop using only solar power?
20. Which aircraft is the longest continuously produced military model for over six decades due to its solid design?
21. The Spitfire's first combat debut was on 6th September, 1939. What type of aircraft was downed by Spitfires from No. 74 squadron?
22. For different marks of the Spitfire, which letter suffix denoted it was fitted with a 'universal' wing?
23. What aircraft did the Germans dub 'the fork-tailed devil'?
24. What was the first four-engined bomber to enter service with the RAF?
25. What was the last RAF biplane to see frontline service?
26. In WW1 anti-aircraft guns were developed which fired shells that would fragment in the air and cause a hazard to aircraft. By what nickname did the British refer to this anti-aircraft fire?
27. What was the name of the ex-WW1 pilot who wrote the famous 'Biggles' books?



Aviation Quiz – answers Quiz is on page 34

1. The Tornado, Rolls-Royce Vulture.
2. Roland Prosper 'Bee' Beamont, CBE, DSO and bar, DFC and bar.
3. Bristol Centaurus.
4. K5083.
5. Flt Lt George Bulman.
6. Supermarine S6B.
7. Flt Lt John Boothman.
8. Sir Harold Brownlow Morgan 'Micky' Martin, KCB, DSO and bar, DFC and two bars, AFC.
9. The Right Honourable Edwin Duncan Sandys.
10. Lockheed F104 Starfighter.
11. The Bell X1, officially the Bell model 44.
12. Charles 'Chuck' Yeager.
13. Induced Drag and Parasitic Drag.
14. Form Drag, Interference Drag and Skin Friction.
15. 1903.
16. Kitty Hawk, North Carolina.
17. Ornithopter.
18. Orange.
19. Five.
20. Hercules.
21. Hawker Hurricane (during the infamous Battle of Barking Creek).
22. C.
23. P-38 Lightning.
24. Stirling.
25. Gloster Gladiator.
26. Archie.
27. William Earl Johns (Pen name: Capt. W.E. Johns).



When do you re-cover a plane?

Mike Croll's Fokker Triplane made the decision easy...

My much loved Fokker Triplane DR1 (Flair Baronet) had a few outings this year and I took it down to Coombes for the last barbecue of the summer on 2nd September. Take off was as hairy as normal – DR1s are notorious for it – but I quickly became aware that something was wrong. The battery fixing had come loose and the cable was fouling the propeller. But that was not the only problem. Control was very difficult. Dave Knott was flying at the same time and I expressed my concern and need to land. I made it to the rough grass the other side of the strip.

It did not need very close examination to tell me that the covering had become brittle and peeled off in several places on the wings and tailplane – including ailerons and elevator. No wonder it was so hard to control! The covering was not like that for take-off, but was probably brittle and deteriorated markedly in flight.



The model is some 35 years old and was covered in Solarfilm. It's had quite a history with two different I/C engines and was converted to electric some 15 years ago. This year it had a few outings but was not exposed to the extreme heat.

At the time of writing the model is stripped of its covering. As well as the covering being extremely brittle, removing it has revealed that some of the 35-year-old epoxy has become rubbery and in need of replacement.

It's going to be a few weeks before repairs are completed but I hope to have it flying again next year. My wife has already cut some new German crosses on her crafting machine. If it lasts another 35 years I shall not complain!

I will be keeping the ubiquitous red and white scheme, mainly to fit in with my 'squadron' of four similarly coloured planes!



A Depron Viggen

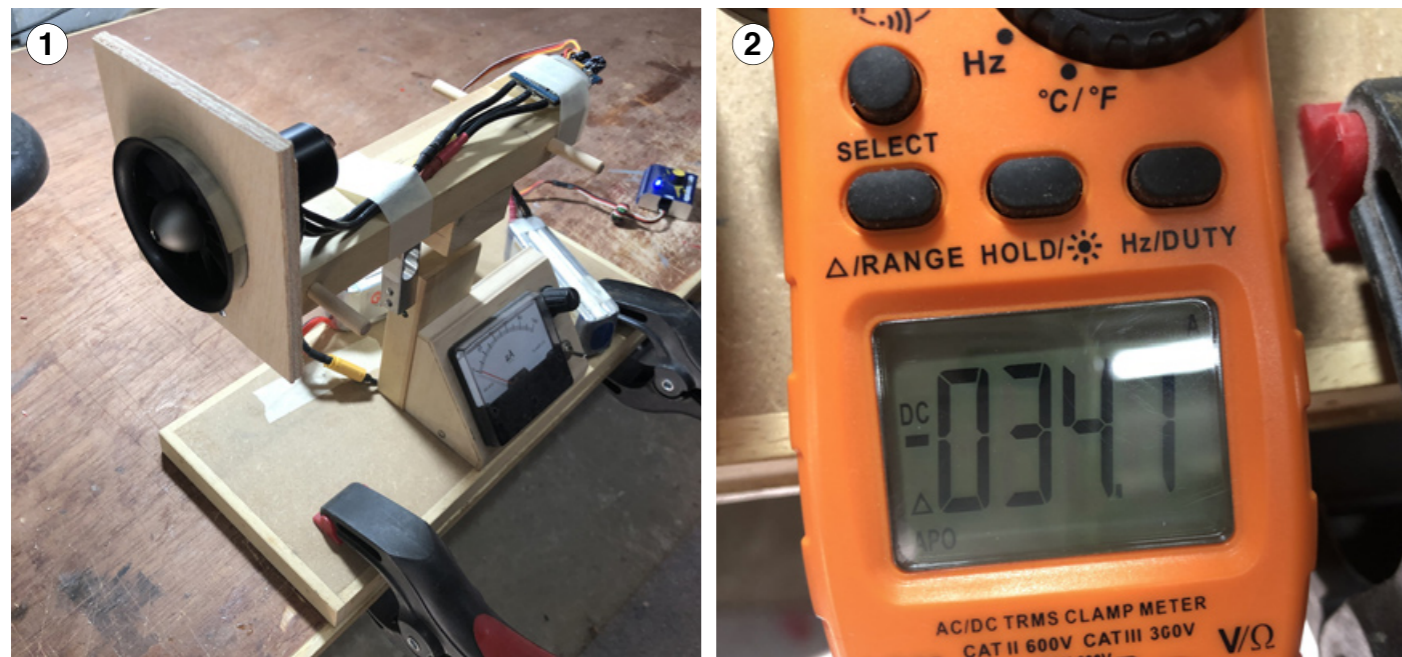
Balsa-basher John Ivory builds his first model from Depron sheet – a 22" span EDF Viggen

Depron foam is a closed cell polystyrene sheet. It is extremely lightweight, as light as 28kg/cubic metre, while maintaining incredible strength. Due to the structure of the foam, Depron cuts very easily and cleanly, making it effortless to work. Originally developed for floor insulation, it has a wide variety of uses such as food packaging, but more recently in modelling due to its light weight and rigidity. It is available in three thickness: 2, 3 and 6mm. The only downside is that it is rather brittle.

On a lovely sunny day at Coombes Clive Upperton and Pim Smith turned up, each with their Viggens made from Depron sheet. What amazed me is how light the models were and how well they both flew. Clive and Pim went on to say the design is from Jetworks which they downloaded then had printed at 80% to suit a 50mm ducted fan. I have never used Depron before and thought this could be a new challenge so informed Clive I quite fancied making a Depron Viggen. The next time I met Clive he came armed with all the information required to build one: plan, construction information and a magazine article showing all I needed to know about the Viggen.

That evening saw me online ordering a 50mm FMS ducted fan and four large sheets of 6mm Depron. I already had UHU Por glue, 40A ESC, 5g servos, 4mm carbon rod, 6mm square-section spruce and a receiver.

Some days later the ducted fan arrived. Looking at the plan I noticed that access to the fan after mounting it in the Viggen was not possible so I needed make sure it would run smooth and produced the stated thrust. I quickly knocked up a fan mount so I could fix it to my home-made thrust measuring jig (Photo 1).

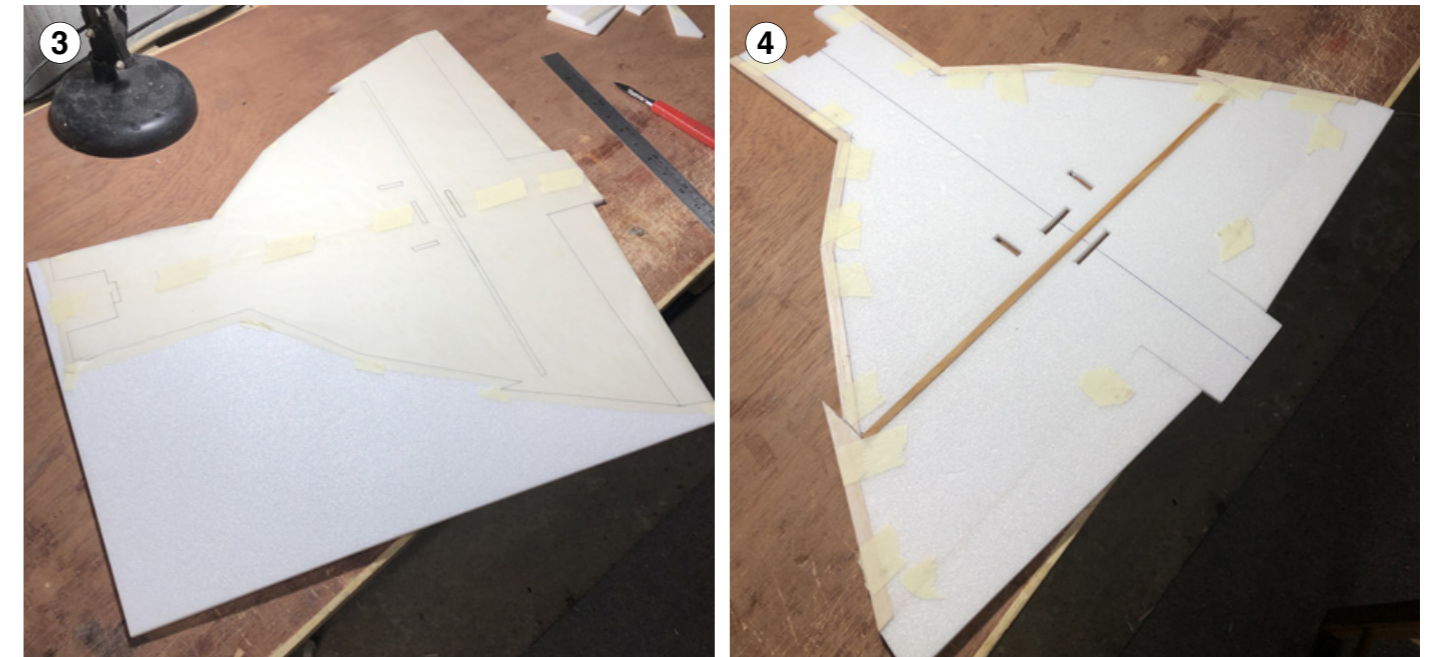


With a servo tester, 40A ESC and 2200mAh 3S battery connected I slowly increased the power with the thrust jig range set to 1kg/m. The fan speed increased without any issues, smooth as silk at all speeds and gave the same thrust output as stated by the manufacturer (620g). Next was to check the current taken at full fan speed and time how long the battery would last. With the use of a clip-on current meter I again took the fan to full speed. Total current was 34.1A which was fine for a 40A ESC (Photo 2). Again, the fan was run at full speed for one minute then stopped, using a LiPo battery tester I measured the battery consumption, it still had 56% left so indicated a two-minute flight at full speed. (Note, although the fan was tested with a 2200mAh 3S battery the model was actually flown with a 3S 1350mAh to keep the weight down. All-up weight with this battery is just 560g.)

The Depron had not arrived so I laid the plan out and using greaseproof paper made templates for all the required parts.

The next day a large brown box arrived containing four sheets of 6mm Depron. Construction could now start. First job was construction of the wing.

Using the wing template and very sharp scalpel I cut the wing out (Photo 3), added balsa to the leading edge and then glued the 6mm spruce spar into position (Photo 4).

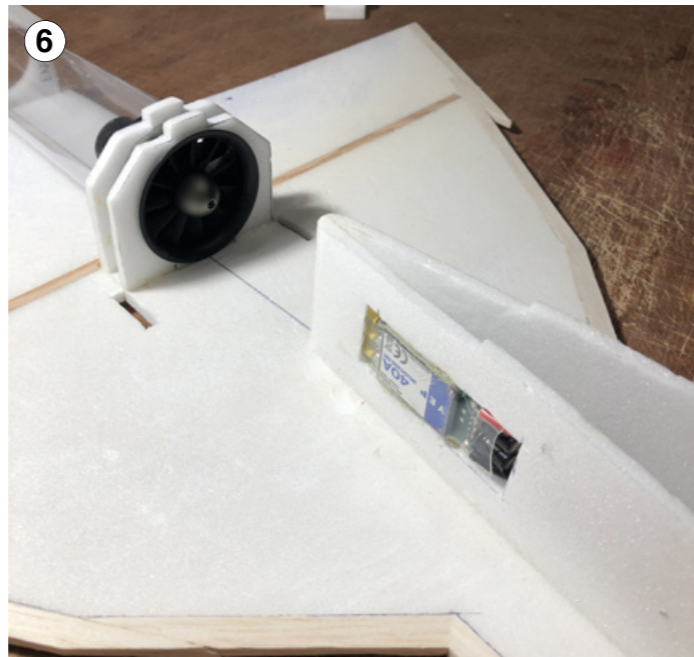
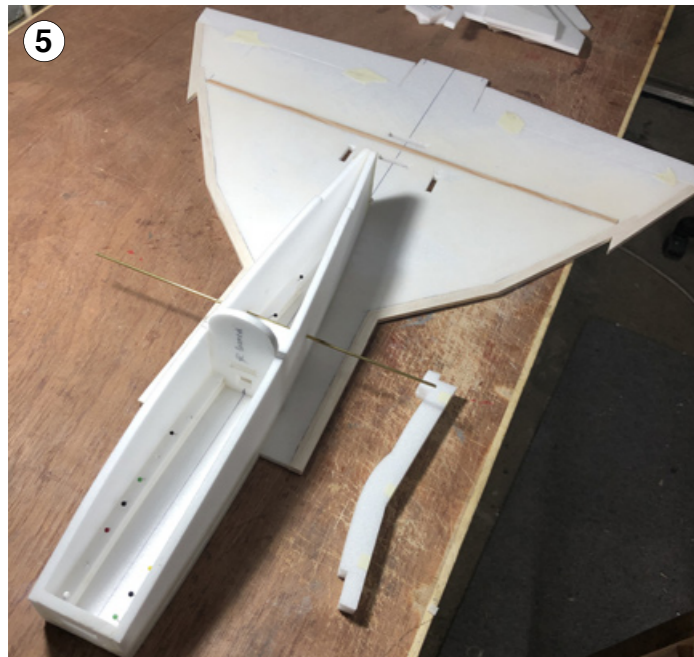


To move things along, I cut out all the sections of the nose cone again using templates supplied and glued them all together.

The construction notes indicated the next stage to be completed was the fan duct inner sides (Photo 5), bottom followed by mounting the fan and its exhaust tube.

It was now time to install the ESC. I decided to mount it in the inner side of the fan duct so it would have had adequate cooling (Photo 6). With this section completed it was time to move on to the next stage: nose cone, fuselage outsides, canard wing including canard flaps (Photo 7). This section was quite tricky and needed a number of dry fittings to make sure the alignment was correct before gluing into position.

After fitting the fuselage top sections another tricky area was to construct the fan duct inlets. Using a hot wire tool, I reduced a piece of 6mm Depron to 3mm thickness, cut it to the required shape, made internal formers and fitted them to the fuselage

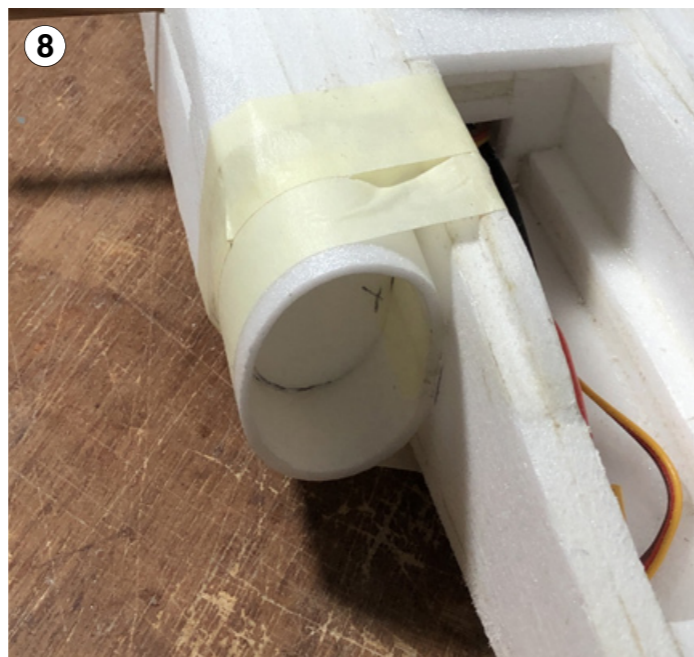
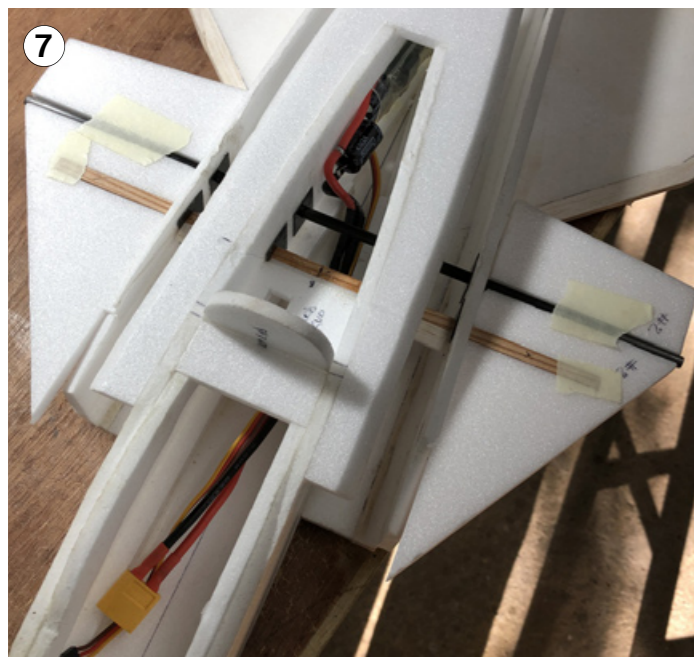


front duct on both sides (Photo 8).

The final construction was the canopy (Photo 9), gluing the fin into position, adding the missile mounts, external fuel tank, fitting servos and a lot of sanding/shaping. (Yes, you can sand Depron.)

Last but not least was painting and decals. I decided to paint my Viggen in the typical Swedish Air Force camouflage scheme, not the easiest job and a decision I would regret later on. With a small ruler and pencil each section was marked out and then painted in by hand (Photo 10). This took a very long time, all the more frustrating as all the colours needed a second coat. The decal application was much quicker being printed on inkjet matt self-adhesive vinyl (Photo 11).

With the Viggen now completed and control surfaces set up it was time for a test flight. The model was range-checked then Clive and Pim gave it the once over including control movements, rates and CG. It was time for its first flight with some last-minute advice that the roll rate was very quick.



Construction photos: John Ivory

With a light southerly wind at Coombes and with a nod from me, Clive launched the Viggen (Photo 12). It went off like a scalded cat and needed a lot of up elevator to remain level. It was also very sensitive to aileron. On the downwind leg I attempted to trim out the up being held in and this is when it all went wrong – the plane started to bank and by the time I could correct it the plane was in a spiral dive and went in vertically. A lesson learnt, don't take your hands off the sticks on a test flight with a model that is very sensitive to aileron.

Repair work started straight away repairing the very sad looking Viggen (Photo 13). Including making good the intricate paintwork it took two days with a number of small mods, CG moved back and aileron movement much reduced. I also set up a buddy box for the next test flight. The following week I had another test flight, this time with Pim on the buddy box. The flight went really well; I just need to move CG back some more and increase the elevator movement. Ailerons are fine.

I would like to thank both Clive and Pim for all their help.

If this has whetted your appetite for Depron and you fancy building a Viggen, the plan can be downloaded at jetworks.online/product/ja-37-viggen.



*Clive launches John's Viggen on its maiden flight
Photo: Derek Woodley*

*John with his Depron Viggen at Coombes
Photo: Derek Woodley*



Safe engine starting at Coombes

George Evans and Grahame Pearson outline new club advice on safe and secure engine starting and propeller safety

Following the change to the layout of the wider pilots' boxes at Coombes for COVID, i.e. covering the full width of the pits, a discussion on the safety of starting I/C models in the pits was sparked off (sorry couldn't help it!) at a recent committee meeting.

Previously most members with I/C models would start them facing towards the strip, obviously taking care to ensure the model was not pointing at any pilot. That would have been fine pre-COVID as the PB (pilot's box) was relatively narrow but now, with the much wider box, that is likely to be into the back of any pilot flying. So, members are asked if in future they could start I/C models parallel to the strip. i.e. *into wind or down-wind at the side of the pit area, facing outwards and perpendicular (90°) to the pilots' box.*

The wider discussion then moved on to the condition and security of propellers. Did you know that most propellers have a life limited by age and number of flight hours? Using Master Airscrews as a guide, its advice is 500 flight hours (quite long) but also three years from date of purchase (quite short).

Then the debate moved to prop nuts and spinners. How many of you check the security of the prop nut behind the spinner, additionally that any adapter fitted is the right one and has not become worn?



Large models have large props. As soon as the engine starts stand behind the model and ensure no one is in front of it. Photo: Grahame Pearson's quarter-scale Pup, Laser 150



Above: Large engines such as this lovely OS FT-160T Gemini Four Stroke Twin usually have locking nuts as standard but many manufacturers sell locking nuts for their smaller engines too.

Right: This locking nut set is sold by OS for their OS FS-48 and OS FS-52, a no-brainer upgrade



The BMFA handbook (20th July 2020 version) section 13.1 (h) states, "The use of locking prop nuts is recommended, especially for four-stroke engines. A backfire or 'kick' can loosen a prop nut and the use of locking nuts will prevent the propeller flying off. The safety factor of locking prop nuts on four-stroke engines is more important than the recommendation to use 'domed' safety nuts so, if you have to choose, go for the locking nuts."

A useful article was put together by the late lamented Alex Whittaker in *RCM&E*, January 2020, pages 92-95, showing how to make effective prop nuts, both domed and locking, and how to have spinners and locking nuts, particularly for four-strokes, where Nick Banks had designed a set-up where it is possible to have a locking nut and then a recessed domed spinner on the front of that.

It's been a while since I've heard of any props completely detaching but I've seen a few over the last year where a quick tightening session (with the correct spanner of course) was required. Note: this applies to electric too. And remember that wood props should always be checked for tightness (I/C and electric) after the first few flights as the wood naturally 'squashes' initially.

When you lay up your machines for the winter think about those prop nuts and spinners and make sure they are locked tight and rechecked in the spring.

The high-risk times are when starting, due to the aforementioned 'kick' and also when ground-running at high revs. The safest way to conduct a high-rev test is with the aircraft hand-held and pointing away from people. And while it is often necessary to point the aircraft upwards while doing so (to check the engine doesn't cut in a climb) keep it brief as a high-revving engine can be distracting for those flying.

It's not just pilots who need to be mindful of the risks of a propeller becoming detached. Spectators should *never* stand in front of an I/C aircraft being started or with the engine running. With the latest advice of starting engines perpendicular to the pilots' box spectators are safer carefully walking *through* the pits area rather than around the sides if I/C model(s) are being started.

Grateful thanks to Kevin Crozier, Editor of *RCM&E*, for permission to use the late Alex Whittaker's article as a reference for this article.

Touch and Go – in a glider!

Full-size glider pilot and PPL holder Alan Lamb recounts a strange tale of flying a touch and go with a glider

Full-size sport flying is all about the weather, just as it is with R/C. Well, the really 'sporty' bits are and there are some aspects of sport flying that can only be experienced on really extreme days, in really extreme conditions. Power pilots euphemistically call these conditions 'sporty', and those who like an extra helping of excitement with their sport do like to fly on those windy days, albeit usually solo. But, just for fun, how many PPL holders would happily take off in a 30 knot wind? You can fly in bad weather if you have an instrument rating and any serious PPL who flies beyond the Isle of Wight would usually hold such a ticket. This is all very appropriate



Alan in a club K23 about to do his first solo. Behind is a K21 two-seater. The K23s were much too light to penetrate any decent wind so were grounded on the day in question. Photo supplied by Alan Lamb

if you are carrying passengers and possibly flying a twin, and while these pilots fly for sport they also want to share the experience with family and friends. However, if the pilot and his passengers were on a schedule and possibly even feeling under pressure to get away (it does happen) how many of them would actually relish a 30 knot wind on take off, never mind the landing!

A completely different mind-set exists at a gliding site, with a 400 ft hill and a steady 30 knot wind blowing directly onto it. This is gliding nirvana, and then some. Even a 20 knot breeze would provide gentle hill soaring all day long, but a steady 30 knot blow is something else again and wonderful to experience, even as a P2 (second pilot/pupil). In many years of gliding at various sites and in several different geographies I have only once encountered such a day, so uniquely special in terms of wind direction and strength, that we had the perfect conditions for some very exciting sport flying... but hold on to your hat.

What looked at first like a No Flying day at Dunstable Downs turned into a laughing-and-whooping-with-joy sort of day, which I will never forget. As I remember it now, from early morning there was a total ban on all the single-seaters, the flying limitations imposed were 'Instructors Only, flying only the K21s'. No aero-tows, and only the winch operating. (Before reading on it is worth remembering that gliding, statistically, is the safest of all the aerial sports and much better regulated and administered than GA – General Aviation – power flying. That's a fact.) That day we would have been getting big launches on the winch due to the very high wind. I cannot find it in my logbook, but the customary 1100 ft or so would have been more like 1500 ft. From 0-60 knots in a couple of seconds, then feet-first pointing skywards, and 30 seconds later you push over the top, level out and release the cable. Turning down wind you drift quickly on to the hill, and straight into very strong lift.

So now that you are up and soaring the ridge, how do you get a touch-and-go? And this is where the fun starts. The plan is to skim the top of the hill by landing atop the ridge, then rolling off the edge back into the lift. For this to work you need to select a smooth clear area just back from the edge of the hill, as your touchdown/launch point. This is usually best at the sloping top of a developing gully, where the ground falls away quite sharply – the sort of place where you could easily perform a bungee launch. Anyway, picture this scenario: you are crabbing along the hill at 60-plus knots and making a steep descending turn into wind on a steep final approach, making sure you keep the airspeed constant. Now, for the same airspeed your ground speed is suddenly only half of that. When you touch down the ground run is extremely short, literally just a few feet as the glider slows down gently on the wheelbrake, which is at the end of travel on the air brake lever. Just as you might think you are about to come to a full stop, when the glider has slowed almost to a walking pace, the instructor in the back suddenly releases the wheel brake. This allows the glider to continue rolling down the slope, picking up speed and rolling... right over the edge... where it suddenly leaps aerobically back into the lift. I mean literally up and away in an instant, into the 30 knot updraft blowing up the hill and straight under the wings. It is pure magic and very exciting as the glider just lifts off effortlessly, hardly going forward at all, after an unfeasibly short ground-run. A glider touch-and-go! We were all getting a master-class in energy management.

An immediate turn brings the glider parallel with the hill, and Bob's yer uncle – back into ridge soaring for as long as you can handle it. On such a day, of course, the pressure to give everybody a turn is palpable so the rides were always too short but thrilling in the extreme and not for the weak-hearted. With the instructor holding on to the wheel brake, the front canopy is flipped open and one pilot leaps out to be replaced by another busily strapping in before the wheel brake releases again. It was just as amazing to experience it from the touchdown/launch point, where you were right up close to the action at the moment of lift off. It really was more like a day at the fairground, where the flying machines seemed not to be obeying the normal rules of physics and were instead performing implausible stunts. This went on all day, and more gliding fun I cannot remember.



Alan being winch launched. "Just off my starboard wingtip there is a deep gully running down the hill; I believe this is the one we used for the touch-and-goes." Photo supplied by Alan Lamb

'Crunchies' and 'Foamies'

Confused? Jerry Hansen explains the two genres of model regularly flown at Mill Hill

Mill Hill is a great slope soaring site but not an SRFC site although several members fly there as do a fair number of non-members when we have a nice south-westerly wind. Many have 'Hill names' such as The Jap, Captain Chaos, The Baron, OB1, Bonker, etc, such is the fun nature of flying there.

The hill is within the Shoreham airport air traffic control zone and within the landing circuit for aircraft. You must therefore keep an eye out for light aircraft flying over quite low. It goes without saying model flyers must stay out of the way.

Before you fly you must phone Shoreham Airport Air Traffic Control (SATCO) on (01273) 467377 to tell them you want to fly models at Mill Hill. SATCO have no issues with that but they will request you stay below the tree line and that you should give them another call when you have finished.



*Wildthing flying at Mill Hill, 2015.
Left to right: Paul Blanchard, Dave Banting, Les Crane and an unknown non-member who went by the moniker of The Jap (due to the décor of his aircraft).
Photo: Grahame Pearson*

If you are a low air-time pilot Mill Hill is great to get lots of stick time in as you can fly as long as you want without having to stop to refuel, change batteries, etc, as you just use the rising air to fly.

Two sorts of flyers use the hill. The first are 'Crunchies' – large balsa or built-up gliders that go crunch when they crash and mostly fly at the top of the hill. If you need help, just ask; they are always happy to oblige.

The second sort are 'Foamies'. These models usually just bounce when you crash, and are typically SAS 'Wildthings'* or similar flying wings made from foam and covered with coloured parcel tape to give them good visibility and strength – a well taped Wildthing is near indestructible. These also fly from the top of the hill and also part-way down in the 'gully' where they often indulge in combat flying which is huge fun. The gully is also good if you want to be out of the wind and or out way of the others or to fly on your own.

So if you are just starting out a 'Foamy' is good to get the hang of things or to improve your flying. If you are more experienced then either is fine – it's all good fun.

**The 46" span SAS Wildthing is the creation of SRFC member, Alan Head. SAS is Soar Ahead Sailplanes – the 'Ahead' being a play on words – A Head! Availability is uncertain at present but if you are offered a secondhand one don't hesitate!*



*Jerry Hansen's son, John, flying a Wildthing in the gully at Mill Hill five years ago.
Photo: Jerry Hansen*

Hot Dawg

Mark Vale goes retro and looks at a classic Bob Lovejoy design, included as a plan with R/C Modeler, August 1970

In the mid-1970s I was given a plan by Fred Grey, a member of the Eastbourne Model Flying Club, for a small RC plane from across the pond called 'Hot Dawg'.

Hot Dawg is a lightly built quarter midget pylon racer of 39" wingspan and powered by a .15 two-stroke. It came together quite quickly and within a few weeks it was ready for a maiden flight. The radio gear I had at the time was a three-channel



Who's this handsome fella, then?

Horizon system, as pictured below.

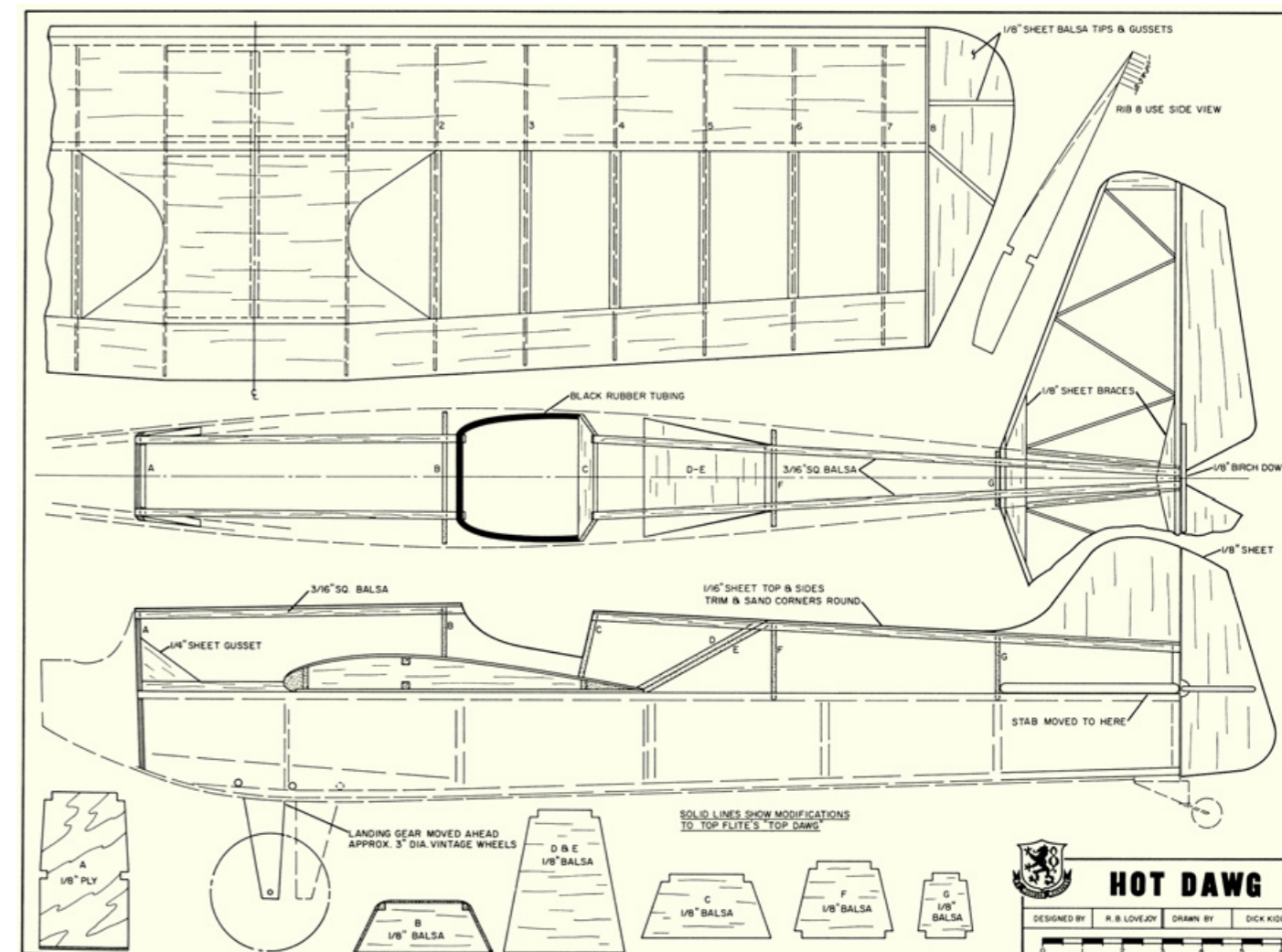
The model flew really well and was quite nippy with a high revving .15 up front. It was also very manoeuvrable. Even though this model was only three channel – no ailerons – it would roll rapidly with a quick application of full rudder.

Sadly, it didn't last very long and after a few flights ended up as a carrier bag of bits.

Fast forward to spring/summer 2022. While I was browsing on the web, I put in a Google search for 'downloadable RC aeroplane plans' or something similar. I came across outerzone.co.uk (many of you will already be familiar with this wonderful resource for free downloadable



RC model aircraft plans). Curiosity prompted a search for Hot Dawg. I did not really expect it to get a hit. But, suddenly, on my computer screen appeared the plane I had made all those years ago! Go to the aforementioned Outer Zone website and search for Hot Dawg and you will find the plan, number oz4804.

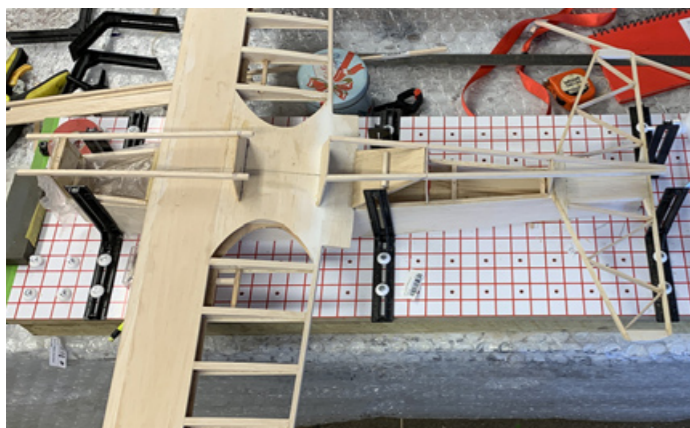
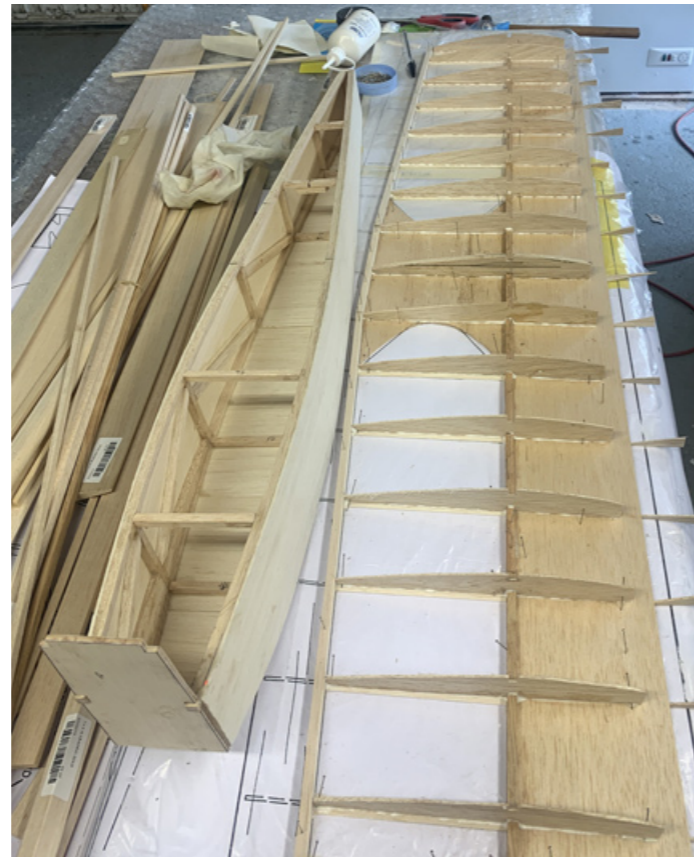
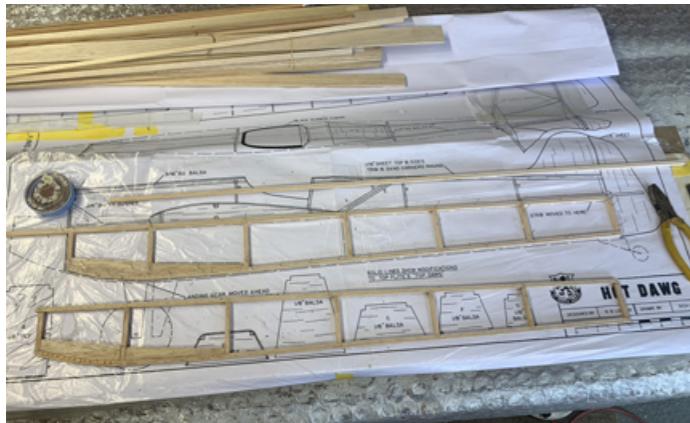


I was even able to download and, for the first time, read the *R/C Modeler* article that accompanied the plan back in August 1970. (*Reproduced at the end of this article. Ed.*) I discovered the model was designed by a chap named Bob Lovejoy or, more accurately, was a development of an earlier Top Flite kit called 'Top Dawg', designed by Ken Willard.

Over the next couple of weeks thoughts of building another Hot Dawg, this time putting a four-stroke on the front and with ailerons, gradually surfaced.

As the original Hot Dawg was 39" span with a .15 on the nose and the smallest four-stroke I could think of was the lovely little OS26 FS, I deduced with the extra capacity and weight I would need to increase the plan size a bit. With a bit of guesswork I thought a 20% increase to 1.2m ought to do it. Time to buy some wood and look for a secondhand OS26 FS.

Construction is entirely conventional with a flat-bottomed wing and the airframe was soon made. (*Construction photos on next page. Ed.*) This time, I thought a retro 1920s/30s-style metal finish would make it look attractive. With the tank mounted on the CG and the battery forward, no extra ballast was required.



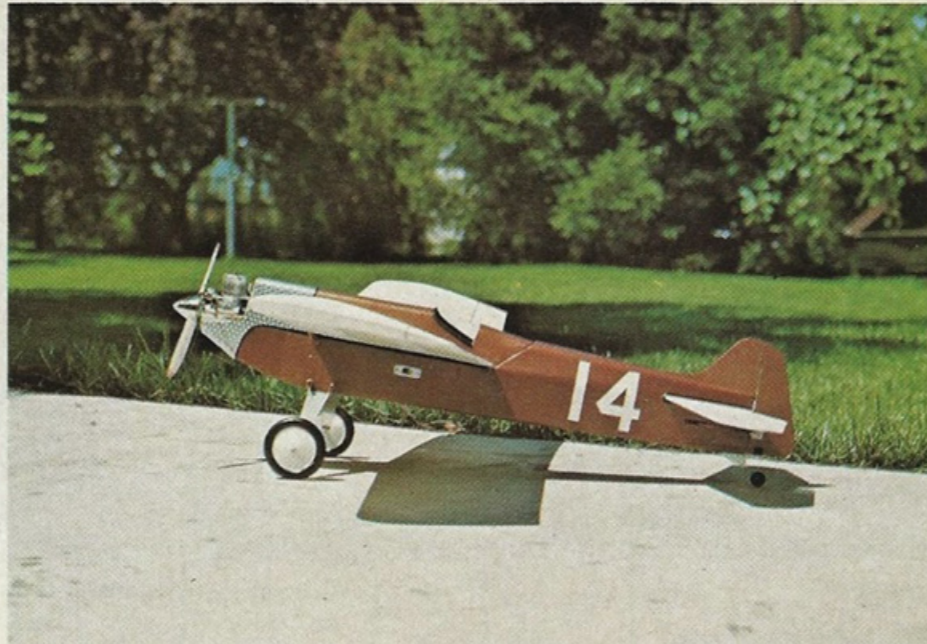
On acceleration, the tail comes up and the plane starts lightly skipping level on two wheels across the grass strip with no elevator input. It stays on the strip until the elevator stick is pulled back slightly. The model flies lovely.



*Build photos, opposite: Mark Vale.
Photos, this page: John Ivory*



Getting into Quarter Midget Pylon Racing is easy if you start with a proven design by Ken Willard; kitted by Top Flite; and then modified to look like a vintage racer that will actually eat the competition alive around the Pylons . . .



Here is a .15 powered Quarter Midget racer with antique charm and sparkling performance that is built from a popular kit. The Top Flite "Top Dawg" was slightly modified to improve speed and maneuverability while at the same time getting an appealing old-time look. Although the flat bottomed wing was maintained for fast, tight turns, the camber line has been flattened enough to enable inverted flying. Fuselage and tail surface changes are for appearance only.

The Hot Dawg has flown with both the Rand Dual Pack and small Orbit Digital proportional system. Loops, axial rolls, inverted flight and any combination of these maneuvers can be performed with R.E.M. on either system but the digital system has an understandable edge in reliability and performance.

Enough dialogue. Clear off your work bench and let's get started.

WING – Cut the ribs to their new section, build the wing as the plans instruct except for the trailing edge and capstrip pieces. For the wing taper simply cut an inch off the wing tip rib, lay a straight edge between it and the first rib out from the root, cut off all the other ribs even with the straight edge and sand each rib (top edge only) to a point maintaining a smooth airfoil. Now glue the trailing edge pieces and capstrips in place. Cut out and glue the wing tips and gussets in place. That wraps it up.

STABILIZER AND RUD- DER – Cut S-1 pieces to new outline, then cut out the 1/8" sheet braces. Assemble as the plans instruct. The same goes for the elevators, fin, and rudder after they have been cut to

their new shapes.

FUSELAGE – Steps 1 through 4 are followed without any changes except for relocating the stabilizer slot. Allow the bottom fuselage stringers to extend to the end of the fuselage. Cover this open section in step four when covering the bottom of the fuselage. Formers E (replaces F-15 of kit), F, and G should be cut out and glued to the fuselage in their respective locations. E leans against F. Place the finished wing on the fuselage. Cut out and glue formers A, B, C, and D in position. Cut out and glue the nose gussets to the top fuselage stringers and back of former A. Glue the stabilizer to the top fuselage stringers. Cut lengths of 3/16" sq. balsa and assemble the remaining framework. Allow to dry thoroughly. Make a saw cut separating former A in half (per dotted line) and cut a notch for the tank tubing to protrude. Cut the stringers apart between formers D and E. Remove the wing with nosedek and cockpit frame attached. Take the dimensions of each panel and cut out 1/16" sheet pieces to fit. Coat the inside of the fuselage with HobbyPoxy or fiberglass resin for strength. I recommend using a 4 oz. tank and adding a little more right thrust than recommended in the plans.

TRIMMING AND FLYING – If it comes out a little nose heavy, don't worry. Mine balanced about 1-1/2" back and it didn't seem to hurt anything. Range check, make sure up is up, etc., and fill her up. Taxi out with up elevator head into the wind and hit it. You'll break ground in a few feet and climb out like a Saturn IV.

HOT DAWG

FlyPaper online

Did you know you can now access FlyPaper via the SRFC website?

- The club's website is our 'shop window' for prospective club members and is being constantly improved thanks to the efforts of Robin Strange. In conjunction with the frequently updated photo gallery (when did you look at it last?), the addition of *FlyPaper* showcases the high level of modelling skills within our club.
- Perhaps you are a new SRFC member and enjoyed reading the latest issue of *FlyPaper* that was e-mailed to you when you joined as part of your New Member Package. Now you can catch up on previous issues.
- Have you kicked yourself for accidentally deleting an issue of *FlyPaper*? Maybe it was the victim of a computer crash (backing-up your hard drive really is a Good Idea!) or you forgot to copy them across when you bought that shiny new PC? Now you can download any missing issues with a few clicks of your mouse!
- You will still be e-mailed new issues in the normal way every three months.
- At present, issues available are only of the latest generation, i.e. from June 2021. With the assistance of previous editors, we may consider adding older issues.
- You can either read an issue online or download it to read offline at your leisure.

How to access FlyPaper online...

- Launch the club website on your browser: srfc.bmfa.org
- Click on the FLYPAPERS tab.
- Click on the hyperlink of the desired issue.
- Using your mouse or arrow keys you can view the issue on your screen. (You may need to adjust the view size to get the page to fit the screen.)
- Right-click with your mouse to open the issue offline in Acrobat, Preview, etc.
- Save the PDF file to your computer's hard drive. It is recommended you make a dedicated *FlyPaper* folder within your Documents folder.

SRFC videos online

If you have not yet discovered the club's YouTube channel you are in for treat. Just search YouTube for 'Sussex Radio Flying Club' or go to the club's website – srfc.bmfa.org – for a direct link to the channel.

The videos will play on any device but the bigger the screen the better. We currently have 78 videos!

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 when a new SRFC video is uploaded.



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VACANT*

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Safety Marshall 2

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VACANT*

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