

Flypaper



**Hedley Walker
passes new Solo &
Check Flight test**

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WEATHER STATION APP
ALL YOU NEED TO KNOW
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Cover: Congratulations to Hedley Walker who passed the club's new Solo and Check Flight Test (2021 update) on 18th January. Aircraft is a Chris Foss Uno Wot (electric). Photo: Clive Upperton

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Flypaper is published at the beginning of March, June, September and December.

Submissions for the June issue must be submitted by 15th May.

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.

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Diary dates

Make a note of these dates for meetings at Hill Barn Golf Club

4th March AGM, 8.00-9.30pm
The one formal meeting of the year where members have a chance to volunteer to help run the club or effect the way the club is run. Open to all club members, please come along. **Free tea, coffee and biscuits to show our appreciation of your attending.**

1st April Spring Auction, 8.00-9.30pm
OK, it may be on 1st April but you'd be a fool to stay at home and miss out on the bargains. Get ready for the start of the flying season at our annual Spring Auction.

Indoor flying at Worthing High School (South Farm Road, Worthing BN14 7AR). With thanks to Dave Knott for making it happen

12th March 8.00-10.00pm

This is a new club initiative so please come along and support it. £5 to fly, £1 to watch – pay on the night. Obviously planes, helis and drones must be small and light.

Power Competition dates

Power Competition Secretary John Ivory invites members to have a go this spring and summer!

Monthly competitions:	First	8th April
	Second	13th May
	Third	17th June
	Fourth	8th July
	Fifth	12th August
	Sixth	9th September

All are on Friday and start at 1pm at Coombes.

The Power Competitions will follow the same format as run in 2021 with a small prize awarded to the winner on the day. Additional Power Competitions will be arranged for fun-day flying, barbecues, etc. As always, weather dependent!

SRFC Christmas Party 2021

Robin Strange shares some photos of a well attended party that would put Number Ten to shame!

On 3rd December club members met at Hill Barn Golf Club for the annual Christmas Party. As we've had few chances to spend time chatting at club gatherings due to the pandemic a considerable amount of time was spent by the members in the club entrance area doing just that. Finally we all adjourned to take a seat at the tables and to enjoy the plentiful food, drink from the bar and of course more chit chat.

As usual the annual prizes were presented to the winners during the evening and this year were awarded for the Power Competition, Gliding and for Model Builders who had flown their new creations during the year.

Power Competition

1. Clive Upperton
2. Pim Smith
3. John Ivory

Gliding

1. Robin Strange
2. Clive Upperton
3. John Ivory

Builder's Trophy

1. Robin Strange
2. John Marchant
3. Paul Gladstone & David Knott

During the evening the annual arm twisting had taken place to persuade members to part with ready cash (yes cash, that long forgotten commodity) to buy raffle tickets. Sussex Model Centre had donated a number of prizes consisting of small but essential items that all of us modellers need.



SRFC Coombes Weather Station

*Do you use this superb resource? Too complicated?
Couldn't get it to work? Haven't got round to it?*

*Derek Woodley shows how to access the actual weather conditions
at Coombes before you leave home*

Our Weather Station mounted on the roof of the storage box at Coombes continues to give good service. It provides a snapshot of prevailing conditions at our flying site updated at eight-minute intervals. There are many ways of accessing this data depending on the equipment you have available...

Desktop or laptop computer (PC or Mac)

- If you are using a PC or Mac computer visit our website at srfc.bmfa.org. You will see the SRFC logo on the right-hand side of the home page.
- Click on this logo and you will be taken to our **Wunderground** page with detailed Coombes weather station information. Scroll down this page to see graphs showing the readings since midnight that day (useful to see the changes in wind speed).

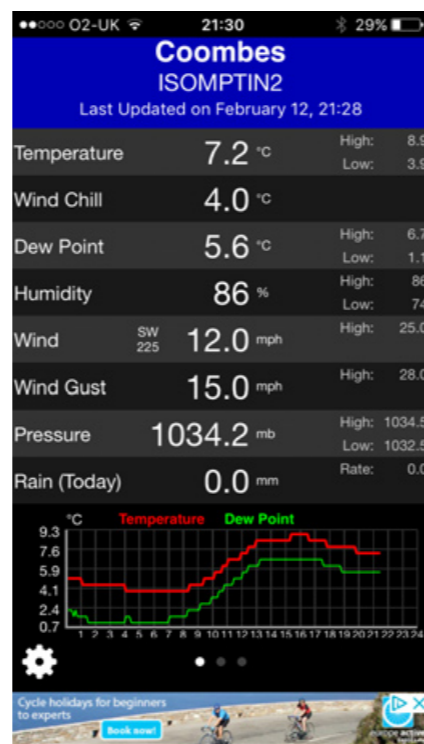
Smart phone

If you have a smart phone I recommend the following methods that will give detailed up to date information from Coombes.

iPhone (and iPad, which to all intents and purposes is a large iPhone but without the phone)

- For an iPhone download **PWS Monitor** from the App Store.
- Click the settings 'cog' at the bottom-left of the page.
- Hit the 'Enter A Known Station ID' box and type **ISOMPTIN2** (our station ID, note it must be entered in capitals).
- Select OK, then Done.

You should now see the latest report from Coombes. Scroll down for graphs showing earlier data for that day.



Another way to access the weather station with an iPhone is to navigate to www.srfccoombes.wordpress.com from the iPhone's default web browser, Safari.

- 'Add to Home Screen' from the forwarding option (📌) at the bottom of either page (scroll down lots). This will produce a link in the form of an SRFC icon on your home screen for easy future access.
- Then Click on the SRFC logo to go to the Wunderground Coombes webpage.

Android

I do not have an Android smart phone so although I make the following suggestions I cannot confirm the results*.

I can think of three ways to display our Coombes weather station on Android systems:

- 1) Use Google search to find our club website (srfc.bmfa.org).
 - Tap the **3 vertical dots** symbol at the top right of the screen and scroll down to and select **Add to Home Screen**.
 - You will be asked to **Name this link**. Choose a name.
 - Recall this page and click on the **SRFC logo** which will then take you to the **Wunderground** page showing our Coombes weather station data.

- 2) Use Google search to find the Weather Underground website. (www.wunderground.com).
 - Under **Search Locations** at the top of this page enter **ISOMPTIN2** (our station ID, note it must be entered in capitals).

You will now see the latest weather report from Coombes.

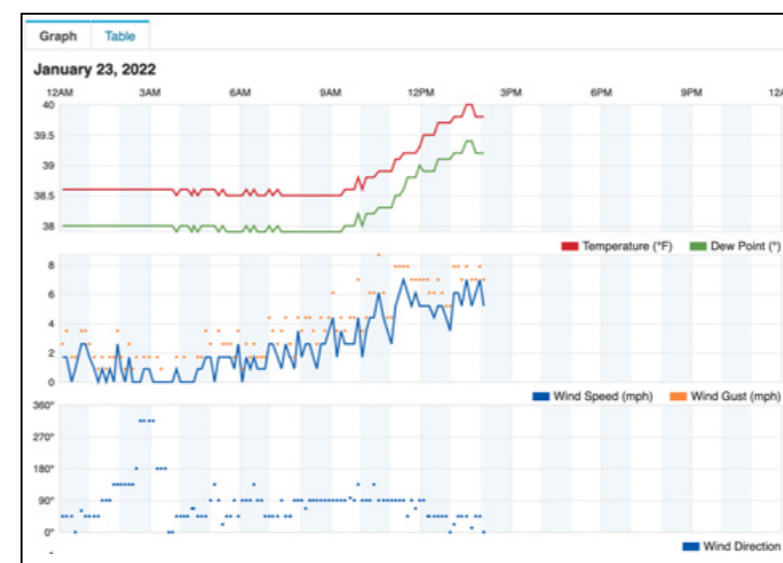
- Tap the **3 vertical dots** symbol at the top right of the screen and scroll down to and select **Add to Home Screen**.
- You will be asked to **Name this link**. Choose a name.

An icon should now be displayed on your home screen that will take you directly to the Coombes weather station Wunderground page in future.

- 3) Go to srfccoombes.wordpress.com. This should bring up a SRFC logo.
 - Use the **3 vertical dots** symbol at the top right of page to **Add to Home Screen** as above.

When you click on the SRFC logo on this page you will be taken to the Coombes weather station Wunderground page.

*I hope this article is useful, any Android users that can add to this advice please do get in touch.



Level of information is superb, as these graphs show. (This screengrab is from a desktop iMac but other devices are similar.) The wind speed graph (graphs are updated every 8 minutes) not only shows the current wind speed and gusts but also the trend, i.e. if it's getting windier or calmer.

She's a little Poppet!

Clive Upperton builds this Vic Smeed classic

This recent project originated not with a particular desire to build this specific model but the wish to incorporate a gifted diesel engine into a model plane. I have been fortunate enough over a period of years to amass a collection of small capacity I/C (internal combustion) engines of which a purchase from a fellow school chum resulted in me becoming the owner of a well-used ED Baby 0.46cc diesel engine. The downside was it had a damaged engine lug. However, some 58 years later another identical but undamaged engine was donated to my collection. A big thank you to Tom Gaskin.

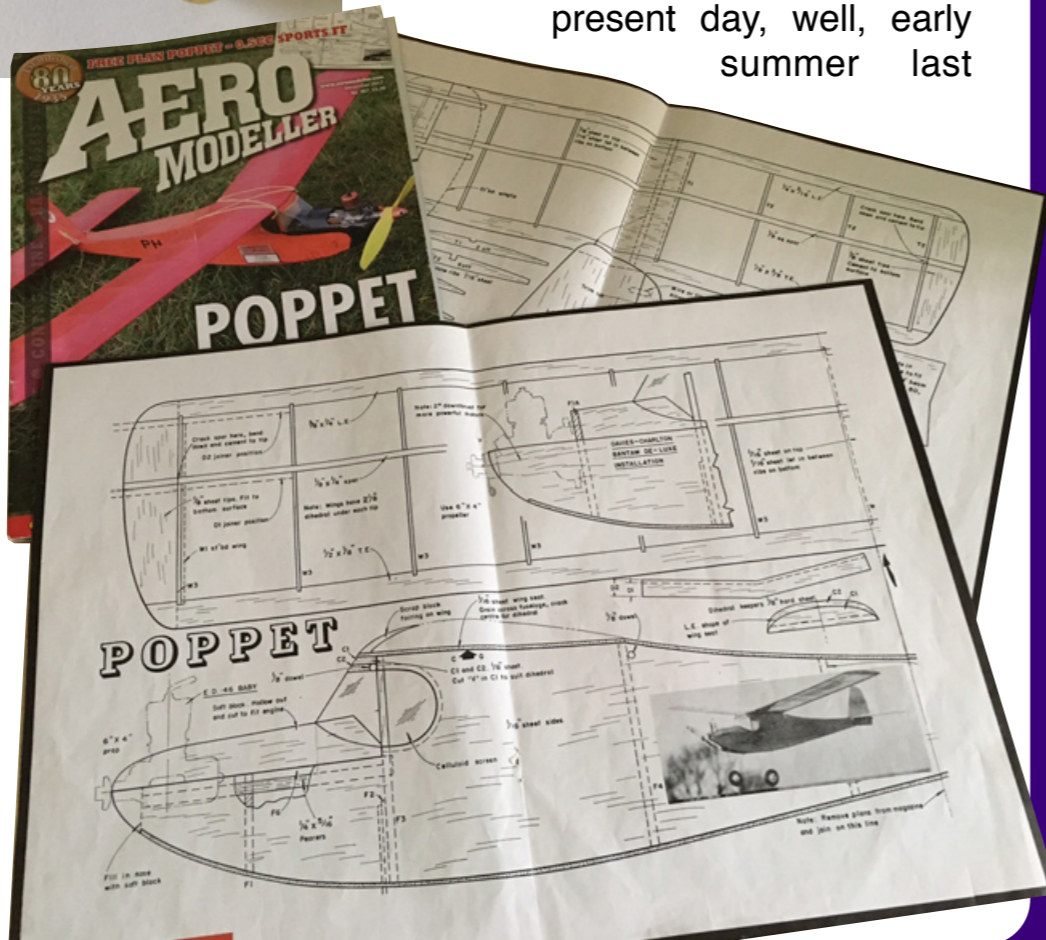


The photo shows the original purchase on the left which I guess took place in about 1962. Before commencing this article, I spent some time researching the time of manufacture as ED were known to serialise their engines. Co-incidentally both were made in June 1958, my original being number 13 and Tom's number 42.

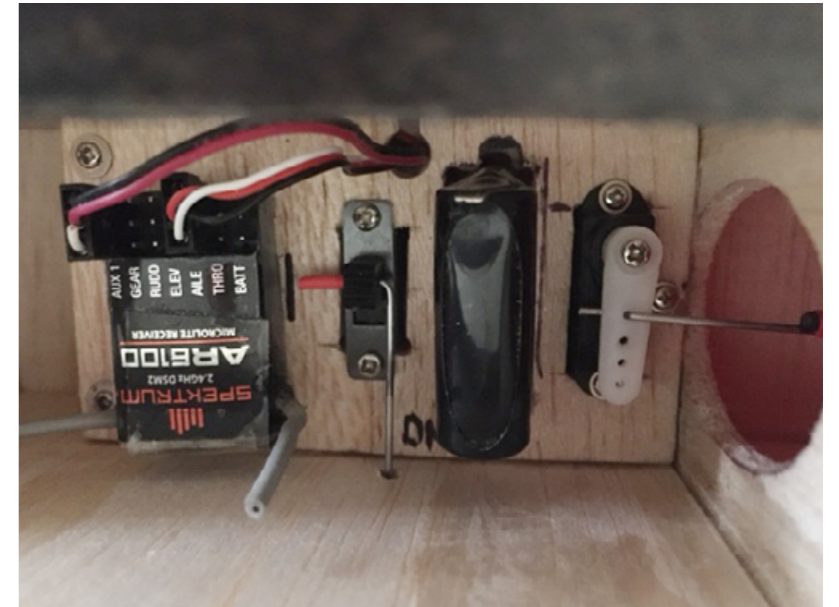
We move on now to the present day, well, early summer last

year, where Derek Woodley and I attended a Model Aire event at Old Warden and met up with a friend of Derek's who introduced us to the R/C assist spot landing competition for diesel powered, rudder-only models, designed by Vic Smeed. Derek had built an electric version of the Poppet; this was all the inspiration I needed to do the same, though with I/C.

I have, over the last few years, with that nostalgic urge present



among modellers of a certain age, sporadically purchased the *Aeromodeller* and a subsequent rummage through a small bundle of magazines uncovered the December 2017 edition containing the article on the Poppet. From the text and the accompanying plan and pictures I realised the prototype had coincidentally used an ED Baby engine. It seems that fate had played its hand – all I needed to do was marry my ED Baby to the Vic Smeed Poppet.



Bypassing the tedious task of cutting balsa sheet to produce a kit of parts I took the easy option and bought a laser-cut kit from Belair Kits. However, the build was delayed until the autumn.

The dimensions are typical of free flight cabin monoplanes of the era for 0.5cc to 0.8cc engines. Designed in 1962 and originally published in the May edition of the *Aeromodeller* of that year the wingspan is 32" with classic Clark Y (flat bottomed) wing section and a flying tailplane of similar section with the usual amount of dihedral found with free flight models. Flying weight without radio gear is about 6.5oz (185g);



Photos: Clive Upperton



with gear this rises to 7.87oz (223g)

I decided to use mylar and tissue to cover the wings and tailplane to provide a more puncture-proof covering with better protection against damp or wet weather. The main adhesive used in construction was balsa cement with epoxy to attach the engine bearers and undercarriage former. The fuselage and rudder are 1/16"

sheet balsa with additional 1/16" doublers in the central fuselage bay to support the flight equipment. The rudder is controlled via a pushrod driven by a 5.6g metal gear servo, with a 4-cell switched 300mAh NiMH flight pack and Spektrum Rx.

As you would expect, the build is straightforward. However, as I had

decided to decorate the model with tissue leading edge 'scallop' life got a bit more stressed during the finishing process and adding the word 'Poppet' to the wing in tissue lettering was not fun. Observant readers will have noticed that the photos of the finished article have a significant omission – having tinkered with the ED Baby *in situ* I took the decision to replace it with a DC Dart 0.5cc diesel. My experience with the Baby is inline with engine tests in the 1950s which comment on the difficulty of starting the Baby when hot to which I concur.

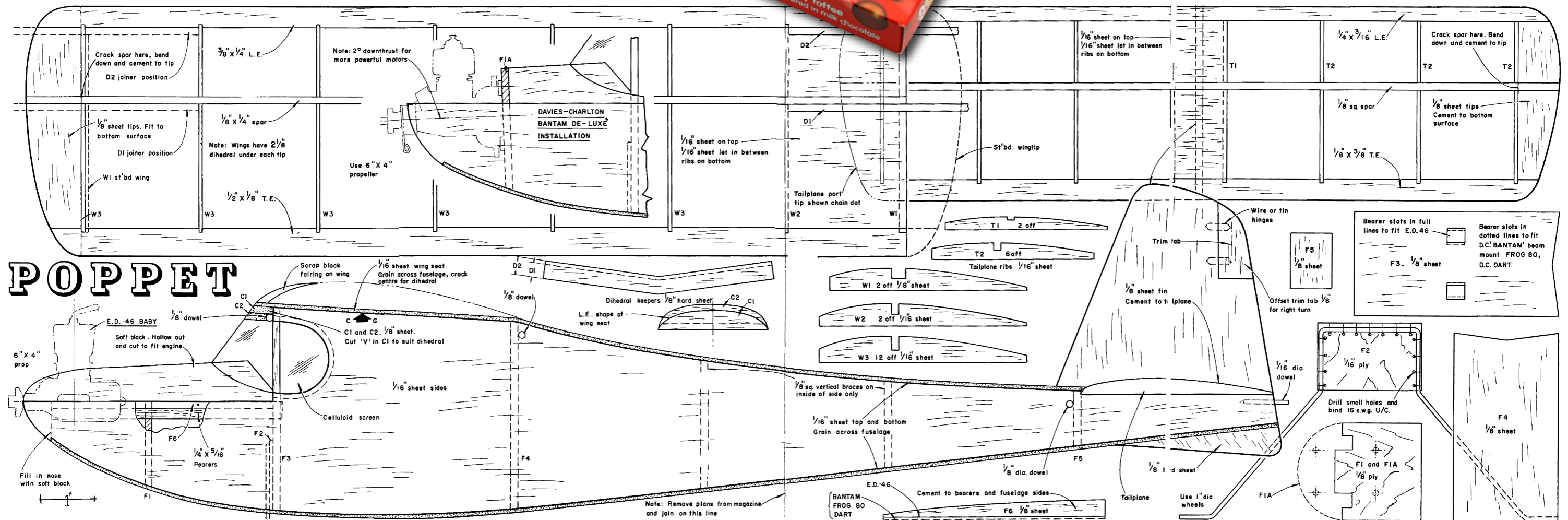
As the two engines are identical in weight I am sure it would fly with either engine but for me the easy starting of the Dart could not be ignored.

The test flight took place 14th January prior to which an unpowered test glide was undertaken and although not perfectly straight suggested a powered flight could follow with the assistance of Paul Gladstone launching. Once started the engine was run under-compressed to reduce power and was launched into the great blue yonder climbing rather too well and turning left into what became its first spot landing. Robin Strange's photos (overleaf) captured the Poppet's embarrassing return to *terra firma*.

Once collected from the strip the damage as always was very annoying but was easily repaired once home. With some further 'tuning' I am sure success will follow.



If you fancy building a Poppet the plan is available as a free PDF download from that marvellous resource: outerzone.co.uk. Ed



Paul Gladstone launches the Poppet on its maiden flight.
Photos: Robin Strange



Slingsby Kirby Kite 1 – Part One

Introducing Robin Strange's new build

Having completed the Flamingo build last year and successfully flown it off the local slopes and by aero-tow I spent some time looking around to see what I should get up to next. The Flamingo had the advantage of a laser-cut short kit being available from a couple of sources and when Chris Williams brought out a 1/5th scale Minimoa I was tempted to go for that but the model would have been very similar to the Flamingo so in a rash moment I decided to plumb for a scratch-built quarter-scale (140" wingspan) Slingsby Kirby Kite 1 from a plan available from Sarik (www.sarikhobbies.com).

Having forked out the £23 for the plan, which is dated from 1985, it became obvious how things have changed in the decades since the designer (John G Watkins) drew the plan, e.g. single central servo for the ailerons and another servo for the spoilers and the plan itself shows that CAD didn't exist at the time for the mere mortal. A number of areas on the plan could do with more clarity but I wanted a challenge and now I have it.

Having studied the plan for a couple of weeks I placed an order for lots of balsa, plywood and spruce and commenced the fun of marking out and preparing to cut out the formers for the fuselage. Here Clive Upperton came in very handy in that he has an electric fretsaw, which is now residing in my house for a while. Boy, does it speed up the cutting out of the formers and, more recently, the plywood ribs, of which more later.

The **Slingsby T.6 Kirby Kite 1** was a single-seat sport glider produced from 1935, by Fred Slingsby in Kirbymoorside, Yorkshire.

During the early 1930s there was a dearth of high-performance gliders that could be flown by relatively inexperienced pilots. To remedy this shortcoming Fred Slingsby modified the Grunau Baby design with longer gulled wings and rounded fuselage formers



skinned with plywood, resulting in the T.6 Kirby Kite 1.

The Kirby Kite 1 was immediately in demand for competition and club flying, but their performance was soon overtaken by newer gliders. Production continued until 1939 totalling 25, of which one was exported to South Africa, one to Canada and one to Rhodesia. One more was built from plans by Herman Kursawe in the USA.

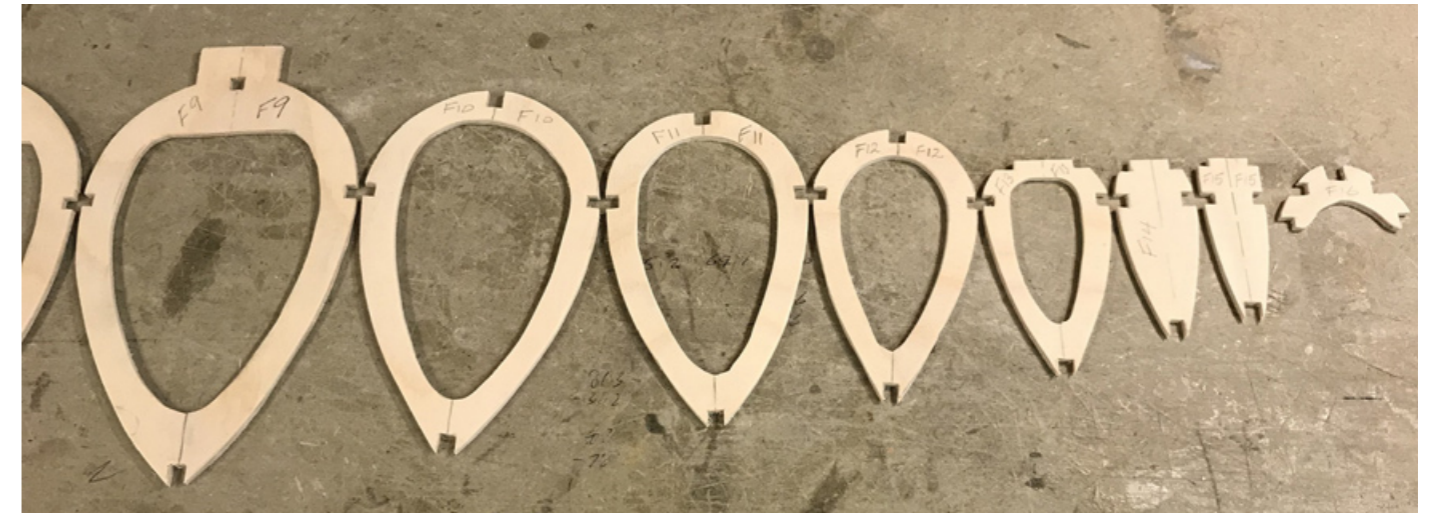
Almost all the Kirby Kites still flying at the outbreak of World War Two were impressed into the Royal Air Force for use as training aircraft for assault glider pilots.

After use by the Glider Training Schools the surviving Kirby Kites were passed to the Air Training Corps. Eight Kirby Kites survive, one has new wings. Another is being built using some original parts. (Source: Wikipedia)

Length: 20 ft 4 in (6.2 m)

Wingspan: 46 ft 7 in (14.2 m)

All the formers were marked with a centre line so I made the assumption that the designer had intended the fuselage to be built with one side on the plan and the second side built on to it. If he didn't intend that it's tuff because that's what I did, hence I cut them in half after cutting them out as a whole.



Having built the port side on the plan I made use of my building board and proceeded to add the starboard formers, checking for correct alignment.



Early on in the build it is necessary to do some metalwork as the wing mountings are bolted in between two formers (6 & 7) and also the main wing stays have a mounting below the wing mounting.



The wing mount is made from brass plates with two rectangular wing joiners soldered in place at 5 degrees to the horizontal, one for each wing. The strut mountings were made from aluminium.

The next job was to skin the fuselage with 1/8" balsa. The top of the rear fuselage was straightforward even though the balsa is fairly rigid. However, the nose was more challenging as the curves are complex and I had to resort to planking it and I found that applying glue to the joints and allowing it to dry before putting the parts together made life easier. Once the glue was dry I then put the parts together and re-activated the glue with heat.



Before I could finish the rear fuselage skinning I needed to install the tailplane retaining nuts, elevator controls and the rudder pull-pull controls so I turned my attention to the tailplane, elevator, fin and rudder manufacture.

The tailplane and elevator are of a very simple design and easily completed. The fin is very small and the main challenge is to make sure it's vertical. The rudder is a large item with a top/rear and bottom single piece trailing edge made of eight 1/32" strips 1/4" wide. The plan was less than clear in what was required and I started off in totally the wrong direction but once I clicked what to do I created a sandwich and with 1/32" balsa and PVA glue I was able to bend the sandwich into shape and makes for a very strong structure.

The elevator controls are now installed plus the cables for the rudder pull-pull with their servos. A servo is also installed for the aero-tow tow release and the associated tow release hook.



Mainplane now to do, starting with making the ribs of which I have cut out 26 with another 28 to go.

To be continued...

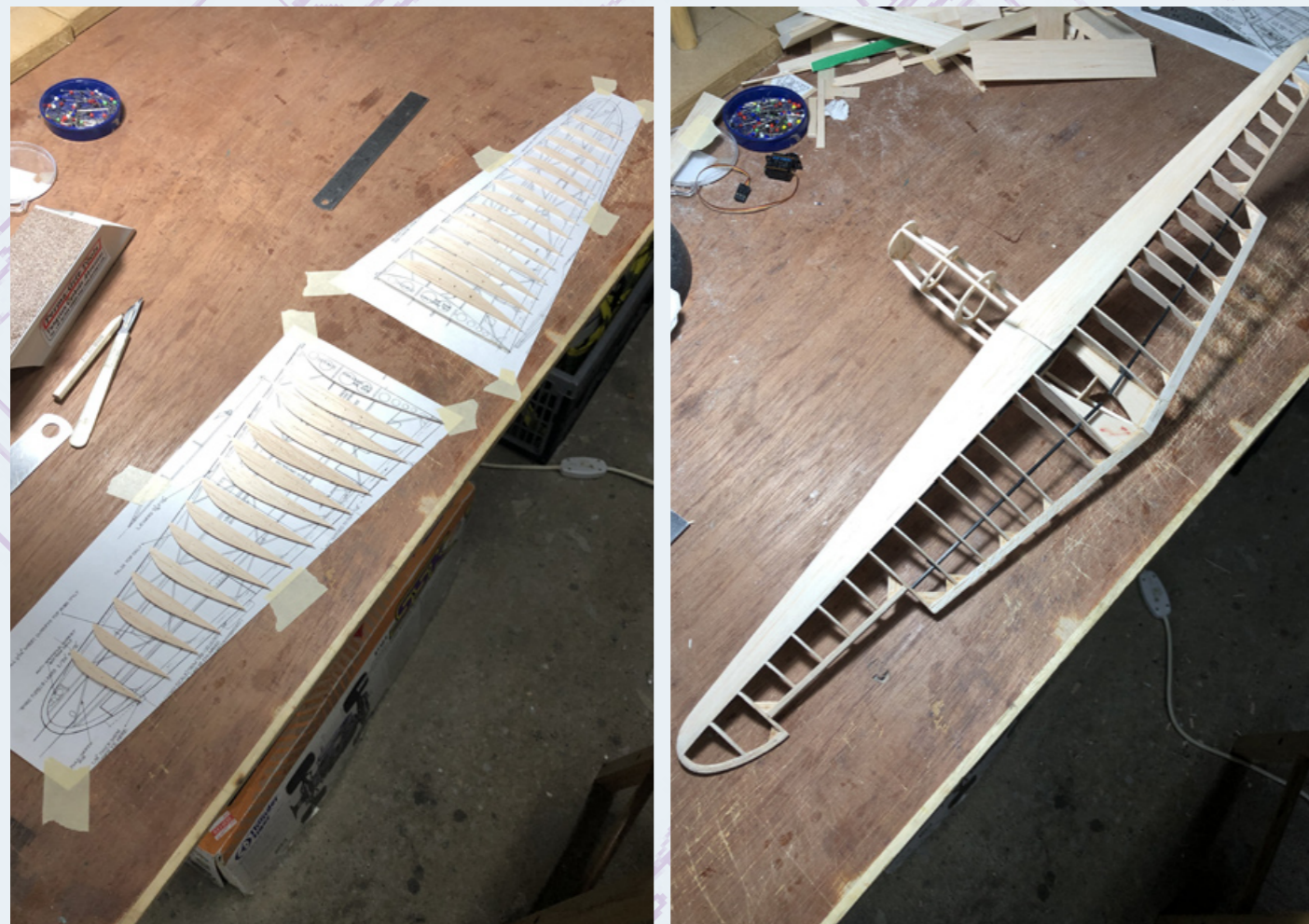
A Little Lightning

Latest creation from the prolific John Ivory is this 24" P-38

While flicking through the TV channels one evening last November I came across a programme covering the US Air Force's combat against the Japanese over the Pacific. The programme showed the problems the Americans were encountering against the much faster and nimbler Japanese Zero. A fighter to match the Zero was urgently needed and so the P-38 Lockheed Lightning was born. Well, that programme inspired me to build a P-38 for my next project as the cold, wet and windy weather and shortening days meant I had lots of time on my hands.

The computer was duly powered up and I started to look for a scale drawing that I could use. Almost immediately I found just the drawing I wanted – a rubber-powered P-38 with a wingspan of 40 inches. A fairly recent design, Duke Horn and Mike Kelly entered it into the Texas Scale Championships in 2018. I thought to myself, that won't take too long to build. How wrong can you be?

First, I reduced the plan to give a wingspan of 24 inches and an approximate scale of 1/24. I already had a pair of 18mm brushless motors, 10A ESCs, three 4.1 gram servos and two 2S 350mAh batteries. Calculations showed these should suit the two-foot span nicely. With a pair of 5x3" carbon fibre contra-rotating props this set-up



should produce around 300 grams of total thrust. Flight time at full power is estimated at 2 minutes max but at half power over 5 minutes should be achievable.

The first job was to work out where the motors, batteries and servos would be positioned and how was I going to gain access to them. This took some time but eventually I had it worked out.

I started work on the wings, cutting out the ribs from 1/16" balsa. The main wing spars were thin strips of carbon fibre topped with 1/16" balsa. The only part of the wing plan I was going to use was its outline, rib profiles and their positions.

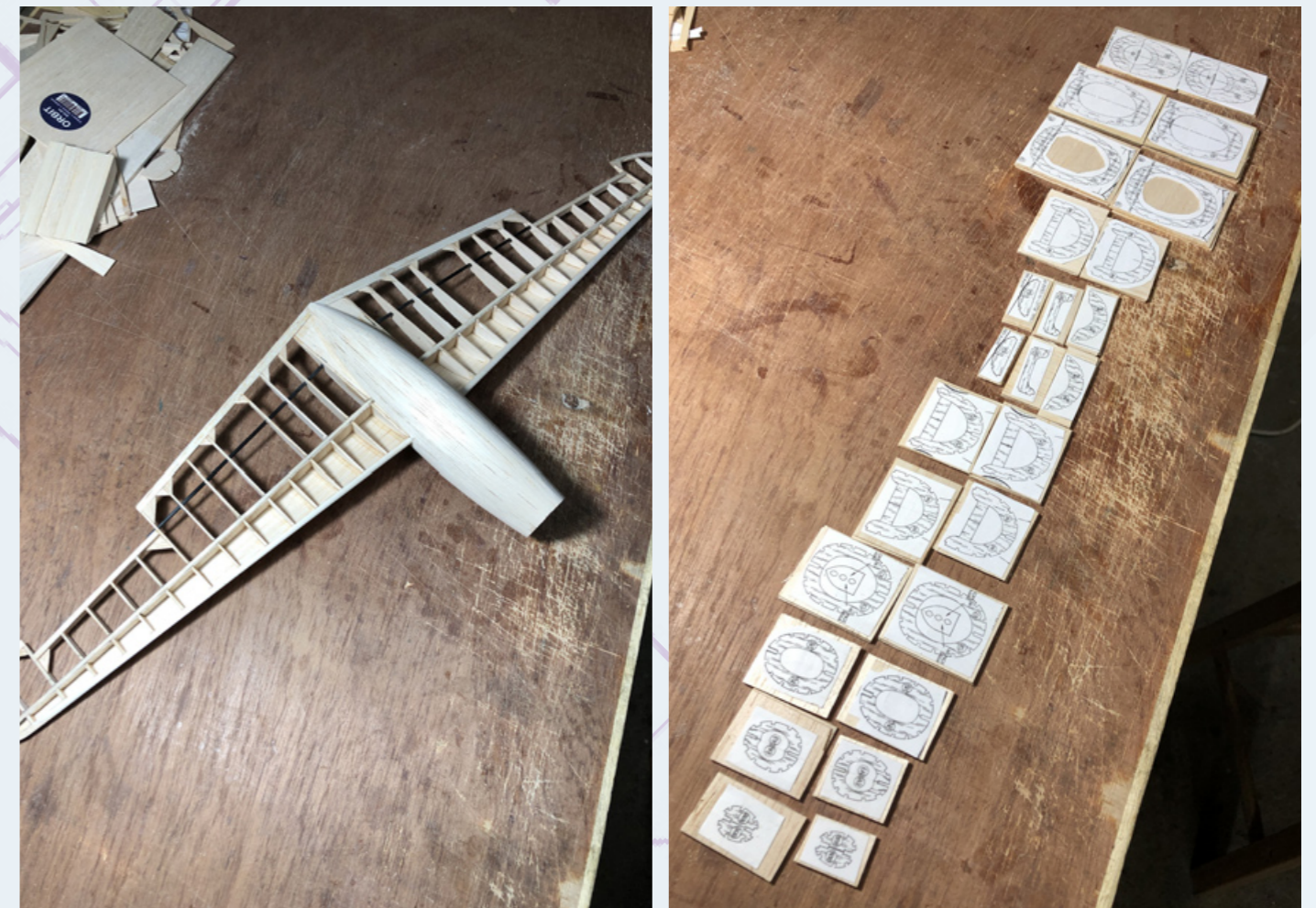
The next problem to solve was how to drive the ailerons. The wing section was too thin to accommodate a servo so I decided to mount a single servo in the fuselage and drive each aileron with a carbon fibre rod. This was not without its complications as I wanted to be able to add differential to reduce tip stalling at flying speeds when banking.

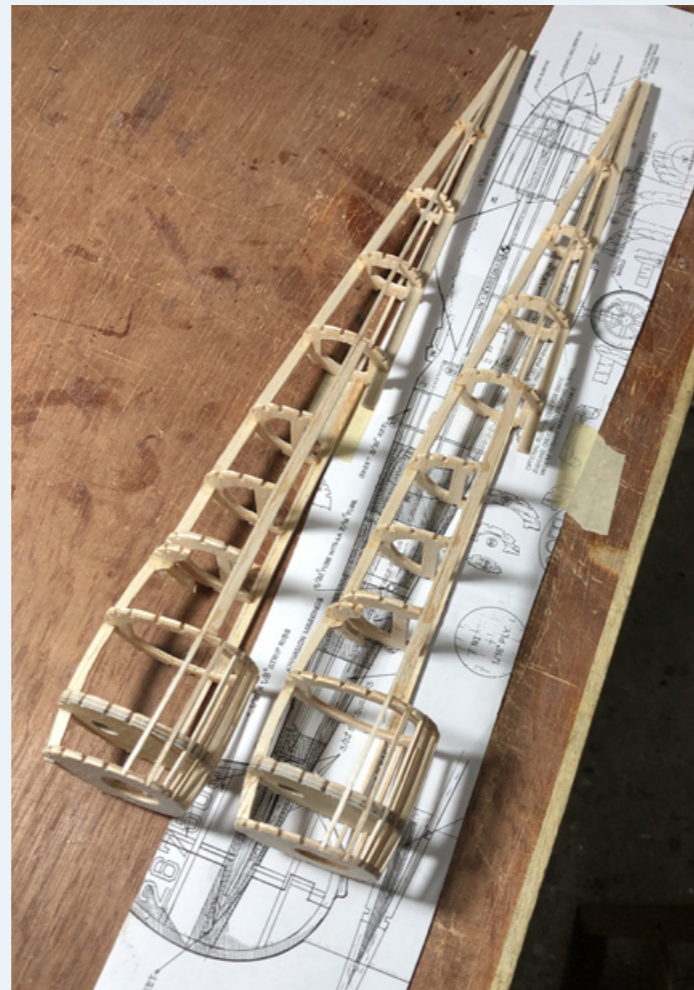
Construction of the fuselage was not straightforward either and to reduce the risk of the fuselage formers from breaking when cutting them out I made them from two sheets of 1/32" laminated together at right angles.

With the fuselage frame complete it was time to join the wings and fuselage together followed by the front wheelwell and servo mounts.

Once completed the fuselage was planked with 1/32" sheet.

The construction of the two nacelles used a similar method to that of the fuselage with the addition of a plywood motor mount bulkhead glued in position with 2 degrees downthrust built in and no sidethrust (contra-rotating props, remember!). Before

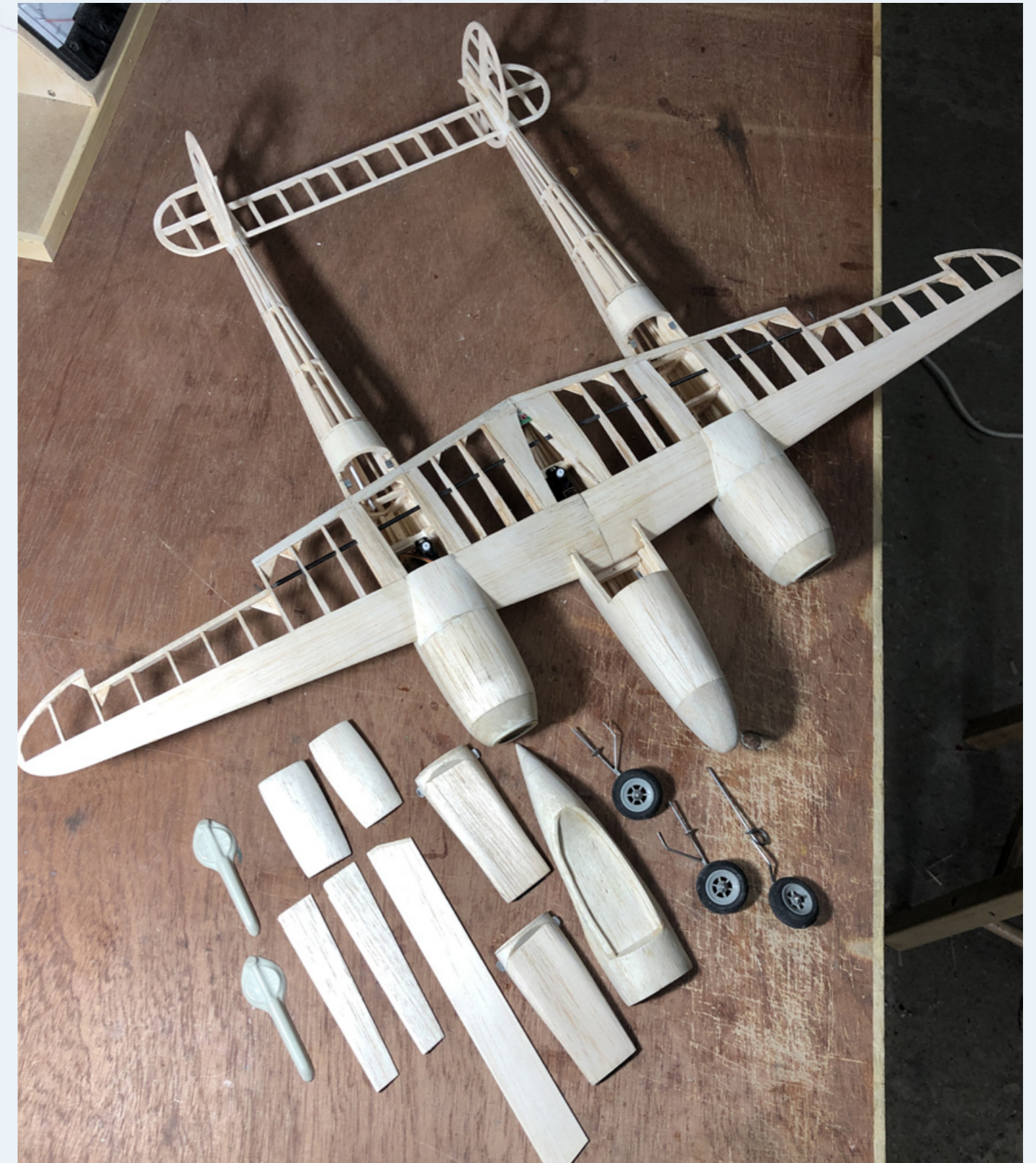




planking the nacelles with 1/32" sheet back to the trailing edge of the wing I added undercarriage mounts and an elevator servo mount to the right-hand nacelle.

Construction of the fins and tailplane was from 3/32" x 1/8" balsa strip and to increase the curved outlines' strength on both, three layers of 1/32" balsa sheet were laminated with their grain at 60 degrees to each other.

It was then time to glue the nacelles and tailplane into position ensuring they were aligned correctly. In addition, the fins were attached and the top section of the fuselage, nacelles hatch and battery covers and undercarriage were constructed.





My normal method of making the canopy by pressing a former into hot clear plastic sheet was not going to work for the fuselage air intakes nor the engine compressor details so I decided to make a small vacuum forming



unit and make the plugs out of balsa. With the clear plastic sheet heated using a hot-air paint-stripper gun and a vacuum cleaner connected and running, the sheet was heated and then quickly slid down over the plug. I was really surprised how effective this was. If you try this method be sure the balsa plugs are finished as smooth as possible as even the smallest defect will show up.

The model was covered in tissue with two coats of dope thinned 50% with banana oil to reduced the chance of warps. The various detail mouldings were trimmed to size and glued into position.



Using Humbrol matt paints I painted the cockpit pilot, airbrushed the underside of the plane, hand painted the upper surfaces and last but not least masked, painted and glued the canopy in position.

Decals were drawn on the computer then printed onto inkjet A4 decal sheet, sealed using clear lacquer and applied to the model. This took a lot of time as I wanted to use the rather intricate nose art of a P-38 Lightning, *Skylark IV*, based at North Hampstead, England in 1943 and flown by Major (later Lt. Col.) Mark K Shipman of the 38th Fighter Squadron, 55th Fighter Group, 8th Air Force.

With the receiver, servos, motors and ESCs installed and tested, with the CG a little forward and an all up weight including batteries of 280 grams the plane is now ready for its test flight – the problem is, am I ready?!



Photos: John Ivory



Photo: Grahame Pearson

The Last of the Few

Long-term Spitfire modeller Ivan Thomas reveals his latest

Like many modellers, I have a thing about Spits. My first one was built in 1973. It was a Brian Taylor 64" Mk IX. It was quite basic, a good outline with fixed U/C. It was a superb flyer and it lasted some 25 years.

My second Spitfire was a Mk XIX PR (photo reconnaissance) variant at 69" span also by Brian Taylor. This was by far the best scale Spitfire I have built. Maiden by Pim Smith, flight was brilliant. It was featured in the 2013 *FlyPaper*. Its demise came about while changing to 2.4 GHz via a module.

My final and last Spitfire is a Mk Ia. The construction is similar to the Mk XIX but the challenge is the short nose. Everything is mounted as far forward as possible including much lead. Power is provided by a Laser 100. I am reasonably satisfied with it but not completely. At this time it is unflown but hopefully flying photos will appear in the next issue.



Photos: Ivan Thomas

Aviation Quiz

By two anonymous SRFC members

You can Google the answers but we urge you not to

Answers on page 28

- 1a. Who was known as 'the father of the RAF'?
- 1b. What was his nickname?

- 2a. Who was in charge of Fighter Command during the Battle of Britain?
- 2b. What was his nickname?

- 3a. Who was in charge of Bomber Command in WW2?
- 3b. What was his nickname?

- 4a. Who was the Dambuster who had his 100th birthday in November 2021?
- 4b. What was his crew position?
- 4c. Who was his pilot on the raid?
- 4d. What dam did they attack?

5. Name the 3 German capital ships involved in the famous 'channel dash' in 1942.

6. What were the names of these Barnes Wallis bombs?
 - a) Bouncing bomb, dams raid
 - b) Smaller bouncing bomb designed for use against shipping
 - c) 12,000 lb earthquake bomb
 - d) 22,000 lb earthquake bomb



7. What do the capital letters stand for in the aircraft names below?
 - a) RAF SE5a
 - b) BV141
 - c) SM82
 - d) D520
 - e) DHC-1 Chipmunk

- 8a. What did the initials ENSA stand for?
- 8b. What did the forces unkindly say they stood for?

- 9a. What is the top speed of a Spitfire Mk1?
- 9b. What is the top speed of a Spitfire Mk24 (the final variant)?

10. What is the correct name for a biplane which has a top wingspan significantly greater than that of the lower wing?

11. How many propeller blades does a Fairey Gannet have?

12. What aircraft was unkindly known as '100,000 rivets flying in close formation'? (The number of rivets varies depending on the source but you get the idea)

13. What octane rating is AVGAS?

14. Why were the noses of some Hawker Typhoons painted white?

15. Where would you find 'creep marks'?

16. What was the name of the pilot killed in the making of *The Flight of the Phoenix*?

17. What company made the famous RAF sheepskin flying jacket?

18. What is the correct name for the WW1 German medal, 'The Blue Max'?



Aviation Quiz – answers Quiz is on page 26

- 1a. Lord Hugh Montague Trenchard
- 1b. 'Boom'
- 2a. Air Chief Marshall Hugh Caswall Tremeneere Dowding
- 2b. 'Stuffy'
- 3a. Marshal of the Royal Air Force Arthur Travers Harris
- 3b. 'Bomber'
- 4a. George Leonard 'Johnny' Johnson
- 4b. Bomb Aimer
- 4c. Joseph Charles 'Big Joe' McCarthy
- 4d. The Sorpe dam
- 5. Scharnhorst, Gneisenau and Prince Eugen
- 6a. Upkeep
- 6b. Highball
- 6c. Tallboy
- 6d. Grand Slam
- 7a. Royal Aircraft Factory SE5a (and SE is Scout Experimental)
- 7b. Blohm und Voss BV141
- 7c. Savoia-Marchetti SM82
- 7d. Dewoitine D520
- 8a. Entertainments National Service Association
- 8b. Every Night Something Awful
- 9a. 362mph
- 9b. 454mph
- 10. Sesquiplane. (Literally, 'one-and-a-half wings')
- 11. 8. It has 2 4-bladed contra-rotating propellers
- 12. Avro Shackleton. (The epithet has been applied to other aircraft but the Shackleton was the first)
- 13. 100. (87 and 130 also available but these are rare. 100 is the norm)
- 14. The Typhoon resembled the FW-190 from some angles and many were being lost to friendly fire
- 15. On the wheel and tyre of an aircraft. (Tyres tend to 'creep' around the wheel, stressing the rubber, so white markings were painted on both the tyre and wheel. Should they become misaligned the tyre had crept)
- 16. Air racing pilot cum movie stunt pilot Paul Mantz
- 17. Irvine
- 18. Order Pour le Mérite



Helicopter flying within the club

An update for new members by Jerry Hansen

New members who would like to try their hand at flying helicopters will be pleased to know that we have a dedicated helicopter flying site at Poling, just West of Worthing, where we can fly helicopters and drones. (Using the superb what3words app the location is pizza.driver.sweep.)

We can offer training and lots of help and advice with setting up and flying. Perhaps you have your own model but need help on setting it up. If it's not set up right then it will be difficult to fly so if you are not sure or new to helicopters just ask. We will be only too happy to help you set it up.

Perhaps you are new to the club and already a proficient helicopter flyer. All you will need is a site briefing and a check flight to show us that you are safe to fly.

At Poling we have three trainers and other members who are always ready to help, we also have three helicopter examiners within the club who can help if you wish to obtain a BMFA qualification.

We have some top 3D pilots and some not so good fliers like me, but one thing we all have in common is we fly to have a bit of fun.

You will see helicopters at Coombes occasionally but mostly they fly at Poling. If you want to fly at Coombes you will need to pass your Helicopter Solo Part 1 for anything over 450mm rotor diameter; you can fly sub-450mm helicopters at Coombes but you will need approval as safe to fly from a helicopter trainer.

We can only fly drones at Poling. They cannot be flown at Coombes due to our agreement with Shoreham ATC (Air Traffic Control).

If you would like to get involved just contact Marc Bowden our Training Co-ordinator and he will arrange things for you. His contact details are on the back page.

State-of-the-art hot 3D flyer, one of several in the club, very much at the high end both in performance and cost. Owner/pilot unknown



Scale Equirell helicopter. Thunder Tiger 30 and Raptor mechanics. Owned and flown by Jerry Hansen



Some members' helicopters being displayed at one of our winter social evenings at the Hill Barn Golf Club



Poling rules – a reminder

- The farmer has a gate at the start of his farm track. The field gate and box codes are on your membership cards. Can't find your card? Give the club Secretary, the Poling Rep, or any helicopter flyer a call.
- Remember the Country Code and leave gates as you find them – open or closed – and take your rubbish home with you.
- If you see horses approaching or passing the field you are required to land.
- FPV flying is not permitted.
- Hovering closer than 17 metres from the south boundary fence is not permitted (to avoid scaring the locals).
- To fly unsupervised you need your SRFC Helicopter Solo Part 1 as a minimum.



Above: a busy 'Come and try it day' organised by Jerry Hansen three or four years ago.
Below: Poling field with Jeff Uprichard (left) flying his Hi-robo Shuttle helicopter with training legs on, Jeff having passed his Solo Part 1.
All photos supplied by Jerry Hansen



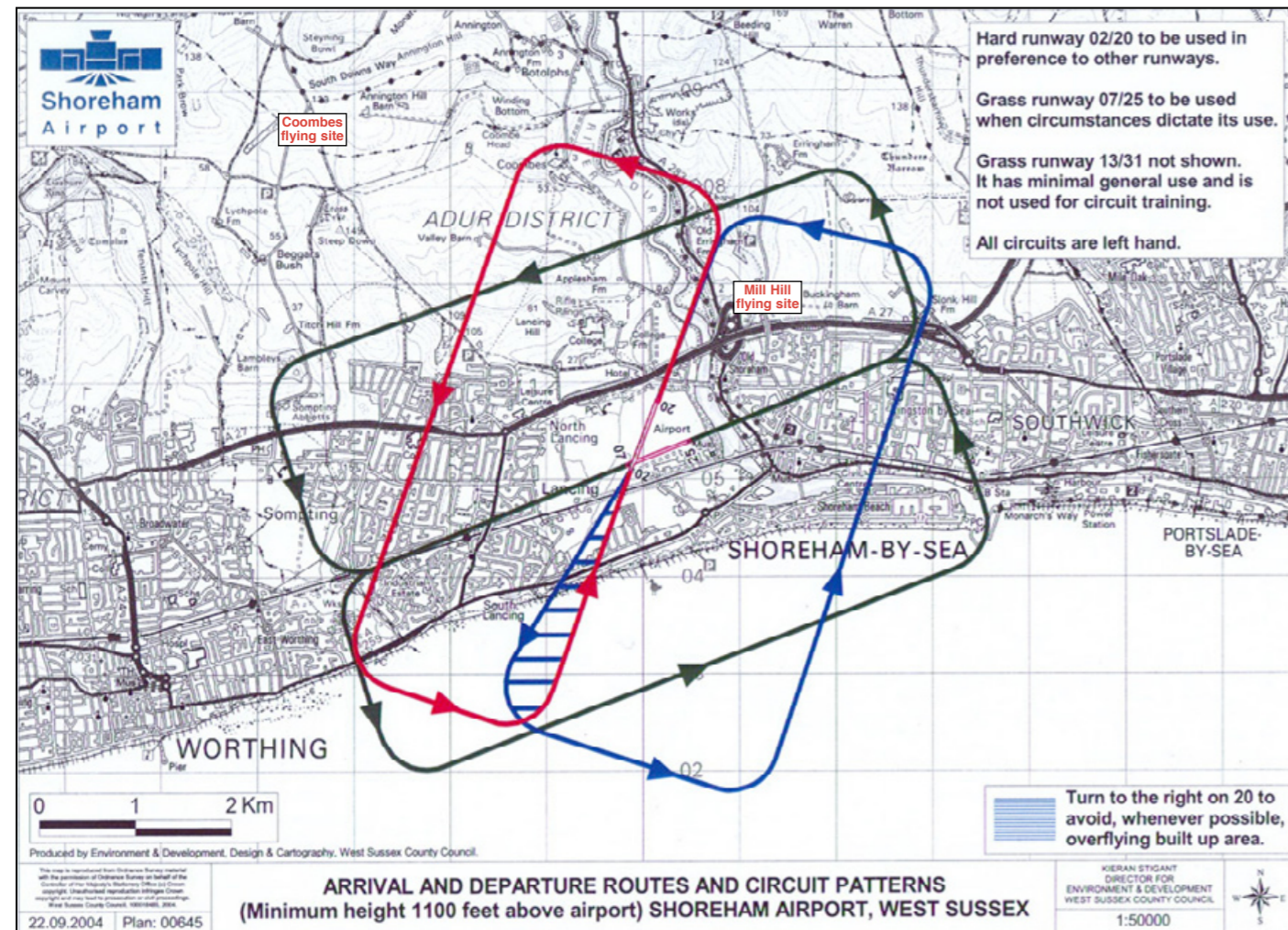
Shoreham Air Traffic Control

Robin Strange on our excellent relationship relationship with Shoreham ATC – and how to keep it that way

At the February club night we had a very interesting talk given by an Air Traffic Controller from Shoreham Airport. The main points can be summarised as follows:

Full-size aircraft and helicopters can approach Shoreham Airport as low as 600 feet above sea level on approaching from the north and north-east. Over Coombes the aircraft and helicopters are limited to a minimum height of 500 feet AGL by the Air Navigation Order (ANO), which means that models flying up to 400 feet should be clear. However, models with a mass less than 2 kg and flying up to 900 feet AGL could be in conflict with full-size traffic.

The area around the airport is defined as one where it's a case of 'see and avoid'. While Mill Hill isn't a club site, anyone wishing to slope soar there should be aware that Shoreham ATC is happy for model flying to take place but they insist a phone call is made to them before flying **AND** that the maximum height for a model is the top of Mill Hill treeline and **NO HIGHER**. ATC also would also like a call to them when the last flyer is departing (this would be a good idea to keep up good relations between



us). Their number is (01273) 467377.

It was confirmed that should the need arise, model flying at Mill Hill could be banned but Shoreham ATC don't want to do that if we all play ball. It's up to all of us who fly there to ensure we follow this guidance.

Our presence at Coombes or Mill Hill is added to the ATIS Messages that aircraft or helicopters receive from Shoreham ATC hence the request to phone ATC when we're flying and when we've finished. NB our MOU for Coombes only requires us to notify them when we want to go over 400 feet.

If you are interested in knowing more about Shoreham Airport this is an interesting website: www.lizcoward.com/virtual-tour-of-brighton-city-airport-in-shoreham



Shoreham Control Tower 1963



Shoreham Control Tower 1993



Shoreham Control Tower 2004

The new terminal building and control tower was built in 1936 and was designed by Stavers Tiltman in the Art Deco style. It was designated a Grade II listed building in 1984. Photos: Google images

Left: Map is dated 2004 so some details are out of date but circuits are accurate

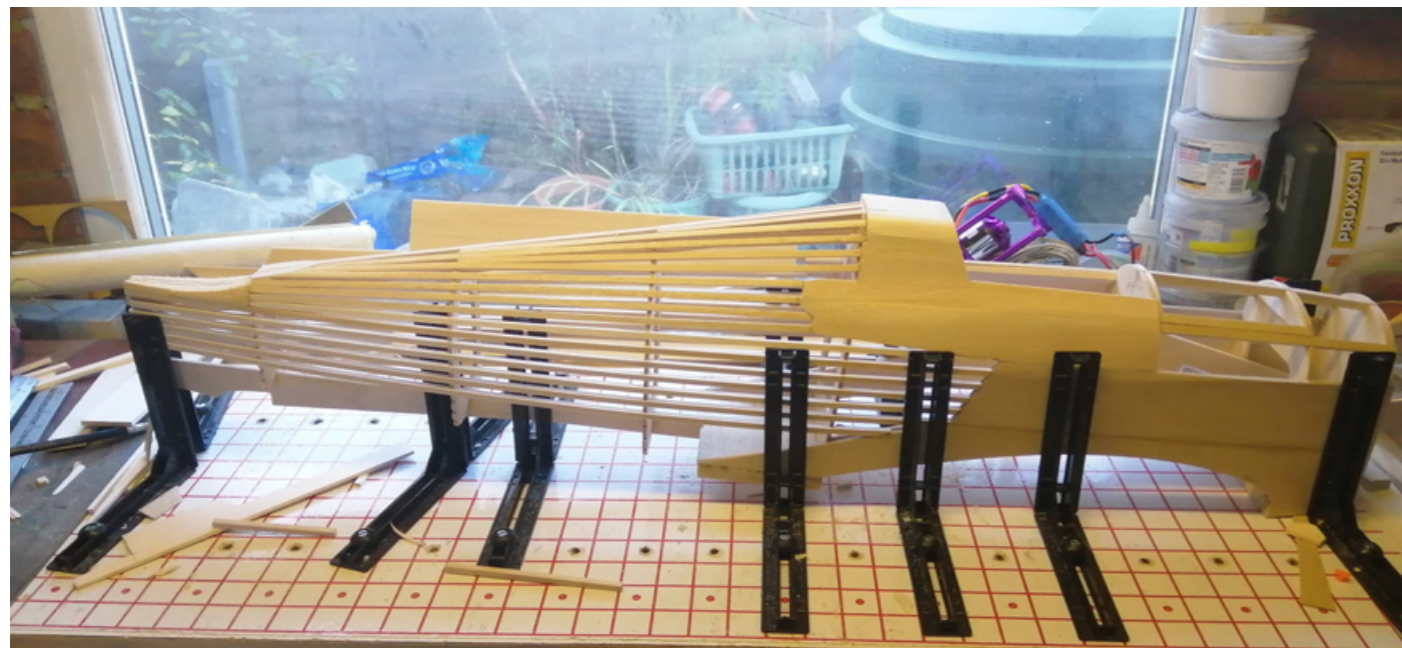


Mainly Hurricane...

Tony Nijhuis Hurricane build update from Les Crane

There is very little to report since the last *FlyPaper*. The Tempest V, Typhoon and Defiant remain unflown largely due to the weather and look likely to remain so for some time. In the meantime I intend to put all three onto a Vanessa rig to see if the C of G indicated matches that marked on the plan and if not I will take advice from those who are more knowledgeable than me.

My winter project is a Tony Nijhuis 62" Hawker Hurricane as a replacement for my previous TN Hurricane, the demise picture of which was in the last *FlyPaper*. The attached photos show the progress to date. Not a difficult build but a jig was absolutely essential for the fuselage as there are 23 stringers on either side, all of different



lengths which would pull/twist the fuselage if not fitted accurately and on opposite sides at the same time.

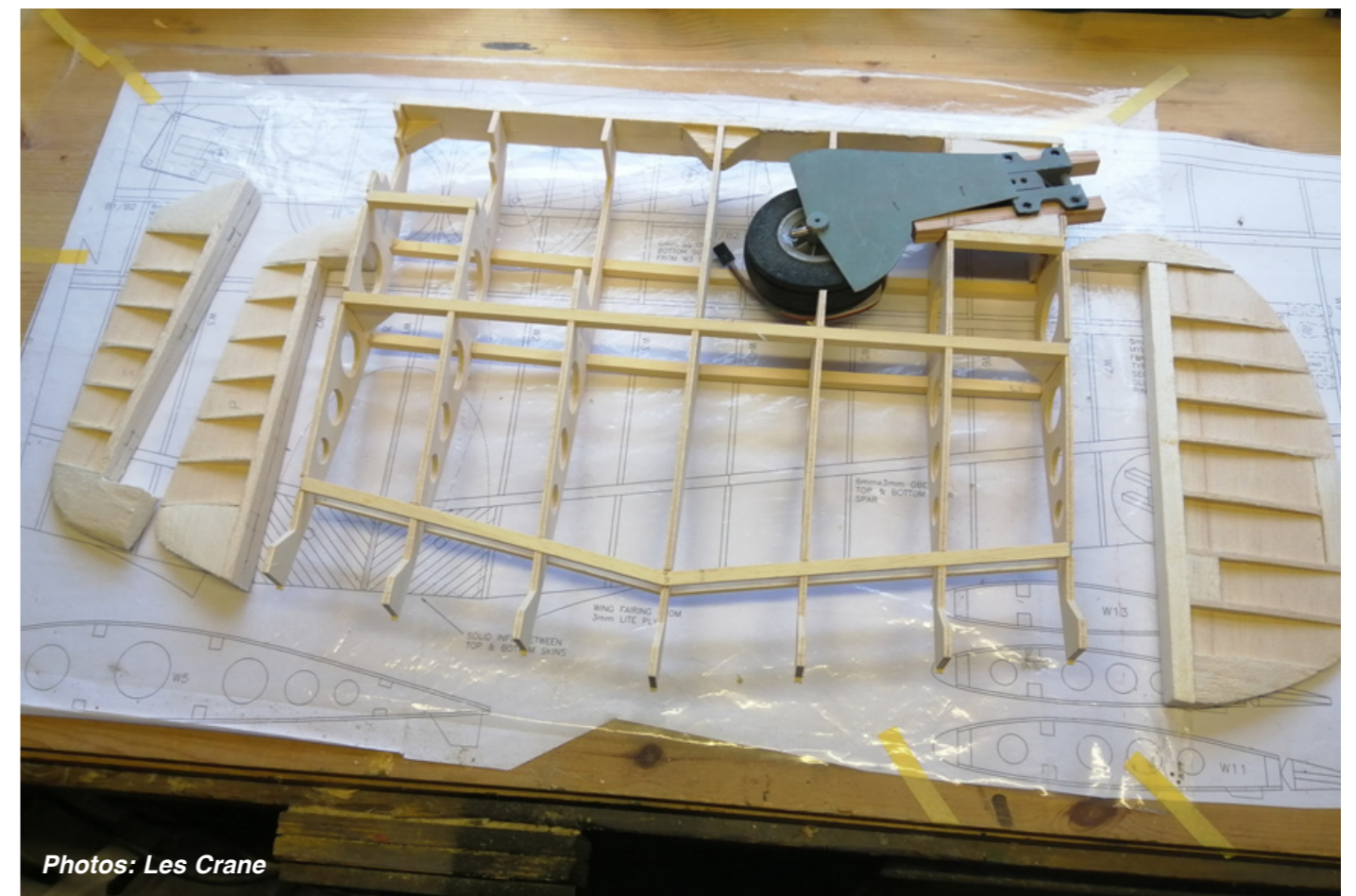
The nose section is constructed of large pieces of thick balsa sheet glued to wide triangular balsa strip and then carved/sanded to shape, a long and boring task but which must be done carefully and accurately.

The tailplane, elevators and rudder are of traditional build but the fin, surprisingly, is carved/shaped from solid balsa sheet.

So far, the fuselage, empennage, elevators, fin and rudder are built and ready for whichever covering is appropriate which will be either sanding sealer followed by glass cloth or Oratex.

The wing comprises three sections, centre plus the two outers, and I am well into building the centre section where one U/C leg is installed and operational. There are no flaps on this model and I am still deciding whether to add them although there are two on the centre section and one on each outer wing requiring a fair bit of planning and alteration to the structure.

Some members may know that Sussex Model Centre took delivery of two containers of models from a builder – and I mean *big* containers – and is releasing them steadily. When I went to the shop in December there was, hanging up, a bare, virtually complete uncovered airframe of a Fieseler Storch, a Svenson kit of 94" span. I bought it but there were no plans, instructions or anything else but I managed to get a full set of plans and build instructions on eBay for £14.99, money well spent. It looks a complex build overall and I will be spending a lot of time studying the plans before starting on it, but this will be in several months' time after I finish the Hurricane.



Photos: Les Crane

Workshop – the denouement!

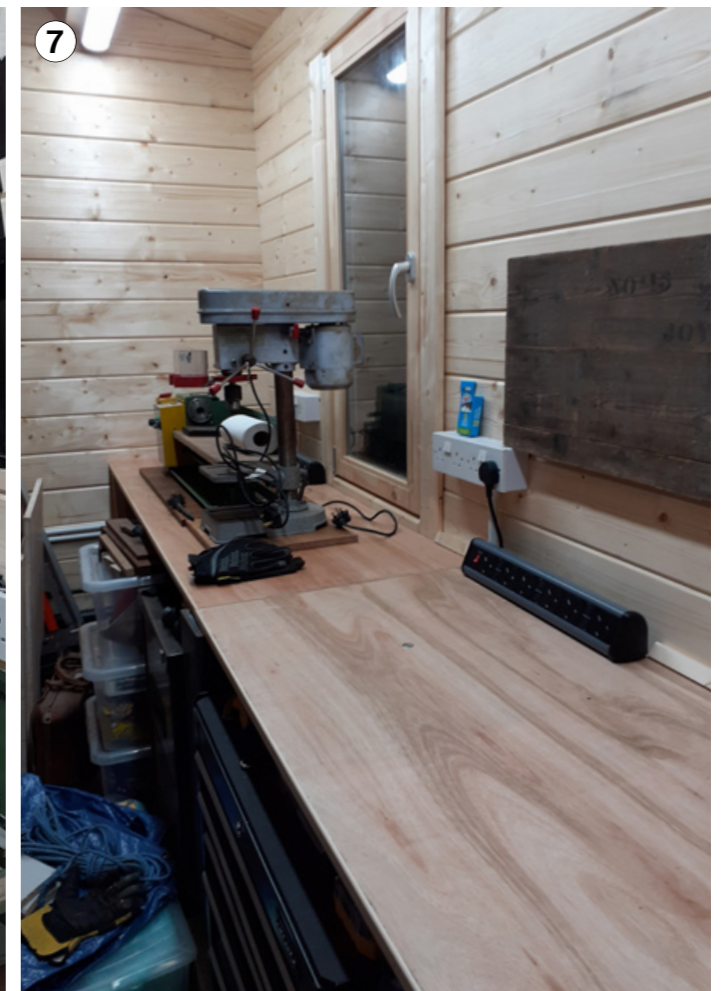
Following on from the articles in the previous two FlyPapers, Part Three sees George Evans' workshop completed

Those that know me (or my planes) will know that I'm not good at finishing things, as long as they are usable (or flyable) that is normally how they stay and true to myself that has happened with the workshop.

The racking is in, it looked like a very small and expensive pallet when it arrived



(Photo 1) but went together perfectly (Photo 2). All boxes were moved from their temporary greenhouse storage and put on the racking (Photo 3) – needless to say it was soon filled with models (Photo 4). The bench was installed, bolted down and levelled; the proper storage drawers are in and filled (Photo 5); the lathe was positioned as per the original plan (Photo 6), then it was moved as it plainly didn't work in that position (Photo 7). The bench





and lathe were left for three weeks to settle then levelled again and the twist adjusted out of the lathe (now about 1 thou over 75mm – I know... mixed units).

The building board is now installed and the big drawing board has been cut down to fit and the parallel motion reattached, it's now suspended from the wall on pulleys (Photo 8) above the bench. The pushbike hoist and wing platform have been installed using Halfords bike hoists. At £12 each these are absolute bargains. (Photo 9).

The charging bench has been set up with four changers and associated power supplies and all batteries balanced then given a storage discharge/charge. And, yes, some were disposed of where the capacity had gone or a cell had died.

On one end of the workbench I've drilled four 8mm holes and fitted blind nuts underneath; on these I can bolt down my medium-size vice, powered fret saw or bench grinder and sanding disc – all share the same bolt spacing. I've even replicated the hole spacings on my Workmate so that I can use them all outside if conditions allow (Photo 10).



I've got the DAB radio (Planet Rock rules!) in but not installed the CD player yet as I have not yet found the box with the 12V power supply in it – it's in there somewhere!

Main tasks remaining are: take all the boxes down and label what's in them and bring in the Royal Enfield motorbike – it's still on the patio under a tarp and cannot stay there much longer without risking further deterioration.

But as I hinted at the top, I've already started using the new workshop so the chances of it ever being properly 'finished' are low, hence no nice clean photo of everything in its place and nothing on the floor (Photo 11), that simply didn't happen.

Projects already completed include a rudimentary dividing head, a compound slide replacement block and a tailstock die-holder for the lathe, six trains for a Tomy trainset have been refurbished and now work, a new holder for the corrective lens on my target rifle made, and most importantly, I've started on the 36" Vulcan build.

So what did it cost me? Hmm... storage boxes £250, removal of old garage £1,500 (asbestos roof nearly doubled the price), racking £750, storage drawers £250, bench top £50, blocks for base of workshop £150, electrics £250 and then the workshop itself £3,800 including delivery and paint plus £100 for sundries (floor paint, better screws, etc). Total just over £7k. Is it better than the old one? Absolutely. Was it a pain in the ar*e doing it? Also absolutely. Am I glad I did it? ABSOLUTELY!

P.S. I've got enough wood left over (unused roof boards and flooring) to build my granddaughter a Wendy house, the spring project!

Thanks for bearing with me on this. There will be no more workshop articles from me unless they are background to plane articles!. See you all flying soon!



Photos: George Evans

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