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Welcome



Welcome to the October 2026 issue of RCM&E.

As I write this in mid-August, I am just a week away from long-awaited knee surgery. I am told that this may need some long-term recuperation so there is a chance that I might need to pass things over to my boss, RCM&E's Publisher, Tim Hartley.

This issue is in pretty good shape, with most of the main articles sub-edited, and I am just waiting to receive back the first page proofs from the design team. The designers are usually very efficient, so I am hopeful that you, dear reader, won't see too much different, if anything at all, by the time you come to read the October issue of RCM&E.

November issue may be slightly affected and there's not much that I can do beforehand other than put together a raw set of articles to get Tim going. After that I am not sure how much input I will be able to have; it might be very little but on the other hand, if all goes well, then I might be able to give it almost as much attention as I would to any other issue. Time will tell, but if you do spot anything amiss then please give Tim and I a bit of breathing space. It will only be for an issue or two and then normal service will, hopefully, be resumed.

Let's take a quick look at what's inside the October issue of RCM&E.

Tim Kearsely enjoys a good session at his building board so we knew that he would enjoy putting together the all-wood Tiger Moth kit from Tony Ray Models. It's quite an intensive build so Tim has written his review in two parts, which will conclude next time. Shaun Garrity (Retro Ramblings) is next, as he catches up on some reborn classic kits, and then we join Danny Fenton (Make It Scale) as he reveals the joys, as well as the trials and tribulations, of being part of Team UK at the recent Scale World Championships, concentrating on his beloved control line models. Whilst at the Weston Park Model Airshow, Mike Freeman took time out to chat with Steve Kilbon about his mighty, twice-size TND Vulcan, the subject of our latest Model Magic feature. Then it's over to Barry Atkinson to review the Sea Hurricane variant of XFly-Model's kit of the famous Hawker fighter.

Our pull-out Pro-Plan this month is something a little unusual, it being for a PSS version of the Aermacchi Impala jet trainer using our updated version of the Jim Beagle plan. Join Phil Stone as he guides you through the construction of this largely Correx based model in a two-part feature which concludes in the November issue.

The second half of the magazine begins in style with the first of Mike Freeman's reports from the aforementioned Scale World Championships, hosted by the BMFA at the National Centre, Buckminster. Mike points his camera at a whole host of glorious scale models for you to enjoy. Next is Chris Williams (Scale Gliding), who drives to the top of White Sheet Hill for another well-attended scale glider meeting, and then it's over to John Stennard (Insider) who joins the space race with a rocket shaped drone! Wrapping things up for this issue, Dave Goodenough (One Man & His Shed) dips into his usual wide array of modelling topics, including building a decades old Fantasia glider kit.

I hope you enjoy reading it all.

Happy Flying!

Kevin Crozier

Editor: Kevin Crozier
Kelsey Media, Media Centre, Morton Way, Horncastle, Lincs LN9 6JR
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On the cover

Photo: Mike Freeman

The 2026 Scale World Championships were held in the UK over a nine-day period from the 10th to 17th July, with models competing in three categories: Control Line Scale, Radio Controlled Scale, Stand-off Scale.

Mike Freeman popped along for the last three days, catching the tail end of the event, where he witnessed some beautiful models and excellent flying displays.



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Phil Stone offers a step-by-step guide to building a Power Scale Soaring version of the Italian military jet trainer based on drawings by Jim Beagle



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AN UPLIFTING DAY FOR WORCESTER MAC

Late last year we learned that one of our club members, Keith Sedgwick, had been diagnosed with terminal cancer. In late November, Susie, Keith's wife, asked if we could arrange for a few members to fly their models so that she could bring Keith along to watch. On a cold but sunny 3rd of December a few of us met to fly our models whilst Keith, wrapped in a warm coat and thick scarf, sat watching us. We parted that day saying our farewells and exchanging Christmas wishes. I couldn't believe that just a few days later Keith had passed away.

As we entered a new year some of Keith's closest friends at the club started liaising with Susie on the idea of holding a Memorial Day for Keith in the summer. What a great idea. A date was set for the 27th of June and plans started to be made.

Keith was a member of another local club, Bromyard Model Flyers, and so it was decided to extend an invitation to them. A special mention goes to Leon Nicholls, Chris Layton and Chris Corrin, who were the guys that put all the effort into planning what turned out to be a fantastic event.

On Friday the 26th of June we set up the flying site for the next day. Saturday dawned a bright morning with light winds. Keith's family were travelling from far and wide, so we were hoping for a good attendance from both clubs' members. What an amazing event - I have never seen so many people at one of our flying sites. There was a great attendance from the Bromyard Flyers with some awesome models being flown. Leon provided a PA system and he also manned the BBQ with the help of his wife. During the day we managed to give some of Keith's family a little flight time on a buddy system to experience why Keith loved this hobby so much.

Following an incredible BBQ, with many side dishes supplied by Susie, we held a raffle, with the first prize being donated by RCM&E of a year's free subscription to this great magazine. Barry O'Harra was the lucky winner and £74 was made for Cancer Research.



Chris Corrin displayed Keith's final model aeroplane, an Avios Bush Mule.

After this Susie cut the tape on a new memorial bench for our flying site. Then, supported by her son Dane, his wife Vicky and her granddaughters Sienna and Maia, Susie gave a moving speech about Keith's life, his family and his passion for aviation, both full size and R/C. I don't think there was a single person present who wasn't discreetly wiping a tear from their eye.

The Bromyard Model Flyers left saying they would like to reciprocate by hosting a flying day at their site so perhaps this could be the start of future collaboration between our two clubs and the making of new friends, all thanks to Keith.

I know Susie and her family thoroughly enjoyed the celebration of Keith's hobby. Susie later told us she was very touched by all the members who came and introduced themselves. She enjoyed meeting Keith's friends, who had such great stories and memories of flying with him.



First thing and a good selection of models were already starting to appear.

The day was an incredible success. What a wonderful way to remember and celebrate a man who was loved and respected by all that had the good fortune to have known him.

God bless you, Keith.

Roger Styles



Members from Bromyard Model Flyers brought along a fine selection of models.



Susie, with other members of Keith's family, after unveiling his memorial bench. Picture by Steve Ottley.

SOUTHERN CROSS AIR FORCE

There are a group of modellers here in Australia, made up of people from various clubs and calling themselves the Southern Cross Air Force, who fly warbirds. They hold a meeting every month or so, rotating through fields belonging to various clubs covering quite a decent chunk of southeast Queensland.

This weekend it was the turn of our club, SAAMBR (Sport Aeromodellers Association, Moreton Bay Region) to host the warbirds meeting. The Friday before the event the weather was lousy, so we hoped the weather would clear up for the Saturday. The rain did but the wind blew with a vengeance. I put my models out for show only! A few of the guys with larger models did get a few flights in but it was mainly a social day with food provided by some of the lovely ladies' unfortunate enough to be married to a few of our guys.

I thought you may be interested in some pics of the few planes that did fly. These events are usually very popular, but the weather kept most of the aircraft safely in the cars. It's been a while since I photographed models at a meeting. Funny how the few years that have taken the number to 84 have made it difficult to get down to take pics and darn near impossible to get up again!

Peter Kraus



Seagull P40 with 35 cc petrol power. Sorry, I didn't get the name of the pilot.



Nick Case with his two-metre span Flight Line Liberator. It handled the conditions well, showing that even a foamy will do the job if big enough.



Graham Tattersall, the force behind the smooth grass at our club, with his 80-inch Cub



Nev Vogler with his Balsa USA Taube powered by an O.S .48 Surpass.

GUIDE TO MODEL RAILWAYS – VOLUME 3

If you're looking for another creative hobby to fill the void when you're either not flying or between model aircraft builds, then building a model railway may appeal.

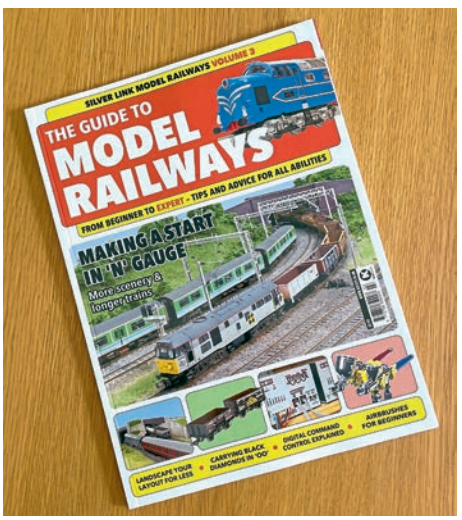
We have featured the first two volumes in the Silver Link 'Guides to Model Railways' before and this makes Volume 3. As such it's a bit more advanced regarding the topics covered, including 'Digital Command Control Explained' and 'How to Landscape Your Layout for Less'.

The Guide to Model Railways – Volume 3 is a hands-on, idea-packed read for anyone who wants to turn their interest in trains into a working model railway. It takes readers straight into real projects and practical decisions, from choosing between scales like compact N gauge and larger formats, to planning track layouts that actually fit the space available at home.

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TONY RAY TIGER MOTH

Tim Kearsley clears his building board to make a start on the in-depth build of a well-detailed DH.82 kit

Words & Photos : **Tim Kearsley**

When I was asked by our esteemed editor if I would like to review what, in his words, was a *"real builder's kit"* I was immediately interested. I wasn't familiar with the kits coming out of Tony Ray's workshop so I was rather intrigued. So, I quickly said yes! A few days later Mr. Postman brought me a nice cardboard box. Let's have a look...

KIT CONTENTS

The kit is a 1.5 metre span, 1/6 scale, very detailed laser-cut model of the de Havilland DH.82 Tiger Moth. Laser cutting is generally very good and the varied materials (balsa, lite-ply, other woods and aluminium sheet) seem of good quality. Tony makes use of Paulownia wood, something I wasn't familiar with. Unusually, there are two small sheets of laser-cut steel! A useful, partitioned box of many small parts, screws, hinges, studding etc. is included. Believe me, you would NOT want to drop that open box on the floor! A nice, detailed plastic cowl and fuel tank are included, as are plastic wheel hubcaps.

The kit was supplied for review by Model Shop Leeds, who also included the cockpit kit.

There is a comprehensive 108-page instruction manual online. Be aware that this is almost exclusively photos with little other





Review model came with the cockpit kit.



It includes a detailed moulded cowl.



Kit contents.



A comprehensive set of fittings is included.

"There is a comprehensive 108-page instruction manual online"

explanation of the construction sequence and this can, occasionally, cause some puzzlement. Two large plan sheets complete the kit contents.

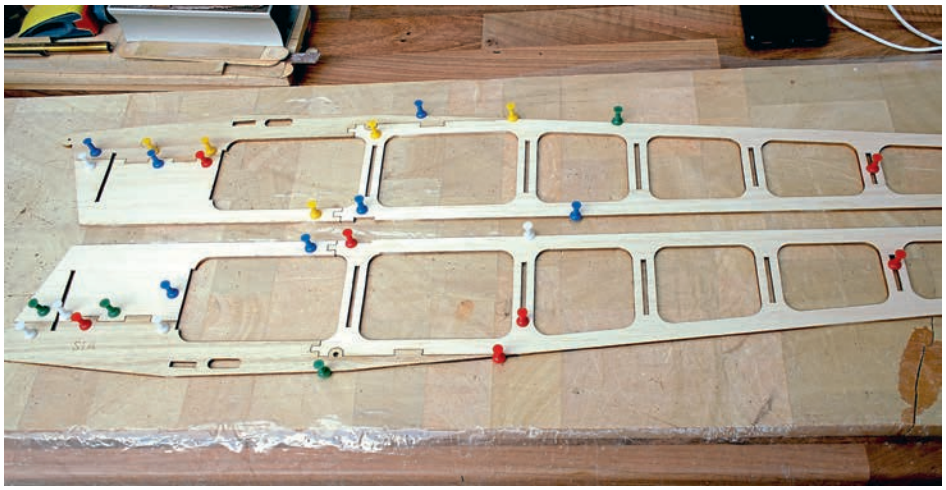
One very handy thing Tony has included at the front of the manual is a list of which sheet holds the various laser-cut components. The list is ordered by the sequence of building so is really quite useful. I found it worthwhile taking five minutes to stack the sheets in alphanumeric order as it does save appreciable time in hunting down the next piece you need. In general, I followed the instruction manual, but with a few variations for reasons which I'll explain as we go.

I'll say at the outset that my glue of choice is aliphatic resin. I'm not a fan of cyanoacrylate glue (CA), although in appropriate places its almost instant drying is invaluable. I do therefore use it where necessary. Sometimes, if I need the wicking ability of CA but don't need the instant curing, I'll use Superphatic. I've consistently found this to be equally as strong as CA but with the advantages of some adjustment time and no smell. The only other adhesive I use regularly is epoxy resin.

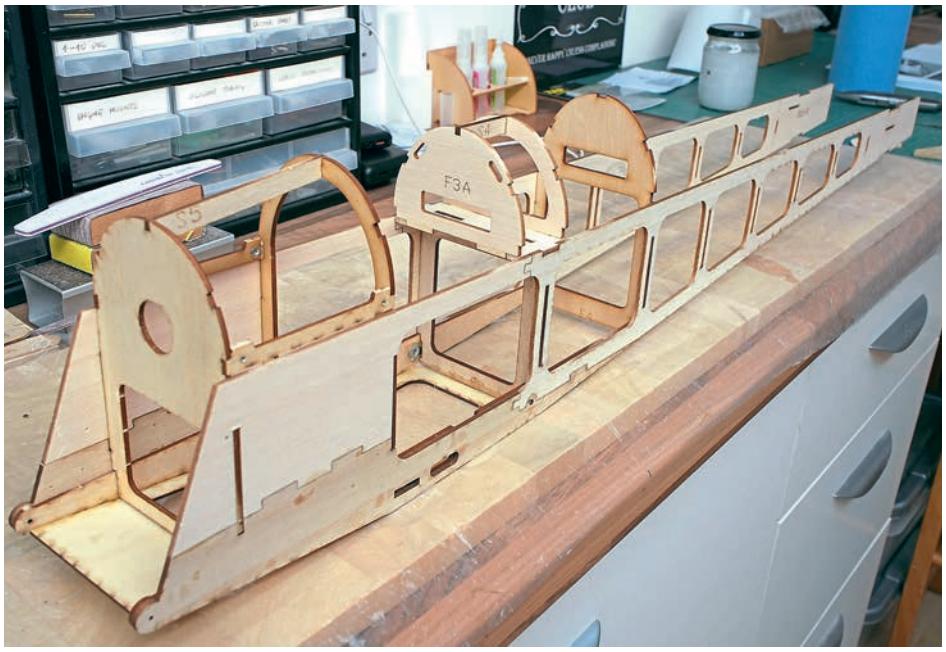
CONTRUCTION BEGINS

Construction begins by assembling the two fuselage sides from separate balsa components, followed by attaching formers F1 to F4 to one side. A word of warning here - take care when adding the two S4 components. These form the attachment point for the lower wings. The gap between them needs to be a consistent 4 mm or the wing fitting will either be too tight or sloppy. The other side is then attached, making sure the structure is square. The front floor is installed, followed by the remaining formers F5 to F10. These pretty much ensure the structure so far is square.

For the next stage it is essential to ensure that the fuselage is pulled in at the tail equally on both sides. To assist in this, I used a SLEC building jig, which does make the job easier.



Starting work on the fuselage.



Adding the first fuselage formers.

Formers F5 to F10 are glued in, checking all the time that the fuselage sides are symmetrical. Once the glue has dried the whole structure is strengthened by adding stringers of 6 mm x 3 mm pine.

The next job is to add supports for the tube which guides the wire pushrods for the rudder and elevator. The kit supplies six of these of 3 mm ply but in my opinion more are needed to reduce flexing of the tube and consequent slop in control surface movement. I therefore cut another two supports from similar 3 mm ply.

Oddly, the top half of former F5 is subsequently removed and the luggage bay floor is installed and a replacement F5A installed.

"Construction requires a number of small components from the laser-cut steel sheet"

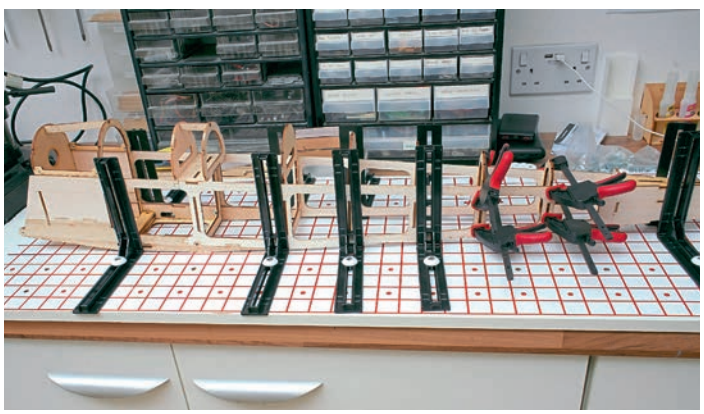
Next up, the fuselage decking is tackled. The decking sections are already laser-cut for you and they are a very good fit indeed, with only very slight trimming necessary here and there. I dampened the outside of each piece before gluing to assist in bending the sheet to shape. I used my usual technique of tacking one edge down with medium CA and then using aliphatic resin to glue the rest. Generous use of masking tape ensured the balsa sheet was kept in good contact with the formers whilst the glue dried.

OPEN DOORS

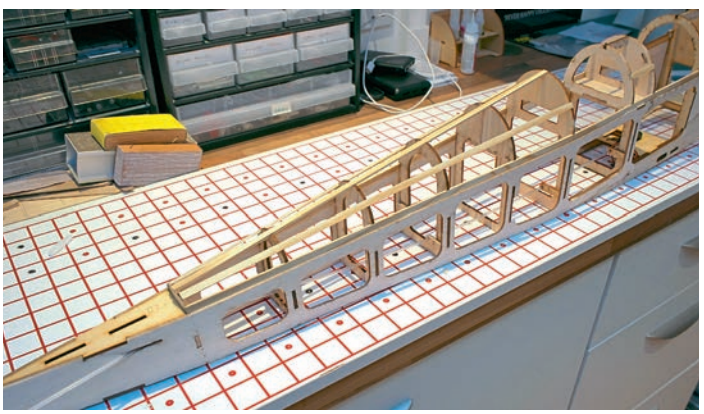
The kit features opening cockpit doors and a luggage bay door fabricated from 0.3 mm aluminium sheet. The apertures for these doors are cut from the previously applied decking. Tony has thoughtfully added laser cut dotted lines to guide your blade. The plan sheets include templates for all the doors. I cut these out and carefully drew round them on the ali sheet. The sheet is thin enough to be cut with scissors (don't use the wife's best dressmaking ones though!), though the corners and edges can be slightly distorted. A few taps with a light hammer restores flatness.

The next jobs can be - how can I describe them - fiddly! The doors must be carefully rolled into a gentle curve which matches the curve of the fuselage side as closely as possible. Tony's suggestion, which I followed, is to use a roller to slowly form this curve. It sounds difficult but isn't really, though I did find I needed several tries to get it close. Each door also needs a narrow 2 mm lip forming on the edge opposite the hinges. I found gently scoring the aluminium with an old scalpel blade aids this. Beware of scoring too deeply as it will split when you bend it. Guess how I know!

Talking of hinges, they are brass and are tiny! Each cockpit door has two hinges but



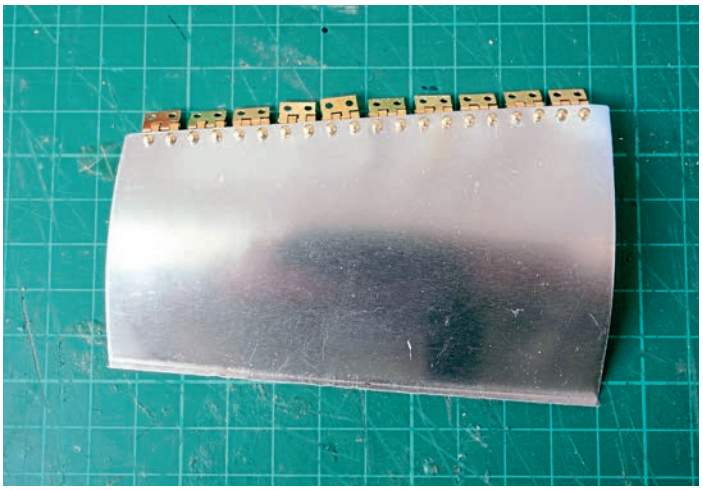
A jig keeps the fuselage in line when pulling the sides together.



Stringers and pushrod guides added.

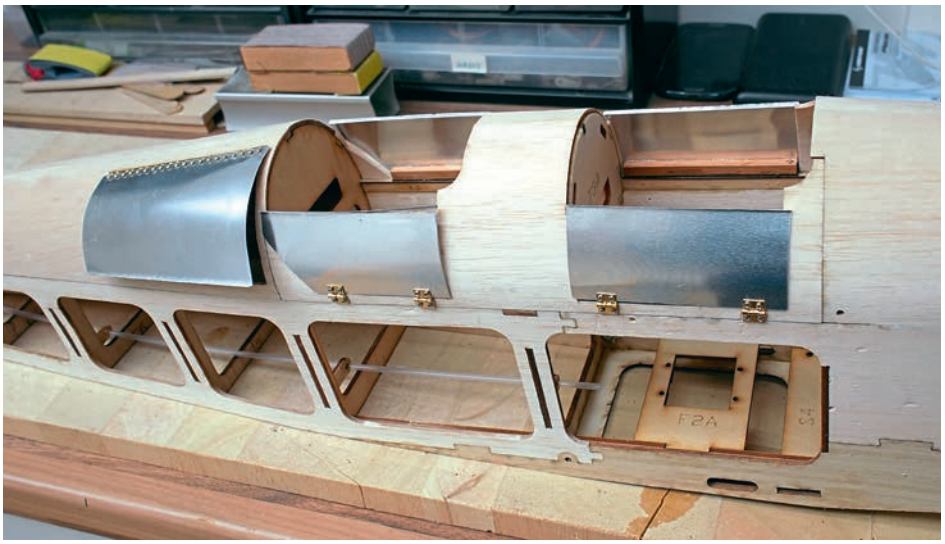


Cut-outs for the cockpit doors are laser-cut with a dotted line.



Luggage hatch with its hinge assembly.

the luggage bay door has nine. The drilling of the holes for the hinges for this latter door caused me a few moments' thought. You need to drill 18 holes, exactly 5 mm apart and in a dead straight line. To do this freehand would be, to put it mildly, tricky. So, having bought myself a 3D printer just weeks earlier, I designed and printed myself a simple drill jig. Simple! The result was a beautifully straight line of perfectly spaced holes. However, I did find that getting nine hinges to close properly proved difficult. You could simply glue the door shut if you don't want to be able to open it but it seems a shame to not to have it working. The cockpit doors are each held closed by two tiny magnets supplied in the kit so I adopted the same idea and glued two small magnets at each corner of the door and two more at corresponding points in the bay. The result is a nice flush-fitting door which stays shut!



Hatch and cockpit doors in position.

MOTOR MOUNT

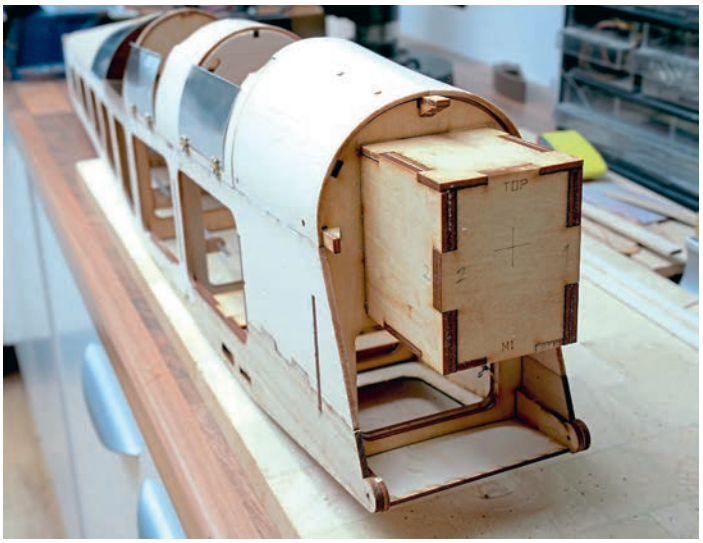
After the doors the next job is to construct the motor mount, if taking the electric power option. This is a conventional ply box design and it slots together very precisely. The completed box is then epoxied to F1. Three small blocks of wood, which act as attachment points for the cowl, are glued to F1, at which point work on the fuselage is complete.

LANDING GEAR

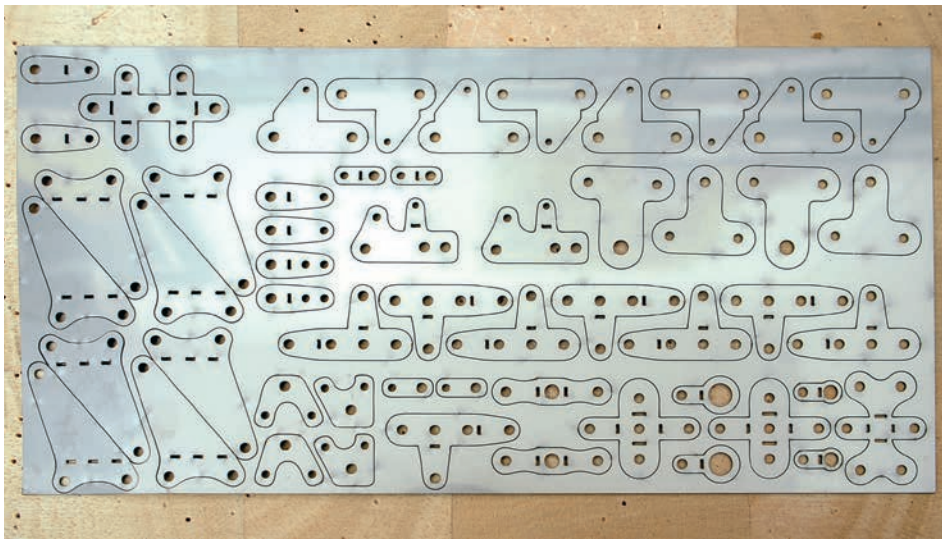
The landing gear is next and Tony has gone into a lot of detail here with working sprung suspension. Construction requires a number of small components from the laser-cut steel sheet. I found the easiest way to remove these from the sheet was to use a tiny, sharp chisel and a light tap from a hammer to sever one of the attachment tabs. The part can then be 'rocked' to and fro to free it from the sheet.



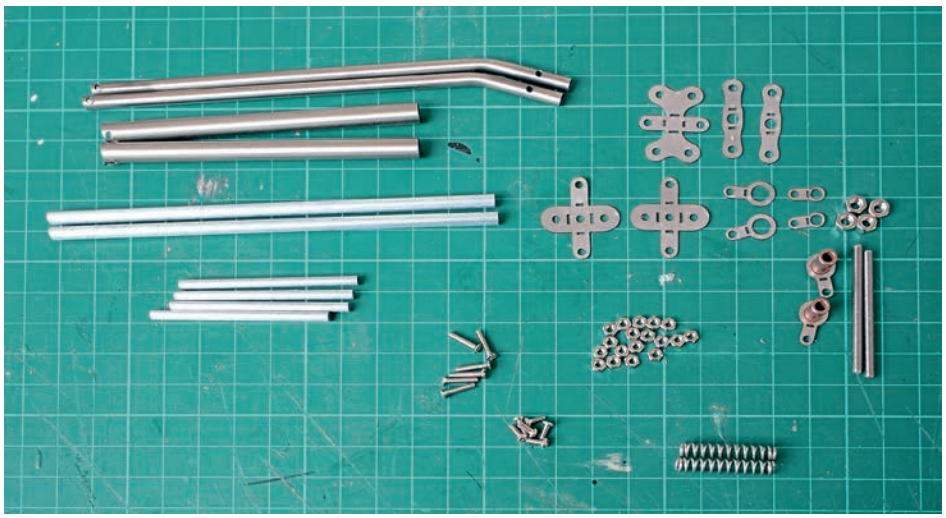
Cockpit door close-up.



Motor mount and cowl fixing points.



This sheet contains many intricate laser-cut steel components.



Components for fabricating the undercarriage.

The metalwork is straightforward if you follow the instructions carefully.

When it came to attaching the completed structure to the fuselage, I felt that some of the attachments didn't seem very substantial and I did add small extra ply pieces to give the screws something meatier to bite into rather than relying on screwing into balsa. Incidentally, there are no self-tapping screws provided in the kit so I used some from my own stock. There are six attachment points in total and once all are secured the whole structure does seem quite solid. The wheels use M3 threaded rod epoxied into the ali tube as short axles. The wheels have 4 mm holes at their centres, so I used a short length of brass tube to slide over the M3 axle and act as a bush. This gives a nice, free-running wheel with no slop.

TAIL WHEEL

The tail wheel assembly follows and here I deviated slightly from the instructions. The manual specifies 1.2 mm steel rod but the tail wheel bracket has 2 mm holes drilled which means that the whole assembly is just too sloppy. I therefore used some thicker rod that I had which fitted snugly in the bracket. The thicker rod is more difficult to bend to shape but the result is worth it, I think. The tail wheel is also sprung.

As with the main U/C, I wasn't happy about the mounting, which relies on screws into balsa. I added some small pieces of 0.8 mm ply to give a bit more resilience and put M2 bolts right through the tail, rather than relying on screws. However, you need to always keep in mind the consequence of adding any weight at the tail as you will need to add five times as much at the nose to keep the Centre of Gravity where it should be!

The final job with the landing gear is to form two fairings from 0.3 mm aluminium. These are then glued to the U/C legs.

COMPLETING THE FUSELAGE

Following the order of work from the manual, the next job is to construct the central fuel tank. This also acts as the attachment point for the top wings so needs building carefully. Quite a few of the laser-cut parts need M2 nuts gluing in to act as the aforementioned attachment points. In my kit the hexagonal apertures cut out for the nuts were a very snug fit, so care is needed not to split the wood. I found gently squeezing the nuts in in the jaws of a vice a better option than tapping them in with a hammer. A little CA run around each nut secures them.

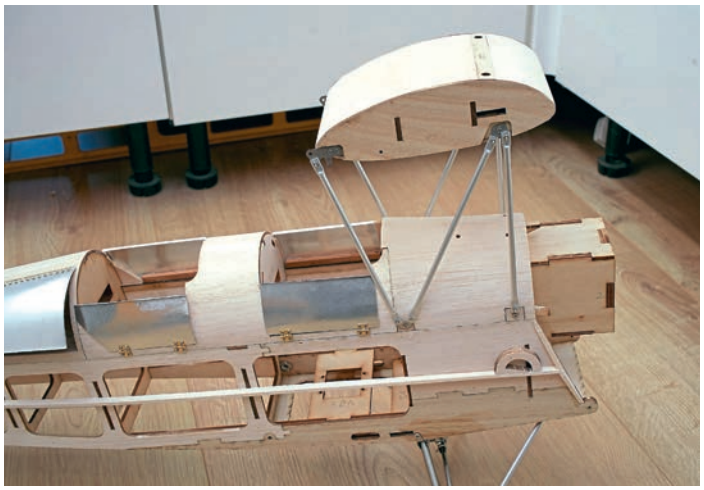
With the frame constructed the fuel tank is completed by sheeting with pre-cut wood. Again, these were a very good fit and only needed minimal trimming. A rub over with some medium sandpaper and you have a very tidy fuel tank. The top wings attach to the fuel tank with a metal/ply tab attached to the main spar and an M2 bolt towards the rear to set the incidence. More on this when we look at the wing builds.



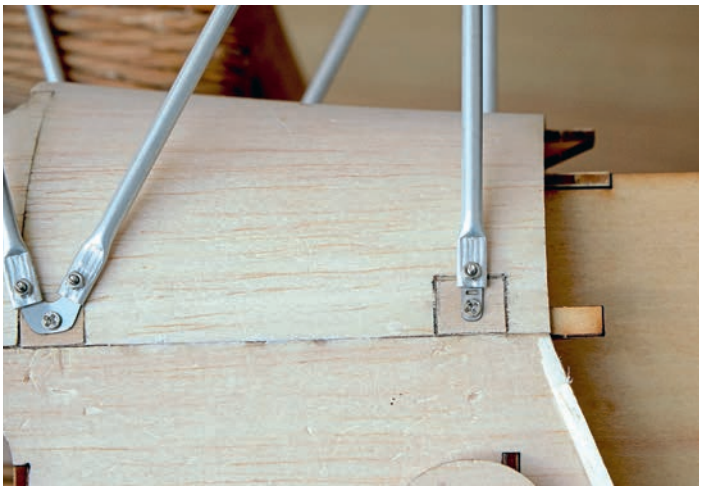
Completed undercarriage.



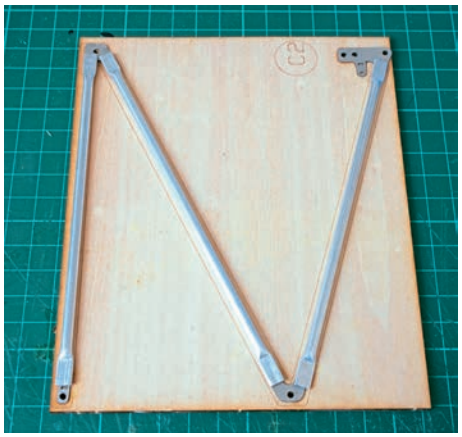
Tail wheel assembly.



Cabane structure in position supporting the dummy fuel tank.



Ply inserts are used for mounting the cabane.



Cabane components in place on a ply jig.

The cabane is the next task. This is formed from 3 mm diameter aluminium tubing and some more laser-cut steel fixings. Tony provides a ply jig to ensure that the cabane is built accurately. First job though is to flatten the ends of the tubes and drill out 1.5 mm diameter holes. Use the ply jig to position these. M1.6 screws hold the tubes together and each cabane side is fixed to the fuel tank with M2 screws. Be careful that you don't forget the extra tiny steel fitting at the front attachment point. This is where the cabane rigging cable fixes.

NEXT TIME

This completes the major part of the fuselage construction. Next time we'll build the wings and tail feathers, fit out the cockpit and get her into the air. Exciting stuff! ■

DATAFILE

Model	DH.82 Tiger Moth
Scale:	1:6
Model type:	Scale biplane
Manufacturer:	Tony Ray Aero Model
Available from:	Model Shop Leeds https://www.modelshopleeds.co.uk
RRP:	£299.99
Wingspan:	1500 mm (59.06")
Length:	1180 mm (46.46")
Weight (EP):	1.9 kg (4.19 lbs)
Motor/Engine:	3530 brushless or .52 - .70 four stroke glow



Next time join Tim as he builds the Tiger Moth's wings and flies her for the first time.

BALSA IS BACK!

Shaun Garrity *enjoys the sunshine while putting together some classic models*

Words & Photos: **Shaun Garrity**

For a change the weather has been playing nice in the UK. But you can never please everybody: "*it's too hot to fly, the sun's too bright, my covering slackens off…*"

It just goes to prove that you will never please everybody all the time. But I hope the decriers of Ra remember when it's raining cats and dogs, blowing a hoolie, or they are knee deep in snow, and reflect on what they missed this summer!

TURNING THE TIDE

There are signs that we have finally turned the tide on the seemingly endless supply of foam ARTF models. Modellers are wanting to stick balsa and ply together again, with many new traditional kits appearing on the market from several suppliers.

Admittedly times have changed (for the better - who wants to cut out ribs and formers on a printed sheet with a razor blade these days) and CNC or laser cut parts make life much easier, with many parts traditionally made from balsa or marine ply having been replaced with poplar (lite) ply.

Great designs from yesteryear have been modernised and given a new lease of life. Recent offerings are the Angelwing Designs Hummingbird and Genteel Lady, Power & Sailplanes International's Secret Weapon and Delta Dagger, plus a whole range of re-imagined Top Flite classics from Planes Revived, with many more available from other manufacturers.

ANGELWING DESIGNS HUMMINGBIRD

A UK manufacturer with a well-established fan base for their extensive range of sub-40" span slope soarers and powered models, Angelwing Designs acquired the rights from the new owners of MFA (The Component Shop) to manufacture this classic 1976 electric trainer. I'll let Andy Whitehead tell the story behind this iconic model:

In 1976 the MFA Hummingbird made history as one of the world's first commercially available electric R/C model aircraft kits. It sparked a lifelong passion for electric flight in modellers around the globe, including myself.



Angelwing Designs new/old Hummingbird. A great retro model completely redesigned for the 21st Century but retaining all the character and charm of the 1976 original.

"Great designs from yesteryear have been modernised and given a new lease of life"

My first encounter was in 1983 when my late brother built one. Back then it was plagued by heavy, gutless 540 brushed motors and volatile AA NiCad batteries that were prone to exploding if charged on a car battery charger. (Trust me, I watched it happen!) On its maiden flight, my brother's model managed just 50 feet before tearing out its undercarriage. After inheriting the debris, I rebuilt it repeatedly, eventually managing a whole circuit before converting it to nitro power just to make it sustain flight.

Despite its early technical limitations, the concept of electric flight hooked me forever. Fifty years later, we have fixed everything that frustrated pilots of the original kit, while preserving the classic lines that made the original design so beloved.

CLASSIC OUTLINE, MODERN PERFORMANCE

The 50th Anniversary Hummingbird brings vintage aesthetics into the modern era using premium materials and state-of-the-art manufacturing:

- *Ultra-Lightweight Design. It's half the flying weight of the 1976 original at just 500 g ready to fly.*
- *Laser-Cut Precision. High-quality balsa and plywood fuselage parts fit together effortlessly.*
- *Premium Flight Geometry. Fully built-up balsa wings feature a modified, highly efficient, Clark Y style wing section.*
- *Rugged Components. Features a 3D printed, heat-tolerant, flexible undercarriage and a durable Acetyl motor mount.*
- *Complete Hardware Pack. Includes wheels, vinyl decals, a vinyl windscreen with side screens and door outline, and beautifully drawn full-sized rolled plans for the wings and fuselage.*
- *Optional box art decals will be available to match the model.*
- *1120 mm (44") wingspan*

Forget the heavy electronics and 'gutless' performance of the past. The modern Hummingbird is a joy to pilot. Optimised for a low-cost 2205 2300kv brushless motor, a 3S 750 mAh LiPo battery, and a 6 x 4.5 prop, this set up delivers smooth, reliable power. Driven by a pair of our premium AWD7462MG servos, the rudder and elevator controls provide a gentle, viceless flying experience. The stall characteristics are so benign they are almost non-existent. As it is so light the Hummingbird will happily perform basic rudder-elevator aerobatics, sniff out light thermals and circle effortlessly in gentle lift.

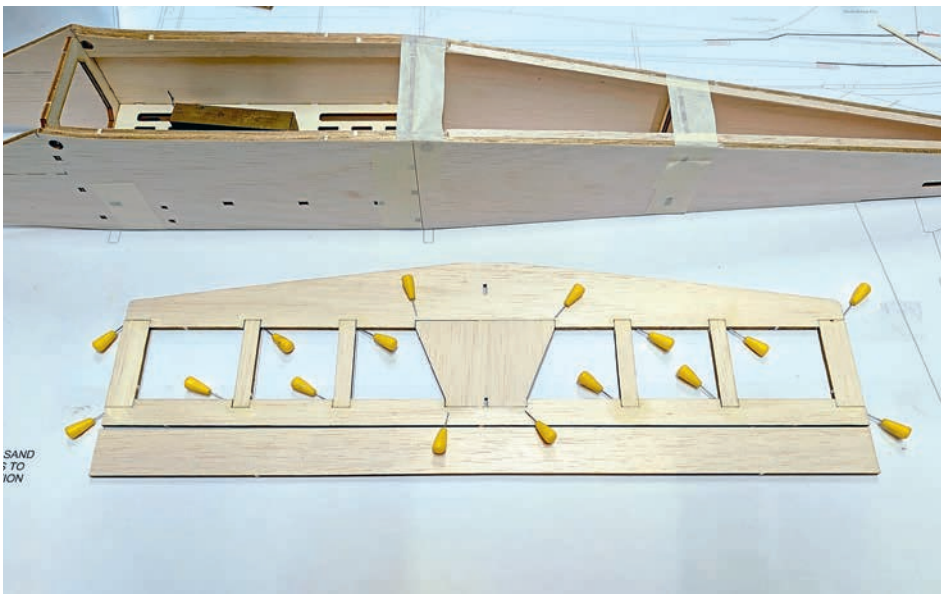
So, there you go, the new Hummingbird is the perfect way to introduce new modellers to every aspect of our great hobby, including building and learning to fly. With the kit priced at only £109.45 it doesn't break the bank,



A quality kit, excellent balsa selection and quick to build. You know you want one. The Hummingbird introduced hundreds of modellers to e-flight back in the day.



It has a simple and strong traditionally built wing.



Likewise, the fuselage and tailplane build in next to no time.



Three original MFA classics. I tried them all once the e-bug bit. Pity we didn't have brushless motors and LiPo's back then.

"Like Andy and his brother, the original Hummingbird was my introduction to e-flight"

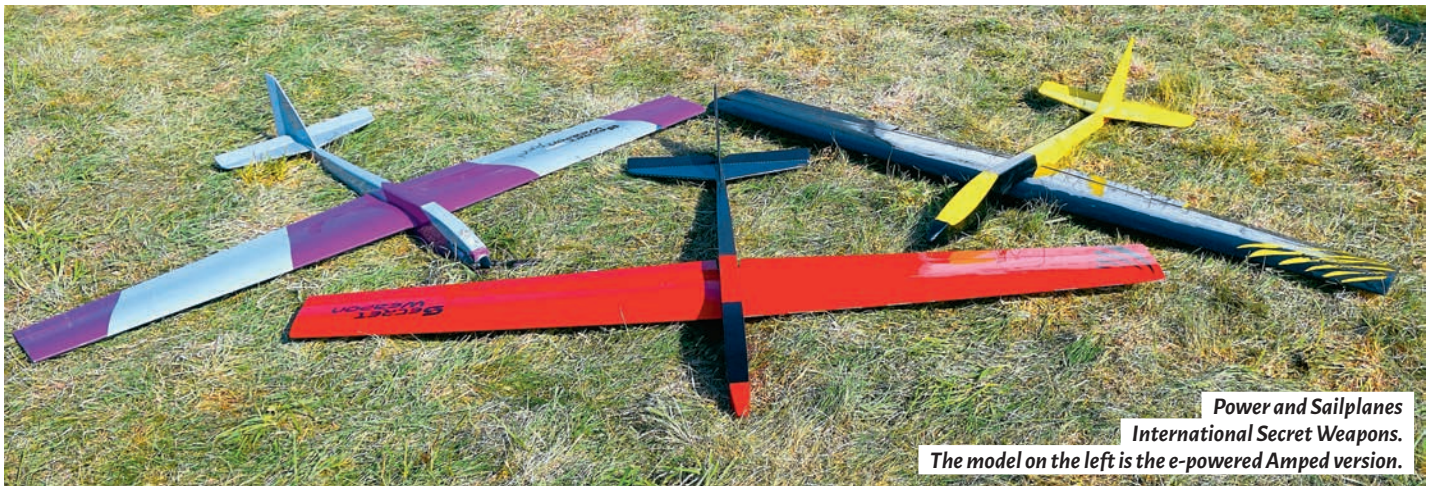
especially as it uses low-cost servos, motor, ESC and LiPo, so the finished cost represents good value for money.

Like Andy and his brother, the original Hummingbird was my introduction to e-flight and I remember it was as equally uninspiring, but it didn't put me off.

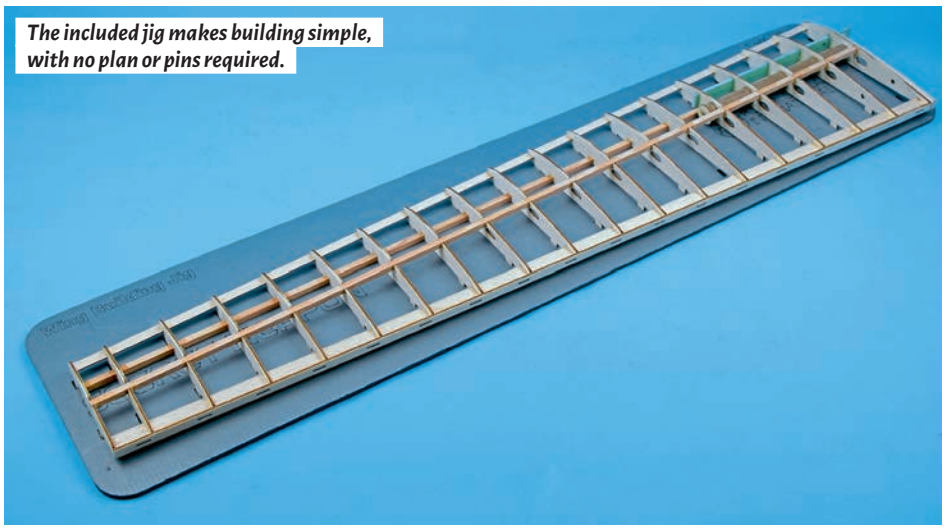
I have a sense of humour so I'm going to build one from an original kit in my stash. I might even put a brushed motor in (only kidding) but it will have a LiPo, not NiMHs, so I can experience the sea change of difference Andy's modern rendition has when compared to my old kit, even with modern tech.

Andy, if you're reading this, any chance of an aileron wing kit? It would be a perfect upgrade for beginners once they have mastered the basics of flight, i.e. land in the same field you took off from and in one piece. Just saying...

www.angelwingdesigns.co.uk



Power and Sailplanes International Secret Weapons. The model on the left is the e-powered Amped version.



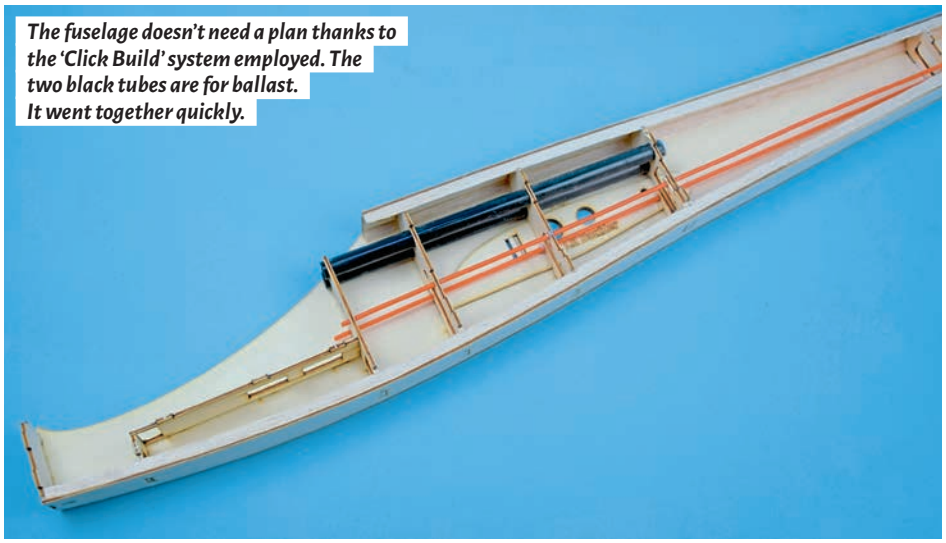
The included jig makes building simple, with no plan or pins required.

POWER AND SAILPLANES INTERNATIONAL

Another manufacturer of yesteryear who had an extensive portfolio of power and glider models (as the company name suggests), with many available featuring elegant, moulded fuselages. The company rights were acquired last year and the new owners relaunched a number of classic designs, but extensively modified, as stated on their website:

"Classic kits re-engineered, bringing back much-loved designs with a modern-day approach. We've taken the Power and Sailplanes classics and re-engineered them using the latest CAD systems and manufacturing processes to bring the modeller a state-of-the-art rendition of some all-time greats."

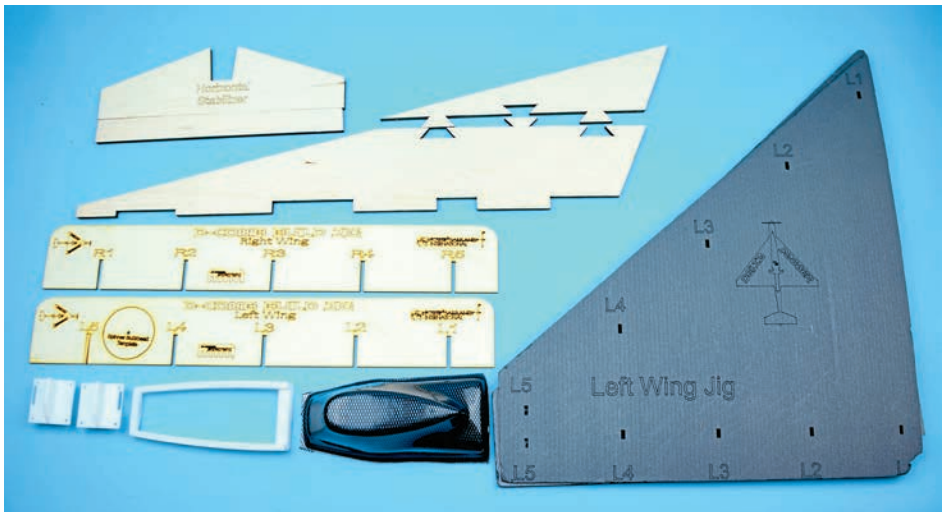
Currently they have a full carbon fuselage V2 version of the Sitar Special and redesigned, traditionally built Secret Weapon gliders,



The fuselage doesn't need a plan thanks to the 'Click Build' system employed. The two black tubes are for ballast. It went together quickly.



The original Delta Dagger prototype on the left, with the new V2 model on the right. I/C or electric, whichever power system you use it will scream around the sky on full throttle but is not difficult to fly when slowed down.



Again, by using the Click Build and jig system, no plan is required. All the parts in my example were accurately cut.

plus a powered version of the Secret Weapon (Amped), the Crescent Bullet, Crescent Tornado, Delta Dagger and a completely new design called the Kamikaze Fun Fly.

The Secret Weapon was a favourite of mine back in the day, so I had to build one. At our local slope you fell into three camps: Secret Weapon, Kwiksilver or Phase 6. I shared my loyalty between the Secret Weapon and the Kwiksilver fans. All the components were well cut and the model went together with very little fettling. It has a clever way to fix the wings to the fuselage using a carbon rod locking pin, so no rubber bands or wing bolts are required. The wings are traditionally built with ribs and spars, then fully sheeted, providing an enjoyable traditional building experience. Clever, included jigs allow the wing to be built without needing a plan. The fuselage components all lock together so you only need a straight line as a reference and, again, no plan. But a detailed pictorial step-by-step build guide is included and every part has a laser cut reference number etched in to simplify the task.

Launching it skyward, I was a teenager again and extremely pleased with my V2 Secret Weapon. Currently priced at £179.99, this 1800 mm span model will make a refreshing change on the slope. All I need now is a 1972 Mk.1 Ford Escort van, Marc Bolan on cassette and my retro reset will be complete.

DELTA DAGGER V2

Just released is the Delta Dagger V2 and, guess what, it's another favourite of mine. The original was surprisingly agile and fast, so it was no surprise to see that Powerplanes had a display team hurtling them around the sky at the Weston Park Airshow earlier this year. The performance was epic!

Supplied with all the parts required for IC or electric, it is built like the Secret Weapon with wing jigs and 'click build' interlocking parts, so you would have to try very hard not to end up with an accurately constructed airframe. As I pen this, I've only just started gluing bits of wood together, but indications are it will be a very quick build.

At just 800 mm wingspan and powered by a .25 to .32 cu.in. two-stroke or a 1300 -1500kv 3536 brushless motor and a 4S LiPo, I will be sure to use a highly visible colour scheme! I made a schoolboy error on my original model when I finished it all in white; as such it had a habit of disappearing frequently on the test flight, being very difficult to orientate. I quickly sorted the problem with a can of red spray paint before the next sortie!

Priced very reasonably at £139.99, I can't wait to finish it. Now, can I fit in a five-cell pack and a more enthusiastic motor, I wonder...

www.powerandsailplanesinternational.co.uk

REPRO CLASSICS FROM PLANES REVIVED

Planes Revived are a modern R/C kit specialist who decided from the get-go to reproduce some of the best and iconic kits of yesteryear, which have sadly faded out of the hobby and are no longer available, to the highest standard.



Planes Revived have reintroduced some Top Flite inspired scale classics. Attention to detail is exceptional and all the accessories are manufactured in house to ensure quality.



The cockpit kit for the Stinson Reliant is something else—superb!



Close up of the instrument panel. It would take you hours to make it yourself to this standard.



RM Mite was featured in January 2026 RCM&E as a revised plan feature. It's a great car-boot sized model, updated for e-power from the 1971 original.

The problem with many older kits were that facilities such as laser and CNC cutting, and 3D printing, were a pipedream, so die-crushed balsa and ply parts, poorly moulded fibreglass or vacuum moulded cowls, fuselages, wheel spats etc. and budget hardware were unfortunately the norm. There were exceptions, with quality kits available, but it could be like a game of kit roulette, with no internet or YouTube back then to help you decide, especially if there wasn't a local model shop to inspect them in person.

Planes Revived decided that every retro remanufactured kit they sold was going to have a serious upgrade and become a precision product with laser cut wood parts, upgraded fibreglass and 3D printed parts, in-house vacuum formed canopies and a raft of top-quality accessories.

I had the opportunity to view their current product range of scale kits at the LMA August model show and they were truly excellent. If I didn't have so many ongoing projects, I would have bought one on the spot. Check out their website:

www.planesrevived.com

BALSA IS BACK

So, there you go. Balsa is most definitely back; aeromodellers are not a dying breed and are still enjoying building with wood.

I know this isn't unusual for readers of my column but I'm sure I am not the only person that has noticed the change over the last few years from wood to foam. ARTF and foam models have their place, especially if you are new to the hobby, as you only need to concentrate on learning to fly, but it would be a crying shame if they continued down that path because you just can't beat the satisfaction of starting with a box of wood and ending up with a flying masterpiece.

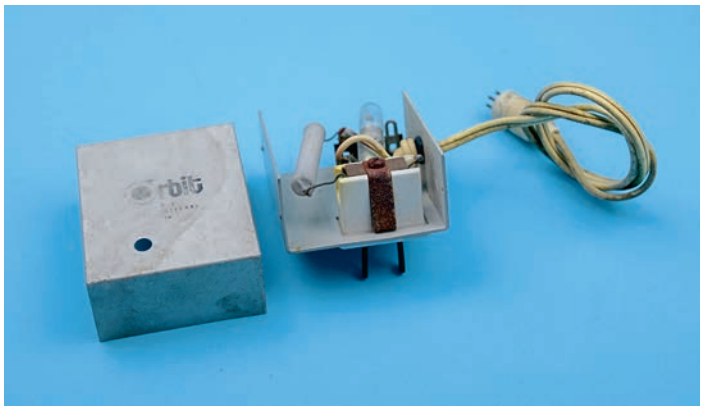
RM MITE & 4-MAX

Following on from New Zealand Mike's email in an earlier Ramblings, George at 4-Max let me know that the RM Mite article I penned earlier this year has proved very popular, judging by the number of motor/ESC/servo packs he has sold. So, the Mite clearly struck a chord with fans of traditionally built, fun models.

4-Max are e-flight specialists who provide excellent electronics and hardware packs for a



Quick and inexpensive to build, the Mite would make a great first low wing aileron trainer.



A truly shocking charger! Health and safety definitely weren't considerations back in the 1960s.



How many can you name? This wonderful selection of I/C engines were seen at a recent Buckminster 'Bring & Buy'. Remember the old saying about Want & Need? I didn't Need any of them, but I Wanted them all!



It's hard to believe that the Wingamagig was originally designed in the 1950s. It looks ultra-modern, proving that retro models are not boring.



Something a little different and definitely not for noise sensitive sites. Seen at BMFA Buckminster.

huge range of kit and plan-built models, along with kits and modelling goods.

If you're not familiar with the Mite, it's a compact, simple and inexpensive to build low wing aerobat that was originally published in Radio Modeller, August 1971 for a .15 - .19 cu. in. glow engine. I updated it to e-power in RCM&E, January 2026.

At 37" this mini-multi model is the perfect size to keep assembled in your car for flying at a moment's notice and if dumb thumbs decide to spoil your fun, you won't need to take out a second mortgage to replace it.

NO HEALTH & SAFETY

I was sorting through a box of mains chargers the other day, trying to find a specific example to complete a recently acquired vintage set, and I came across one manufactured by Orbit. It was metal cased, so you might think, why was I concerned?

Well, I found a major design flaw. The case was only held in place by a few dimples, with not a single screw used to secure it. The lid could be easily removed and the very high voltage terminals are just waiting there to remind you that it's not a good idea to touch them if you enjoy life!

Was it that we didn't care about our mortality back then or were we better educated about the dangers of high voltages?

PONTE NEXT

That's it for this time. By the time of the next Ramblings column, we will have had our 14th Pontefract Single Channel and Retro event. The weather forecast is looking acceptable, so fingers crossed I should have a plethora of photos.

If you have any retro related stories or photos you would like to send me, please feel free. I'm sure you'll see your endeavours on these pages in the future: **aeroomodeller@gmail.com** ■

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Message from the Editor...

If your hobby includes any aspects of engineering, the ME&W will have much to interest you in its pages. MEW covers all aspects of model engineering from traditional live steam models to gas turbines, from clocks to toolmaking We look in depth at the skills you need to get the most out of your hobby. We also cover the widest range of workshop activities – traditional ones like casting, brazing and welding to modern skills like using embedded electronics. Finally, we keep you up to date with what's happening in the world of hobby engineering with our event reports, news features and reviews.

Neil Wyatt

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INSIDE TEAM UK

Danny Fenton gives a unique insight on competing at the 2026 Scale World Championships as part of the United Kingdom team

Words & Photos: **Danny Fenton**



Would you buy a used car off this motley crew? Seriously, it was an honour to be part of such an auspicious Team UK. A big thank you to RCM&E for helping with covering the cost of our fab uniforms.

The road to holding the World Champs (WCH) in the UK has been very long and has caused many sleepless nights for many. Graham Kennedy must be congratulated on taking this project through to what is probably the best WCH there has ever been. It certainly had the largest entry, with the most countries entered, and it has raised the bar for future events.

I am not going to give you a report on the R/C Championships as Mike Freeman has been tasked with doing that. I thought I would give you more of an insight from a control line competitor's point of view. So, if you are comfy, grab a hot beverage and a choccy biscuit, and we will start.

PLAN & PREP

The preparation for a WCH involves a fair bit of planning. Where will you stay, food, tools, spares, etc.

In my case I opted to camp. I find that although my van is a little cramped, I sleep better in there than a noisy, flapping tent! However, I did take a tent to use as a hangar and storage for cooking and other essentials which would otherwise make the van even more cramped. Several others in Team UK also stayed on site at Buckminster.

The team had suffered a serious blow when, just weeks before the event, Dave Charles crashed his stunning Typhoon. As you can imagine, Dave was devastated. Both Richard Crapp and John Carpenter had also crashed their models just before the team trials as well, so some last-minute shuffling had to happen so that we could field full teams in the R/C classes.



Five members of 'RC Scale Builder' meet up: Hector Pergamalis, Ben Andrus (USA), Richard Crapp, myself and John Ranson (UK).



From left to right: Ben Andrus, Peter Fynn (Peter Fynn), Angelo Quintrero Guinand (Firehawk), Danny Fenton (septic), Richard Crapp (Richard Crapp), Marcus Hausmann (I don't know his username), Peter Goff (or his) and Klaus Seemann (Scale-Klaus).

Steve Jackson was flying his Avro 504 in F4C, alongside Dave Knott with a Mk.1 Hurricane and John Ranson flying his DH Hornet. In the F4H class, Martin Fardell was flying his Hawker Horsley, Dave Knott flew a smaller Hurricane and Nigel Nixon was campaigning his Tucano. In the F4B class I was flying my silver medal winning Chipmunk from Romania, alongside Graham Guest who was flying a Gloster Gladiator.

The international scale community is like an extended family. We spend time waiting for things to happen and everybody gets to know each other. Our shared interest in aeroplanes only helps to transcend the language barriers. In my case, and many others, we spend 12 days in each others' company, the flying schedules are quite fluid and weather dependent, so you stay around. One of the US team disappeared off to Duxford for the day as he was not scheduled to fly, then the organisers changed the schedule and he got a phone call asking him if he was ready to fly! Needless to say, he came back and flew later in the day.

One of the fun things of a WCH is getting to meet modellers you may have chatted with via websites and through social media who are on an entirely different continent. One of the websites that scale modellers hang out on is Mike Chilson's 'RC Scale Builder'. It was great to finally get to meet other members from that site in person, although many I had already met in Romania. So we renewed those friendships with hugs, back slapping and much hand shaking.



Months of planning culminated in me loading my van. The extra boxes contain Graham Guest's Gladiator.



Steve Rickett gave us a wonderful flypast in his recently completed Chilton DW1. Sorry about the image quality - Steve was quite some way away.

CHILTON FLYPAST

On the Monday evening, before the event officially opened, we were treated to a fly-past by a full-size Chilton DW1. This really set the tone for the event and it was amazing to see Steve Rickett (a well known LMA modeller) waving down at us from his recently completed Mikron powered Chilton whilst we waved up at him!

Steve's was not the only full size to put on a display for us. The Battle of Britain Memorial Flight treated us to a trio of lunchtime flypasts, the night fighter Hurricane on two consecutive days and the Dakota on a later day. The BBMF didn't seem to be sticking to the height guidelines that Steve's Chilton was following, that's for sure! What a glorious sight and sound they were too.

BIG TENT

The organisers had installed the biggest L-shaped marquee I have seen - and it needed to be! Over a hundred models, all with their own tables, were grouped together by nationality. The marquee was sealed overnight and during daytime guests and visitors had to be escorted in groups to ensure no accidental damage occurred.

The event kicked off with the opening ceremony. All the nations lined up in their uniforms and paraded to the front of the tent. A brief ceremony was held and then we all retired to the Goldsmith Hangar for an excellent buffet where, of course, Melton Mowbray pork pies were included.

Also available was a nice treat by the organisers. They had talked a local brewery into some special beers, a light and a pale ale, both excellent!



World Champs Beer. I can already picture what we may get in Poland and no doubt it will be stronger than 4%!



The tent was massive and there was another huge section at the end that went off to the left! (BMFA pic.)



My Chippy had to be flown at a much higher speed than I am used to flying her to keep some line tension. Pic by Ben Andrus.



Graham Guest flew this lovely Brian Taylor Gloster Gladiator.



Reigning World Champ Peter Bauer had a difficult first round and the model pancaked, ripping the wing from the fuselage. It looked worse than it was and thankfully some epoxy easily fixed it.



Kathy Bauer flew this foamy Otter and did very well indeed.

NO RAIN, BUT WINDY!

The weather was glorious from the first day that I arrived and for the twelve nights I camped it didn't rain once. The wind, however, wreaked havoc with the flying, especially control line. Many of us have never flown in winds over 10 mph, the UK limit. However, we got around 20 mph on most days, gusting more. The more heavily loaded models did much better than the lightweight models and my Chipmunk was amongst the lightest. The maximum wind speed seemed to be missing from the June 2026 version of the FAI Sporting Code and so we just had to suffer.

My first round flight was not good. The model just kept falling in on me due to the wind and I spent some time running backwards. I decided discretion was my best option and about halfway through I called landing. The score was not good as I had missed some manoeuvres, but the model was down in one piece, although the undercarriage was a little bent!

My second round flight was better. I had moved the lines on the handle to the maximum width, which gave me more control. However, a sudden gust and wind shift caught me out and the model lines went completely slack. I back peddled as fast as I could, but the model was heading for the ground. As I turned and tried to regain line tension, I stumbled backwards off the lip of the circle. It is a raised concrete pad that really should be levelled to remove the step. I have the radio control Tx for throttle in my left hand on a tray and the handle for the elevator in my right, so I could not reduce the impact of the fall. I landed on my back and my head hit the ground, luckily on grass. I have been told that there is nothing between my ears but air and I guess that must be right as I suffered no ill effects.

I did have the sense to push the throttle up in a last-ditch effort to save the model. Since I fly with a pusher prop set-up (torque increases line tension with this prop rotation) the model pulled up on its own and as I sprang back to my feet (okay, sprang may be on overstatement!), I regained line tension and immediately landed. There was a big round of applause and bless her, Kathy Bauer rushed over to make sure I was okay. I had suffered some grazes to my shins and legs, so another competitor rushed over with first aid and started dabbing blobs of something all over my legs. Alas, as legendary as my save was, my feet left the circle during the flight which meant from that point on my score was zero, which included the brilliant landing. The incident is on Cammnut@youtube (see Control line whoopsey) should you want to seek it out. According to young Oleksandr from Ukraine, I might not have won but I am now a legend. I will take that!

In round three the flight was going well until the touch and go, which wasn't particularly hard. However, the left leg torsion arm let go and the leg folded backwards. I guess the damage from the previous flights was worse than I had thought. The next manoeuvre was a landing, so I landed on one wheel. It was quite a good landing but didn't score well, obviously. Funnily enough the model still taxied, which was my final manoeuvre, and I scored my highest taxi. Maybe the judges took pity on me.

GLADIATOR

My F4B teammate, Graham Guest, was quite nervous, this being his first competition, not just his first WCH. Graham entered the British Nationals last year, but the wind was too strong to fly.

Graham's three flights went well and he had no mishaps. His model is more than twice the weight of mine and it sat well on the lines. Graham really needs more flying time with the model, but it looked fabulous in the air and he finished 8th in F4b. I was behind him in 10th. If we had one more member in the team, we might have threatened the podium places. So, if you fancy your hand at control line scale then get in touch.

FLYING COUPLE

Peter Bauer also got caught by the gusts and suffered some damage, although it was not as bad as it first seemed. The wing bolts had pulled through, so it was nothing that some epoxy wouldn't sort out. His second and third rounds went better.

Kathy, Pete's wife, was flying in her first WCH and she was clearly quite nervous, especially due to the wind. Kathy's model was possibly even lighter than my Chipmunk, but she had it set up well and it was coping better than mine. Clearly, she knows what she is doing. Kathy was flying a repainted foam DH Otter and it was very impressive.



Holding the model up while the judges check the plan view against photographs can make your arms ache.



Oleksandr Vengeruk from the Ukraine flew this impressive Antonov AN-14. Pic by Ben Andrus.

STATIC JUDGING

Static judging was done in the Goldsmith Hangar, the skylights giving a nice light. The area was split into three areas: F4b, F4h and F4c. There were large white boards that acted as backdrops so that there were no background distractions.

F4h and F4b are limited to 20 minutes (roughly) judging time, but in F4c the judges can lay into a model for upwards of 2.5 hours. I think Ben Andrus' glorious Fairchild F 24 took over 3 hours!

Static for F4b was interesting and all the hard work that we had put into creating clear documentation definitely paid off. Graham achieved the highest static score and I was second. I am not sure that we had the most detailed models (though they are both great models) but the documentation let some down. This is a difficult area to get right and many modellers try to get documentation after they have built their model. The best way is to get your documentation first.



Heiner Borer from Switzerland flew this lovely Albatross DVa.

WORLD CHAMPION

Mike McHenry put in three great flights, winning two of the rounds, and a close second in the third. His documentation let him down a little and the fact that his engine and exhaust were on show. Having said that, the flights count for two thirds of your final score, and so he is now the F4b World Champion. Well done to Mike, well deserved.

I do wish that building accuracy was weighted higher than flying, as indeed it used to be, but it doesn't appear the organisers feel that route will attract more entries. In my opinion it has put some off. There is a new person heading up CIAM F4 now so maybe things will change.

NATIONS NIGHT

Midweek we had Nations Night. This is a great get together in the Goldsmith Hangar. Competitors bring food and drink from their country and we all taste each other's grub. Be careful when near our Eastern European friends' tables though as their alcohol is much stronger than we are used to and they certainly know how to have a great time.

Whitney Andrus prepared a wonderful Jambalaya for us to try, and I really enjoyed that. In fact, the leftovers (I am amazed there were any!) ended up in my fridge and kept me fed for a further two days. Thanks, Whitney!

There was a band and much dancing and falling over. I believe Caroline Simon ended up in A&E, so it was clearly boisterous! I was due to fly my final round the next morning, so I managed to escape the higher alcohol content drinks without hopefully offending anybody.

BEAUTIFUL CESSNA

Oleksandr Grytsenko from Ukraine flew a wonderful Cessna 185. This model, at first glance, was overlooked, but the detailing was exquisite. I think the model, like my Chipmunk, is getting on in years and as such has a wonderful 'patina'.

Unfortunately, during the third round, Oleksandr caught his hand in the prop and had to be ambulanced to Grantham and then to a special neural capable hospital in Derby. I have heard from Oleksandr and he is recovering. Get well soon my friend and hopefully we will see you flying again soon.



Mike McHenry's Cub just shrugged off the wind. Add to that, Mike is a very good and experienced flyer.



This wonderful Cessna 185 was flown by Oleksandr Grytsenko from Ukraine.



This glorious Kondor was flown by Benedikt Wibmer from Germany.







Fokker D.VIII by Václav Štastný from Czechia including detail of the three-wire lead-out.

GLORIOUS KONDOR

Benedikt Wibmer only finished his Kondor days before arriving in the UK and the model had not flown in paint. On the practice days before the official opening Benedikt really got in some testing and had the model flying really well. Unfortunately, the complicated retracts did not prove reliable and, in the end, Benedikt left them extended and suffered the consequential reduced score.

MULTI-WIRE LEAD-OUT

Not many were using the multi wire control systems that we saw in Romania and even the more modern 'down-the-wire' system was rare. Nearly everybody now is using 2.4 GHz radio to control the throttle and ancillaries, such as flaps, retracts, etc.

PRIZE GIVING

We all gathered in front of the big tent, under the flags, and the medals were handed out to rounds of applause. Everybody



Aero C104 from Czechia modeller Vladimír Novotný.



This lovely Vans RV4 from Jaromír Hoblík from Czechia took second place in control line.



Benedikt Wibmer restrains the Zlin Z226 of team-mate Wolfram Metzner.



Fairey Swordfish from Tomasz Slowlkowski.

agreed it had been a tremendous event. Andy Symonds tried to herd everybody into groups for pictures and I must say what a tremendous job he did as some of his photos are stunning.

The closing ceremony and banquet concluded the event and a grand feast it was too.

A singer crooned into the night. However, the organising team had one last card to play and at 10 pm, out on the flightline, a magical drone show lit up the night sky.

Before I leave you, I would like to say a huge thank you to all the organising team of volunteers, and I mean all. So much was done by so few and it was a massive effort. They were still smiling after putting up with us competitors after 12 days.

I would like to single one person out as I feel he epitomised the whole team. Lee Smalley became an honorary member of just about every team that took to the flight line. He was firm but fair and, above all, polite and courteous. I even saw a respectful bow to the Japanese team. Well done, Lee. You were my player of the match.

I think that just about wraps it up from me for today.

As always if you want to drop me an e-mail, I can be reached at **cammnut@gmail.com** ■



Lee Smalley and the Spanish team. Lee is second in from the left - as if you hadn't guessed!

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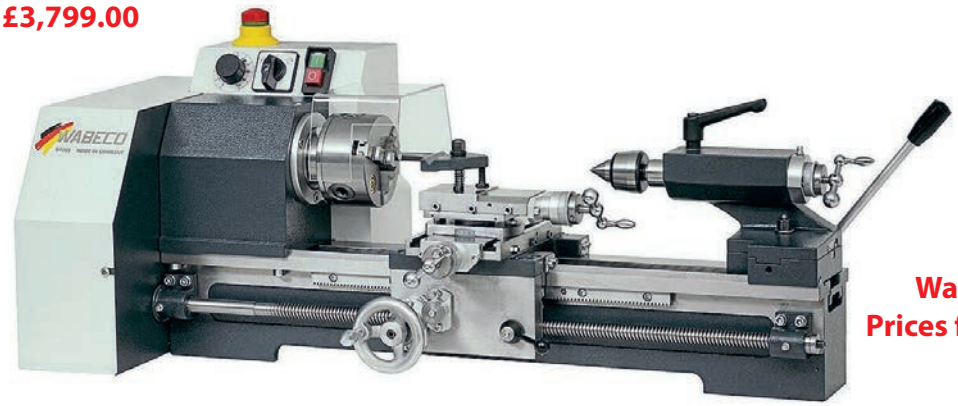
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AVRO VULCAN

Mike Freeman chats to Steve Kilbon about his huge five metre span model of the famous V bomber

Words & Photos : **Mike Freeman**

The iconic Avro Vulcan was originally conceived as part of the UK Nuclear Deterrent during the Cold War years of 1947 to 1991. They were in service with the RAF from 1956 until they were retired in 1984 although one, with the serial number XH558, was refurbished by a band of dedicated volunteers and flew at several airshows, with the final display at RIAT Fairford in 2015.

There were only two actual combat missions performed by a Vulcan, which were during Operation Black Buck of the Falklands War in 1982, where a Vulcan flew the 8000-mile round trip from the Ascension Islands to bomb the Port Stanley Airfield runway. That Vulcan had the serial number XM607 and here we have Steve Kilbon's faithful, 1/6th scale, five metre (16.5 ft) span rendition of this very aircraft.



At next year's Weston Park Airshow, Steve will hopefully have the bomb bay doors fully operational with dropping bombs. The main gear doors should be finished by then, too!

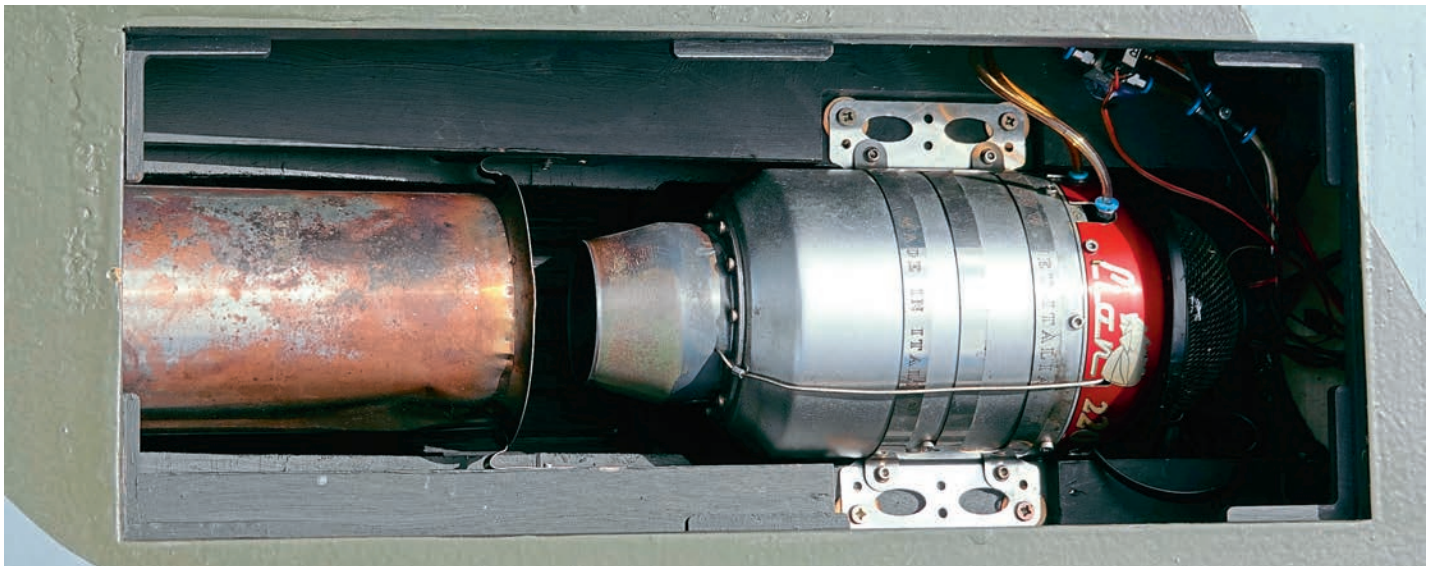
A proud Steve Kilbon beside his epic Avro Vulcan B.2 bomber in Falkland conflict airframe XM607 livery.



Construction photo showing just a small part of the airframe and the superb craftsmanship that Steve and his building buddy Rich Hull put into building the Vulcan. Photo by Rich Hull.



Full-size Vulcan B.2s were powered by four Bristol Siddeley Olympus turbojet engines. Steve's uses 2 x Jet Italia Lion 220N turbines. The outer efflux nozzles are dummies.



Close up of one of the two Jet Italia Lion 220N turbines.

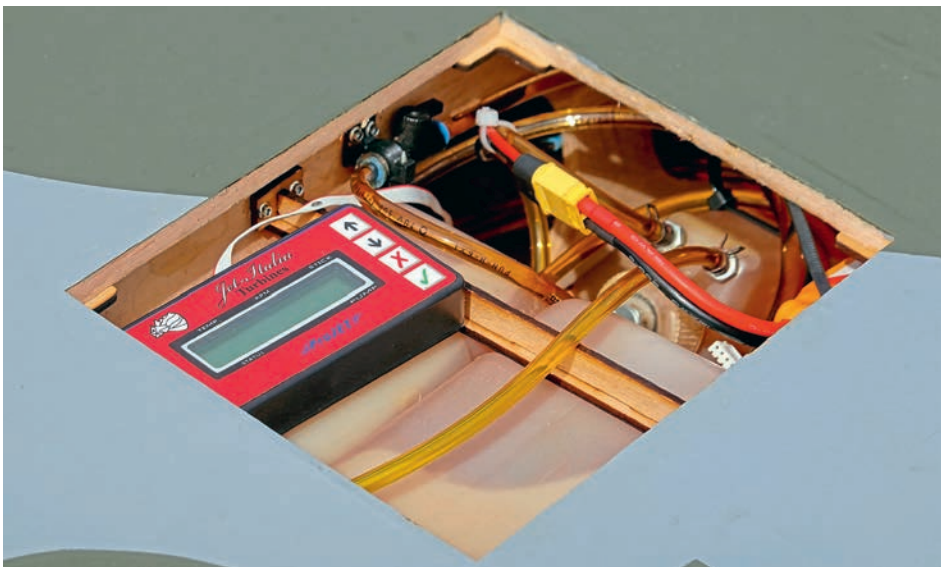
FANBOY

Steve has been a fan of Vulcans ever since the age of 6 or 7 when he and his older brother used to cycle the 10 miles from their home to watch them take off and land at RAF Scampton. Steve and his family still enjoy driving around the country visiting the various Vulcans that are on public display.

In his youth Steve had a model Vulcan with a pusher prop and later built a turbine powered 98" Tony Nijhuis version. In 2023/4 he thought it was about time to go large...

TWICE SIZE

The model was originally conceived by Tony Nijhuis, who simply doubled the scale of his original 98" version to produce the plan for this one. Tony had laser cut around 30% of the parts, including formers and ribs, and handed the project over to Steve Holland from the LMA to continue. Steve K is a good friend of Steve H and one day they were discussing the Vulcan project when Steve



A look under a wing hatch showing one of the Jet Italia ProJet ECUs sitting on one of the 3 x 1.5 litre fuel tanks that serve each turbine.



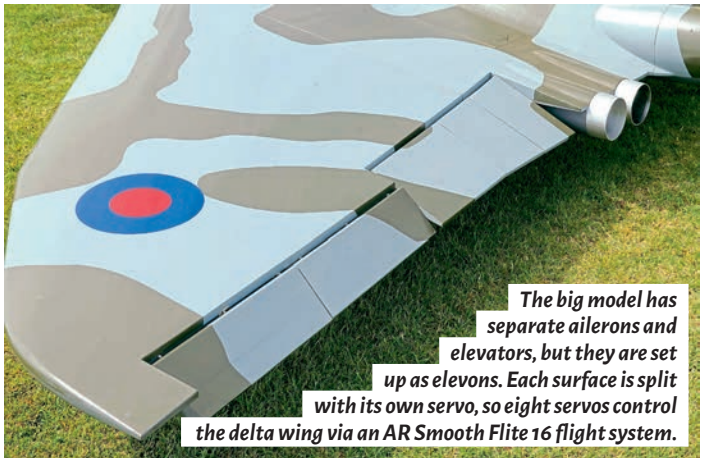
Unmistakeable nose and wing junction of the Vulcan, which shares a similar arrangement to the other V-bombers of the Cold War era, namely the Victor and the Valiant.



Air intakes are scale but only the inner ones are active, feeding the two Jet Italia Lion 220N turbines that power the beast.



Ditto the four efflux nozzles, where only the two inner ones are used.



The big model has separate ailerons and elevators, but they are set up as elevons. Each surface is split with its own servo, so eight servos control the delta wing via an AR Smooth Flite 16 flight system.



Distinctive faceted leading edge of the Vulcan B.2 is faithfully replicated on Steve's sixth scale version.

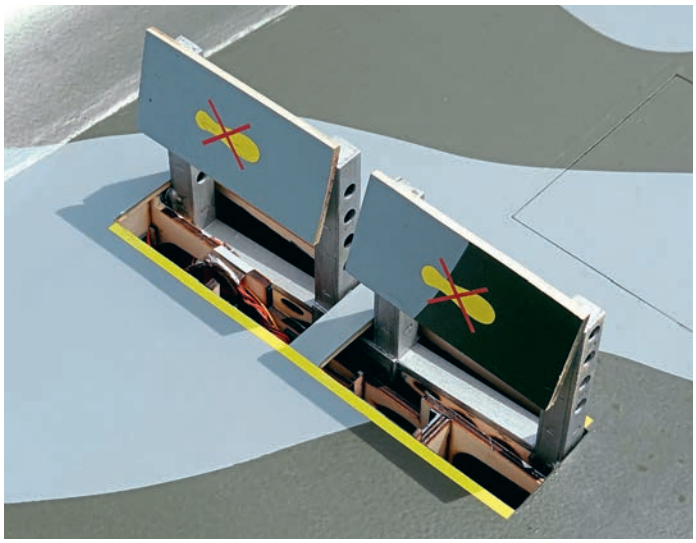
H decided he was never going to finish it, so Steve K happily agreed to take it on.

Steve thought he was having a carpet delivered when the rolled-up plan arrived! But undaunted by the sheer size of this traditional wood-built model, he teamed up with his model building buddy, Rich Hull and set about building it. Rich loves building wooden models and is responsible for most of the airframe construction. Steve shared some of the build photos, one of which is shown nearby, showing what an impressive structure it is.

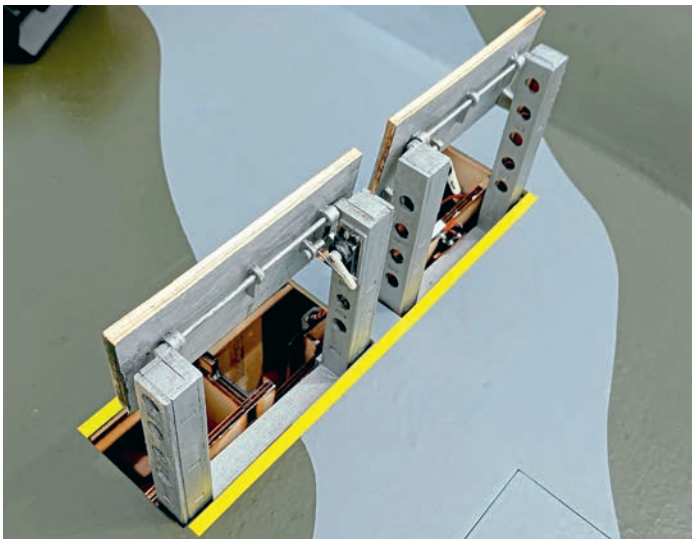
It took around nine months to build the Vulcan ready for its maiden flight at Elvington Airfield on 6th June 2025. The model was originally powered by two 160N turbines but Steve subsequently found this slightly underpowered so he swapped them for a pair of Jet Italia Lion 220s, each served by three 1.5 litre tanks, giving a total fuel load of nine litres. That's two gallons in old money!

Control wise there are eight separate surfaces along the trailing edge but there is no fancy mixing involved. Steve just has them mixed together as with any standard elevon controlled delta model. The rudder and nose wheel have their own separate servo.

Those scale airbrakes need a special



Steve and Rich faithfully replicated the full-size air brakes with two panels above the wing and one beneath.



Once the air brakes are fully extended from the wing's surface a 9 g servo flips the panels into their active 90-degree positions, all controlled by an Arduino board.



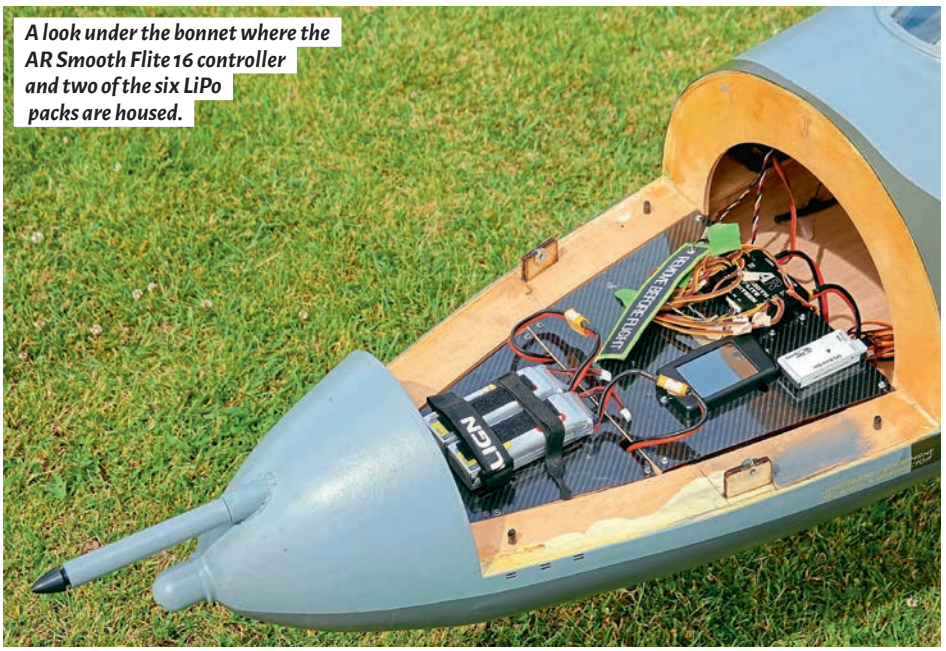


Each main gear has eight wheels. The legs are bespoke, designed and made by Rich Hull. The rear strut is spring loaded to force the trailing tyres to adopt the distinctive droop and achieve a modicum of suspension.

mention and are the brainchild of Rich Hull. If you look at the nose-on landing photo in the last issue (Parting Shot) you'll see there are three airbrake panels per wing, two on the top and one below. The panels form part of the wing surface during normal flight and when deployed the panels move away from the surface via a linear worm drive and when fully extended a 9 g servo flips each panel from horizontal to vertical orientation.



That deceptively small nose wheel coped admirably with Weston Park's grass strip.



A look under the bonnet where the AR Smooth Flite 16 controller and two of the six LiPo packs are housed.



A proud Steve Kilbon sits behind his epic Avro Vulcan B.2 as just part of the massive Weston Park crowd watches on.



Damage caused by the fire described in the text. Photo by Rich Hull.

The whole process is controlled by an Arduino microcontroller per side, programmed by Rich.

FLYING DELAYED

Steve was planning to fly the Vulcan's first public display at the 2025 Weston Park Model Show but a fire three days before the show put a stop to that! During a final test flight there was a fuel leak which spilled fuel into the hollow airframe. A flash flame from one of the turbines ignited the fuel, producing a flying fire ball. Thankfully, Steve was able to land the model quickly and extinguish the flames but enough damage had been sustained by the airframe and turbines to curtail any flying for a while.

"In his youth Steve had a model Vulcan with a pusher prop"

With support from Leo Kleinberg from balsa supplier SLEC and Paul Hardman from Turbine Solutions, Steve and Rich were able to rebuild the model. After renewal of its LMA registration and



Steve's 16.5 ft span Vulcan takes to the air for its first ever public display at Weston Park 2026.



The mighty Vulcan continues its climb out - photobombed by Steve's distinctive barnet!

getting all the necessary paperwork sorted, Steve gave the Vulcan its first public display at the 2026 Weston Park Model Airshow. At the time it was the largest flying Vulcan in the world.

Steve reports that his Vulcan is a joy to fly. It's really docile, with a take-off speed of just 28 mph and no nasty habits. It just needs plenty of space so turns have to be planned ahead which, in itself, produces a superb scale-like display. I don't think the full-size Vulcan ever rolled but Steve got a bit carried away at Weston '26 and rolled his for the first time there!

WORK IN PROGRESS

Steve hasn't finished his Vulcan project yet. He has lots of plans to enhance an already impressive model. On his 'To Do List' are:

- Fit working bomb bay doors with a scale internal structure and working bomb dropping mechanism.
- Finish off the main gear doors installation.
- Fit navigation lights.
- Add a drogue chute.
- Add a bit more scale detailing, including cockpit detailing and wiper blades on the cockpit windows.
- Add turbine telemetry. On one test flight Steve hadn't noticed one of the turbines had flamed out on finals and as he opened the throttle to taxi back the Vulcan did a vicious ground loop!

"Steve gave the Vulcan's first public display at the 2026 Weston Park Model Airshow"

The most exciting addition Steve is working on is replicating the iconic 'Vulcan Howl' that the full-size Vulcan makes during take-off. He and Rich are experimenting with EDF units and tuned pipes and hope to have it sorted ready for Weston 2027.

I'm looking forward to hearing that! ■

DATAFILE

Name:	Avro Vulcan B.2
Built by:	Rich Hull & Steve Kilbon
Owned by:	Steve Kilbon
Scale:	1:6
Wingspan:	5 metres (16.5 feet)
Length:	4.5 metres (14.8 feet)
Weight:	91 kg (200 lbs)
Turbines:	2 x Jet Italia Lion 220N
Fuel:	9 litres (2 gallons) in 6 x 1.5 litre tanks (3 per turbine)
Radio:	FrSky X20 Pro Transmitter 2 x FrSky TDR R18 Receivers with 2.4 GHz & 900 MHz dual band frequencies Power AR Smooth Flite 16 Gyro & Power Distribution
Servos:	8 x HV Savox digitals for elevons 1 x HV Savox digital for rudder 1 x Futaba ¼ scale servo for nose wheel 6 x 9 g for airbrakes
LiPos:	2 x 3S 5000 mAh for turbines 2 x 2S 3000 mAh for U/C and gear doors 2 x 2S 3000 mAh for Rx's, AR Smooth Flite & servos





Steve's Vulcan is a joy to fly, being docile and with no nasty habits. It does need plenty of space so turns have to be planned ahead, which produces a superb scale-like display.



The airbrakes are effective but Steve likes to hold high alpha on the mains after touchdown for visual impact. Looks good, doesn't it.



Steve's representation of Vulcan XM607 looks impressive but he is already planning on enhancing the look with more scale features, including windscreen wipers.

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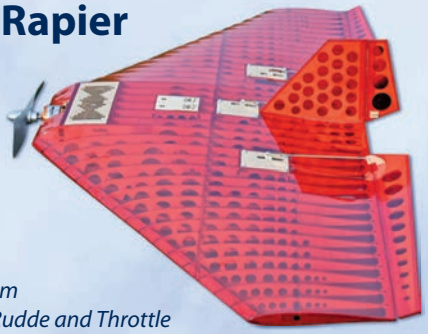


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SEA HURRICANE

Late last year we had the pleasure of testing a prototype Hawker Hurricane from XFly-Model, it being the second model in their WW2 warbird series after the Supermarine Spitfire. Now let's see what **Barry Atkinson** makes of a production kit, this time in Sea Hurricane livery

Words : **Barry Atkinson**

Photos : **RCM&E, Barry Atkinson, Rob Bennett**

When Kevin the editor said, "*I've got a nice little foam warbird that would be perfect for you to review*", I thought, well at least it'll be a change from just taking pictures of someone else's model for this magazine and so I said, "*Go on then, let's give it a whirl.*"

The XFly Hurricane comes in two different guises, the standard RAF version and a Sea Hurricane. I was pleased to see, when it arrived, that I'd got the 'Sea' version, which has interesting markings, being based on the full-size owned by the Shuttleworth Collection here in the UK.

Removing the not many parts from the box told me it wasn't going to take many minutes to put together, much of the work having been done for you.

QUICK ASSEMBLY

A cursory look at the manual told me that it came down to this; join the wings together and screw them to the fuselage with four self-tappers and then clip on the tailplane halves and again fix with four self-tapping screws. Attach the propeller and spinner cone and that really is about it, the assembly is complete.

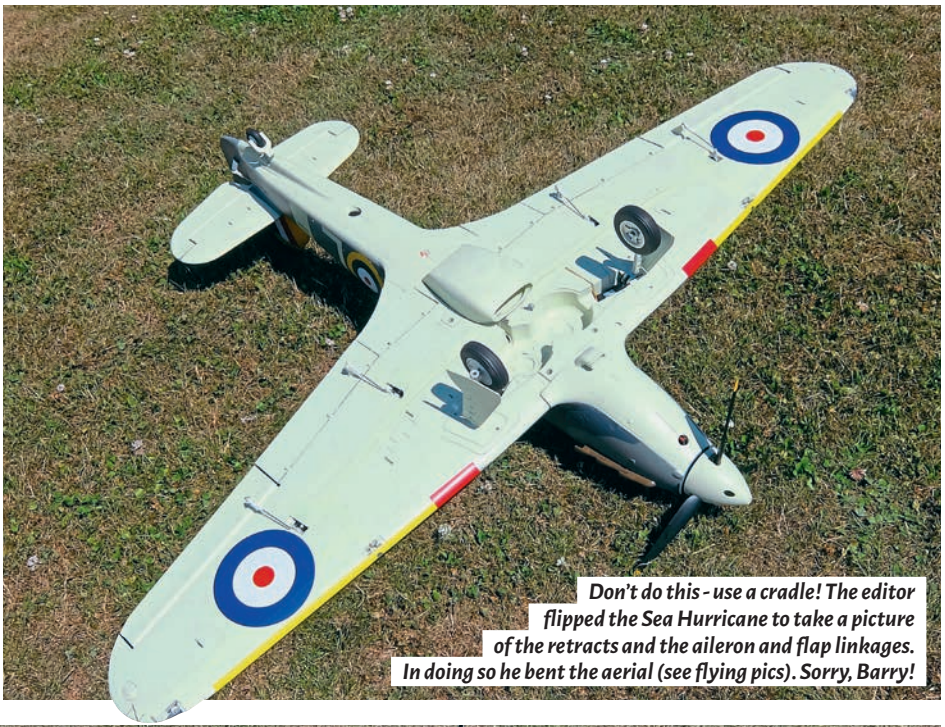
It was obvious that the radio setup was going to take the longer part of getting this model ready. Happily, the servos are all installed for you and have been centred, so that's the first job out of the way!



Barry looks a tad pensive before the Hawker Hurricane's maiden flight but all went well with this handily sized warbird.



XFly's Sea Hurricane is based on the livery of Z7015 which is resident at the Shuttleworth Collection, Old Warden.



Don't do this - use a cradle! The editor flipped the Sea Hurricane to take a picture of the retracts and the aileron and flap linkages. In doing so he bent the aerial (see flying pics). Sorry, Barry!

Also included is a small servo connector block which allows you to connect the aileron, gear and flap leads from each wing and then a single cable continues into the relevant channel on your receiver. I used it for both the gear and the flaps, but not the ailerons as I wanted to keep those on separate channels to enable programming in some differential.

I fitted a 4S 2200 mAh LiPo and checked the C of G. With a slightly forward position it balanced quite nicely, so I marked the inner fuselage with a felt tip where the end of the battery should be to ensure repetition on each flight. The next job was selecting switches for both the flaps and undercarriage which, with modern radios, is just so simple. Both worked straight away without issue and because I put the flaps on a three-position switch, I could have half flap as well as full which might be useful depending on wind conditions.

Now, here is where I became, as the late, great Alex Whittaker, columnist for many years in these pages, would have called



Sea Hurricane next to the alternative RAF Battle of Britain 'Reaper' variant.



A nice 3-bladed prop, combined with a powerful 3541-KV810 brushless motor, quickly hauls the Hurricane aloft when matched to a 4S LiPo.



Rolling for the maiden take off with full up elevator applied to keep the tail down.

"I fitted a 4S 2200 mAh LiPo and checked the C of G. With a slightly forward position it balanced quite nicely"

me, *'A Savage!'* The reason being is that with almost every model I've ever built I never put rates in on the primary controls. I simply leave full movement and apply some exponential to soften control movement around the sticks' central positions. Aerobats and gliders alike, it has served me well for many years, perhaps the occasional adjustment lessening the endpoints being the only extra adjustment I might make.



XFly Hurricanes can be quite pitch sensitive so Barry followed the editor's lead with the prototype kit and used an elevator rate switch to cut down the elevator throw when airborne. High rate is best used for take-off only.



Even on low rates the Sea Hurricane is nicely aerobatic, performing scale like manoeuvres.

OFF TO THE FLYING FIELD

Maiden flight day was one of those brutally hot ones we've had so many of this summer, with perhaps a 5 to 10 knot wind.

Lining up on the runway I slowly increased power to get the Hurricane rolling, holding in plenty of up elevator to keep the tail down and prevent nosing over, and into the air we went.

Now, here is where the me being *'A Savage'* finally came home to roost!

The model was 'very' sensitive in pitch. Other than that, it was flying very well. You certainly don't need full throttle on the 4S set up to get a nice scale speed, which, of course, is how these models should be flown. There's nothing worse than seeing a WW2 warbird hammer around at way over scale speed!

I'd set the timer for five minutes on the first flight which, with my gentle throttle style of flying, I hoped was conservative. At around the four-and-a-half-minute mark I lowered the gear and flaps, manually holding in a touch of down elevator to compensate for the flap. Thanks to







Pictures of the nicely detailed main retracts, steerable tail wheel and split flaps.



Climbing after a low pass, showing off the wonky aerial caused by resting her upside down on the ground. It was easily bent back into position.

> "As soon as I was airborne, I switched to the lower rates, where I left it for the rest of the flight"

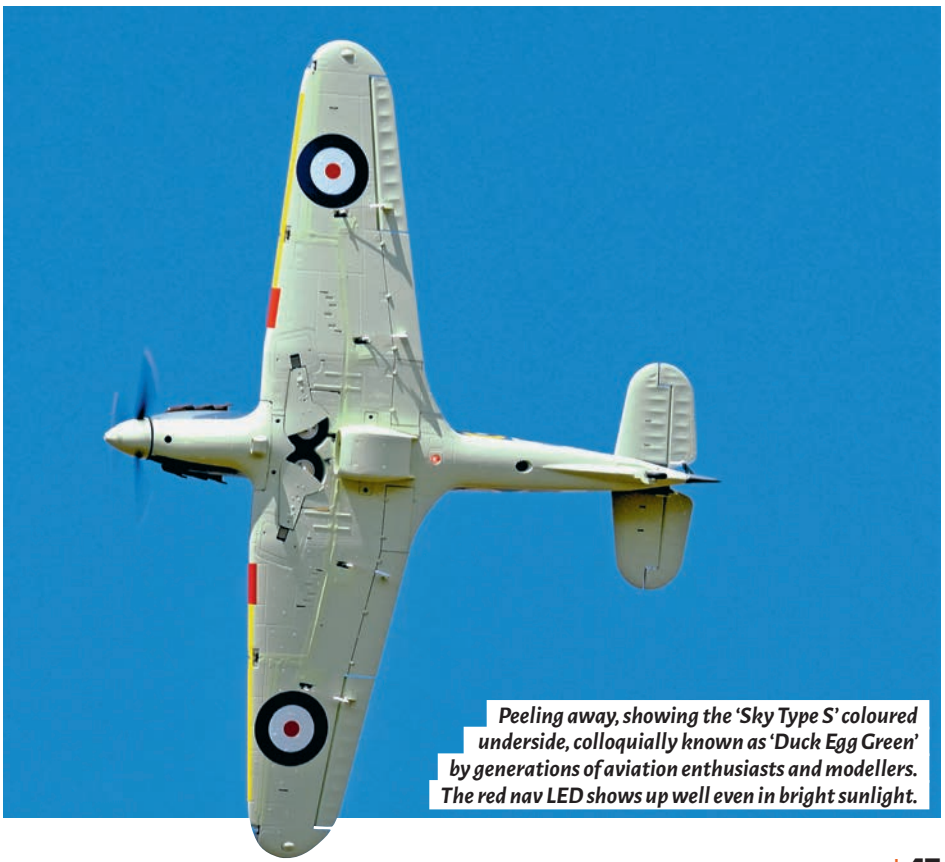
the aforementioned elevator being 'pitchy' the landing was a bit of a yo-yo, causing clubmate Rob, who was taking the in-flight pictures, to complain that he couldn't keep it in the viewfinder! The one bit of good news was that the battery had close to 50% left and so five and a half to six minutes seems like a sensible flight time.

LOW RATES

Realising I was lucky to have got away with this flight and having spoken with Kevin, who has the prototype model, I knew that I needed to reduce the elevator movement to something much less drastic.

The amount given in the manual advises 13 mm movement on low rates and 16 mm on higher rates for the elevator. With the help of Rob, our club's Futaba guru, we programmed around 8 mm each way on low rates and about 15 mm on the high rate. In addition, about 2 to 3 mm of down was added to come in as the flaps are lowered, negating the need to hold it in manually.

For the second flight, and with all these fancy new settings, I took off and immediately knew all was well. On the lower rates it's now a pussycat



Peeling away, showing the 'Sky Type S' coloured underside, colloquially known as 'Duck Egg Green' by generations of aviation enthusiasts and modellers. The red nav LED shows up well even in bright sunlight.



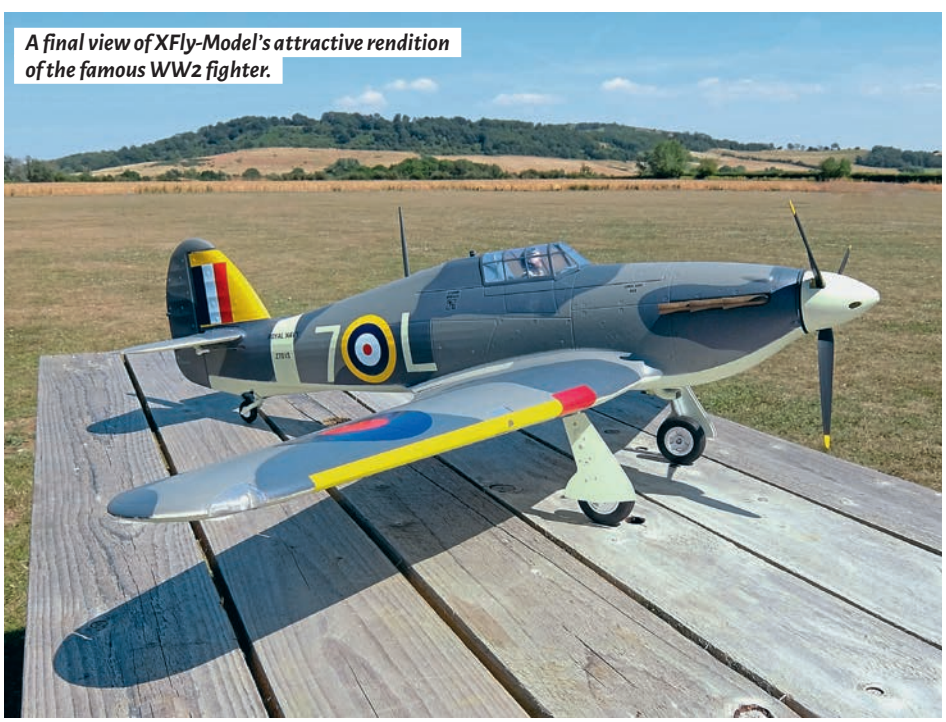
On a dirty and slow flypast with the gear down and full flaps.



Flaring for a neat three-point landing.



Safely down after a very successful second flight.



A final view of XFly-Model's attractive rendition of the famous WW2 fighter.

to fly. All the basic manoeuvres are performed with ease. Landing was a nice, stable, steady affair and the down elevator compensation worked well with the flaps. Job done!

I will say that for take-off I did use the higher rate so I could hold in more up elevator, as like many warbirds it will nose over, if you have less than perfect runway conditions, until you get a bit of speed up on the ground. As soon as I was airborne, I switched to the lower rates, where I left it for the rest of the flight.

FURTHER THOUGHTS

This is a nice size model, which will fit in most cars without dismantling. Simply leaving the gear up when transporting will further help reduce space taken and help stop hangar/car rash.

The XFly-Model Hawker Hurricane has some quite nice detailing, in particular the tail wheel and undercarriage. Also, the split flaps are a nice touch and work well.

It strikes me that this model could be made to look even better with some light airbrushing of, say, exhaust discolouration, along with a few streaks behind the cannon ports etc. I've seen a few foamy models where this has been done and it really does set them apart.

All in all, this is well thought out model, which I can see me flying on a regular basis. Just don't be like me and get those low rates dialled in before flying her! ■

DATAFILE

Model:	Hawker Sea Hurricane
Model type:	Foam warbird
Manufacturer:	XFly-Model
Distrubuted by:	CML Distribution https://www.cmldistribution.co.uk
RRP:	£279.99 PNP
Wingspan:	1200 mm (47.24")
Length:	938 mm (36.93")
Motor:	3541-KV810 brushless
ESC:	40A
Functions (servos):	Ailerons (2), Elevator (1), Rudder (1), Flaps (2), ESC
Servos:	6 x metal gear
LiPo:	4S 2600 - 4000 mAh

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CIG81216	4.9 x 3.7 x 2.5m	140613574	£378.00	£358.80
CIG81020	6.1 x 3 x 2.4m	140613572	£406.80	£382.80
CIG81220	6.1 x 3.7 x 2.5m	140613576	£466.80	£442.80
CIG81224	7.3 x 3.7 x 2.5m	140613578	£574.80	£550.80
CIG1432	9.7x4.3x3.65m	140613594	£1294.80	£1282.80
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CDP102B	350 / 5	060715512	£131.98	£119.98
CDP152B	450 / 12	060715522	£214.80	£203.98
CDP452B	550 / 16	060715575	£346.80	£334.80
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AERMACCHI IMPALA

Phil Stone offers a step-by-step guide to building a Power Scale Soaring version of the Italian military jet trainer based on drawings by Jim Beagle

Words and Photos: **Phil Stone**

Back in the September 2024 issue of RCM&E magazine I wrote a build article for a Correx PSS Hawk T1 which stretched over the subsequent October and November issues. I hope some of you found it of interest and perhaps had a go at building one yourselves. If you did and are looking for something new to build in Correx then you might like to have a go at an Aermacchi MB-326K Impala. This time, to make things even easier, the designer of the plans, Jim Beagle, has very kindly allowed RCM&E to publish them as a pull-out plan. You should find the Impala a relatively straightforward build and one that flies remarkably well given its basic construction. The PDF files of Jim's plans for this Impala and many other aircraft can also be found by an internet search for 'rcgroups.com build log correx-pss'.

At the time I was building the one you see here I was offered a second-hand 3D printer,



Impala gets a nice straight launch into the smooth air rising up the cliffs of the Great Orme during one of the PSSA's regular meetings there.

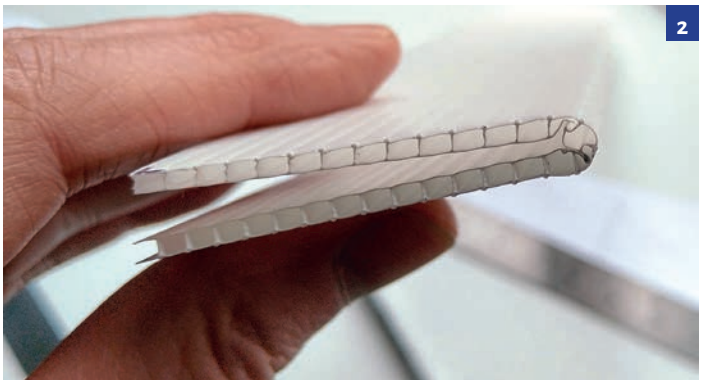
a Creality Ender 3, something I had been considering purchasing for some time. Much of my working life had revolved around CAD modelling so before long I soon found myself 'back at work' modelling and then printing all manner of parts to enhance the look of my Impala. My prime objective was to print some more scale-like wing tip tanks, but this soon expanded to the engine air intakes, some cannons, wing fences and an instrument binnacle (not to mention numerous other parts for around the house!)

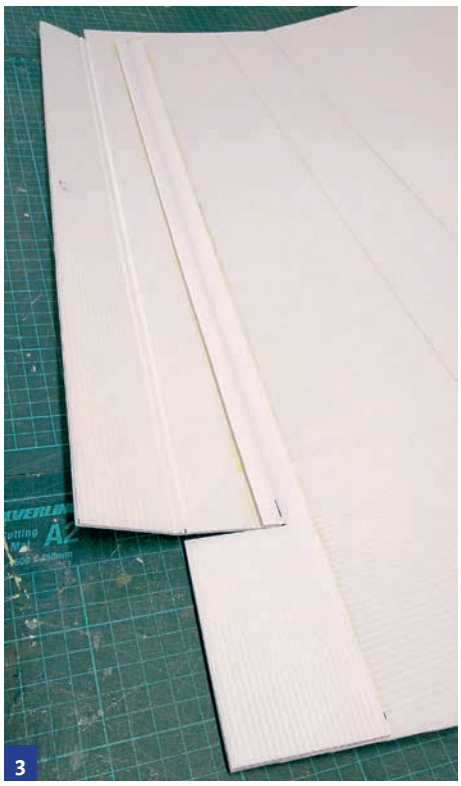
I'll aim to avoid repeating too much of the basic Correx building techniques as hopefully I covered all those in my previous Hawk article. Instead, I will concentrate on items specific to the Impala build, plus the various enhancements I made along the way.



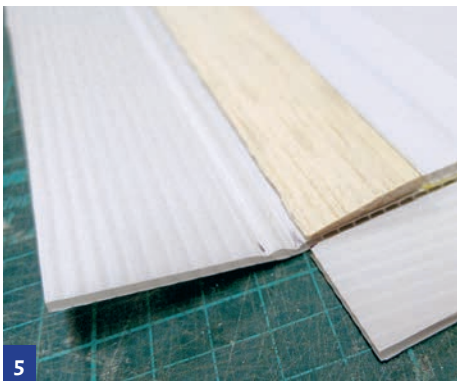
Phil guides the MB-326K past the lens of Phil Cooke, who supplied most of the flying pictures for this feature. More next time!











START WITH THE WINGS

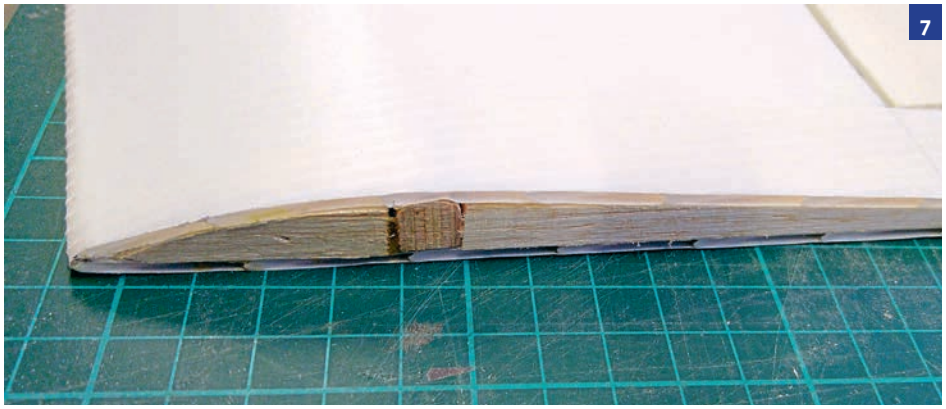
1: As always, I started by building the wing. After cutting out the wing template shape and making the spar I then elected to make the aileron somewhat differently to the plan.

2 - 4: Ailerons are generally produced from a single thickness of 3 mm Correx which although works well can at times prove a little on the flimsy side and prone to distortion. So, on my more recent builds I have taken to producing a folded aileron using 2.5 mm Correx but the same process could be adopted using 2 mm too. I created a hinge using 3 mm Correx in the same way as for a normal aileron but with most of the aileron cut down in size to leave just a stub. This stub was then sandwiched within my new folded aileron.

"…on my more recent builds I have taken to producing a folded aileron using 2.5 mm Correx"

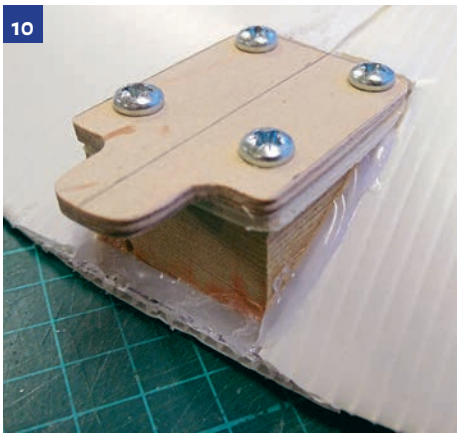
5: To stiffen things up further I then sanded a length of balsa creating a trailing edge section that fitted nicely within the folded aileron.



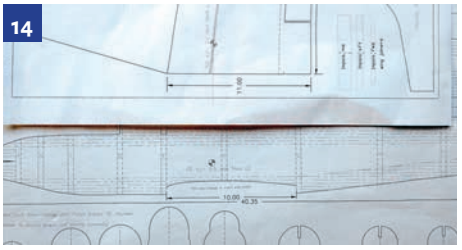












6 & 7: I added further balsa infill pieces within the wing tips, both fore and aft of the wing spar, to better support the printed tip tanks I planned on making later.

8: To improve the joint between the two wing halves I opted to insert a couple of 2 mm carbon rods within the flutes, being sure not to encroach on the wing bolt fixing area.

9 & 10: In a similar manner to my Hawk build I glued a block of wood within the wing and forward of the spar to create the mount for my wing's front location tang.

11: When folding and clamping the wings closed whilst gluing, I have sometimes accidentally deformed the Correx flutes, so I have since found that using a thin piece of scrap ply helps minimise this by spreading the clamping force more evenly.

12: As usual I added Correx bridging pieces between the two wing-halves before gluing the final wing-half closed.

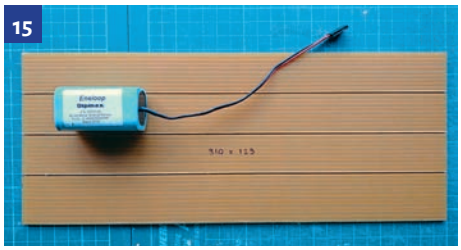
FORMERS FIRST

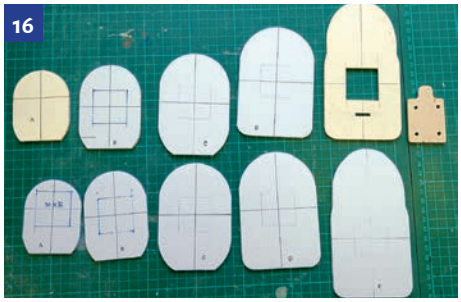
13: Moving on to the fuselage, I opted to cut some 3 mm ply formers for the areas where I felt a little more strength would be beneficial. So, at the front and rear positions (formers A and J) and fore and aft of the wing (formers E and G) I bonded a 3 mm ply former to a 3 mm Correx one. All the other former positions were the standard sandwich of two pieces of 3 mm Correx.

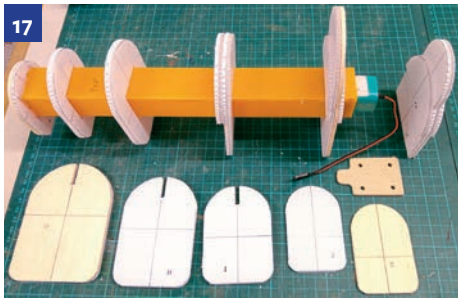
14: If you look at the plans, you'll notice that the root wing chord is shown as being 11 inches (279.4 mm) whereas the gap between fuselage formers E and G is shown as 10 inches (254 mm), meaning that ordinarily a half inch notch would need to be cut out both fore and aft of the finished wing. My finished wing had

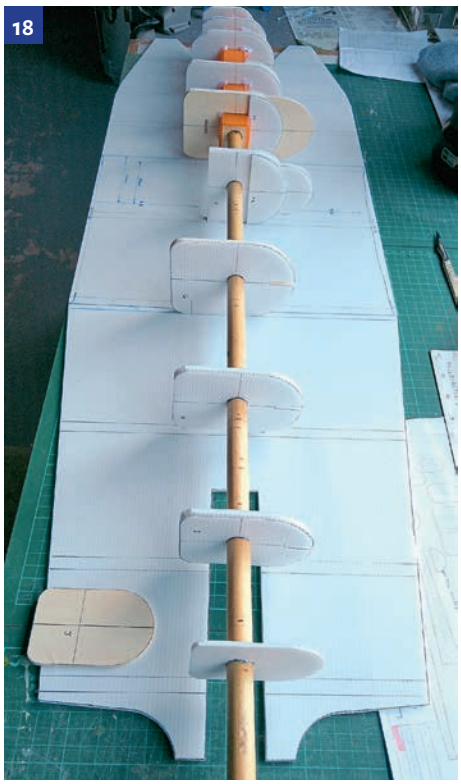


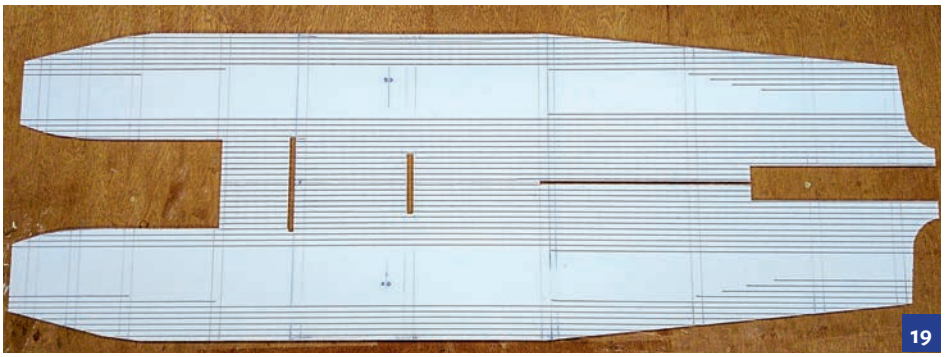


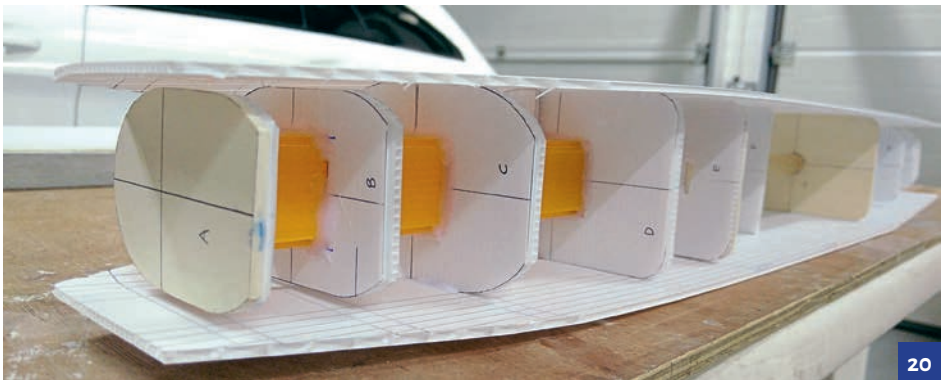

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a root chord measurement of 275 mm (after having cut a small flat at the leading edge) so rather than cutting notches I chose to move former E forwards by 11 mm and G rearwards by 10 mm in order to match it.

(As an aside, within build photo 14 the plan shows three wing joiners. Due to the way I join my main wing spar I have never found the need to add any extra joiners either fore or aft of the main spar, so these can be dispensed with should you wish to do similar).

15 & 16: I made a battery tube from 3 mm Correx to suit a 4-cell NiMH pack and cut 36 mm square holes through the relevant formers to accommodate it.

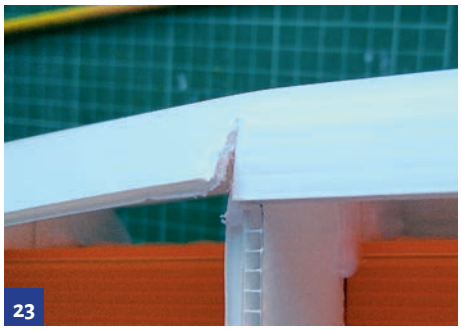
17: Ensuring former E was moved forward by the requisite 11 mm to suit my wing chord, I hot-melt glued the formers to the battery tube.

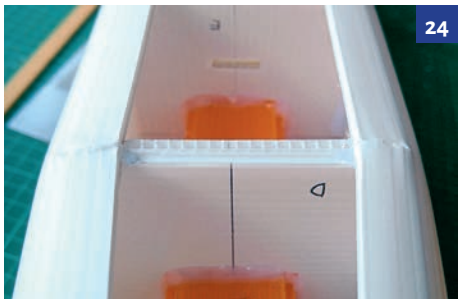
18: With that done I then made a couple of slave balsa inserts to fit within the battery tube and locate the slave assembly dowel which is used to locate the remaining formers.

19 & 20: After first de-fluting the fuselage skin it was then time to start gluing it to the formers.

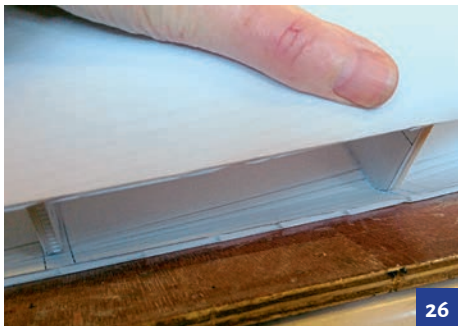
21: There are a few things of note I found here. Firstly, when working with Jim's original plans, former B appears to be around 6 mm too short for its underside to blend smoothly with the lower skin. So I glued a piece of balsa in place to make up the difference. This shown on the RCM&E plans.

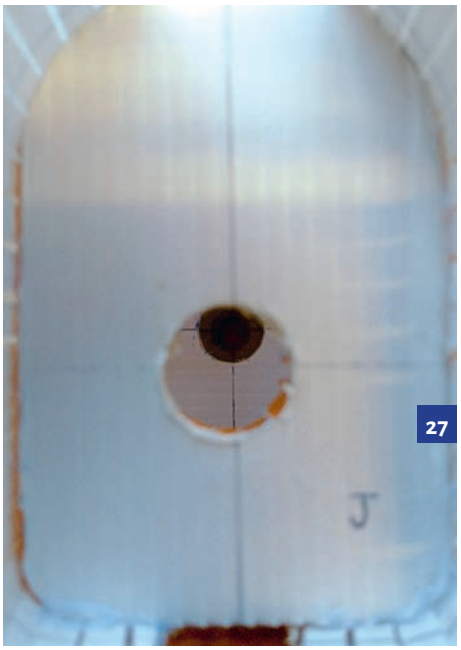
22: To help keep the rearmost formers aligned I also found it useful to temporarily insert a length of spruce within the slots which will ultimately accommodate the tail fin.

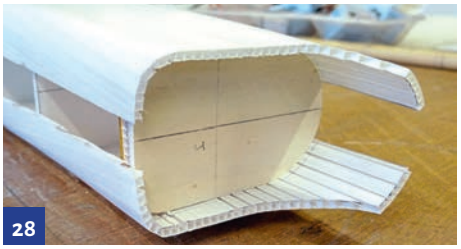




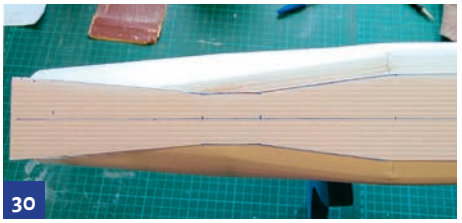


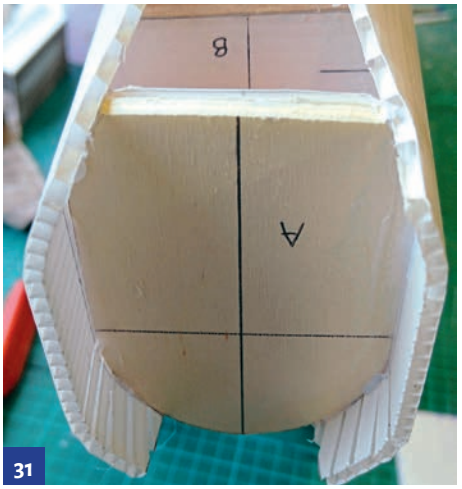


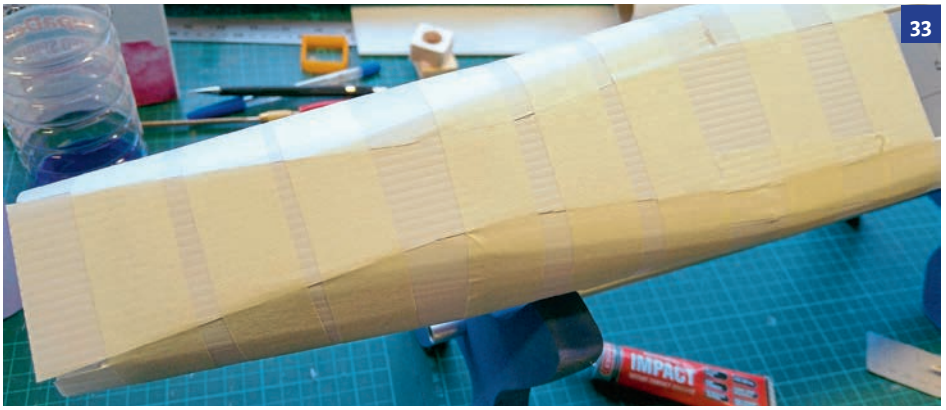






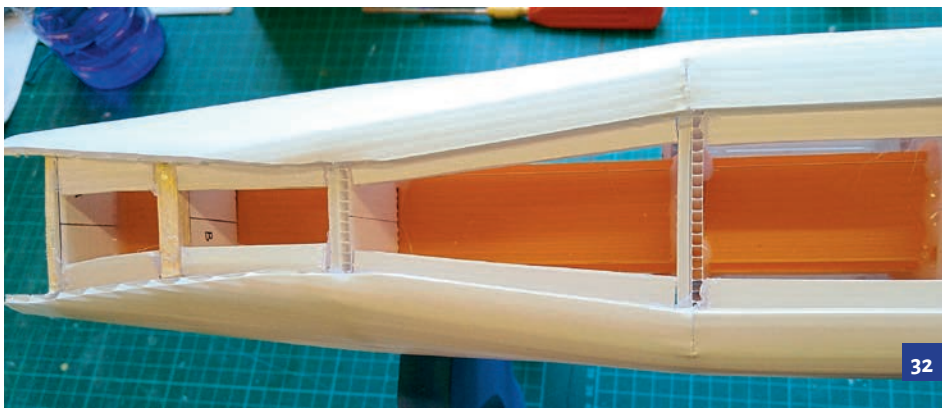






23 & 24: Both fuselage side skins kinked over former D, so I cut a small wedge out of each to alleviate the stress.

25: A little more kinking occurred over former G too but didn't necessitate any further cutting. Blemishes like these can be minimised later with the application of a little filler.



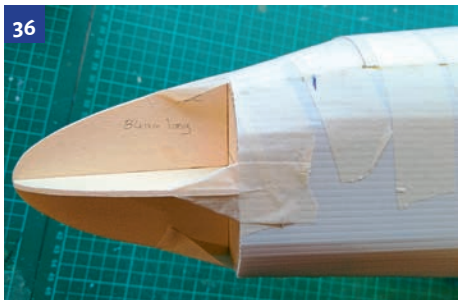
26: When gluing the fuselage skins around the underside of the formers I found it best to first place the fuselage side on a flat surface, apply the hot-melt glue, then quickly roll the fuselage towards its underside.

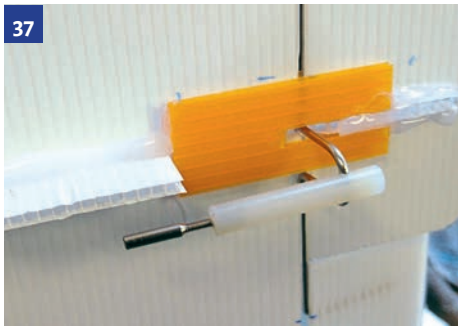
27: I encountered some considerable difficulty in gluing Correx former J into the fuselage. Ultimately my conclusion was that the dowel hole within it seems to be in the wrong place, so I eventually glued former J in place once the slave dowel had been withdrawn.

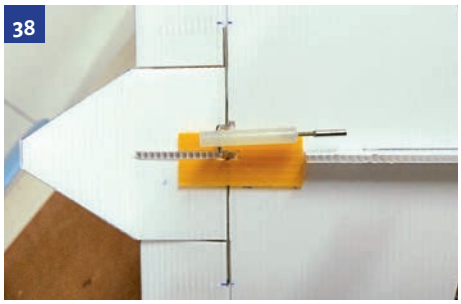
28: I could then add the ply former J, covering the dowel hole.

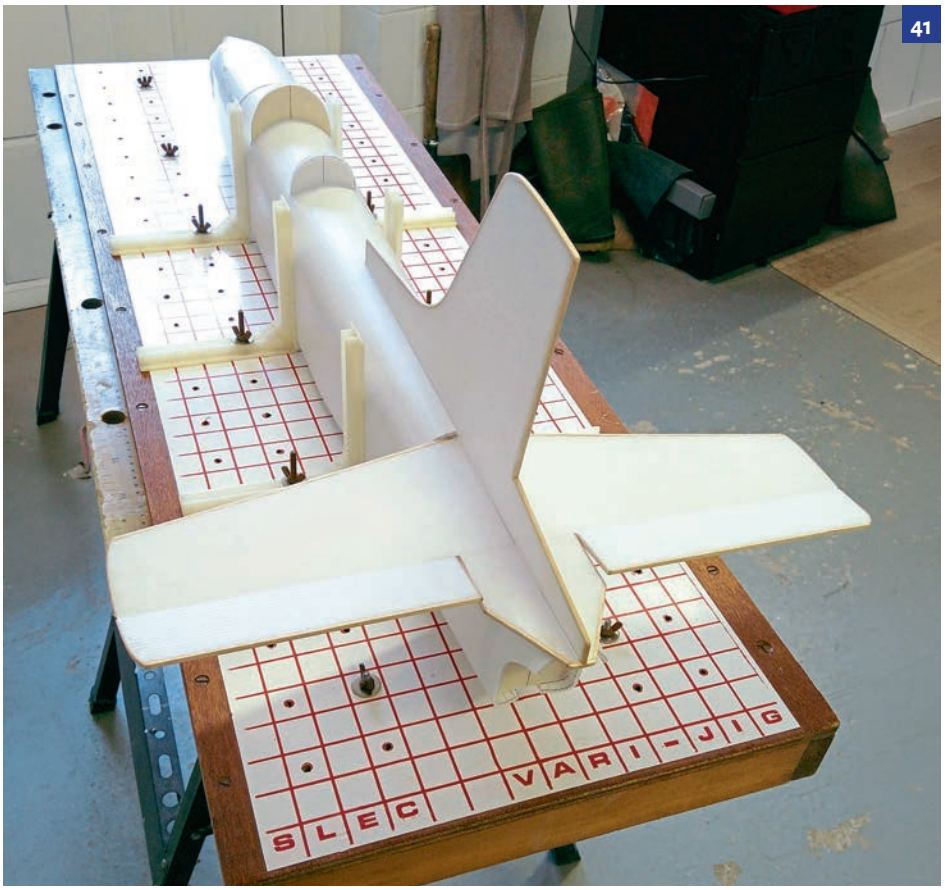

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29 & 30: For whatever reason I found the plans template for the fuselage front underside to be insufficiently wide towards the nose, so I needed to cut a new bespoke piece of Correx.

31: To improve its fit further I also needed to dress the underside of former A back a little.

32 & 33: With supporting Correx strips first added along each side I then glued the underside piece into place.

34 & 35: I left the rear underside of the fuselage open at this stage until I had the elevator linkage fully installed. I glued the fuselage front upper skin in place in two pieces in the knowledge that I would ultimately be cutting the rearmost part out again in order to add further detail by creating a cockpit.

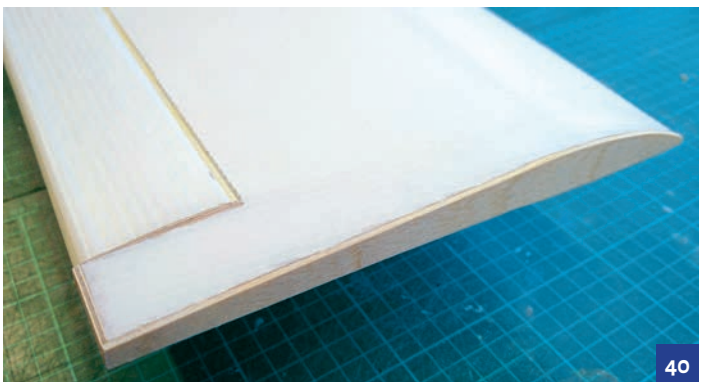
36: I re-profiled the nose from that shown on the plan to give it a more scale-like appearance.

37 & 38: Once I had built up the tail fin/tailplane sub-assembly I wanted to incorporate a fully concealed elevator linkage, so I made one up using some piano wire, a piece of 6 mm nylon rod and a solder extender to suit a 2 mm carbon push rod. I purposefully offset the linkage towards one side of the fuselage to allow me room to subsequently insert carbon rod strengtheners down through the tail fin and into the formers.

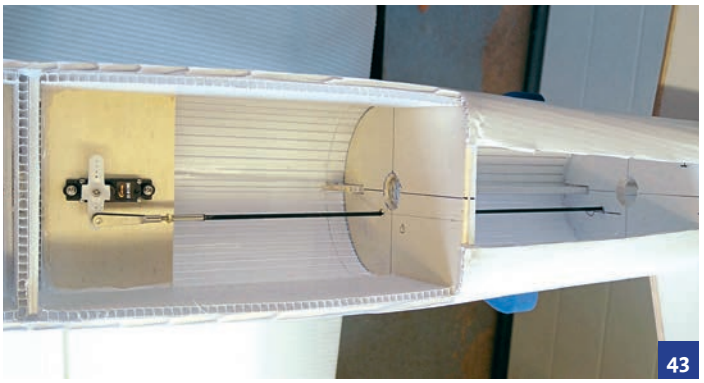
39 & 40: Once again, for appearances, I closed off all the exposed flute channels of the tail and wing using balsa or thin ply and sanded them flush using an emery board.

41: Once that was done, I glued the tail sub-assembly into the fuselage, making sure everything remained square in the process.

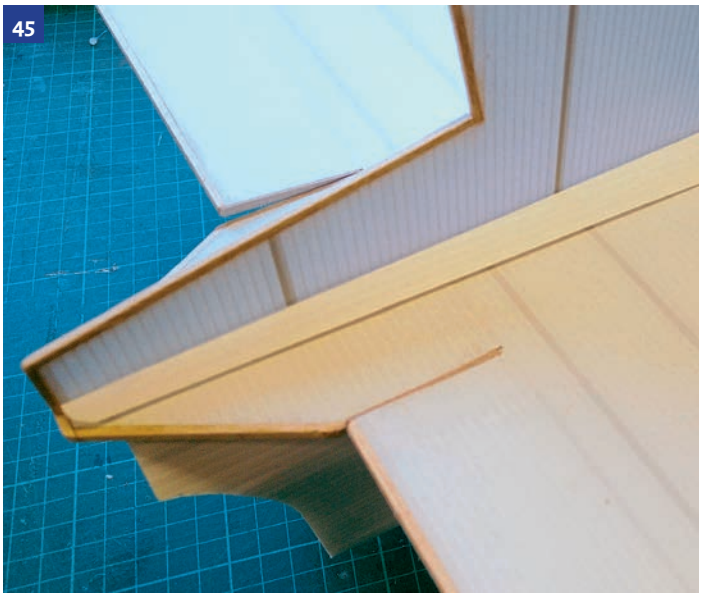

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Join Phil in the November issue as he completes the build of the Correx 'jet'.

CORRECTED PLANS

The amendments that Phil mentions in his build notes were made in the context of building from Jim Beagle's original plans. Please note that these amendments have been included in the revised RCM&E plans.

42 & 43: After having cut the wing seating I then added some Correx support pieces for a ply elevator servo tray and inserted the finished control rod assembly, melting holes through the Correx formers where required using a hot wire.

44: As mentioned earlier, for rigidity I inserted several 2.5 mm diameter carbon rods through the flutes of both the tailplane and fin. Two rods were inserted through the entire span of the tailplane and then a further three rods down through the fin to both align with and insert into fuselage formers H, I and J.

45: To neaten things up I cut a couple of Correx blend pieces to fit either side of the tail fin.

I subsequently noticed the rearmost section of the tail fin looked to be higher than it ought to for scale appearance so cut it down and reapplied the balsa edging. ■

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EMAX	ES9251 II	Sub Micro	4.0g	0.27Kg @ 4.8V - 0.08sec/60°	Digital, Light Weight, High Speed	1pcs £8.79ea 5pcs £7.91ea
4-Max	4M-037AH-0045	Sub Micro	3.7g	0.45Kg @ 4.8V - 0.10sec/60° 0.55Kg @ 6.0V - 0.08sec/60°	Analog, Light Weight, High Speed	1pcs £6.84ea 5pcs £6.16ea
4-Max	4M-045DH-005	Sub Micro	4.5g	0.5Kg @ 4.8V - 0.10sec/60° 0.6Kg @ 6.0V - 0.08sec/60°	Digital, Light Weight, High Speed	1pcs £4.72ea 5pcs £4.25ea
EMAX	ES9051	Sub Micro	4.1g	0.8Kg @ 4.8V - 0.09sec/60°	Digital, High Torque, High Speed	1pcs £7.69ea 5pcs £6.92ea
4-Max	4M-056DHVMG-009	Sub Micro	5.6g	0.90Kg @ 4.8V - 0.14sec/60° 1.05Kg @ 6.0V - 0.12sec/60° 1.20Kg @ 7.4V - 0.10sec/60°	Digital, High Voltage, Metal Geared, 8mm Thick	1pcs £9.94ea 5pcs £8.95ea
New 4-Max	4M-053HVDMG-010	Sub Micro	5.3g	1.0Kg @ 4.8V - 0.09sec/60° 1.5Kg @ 6.0V - 0.08sec/60° 1.8Kg @ 7.4V - 0..07sec/60°	Digital, High Voltage, Metal Geared, 8mm Thick, High Speed	1pcs £11.10ea 5pcs £9.99ea
EMAX	ES9052MD	Sub Micro	5.5g	1.1Kg @ 4.8V - 0.11sec/60° 1.3Kg @ 6.0V - 0.09sec/60°	Digital, Metal Geared, Coreless Motor	1pcs £13.83ea 5pcs £12.45ea
4-Max	4M-094DMGB-014	Wing	9.4g	1.4Kg @ 4.8V - 0.12sec/60° 1.9Kg @ 6.0V - 0.10sec/60°	Digital, Metal Geared, Ball Raced, Wing, 8mm Thick	1pcs £11.54ea 5pcs £10.39ea
EMAX	ES08A II	Micro	8.6g	1.5Kg @ 4.8V - 0.12sec/60° 1.8Kg @ 6.0V - 0.10sec/60°	Analog, Light Weight, Great Value	1pcs £5.34ea 5pcs £4.81ea
EMAX	ES08MA II	Micro	12g	1.2Kg @ 4.8V - 0.12sec/60° 1.8Kg @ 6.0V - 0.10sec/60°	Analog, Metal Geared	1pcs £8.35ea 5pcs £7.52ea
4-Max	4M-090AH-017	Micro	9.0g	1.7Kg @ 4.8V - 0.09sec/60° 1.9Kg @ 6.0V - 0.07sec/60°	Analog, Basic 9g Servo	1pcs £3.99ea 5pcs £3.59ea
EMAX	ES3301	Micro	10.6g	2.0Kg @ 4.8V - 0.12sec/60° 2.2Kg @ 6.0V - 0.10sec/60°	Analog, Metal Geared, 9mm Thick	1pcs £8.79ea 5pcs £7.91ea
4-Max	4M-100AMG-022	Micro	10g	2.2Kg @ 4.8V - 0.12sec/60° 2.5Kg @ 6.0V - 0.10sec/60°	Analog, Metal Geared, High Torque	1pcs £7.49ea 5pcs £6.74ea
4-Max	4M-100DMG-022	Micro	10g	2.2Kg @ 4.8V - 0.12sec/60° 2.5Kg @ 6.0V - 0.10sec/60°	Digital, Metal Geared, High Torque	1pcs £9.05ea 5pcs £8.15ea
New 4-Max	4M-125HVDMG-028	Micro	12.5g	2.8Kg.cm @ 4.8V - 0.144sec/60° 3.4Kg.cm @ 6.0V - 0.111sec/60° 4.5Kg.cm @ 7.4V - 0.105sec/60°	Digital, High Voltage, Metal Geared, High Speed, Dual Ball Raced	1pcs £12.21ea 5pcs £10.99ea
New 4-Max	4M-130HVDMG-040	Micro	13g	3.8Kg.cm @ 5.0V - 0.112sec/60° 4.0Kg.cm @ 6.0V - 0.096sec/60° 4.5Kg.cm @ 7.4V - 0.083sec/60°	Digital, High Voltage, Metal Geared, High Speed, High Torque, Very Low Play in Gears	1pcs £11.10ea 5pcs £8.15ea
4-Max	4M-094DHVMG-026	Mini	9.4g	2.0Kg @ 6.0V - 0.09sec/60° 2.6Kg @ 7.4V - 0.07sec/60°	Digital, High Voltage, Metal Geared , Ball Raced, 8mm Thick	1pcs £14.99ea 5pcs £14.17ea
4-Max	4M-160AH-027	Mini	16g	2.7Kg @ 4.8V - 0.13sec/60° 3.0Kg @ 6.0V - 0.11sec/60°	Analog, Great Value Mini Servo	1pcs £6.29ea 5pcs £5.66ea
4-Max	4M-175AMG-030	Mini	17.5g	3.0Kg @ 4.8V - 0.13sec/60° 3.5Kg @ 6.0V - 0.11sec/60°	Analog, Metal Geared	1pcs £8.73ea 5pcs £7.86ea
4-Max	4M-175DMG-030	Mini	17.5g	3.0Kg @ 4.8V - 0.13sec/60° 3.5Kg @ 6.0V - 0.11sec/60°	Digital, Metal Geared	1pcs £9.99ea 5pcs £8.99ea
New 4-Max	4M-183HVDMG-044	Mini	18.3g	4.4Kg @ 4.8V - 0.101sec/60° 6.5Kg @ 6.0V - 0.078sec/60° 7.3Kg @ 7.4V - 0.059sec/60°	Digital, High Voltage, Metal Geared, High Speed, High Torque	1pcs £14.99ea 5pcs £13.49ea
4-Max	4M-253AB-028	Standard/Mini	25.3g	2.8Kg @ 4.8V - 0.12sec/60° 3.3Kg @ 6.0V - 0.10sec/60°	Analog, Ball raced	1pcs £6.79ea 5pcs £6.11ea
EMAX	ES3004	Mini	17g	3.0Kg @ 4.8V - 0.15sec/60° 3.5Kg @ 6.0V - 0.13sec/60°	Analog, Metal Geared, Ball Raced	1pcs £12.09ea 5pcs £10.88ea
EMAX	ES3054	Mini	17g	3.0Kg @ 4.8V - 0.15sec/60° 3.5Kg @ 6.0V - 0.13sec/60°	Digital, Metal Geared, Ball Raced	1pcs £17.59ea 5pcs £15.83ea
4-Max	4M-455AH-033	Standard	45.5g	3.3Kg @ 4.8V - 0.15sec/60° 4.0Kg @ 6.0V - 0.12sec/60°	Analog, Great Value Standard Servo	1pcs £6.99ea 5pcs £6.29ea
EMAX	ES3001	Standard	37g	3.5Kg @ 4.8V - 0.17sec/60° 4.8Kg @ 6.0V - 0.14sec/60°	Analog, Ball Raced	1pcs £7.69ea 5pcs £6.92ea
4-Max	4M-410ABH-052	Standard	41g	5.2Kg @ 4.8V - 0.20sec/60° 6.5Kg @ 6.0V - 0.16sec/60°	Analog, High Torque	1pcs £4.73ea 5pcs £4.26ea
4-Max	4M-556AMG-087	Standard	55.6g	8.7Kg @ 4.8V - 0.15sec/60° 9.4Kg @ 6.0V - 0.13sec/60°	Analog, Metal Geared	1pcs £12.59ea 5pcs £11.33ea
4-Max	4M-556DMG-087	Standard	55.6g	8.7Kg @ 4.8V - 0.15sec/60° 9.4Kg @ 6.0V - 0.13sec/60°	Digital, Metal Geared	1pcs £15.74ea 5pcs £14.17ea
New 4-Max	4M-490AMG-108	Standard	49g	10.8Kg @ 4.8V - 0.13sec/60° 13.8Kg @ 6.0V - 0.11sec/60°	Analog, Metal Geared, Waterproof	1pcs £17.76ea 5pcs £15.98ea
4-Max	4M-620DHVMG-112	Standard	62g	9.35Kg @ 6.0V - 0.15sec/60° 11.2Kg @ 7.4V - 0.13sec/60°	Digital, High Voltage, Metal Geared, Dual Ball Raced	1pcs £18.89ea 5pcs £17.00ea
EMAX	ES3005	Standard	42g	10Kg @ 4.8V - 0.16sec/60° 12Kg @ 6.0V - 0.14sec/60°	Analog, Ball Raced, Waterproof	1pcs £27.49ea 5pcs £24.74ea
4-Max	4M-556AMG-118	Standard	55.6g	11.8Kg @ 4.8V - 0.20sec/60° 13.2Kg @ 6.0V - 0.18sec/60°	Analog, Metal Geared	1pcs £14.69ea 5pcs £13.22ea
4-Max	4M-556DMG-173	Standard	55.6g	17.3Kg @ 4.8V - 0.18sec/60° 20.4Kg @ 6.0V - 0.16sec/60°	Digital, Metal Geared	1pcs £17.84ea 5pcs £16.06ea

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2026 F4C World Champion Marc Levy from France brings his 1:4 scale Fouga CM-170 Magister in for landing. Photo by Barry Atkinson.

SUBLIME SCALE

Mike Freeman files his first report from the 2026 FAI F4 Scale World Championships

Words & Photos : **Mike Freeman**

The first ever F4 Scale World Championships were held in the UK at Cranfield Airfield in 1970. They came back again in 1978, with RAF Woodvale hosting the event, but then we had to wait 48 years for them to return home again. The venue for this auspicious occasion was our very own BMFA National Centre in Buckminster. The 2026 Championships were the biggest yet with 109 pilots from 23 countries across five continents attending the event.

PROCEDURES

The 2026 World Championships were held over a nine-day period from Friday 10th to Saturday 17th July, with models competing in three different categories:

F4B	Control Line Scale
F4C	Radio Controlled Scale
F4H	Stand-off Scale

Models are first scrutinised for scale detail and accuracy and given a static score. For all categories the pilot needs to provide detailed



2026 FAI F4 Scale World Championship teams group photo. There's the British contingent on the right.



Just one wing of the massive storage hangar crammed full of beautiful world class scale models. Hopefully it won't be another 48 years before we see this sight again!



The BMFA provided shelters to protect the models in the queue to the flightline from the intense heat and sunlight. The humans had to fend for themselves!



Burkard Reinsch from Germany entered his 1:3.2 scale, 2.85 metre (112.2") span DH.60 Gipsy Moth in F4C. The model is custom built, mainly in wood. Colour scheme is a copy of the DH.60 used in the 1985 film 'Out of Africa'.



The DH.60 sits really well in the air.



Burkard's Gipsy Moth features an accurate folding wing system, matching the full size. Power in the model is provided by a Valach 70 cc four-stroke.

documentation and photographs of the full size for the judges to compare against the model. The level of scrutiny is different for each category:

F4B & H - These models are judged from five metres away.

F4C - The judges judge the model from close-up, but they are not allowed to touch the model.

The models then fly three flight rounds consisting of a combination of mandatory manoeuvres and full-size specific manoeuvres chosen by the pilot. Points are given for realism and accuracy. The score from the best two flight rounds are averaged and added to the static score to give the overall final score.

To add excitement to the event the third round of flights is run in reverse order so those at the top of the table after the first two rounds fly at the end of the round. I popped along for the last three days, catching the tail end of this run-down and witnessed some beautiful models and excellent flying displays.

Fellow scribe, Danny Fenton, was at the Championships for the full nine days competing in the F4B Control Line category. He told me he will be covering the F4B event and scale detailing in his 'Make It Scale' column so I'm going to focus on the R/C models and flying from an 'appreciative aeromodeller's' perspective.

EYE CANDY

Anyone who attended one of the BMFA's Guided Tours through the immense hangar at the championships will have appreciated the exquisite detailing on these top-quality scale models. Some of the models took years to research and build, and I was amazed that



Fabien Busom from France entered his 1:3.5 scale, 3.05 metre (120") span Morane Saulnier MS230 in F4C. Here it awaits clearance from the judges to take-off.



Morane Saulnier MS230 in its element.



Fabien built the impressive dummy radial from scratch by 3D printing a cylinder mould, complete with pushrods, tappets and spark plugs. He then cast nine individual cylinders from resin for final assembly. Hidden behind is a Hacker Q80-8M motor spinning a 24 x10 prop powered by 2 x 6S 6200mAh LiPos and a Hacker Spin Pro 170A ESC.



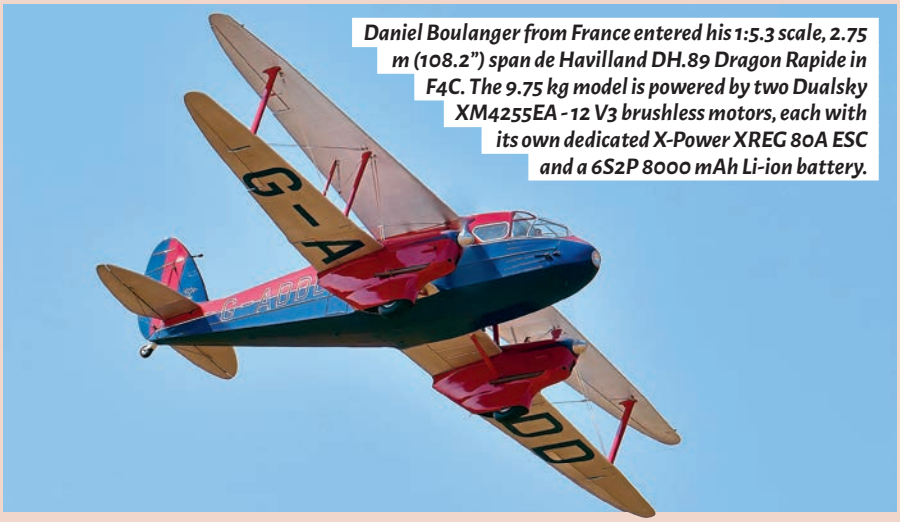
Bert van Eijk from the Netherlands entered his 1:3.6 scale, 1.86 m (73.2") span Fly Baby 1B into F4C. Entirely designed and scratch built by Bert, it took three years to complete.



A Laser 150 with an 18 x 6 wooden prop propels the 8.2 kg Fly Baby with authority, yet in a scale manner.



Close up of Bert's lovely Fly Baby 1B showing off his detailing skills.



Daniel Boulanger from France entered his 1:5.3 scale, 2.75 m (108.2") span de Havilland DH.89 Dragon Rapide in F4C. The 9.75 kg model is powered by two Dualsky XM4255EA - 12 V3 brushless motors, each with its own dedicated X-Power XREG 80A ESC and a 6S2P 8000 mAh Li-ion battery.



Each of the elegant engine nacelle/wheel spat fairings hides the motor, ESC and Li-ion battery pack, keeping all the electric flight components close together.



Those flaps look tiny, but they must have been effective on the full-size DH.89.





Marek Dabrowski from Poland entered his 1:4.8 scale, 2.63 m (103.5") span SNJ -5 Texan in F4C.

the pilots were prepared to commit their works of art to the excessive heat and gusty winds the good old English weather threw at them during the event! But fly they did and presented here is just a sample of what I saw.

SILENCE ISN'T GOLDEN

John Ranson was drafted into the UK team at the last minute when David Charles sadly lost his F4C Hawker Typhoon at the Warboys Scale Competition at Ramsey Model Aero Club just a month before the Championships. John entered his lovely 1:5.4 scale 2.54 metre (100") wingspan de Havilland DH.130 Hornet F Mk.3 in the F4C category.

John's Hornet is electric powered by two Hacker A60 16M brushless motors with counter rotating 20 x 16 props. Each motor has its own 8S (2 x 4S) 6200 mAh LiPo battery. It flies beautifully but folks kept telling John it was too quiet, so he fitted a Benedini Sound System with two 40W amplifiers and two 100 mm, 4-ohm speakers hidden in the radiator spaces, all powered by a 4S 1350 mAh LiPo. The whole



Inside the 'office' of Marek's Texan. The scale detailing of the F4C models is exquisite - even the stuff you can't see while the model is flying!



John Ranson's DH 103 Hornet is electric powered. He got fed up of folks saying how quiet it was, so he fitted a sound system to replicate the twin RR Merlin engines of the full size.



John's Hornet performing a bomb drop. I just managed to catch them in this shot!



John (on the right) discussing the Hornet's sound system with John Carpenter, who was commentating on the Championships between slots.



Mike Barbee from the USA completes the take-off manoeuvre with his 1:4 scale, 2.28 m (89.7") span Hawker Fury...



...to the rapturous applause of the rest of the US team.

lot adds just under 1 kg to the model's all up weight of 12.7 kg. The sound system is linked to the throttle stick so the speakers were pumping out the proportional Merlin engine recording with real-time scale realism. It sounded superb as John set the model on the strip and 'started' the engines. The sound of the popping exhausts as the Merlin engines fired up and the harmonising purr as John did his display really added to the realism.

APPLAUSE

During each flight the manoeuvres were announced to the judges by the pilot's helper and then the pilot shouted 'NOW' at the start and 'FINISH' at the end of each manoeuvre. This was regularly followed by, sometimes, rapturous applause from other team members.



A spin from Burkhard Reinsch's Gipsy Moth received the loudest applause from the visiting spectators who had braved the hot and sunny weather to attend the Championships.



Olivier's Magister glinting nicely in the sunshine over Buckminster.

It often felt like the loudest applause followed a less than perfect performance...

The loudest, most appreciative applause from the spectating public was for the only spin I saw which was performed by Burkhard Reinsch and his Gipsy Moth DH.60.

SILVER DREAM MACHINES

There were a lot of colours at the Championships but some of the models were in their natural silver, metal or fabric finish, with others in striking chrome. I was particularly impressed with Olivier Maugeard's Fouga CM-170 Magister. Every time I looked



Olivier Maugeard (left) from France entered his 1:4 scale, 3.03 metre (119.3") span Fouga CM-170 Magister in F4H. A pair of KingTech K65s power the model. Weathering on the aluminium finish is exquisite





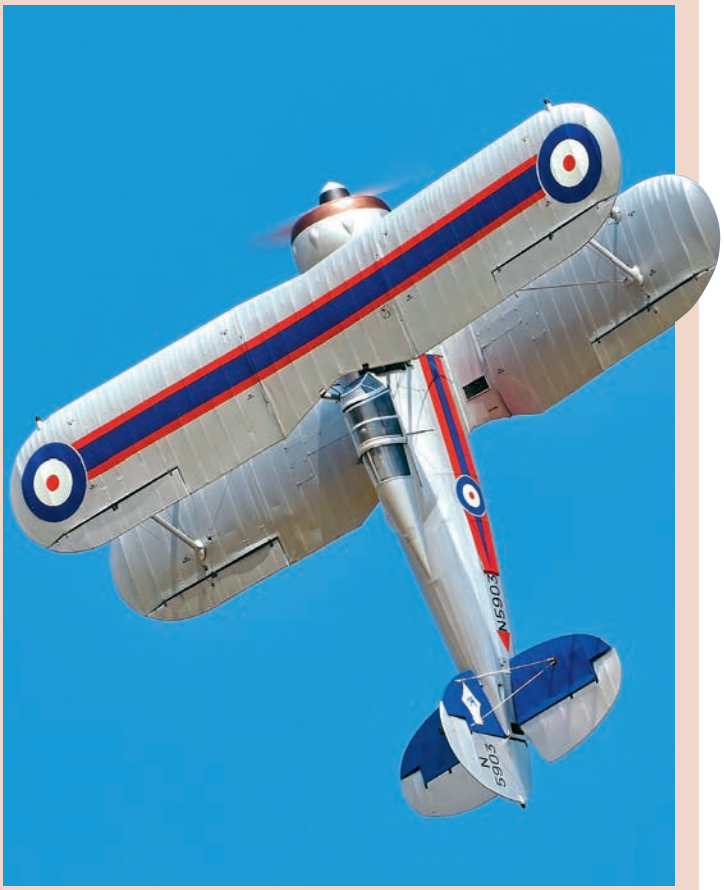
Close up, the detailing on the Magister is simply stunning. As the model was built from a kit, Olivier was not eligible to enter this model in F4C.



Kristen Thorrud from Norway entered his 1:4.5 scale, 2.2 m (86.6") span Gloster Gladiator Mk.II in F4C.



This is a scale model of Kristen's actual full-size Gladiator. Look closely and you can see the working split flaps on both top and bottom wings.



The silver-coloured covering of Kristen's Gladiator looked great against the blue skies over Buckminster.



Argyrios Giannetakis from Greece entered his 1:4 scale, 2.94 m (115.7") span Ryan SCW-145 in F4C. It is powered by a Saito 61 TS Boxer twin-cylinder, four-stroke engine.



Ryan SCW-145 on a fly past showing off its chromium bling.



The pilot in Argyrios' model is a fully articulated automaton, complete with speech. Amazing to watch - and hear!



The youngest pilot at the Championships was 12-year-old Konrad Lange from Germany who entered his CARF Models Mk.IX Silver Spitfire in F4H. 1:4.2 scale with a wingspan of 2.58 metres (101.6").



Konrad's Silver Spitfire drops in for a landing.



There were jets at the World Championships too! Angelo Nava from Italy entered his 1:4.5 scale, 1.9 metre span Fiat G91 in the F4H Stand-Off Scale category, powered by a KingTech 140N turbine engine. The full size G91 gained fame between 1964 and 1981 when it was used by the famous Italian Aerobatic Display Team, the Frecce Tricolori.

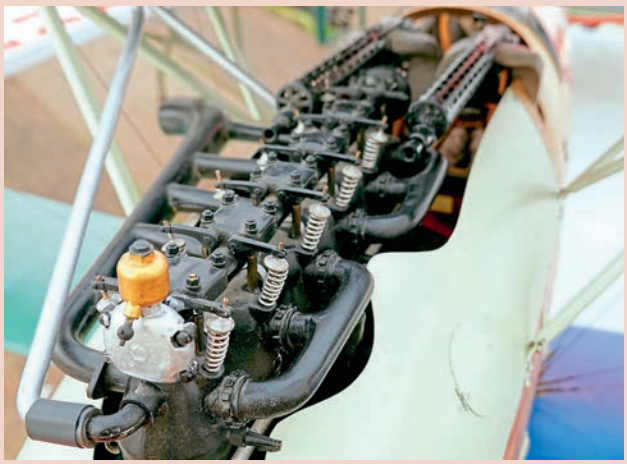


That lovely swept wing, cute stubby nose and under-the-chin air intake of the G91 give it a distinctive look.



Angelo's Fiat G91 might be the first F4H Stand-off Scale model we've looked at but the scale detailing is still super impressive.





Urs Brand from Switzerland entered his 1:4 scale, 2.26 metre (89") span Albatros D.Va in F4H. Sadly, Urs had engine problems, so I didn't get to see it fly. But I was still impressed by the scale detailing of the inline Mercedes D.111 engine.



Pål Anthonisen from Norway entered his 1:4.5 scale, 2.61 m (102.7") span de Havilland DHC-1 Chipmunk with Saito 40FG power. I remember flying a full size one of these in my youth with my local ATC Squadron. Happy days!



During the lunch breaks the Novacastrian Model Flying Club gave a control-line combat demonstration. It was amusing watching these two get intimate as they spun around in the centre circle!



UK's Nigel Nixon with his Shorts Tucano T1 which Nigel entered in F4H. The 1:4.35 scale, 2.5 m (98.4") span model represents a full-size RAF Tucano T1 painted to commemorate Queen Elizabeth II's Diamond Jubilee in 2012. Power is from a Dualsky 6600W brushless motor, 180A ESC and a 12S 10,000 mAh LiPo.

Jan Doubrava from Czechia entered his 1:4.3 scale, 2.4 metre (94.5") span L29 Dolphin in F4C. Here it is taking off for Jan's final slot, helping him achieve third place overall in F4C.





Jan and Flight Line Controller, Lee Smalley discuss the L29's credentials.

at the model I saw another brilliant bit of detailing that made me go 'WOW!'

OTHER HIGHLIGHTS

I ended up with nearly 3,000 photos at the end of my visit and after working through them all, dotted around are some more highlights from the Championships.

FINAL THOUGHTS

The BMFA did an excellent job of hosting the event. All the pilots I spoke to were very complementary and seemed to enjoy their time in the UK. A lot of them told me they had visited the Duxford Museum and Shuttleworth Collection during their stay and were full of praise for the excellent aviation heritage they saw there.

Hopefully we won't have to wait another 48 years before we invite them all back and host the F4 Scale World Championships again!

NEXT TIME

Next time we'll look at three of the four mandatory manoeuvres pilots must perform during their flight slots, which I really enjoyed as they gave the best opportunity for flying photographs. ■



Husband and wife team David and Melissa Law from Australia standing behind Melissa's F4H Super Decathlon. Melissa was the only lady to compete at this year's F4C/H Championships. David achieved second place overall in F4C with his Pitts Special S2A.



David Law's 1/3rd scale 2.03 m (80") span Pitts Special S2A takes off for its final flight, helping him achieve second place in F4C overall. The DA 100L engine provided ample power for a very scale like display.



Marc Levy from France carries out final checks before taxiing his 1:4 scale, 3.06 m (120.5") span Fouga CM-170 Magister out to take-off. Marc went on to win F4C. France won the F4C overall team ranking too. Photo by Luc Meneguz.



Marc's Magister is powered by a single JetCat P130 RxiB. Photo by Barry Atkinson.

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Tony Ray Aero Model

Our Tony Ray range of balsa model kits is set to expand further this year. Firstly, with a 1/5th Bucker Jungmester BU133, then with a 1/6th FW190 and later this year with a famous British WWII model.



Micro series

Tony's range of 11 micro models are designed for indoor flying using micro servos and receivers compatible with Spektrum & Futaba.

Kavan Radios

Kavan are expanding their range of radios that are manufactured by FrSky but to Kavans specification - their latest budget programmable set is about £95.00



Hacker CZ

Hackers range of EPP indoor & outdoor models continues to expand! Their latest Aerix F3P will be featured in RCM&E shortly.



Brand Focus

A selection of old school brands from the US:

Old School Model Works · Balsa USA · Control Line Flying · Sullivan

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SATURDAY SOARING

Chris Williams starts a summer weekend at the third White Sheet Scale Fly-In

Words & Photos: **Chris Williams**

An unusually decent forecast for 11th June (i.e. with the wind finally blowing in a useful direction) ensured that this, the third scheduled scale fly-in for the year for the White Sheet club, might just attract a good turnout despite it being a Saturday. Thus, it transpired and there was much to see and at which to marvel…



Martyn Brake displays his 1:3.5 scale Moswey prior to its maiden flight.

GLASS SECTION

One very unusual model in the glass section of the model park was Martin England's scratch-built ASH 31. Built to 1:4.5 scale, (my current favourite scale) spanning 4 metres and weighing in at 4 kgs, Martin's model looked very agile in the air and with its sustainer must be a very versatile model indeed. It's not every day that you see a glass machine with a balsa covered fuselage but don't take my word for it; there is a very detailed build log on the SSUK website (https://scalesoaring.co.uk).



Martin England with his impressive scratch-built 1:4.5 scale ASH 31.



A section of the model park at the third White Sheet scale event.



John Sanders' Minimoa MO2a takes to the air.



Motley Crew's Skylark 4 takes flight.



A veteran Gull 4 flew well in the strong conditions.

There was much to marvel at from another Martyn, Martyn Brake this time. After a long period of reflection upon the completion of the project, he had decided that today was the day to do it, but it seemed that some more contemplation was required and it wasn't until towards the end of the afternoon that the 1:3.5 scale Moswey took to the air amid much speculation and interest. Built from the Jilles Smits plan and using a laser kit from Laser Cut Sailplanes, the model is fabric covered and two-pack painted to a high standard. The maiden flight took place without undue fuss and it wasn't until it came to land that a touch of over-sensitive elevator made for one or two go-arounds. But all ended well.

LOOK, NO AILERONS

The appearance of a Minimoa with a tad more than the regulation dihedral sparked a dim recognition in my once efficient mind. Rigorous interrogation of the owner revealed what I had suspected; this two-channel version of the Minimoa was from the old Bob Banks plan from way back in the last century and was the first R/C Minimoa I had built. (My second was a scaled-up version with less dihedral and the addition of ailerons.)



A real Golden Oldie. Bob Banks two-channel version of the Minimoa.

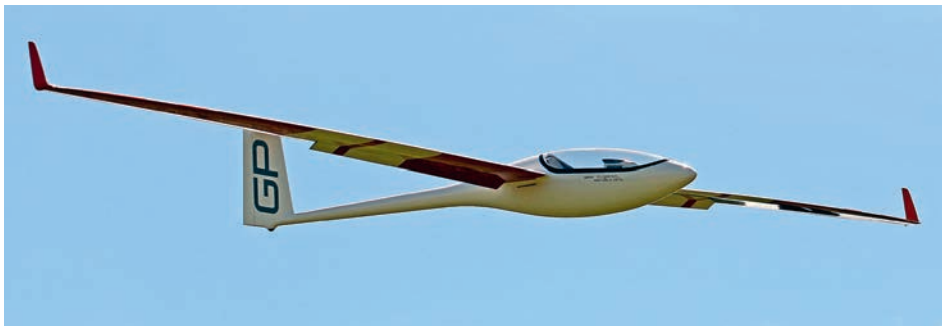
SKY MAIDEN

The wind during the day was stronger than forecast and a tad gusty at times, but I wasn't put off enough to allow the recently finished Slingsby Sky not to endure its slope maiden. The lift was plentiful, even bounteous, so you can imagine my surprise when she suddenly seemed to completely stop moving forward and to sink instead at a prodigious rate of knots. This, of course, produced an instant attack of F.O.L.O. (Fear Of Landing Out). There is a process to this sort of thing, a process developed over years and it goes like this: Trying to breathe with your heart between your teeth plays havoc with concentration, but it doesn't prevent you from hearing the muttering and whispering from the crowd that has materialised behind you, seemingly out of nowhere. Fragments of conversation take place thus: '*He's done for*', '*He's finished*', '*No way out now*', and the inevitable '*It's no good him asking me to fetch it back!*' (Et tu, Motley?)

It was logic more than skill (he said, modestly) that kept me going; after all, it had been blowing a hoolie all day and surely would again soon? In the end, logic won the day and the Sky eventually reached the safety of the hilltop for a much-relieved landing and a pilot's quick lie down.



Not in a happy place: Author's Slingsby Sky causes pilot concern!



Graeme Mahoney's GP15.



John Sanders' Orlik being put through its paces.



"...as a single Petrel floated slowly on high."



An old version of the Schweizer 1-26 at the White Sheet event.

FAR TRAVELLED

Long time White Sheet-er Graeme Mahoney was flying his Vladimir Models GP 15. He informed me that these were now produced under licence using the original Baudis moulds and that all the parts were fully interchangeable with the original examples.

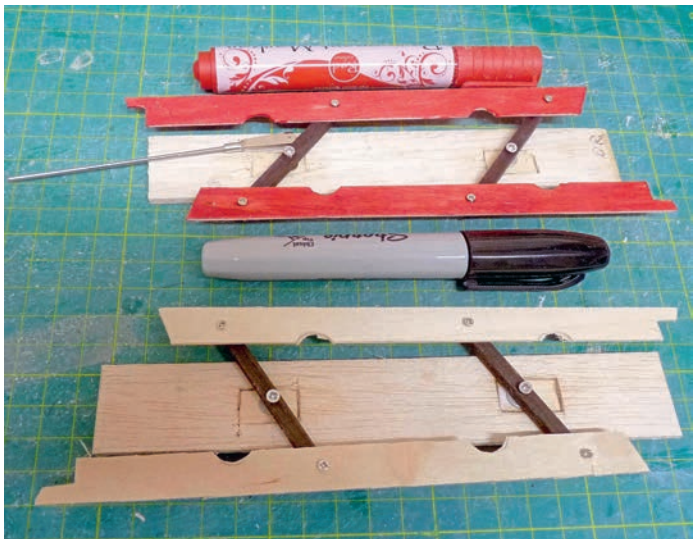
Perhaps the prize for the longest distance travelled should go to John Sanders, who had brought along his Minimoa MO2, a two-seater and his Orlik, the latter of which he was able to put through some aerobatic paces.

WINDING DOWN

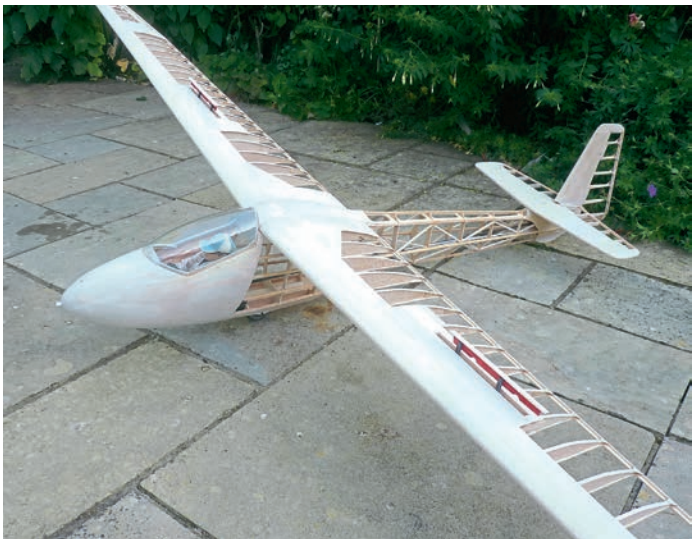
As the event wound down towards its conclusion, the posse lay back gratefully in its various seating arrangements, as a single Petrel floated slowly on high, its translucent wings glowing in the light of the wispy, cloud-flecked sky above. Truly, we concluded, if there was better way to spend a Saturday, then surely it had yet to be invented.

BUSINESS AS USUAL

After a brief period of glider Cold Turkey, old habits reinserted themselves and in no time a 1/5th scale version of the Zugvogel IIIa was



The Zugvogel's pesky airbrakes. Note the red marker pen.



Lightweight airframe, ready for covering.



Three Zugvogels in descending order of size.



Bill Ebdon gives the Zugvogel scale.

rapidly assembling itself on the bench. The two previous versions, one 1/3.5 scale and one around 1/4 scale, had proved themselves to be impeccable performers, so it was a no-brainer to build a version suitable for those who might be well stricken in years.

Whilst pondering on ways that the whole process could be slowed down a bit in order not to push the overcrowding in the hangar, clubmate Trevor Hewson asked innocently if I would be making the full set of top and bottom airbrakes. Well, I know a challenge when I see one and, true enough, this did add an extra week to the build. (I had almost forgotten that the big problem with this style of braking system is not getting them to open, but getting the darn things closed again!)

Having found a full-size example whose colour scheme was to my taste, the filming iron was fired up and before too long the Zug was lined up behind Smallpiece's tug. The maiden was issue free, with lots of lively response from the controls and a celebratory spin and loop to seal the deal.

A keeper, then. Meanwhile, I will try to keep the Cold Turkey in the fridge where it belongs...

ANOTHER PAINT AVOIDANCE SCHEME

One thing I have learnt since ditching the use of paint and going full iron-on film is how useful permanent marker pens can be. From blacking out nose skids and wheel housings to filling in gaps around pin hinges where the film can't reach, it's a heck of a lot simpler that reaching for the rattle can.

It came as some surprise that you can even get white pens, which are ideal for labelling servos and the plugs and sockets on servo extension leads. As you can see from the attached pic, even the red on the airbrakes can be achieved in a fairly quick fashion. Who knew?

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On approach for the maiden landing at CMFC.

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TORNADO DÉJÀ VU

John Stennard recalls his first encounter with a model of the Panavia multi-role jet

Words & Photos: **John Stennard**

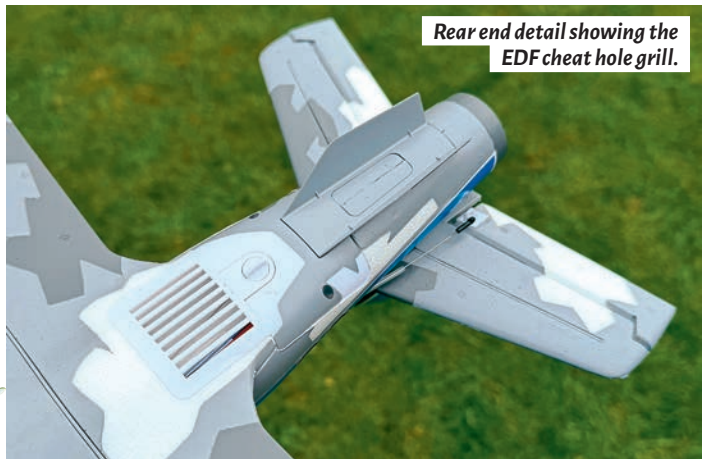
The February issue of RCM&E included another of Tony Nijhuis' EDF model plans in the form of a Tornado. I'm including this photo as some fourteen years ago an ARTF kit was available which included the swing-wing function and used the same colour scheme that Tony used. I usually hand launched it, as shown in the intro photo. I remember it flying well and I enjoyed operating the swing-wing function. I also recall that with the wings back it seemed to disappear into the distance very quickly, the rolls were fast and the turns wide, so some flight planning was essential.

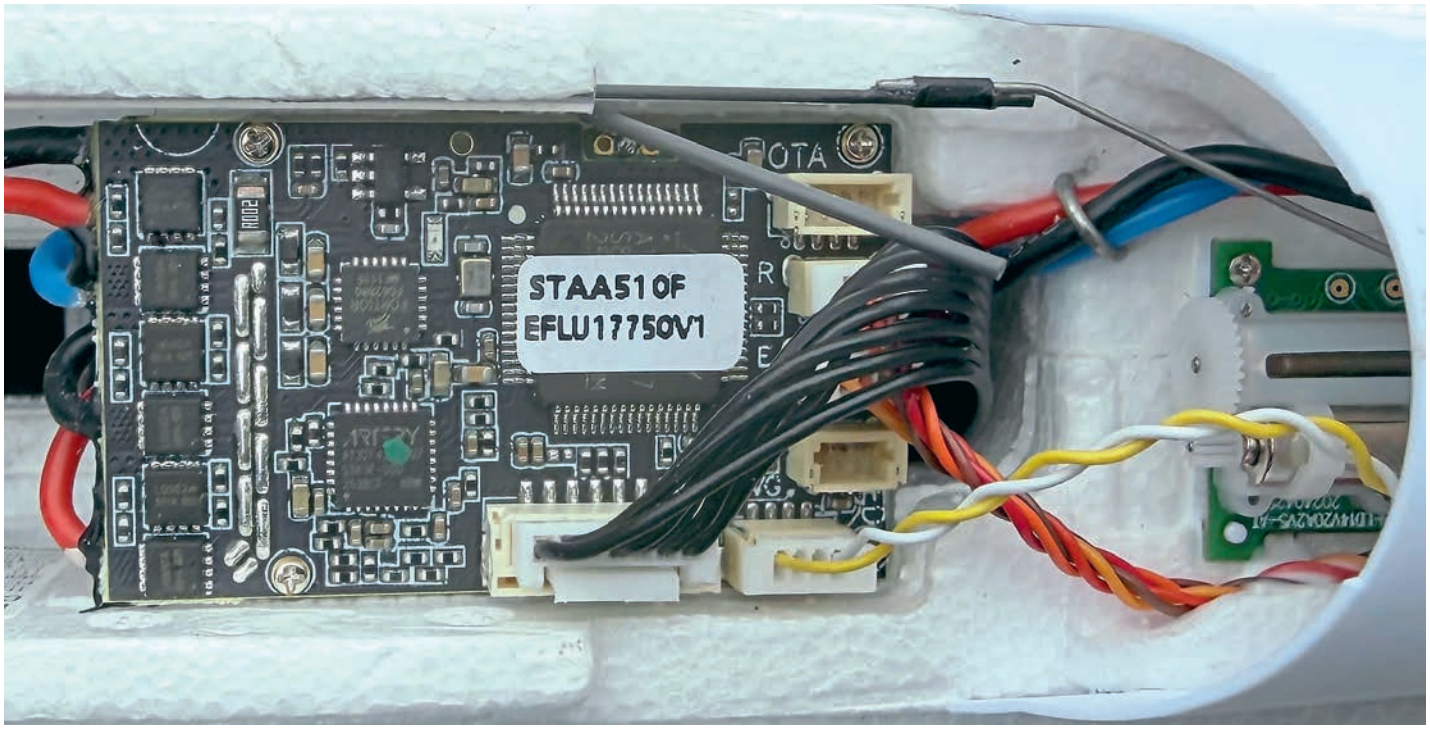
UMX VIPER

I am always attracted to small models and jets and have had really good flying with the Mini-Habu. This model will take off from our grass strip when some of my other larger EDF models cannot pick up enough speed due to the grass length. It is lovely to pilot and so satisfying.




UMX Viper is a handy size.

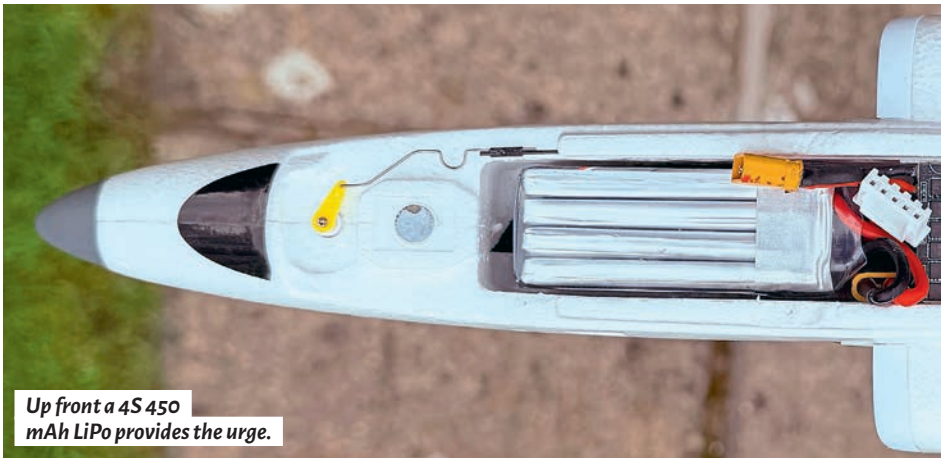

Rear end detail showing the EDF cheat hole grill.



Small agile models like this are only possible thanks to state-of-the-art microelectronics.

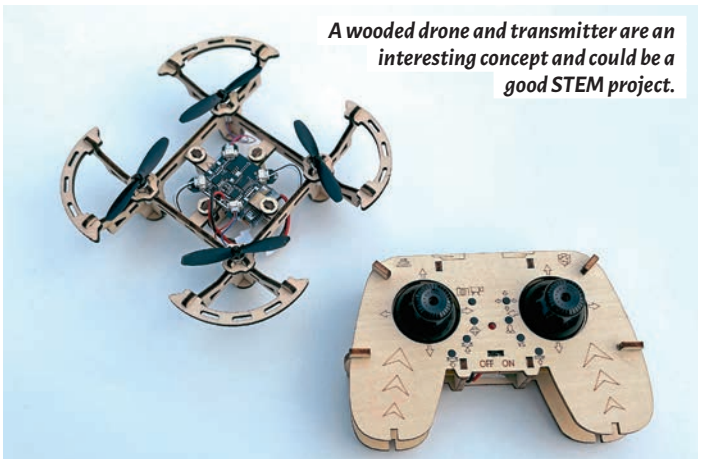
When saw that a mini size of the Viper EDF was available I rushed for my wallet. I've flown the larger Vipers and enjoyed the experience, so a mini version was just up my street. The UMX Viper 30 mm EDF, as it is called, is a super little model. It has a wingspan of just 530 mm and a flying weight of 185 g using a 4S 450 mAh LiPo. It even has an undercarriage, although our grass will be too long for take-offs. I may fit it to save damage to the belly, but I have sometimes found that small wheel undercarriages do cause a model to flip over on landing. Oh, for a nice stretch of tarmac!

So, how does it fly and handle? How about - fantastic! I was slightly worried about the solo hand launch as you can't hold the model from underneath near the C of G. However, this went better than expected as the model has loads of power, but I think an underhand launch is a better option. Flying her first on half rates, to get the feel of the flight characteristics, quickly showed me that the UMX Viper is rock solid and easy to pilot. She has an impressive vertical performance and

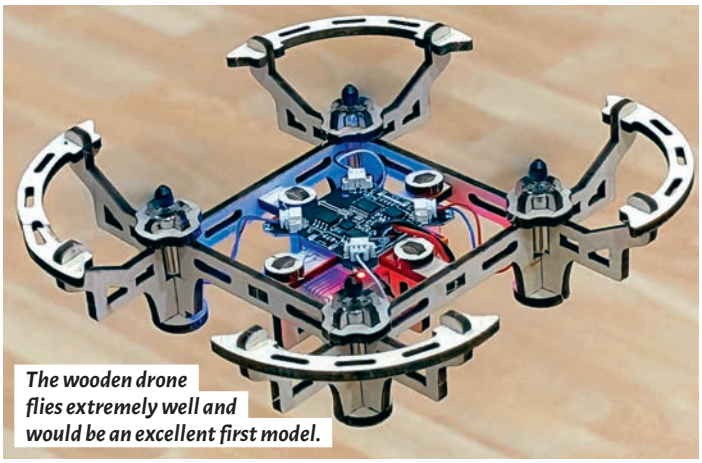

Up front a 4S 450 mAh LiPo provides the urge.

top speed, so loops, rolls and inverted flight are easy to fly. But she is small, so orientation could be a problem if you fly further away than you intended. The head-on profile is very small so 100% concentration is required. On full rates manoeuvres were tighter but the model was still easy to handle. The UMX Viper glides safely and is easy to land.

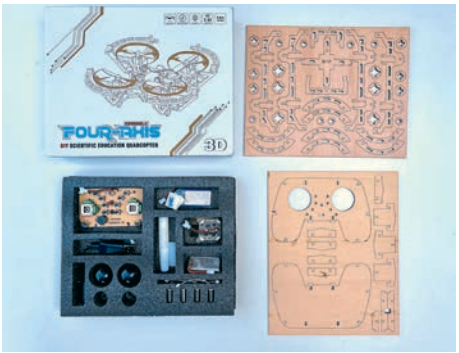
If you are not very familiar with small, fast models make sure you build up your airtime and head gradually towards full speed flying. UMX Viper is great fun in a small package!



A wooded drone and transmitter are an interesting concept and could be a good STEM project.



The wooden drone flies extremely well and would be an excellent first model.



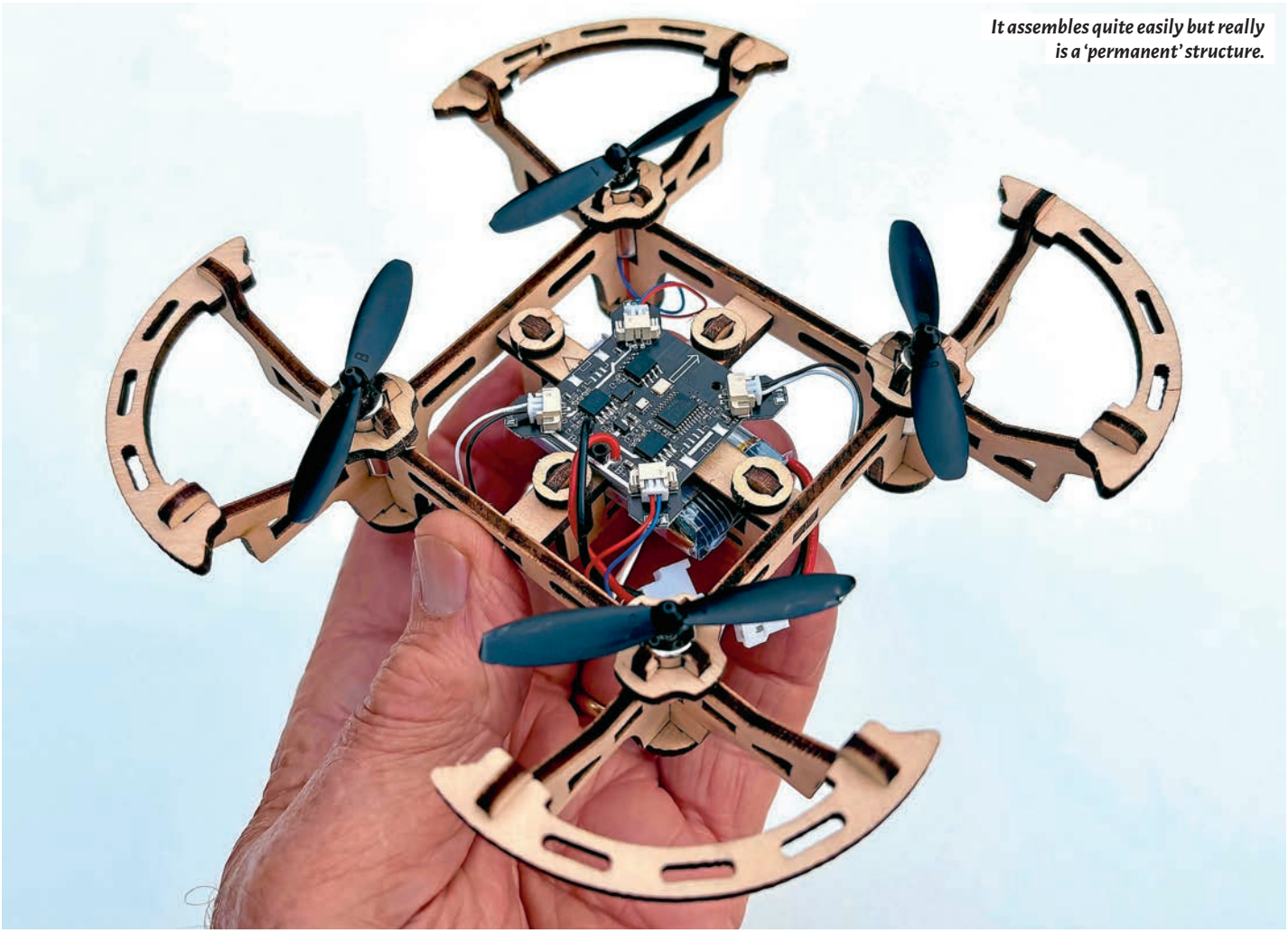
Nicely presented wooden drone kit.

WOODEN DIY QUAD

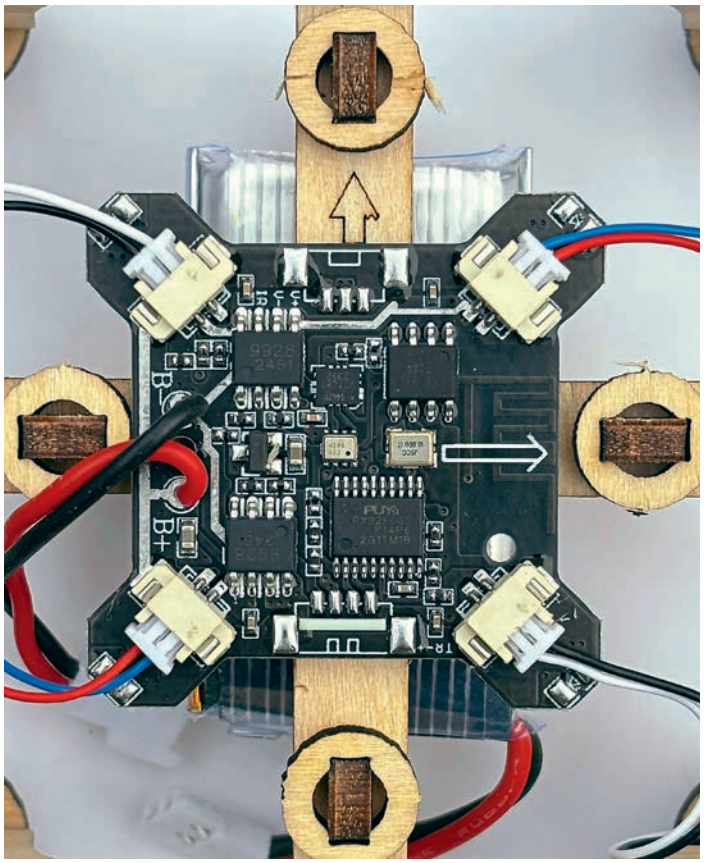
There's a question mark about this idea, but it definitely exists. I know because I have one! Listed as a 'Four-Axis DIY Scientific Education Quadcopter', the same version, and similar ones, are available from several distant online sources at varying prices.

The kit consists of laser cut ply parts for the quad chassis and transmitter, motors, props, flight controller, a LiPo for the Tx and for the quad, and a USB charging lead. My initial idea was to see if it would be practical to assemble and fly the quad, then disassemble and reassemble it. My thoughts were for possible re-use by the youth groups we work with. However, the accurately finished laser cut parts are a very tight fit and they use locking rings for extra security, so this idea is a no-go. Thoughtfully there are spare wooden parts and glue is supplied, but I only used it on some parts of the Tx assembly.

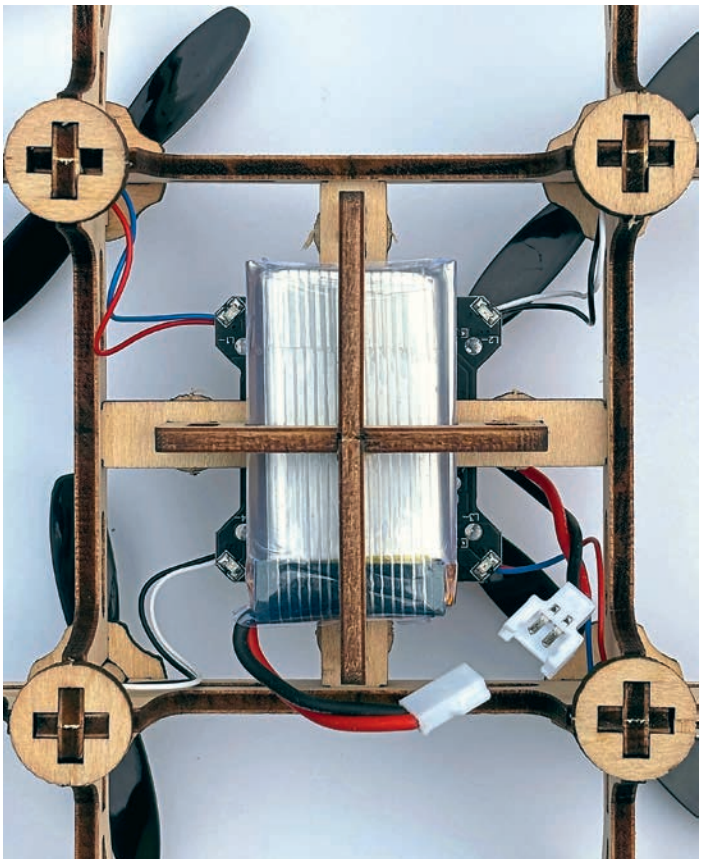
While the instruction manual is quite good it shows a different flight board than the one included. I thought that I had correctly aligned the flight board, as per the arrows, but quickly found this was incorrect on the first test flight!



It assembles quite easily but really is a 'permanent' structure.



Care must be taken with orientation of the circuit board, etc.



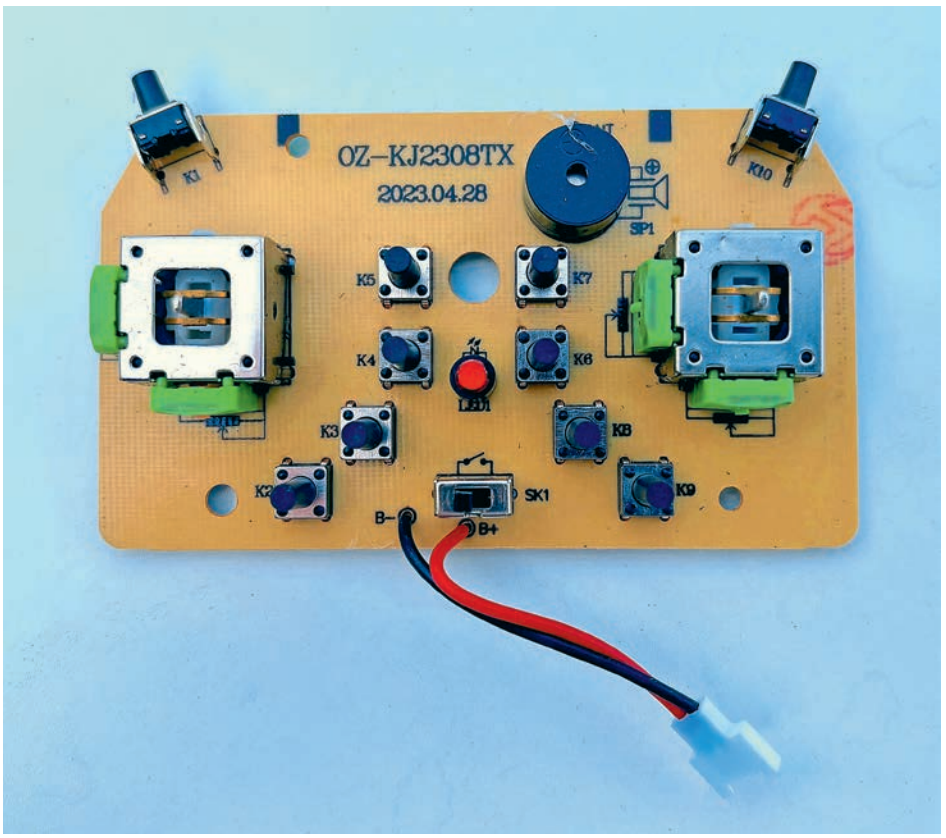
LiPos are provide for both the drone and Tx.

"This wooden quad may use standard electronic parts but it's a clever and different concept"

There is a switch on the Tx for a video/camera output and the illustrated flight board has a socket. My flight board did not have this but has two sets of solder tags, but as I do not want to fit a camera this is no problem.

Once the flight board was correctly aligned the quad flew beautifully. It's extremely stable and all the basic controls work perfectly. It has three speed settings, one button take-off and landing, a flip function, an emergency landing (fall out of the sky!) button, plus a few others. It has very visible blue and red LEDs indicating the nose and tail. The sticks are exceptionally smooth and comfortable for such a low-price quad. The trim process is unusual as a button is pressed and the sticks are used for the trimming action. This quad does not need any binding/arming process but is ready to fly as soon as the transmitter is switched on. With a diameter of 170 mm and a flying weight of 54 g it's not a micro quad but it flies so smoothly one would be happy flying it in a small space.

Interestingly, some other manufacturers of micro quads of the conventional type are offering them as kits. Basically, they are a set of unassembled parts for the same quad you can buy assembled. Oddly, the unassembled ones usually cost more!

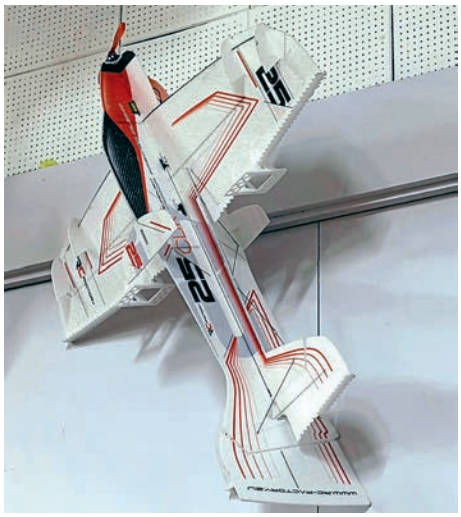


Tx circuit board is pre-assembled.

This wooden quad may use standard electronic parts but it's a clever and different concept and more appealing than just a standard quad in bits. It would make a good building project for a young enthusiast - and even their helper!



Your author was too busy taking pictures when his Clik was released from this hang up by a clubmate's model. The uncontrolled model dropped nose down onto the hard floor below!



Another session, another hang-up! This time easily retrieved using a chair and a pole.

HANGING AROUND

The dreaded mock exam season forces us into a smaller school hall flying space. The sole advantage is that it has a stage where we can park models and model boxes. Not only is it smaller but it has the full array of stage lights and ceiling fans.

I managed, unintentionally, to land my Clik on top of a stationary ceiling fan. If the model motor was run the fan rotated, which was quite entertaining. Now came the problem of dislodging the model and fellow flier, James set about doing this with his Synergy. Unfortunately, as I was doubtful that we could do it this way, I was busy filming the attempt and not manning my Tx. James managed to dislodge my Clik which, with no pilot on board, took the shortest route to terra very firma!

Some damage to the foam around the nose was repaired back in the hangar using a brilliant material I had recently purchased. This is CF sheet just 0.2 mm thick and I obtained it from Ali. I used Gorilla Contact Adhesive but other glues would also be suitable. I have now used this material a number of times and it's proved to be extremely useful.

Honestly, I don't make a habit of hang ups but I also managed to get the undercarriage of the Clik caught on a ledge in the same venue. This time a chair and a pole were sufficient.

A different snarl up occurred at our regular venue when I was following a Synergy which had two wingtip paper streamers. Somehow my prop caught both. That sounds so unlikely but it's shown in a nearby photo! While the Synergy did not have enough power to aerotow my Clik, it towed it along in taxi mode. All very entertaining and something you don't see when outdoor flying. In fact, there is always a 'fun factor' at our indoor sessions where the unexpected often happens!

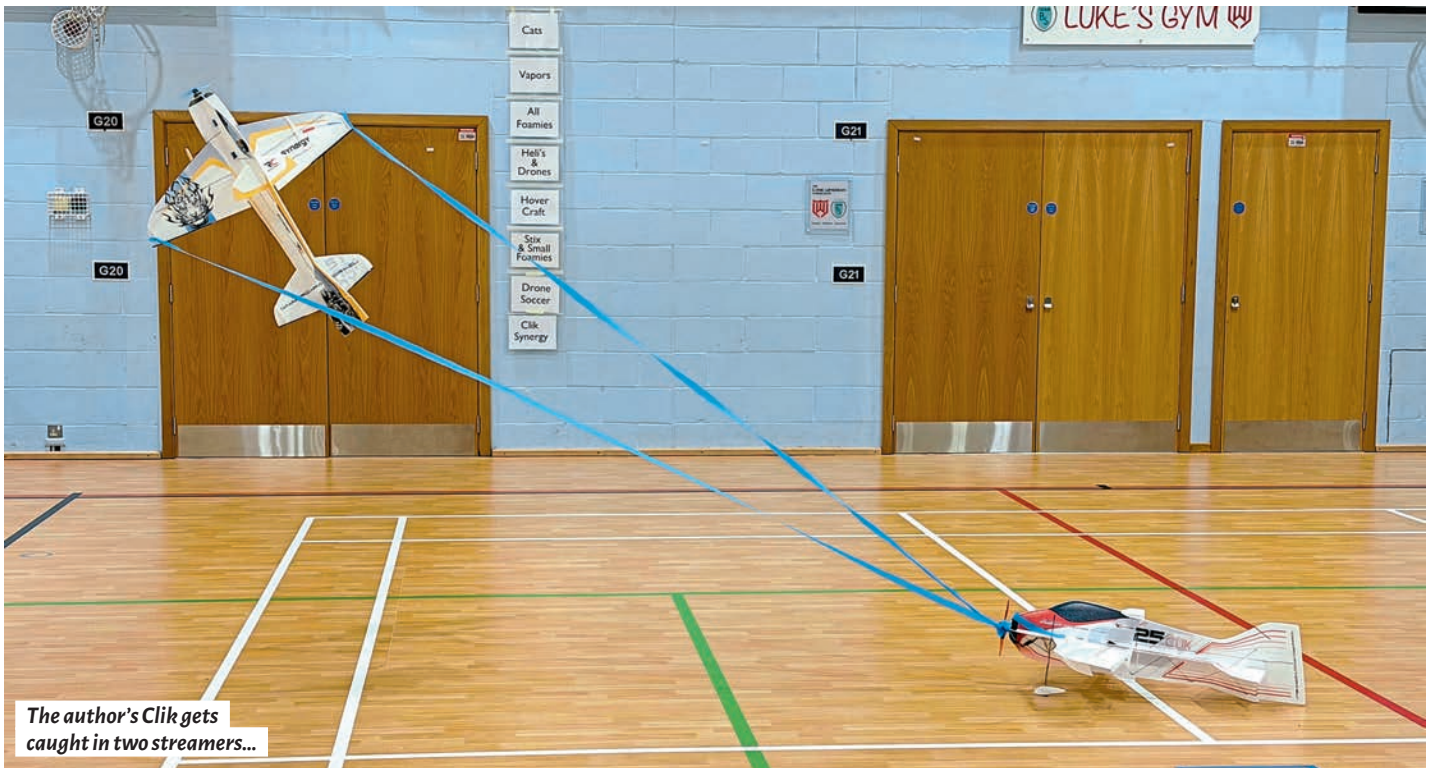
> "…the rocket flies itself, avoiding any obstacles it meets"

Occasionally we indulge in some wall hugging hovering with our Clik/Synergy type FP3 models. We now have four models of this type flying simultaneously and have established a slot in the schedule. Although light weight and slow these models are large enough to sometimes seem to fill the flying space. Another hazard is that one naturally tends to be very focused on one's own model, but their extreme aerobatic abilities usually mean that collisions can be avoided

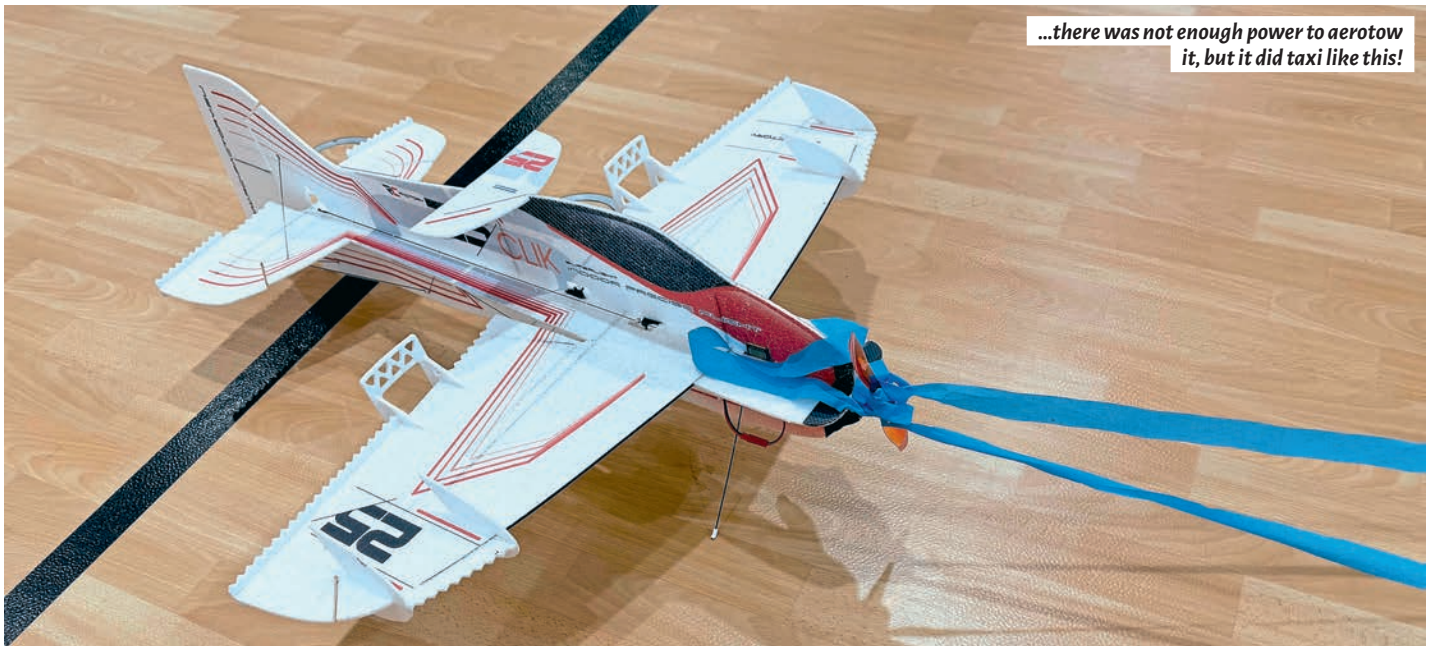
CHINESE ROCKET DRONE

Yes, it's true. Well, at least in model form a drone powered rocket exists! While it may seem an unlikely combination it is very impressive and flies well. At our Aerospace Bristol museum outreach days, we combine information about our hobby through a static display and demonstrations. The audience is often a combination of parents/grandparents and offspring, so while it's important to show the more traditional aspect of model building and flying so is the entertainment factor. Therefore, in addition to 'standard' quads our display will also include six or more micro quads with different flashing LEDs being flown with the hall lights out.

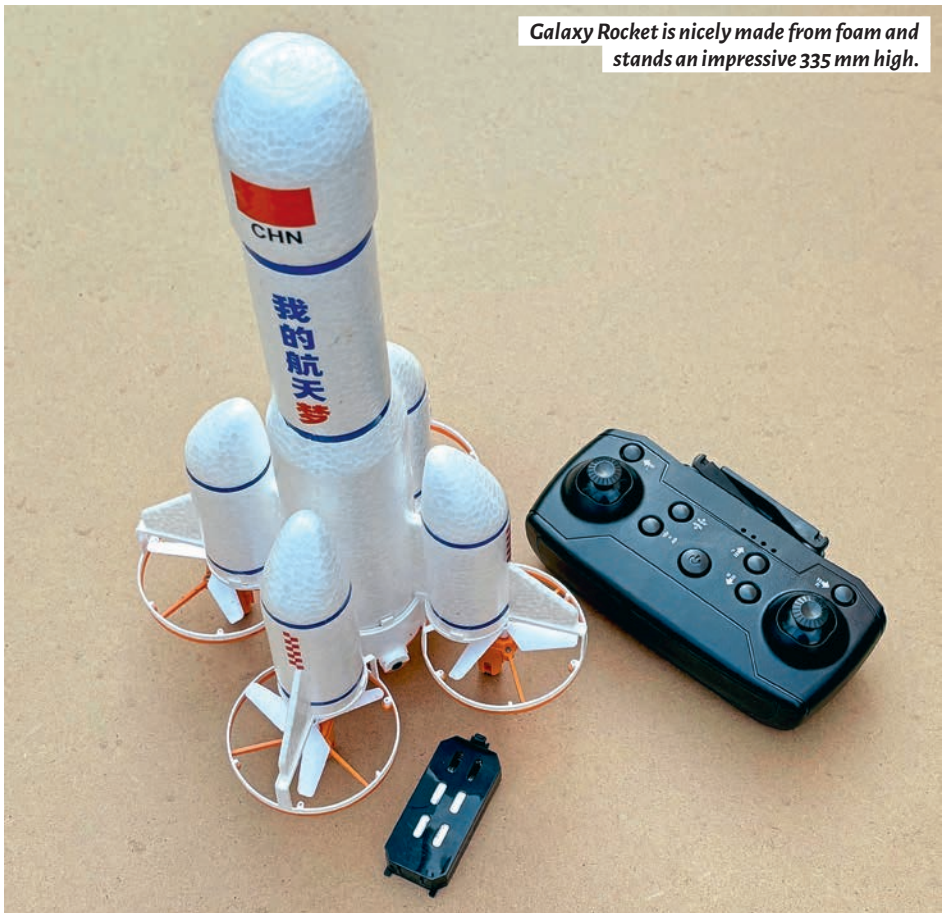
I am always looking for something a bit different and thought the 'Galaxy Rocket Four Axis Aircraft', to give it its correct title, could add a new space dimension to our show. The rocket is nicely made from foam and stands an impressive 335 mm high, and, with the flight



The author's Clik gets caught in two streamers...



...there was not enough power to aerotow it, but it did taxi like this!



Galaxy Rocket is nicely made from foam and stands an impressive 335 mm high.

LiPo, it weighs 87 g. The rocket and propulsion unit are well designed and nicely made.

It's clear straight away that the quad part of the rocket, with a diameter of 190 mm, is a high-power device using 8 mm coreless motors driving 3-bladed props. A detachable, hard case 1S LiPo shows 800 mA and using the supplied charger a 50-minute charge time is listed.

The transmitter is surprisingly complex as the rocket has numerous functional features in addition to the usual speed, headless, emergency stop, etc. Amazingly, it will 'flip', obstacle avoidance can be used and there is a 'infrared induced jetting model' mode. Here the rocket flies itself, avoiding any obstacles it meets - a bit of sci-fi on earth, I think. It does exactly what it says on the box and is easy to fly. The 'flip' is quite dramatic! Landing it back successfully onto it's 'launch pad' is always an interesting experience. At least it is not a pad floating in the sea!

This model is always a big hit with our youthful audiences.



Landing back onto the 'launch pad' is always an interesting experience. At least it's not floating in the sea!

INDOORS NO-CAL

During this year's indoor season, I've made several R/C No-Cal size models. I've done some experimenting and varied the construction materials. I have used traditional balsa and tissue, balsa and Depron, and all Depron. I have been very pleased with the results and my latest, an all Depron Short Scion twin, has been particularly successful. I'll write more about these models later but for now leave you with an interesting fact...

I've also made a R/C No-Cal model of the American WWII Radioplane OQ-2 target drone. There was a young woman who worked on the production line who then went on to be very famous in a very different type of employment. I'll leave you guessing...! ■

HANGAR 9 VIPER 100N TURBINE

FROM £1649.99 I www.logicrc.com



Smooth handling, a wide speed range and incredible aerobatic performance make Hangar 9's Viper 100N Turbine Jet ARF the perfect choice for both seasoned jet pilots and experienced hands moving into turbine-powered models. This precision-built 2098 mm span design combines lightweight, carbon-reinforced balsa and ply construction, a complete hardware package, and a variety scale of details to provide a premium jet experience. The airframe arrives mostly assembled, ready for the owner's choice of turbine (100N class turbine engine - KingTech K-102G4+ recommended) and electronics. Supplied hardware includes a fuel tank, dual-wall stainless steel tailpipe and assembly hardware, whilst large top hatches offer easy access to the turbine, fuel system, and electronics. The electric retract set (available separately but included with the £1999.99 CR version) features aluminium trailing-link struts and electric brakes, plus a retract controller with adjustable brake strength. Optional-use gear doors with mounting hardware and linkages are also included, as are navigation and landing lights. The two-piece wing, horizontal stabilisers, vertical stabiliser and ventral fins can be easily removed for safe storage and transport in optional padded wing/stab and fuselage bags (sold separately).

HOBBYZONE AEROSCOUT S2 1.1m

£239.99 (BNF) £299.99 (ARTF) I www.logicrc.com



Built from extremely durable EPO and equipped with SAFE technology that helps prevent over-control, loss of orientation and provides return to steady flight at the push of a button, Hobbyzone's updated version of its Aeroscout makes an ideal trainer. Switchable Modes – from Beginner through Intermediate and Expert – set baselines for the model's response to control inputs, opening up performance levels as the pilot's experience grows. Oversized tyres and a steerable nosewheel make for easy operation from a variety of surfaces, and a set of floats is available separately if you want to fly from water. Available in BNF and ARTF versions, both come with pre-installed brushless motor, 30A ESC, Spektrum AR631+ receiver and 4 x sub-micro servos. The RTF also includes a Spektrum DXS 2.4GHz DSMX transmitter and RealFlight Trainer Edition RC flight sim software. Both versions require a 3S 1300 – 2200 mAh flight battery and charger.

VQ MODELS CAC WIRRAWAY

£269.95 I www.macgregor.co.uk



Manufactured in Australia by the Commonwealth Aircraft Corporation (CAC) between 1939 and 1946, the CAC Wirraway was a training and general-purpose military aircraft that the also served with Royal Australian Air Force (RAAF) during WWII in a light bomber/ground attack capacity. Hot off the VQ Models production line, this 65" span ARTF is sure to draw a few 'what's that?' enquiries from the flightline. Suitable for .55 two-stroke, .62 four-stroke,10 cc petrol or equivalent electric power, the balsa and ply airframe is finished in weathered covering, adding an additional air of realism, with pre-hinged and installed control surfaces helping reduce the build time. The kit includes a fibreglass cowling, 2 x painted pilots, engine mounts, fuel tank, decals and hardware. A fixed U/C is also supplied, with electric retracts available separately. 7-channel R/C and eight servos are required.

MOLEWING-e

£84 I www.4-max.co.uk



Robust, affordable, easy to transport and great fun to fly, the 47" span Molewing-e from Flying Moleman RC Models ticks all the boxes when it comes to R/C flying fun. Designed to fill the gap left by popular models such as the Zagi and Yeti, the Molewing-e is designed for both newcomers to flying wings and experienced pilots looking for an uncomplicated model that can take some punishment. The model's foam construction incorporates a 10 mm × 500 mm carbon fibre spar, with fibre-reinforced tape adding strength and durability, resulting in an airframe that's capable of withstanding spirited flying and less-than-perfect belly landings.

Once equipped with a suitable power system (also available from 4-Max) the Molewing-e offers strong electric performance, including impressive vertical capability. Expect around 6 - 8 minutes of very spirited flight time from the recommended 3S 2200mAh LiPo.

Aviation Classics Monthly









Aviation Classics Monthly magazine

Aviation Classics Monthly celebrates the legendary aircraft that ruled the skies from World War II to the end of the Cold War. Every issue dives into iconic machines—from Spitfires, B-17s and Zeros to jet-age giants like the F-86 Sabre, MiG-21 and B-52. Expect meticulously researched features, rare archival photography and specially commissioned artwork, bringing the engineering, missions and people behind these aircraft vividly to life. From combat accounts and development stories to restorations and preserved airframes, it's aviation history told with authority and style. Plus: every 88-page issue includes a 6-page gatefold cover with poster artwork worthy of framing.

Subscribe today!

shop.kelsey.co.uk/aviation-classics-monthly



PIXIE-LATION

Dave Goodenough kicks off with a twice size KK favourite and then sets his recently acquired 3D printer going to print his first ever plastic plane

Words & Photos: **Dave Goodenough**

When I mooted the use of tissue-over-Doculam covering for my re-covering of the Thermic 100 some months ago, then found it worked very well, I was unsure what the response would be to the new-to-me process. I should have known better as I was contacted by long-time modeller, Tim Goodwin who included images of his 2.5 times enlarged Keil Kraft 'Pixie'. I built an original-size version of the rubber-powered model back when I was still in transition from short trousers to long and, despite my lack of experience back then, I found the relatively complex build resulted in a pretty model that flew well. In keeping with the 'covered in tissue for its look' ethic, this larger R/C version that Tim built in 2024 used Doculam/tissue to great effect. If editor Kev slips a photo or two into the article, you'll see not only what a lovely model the 'Big Pixie' is, but just how nice it turned out under Tim's ministrations.



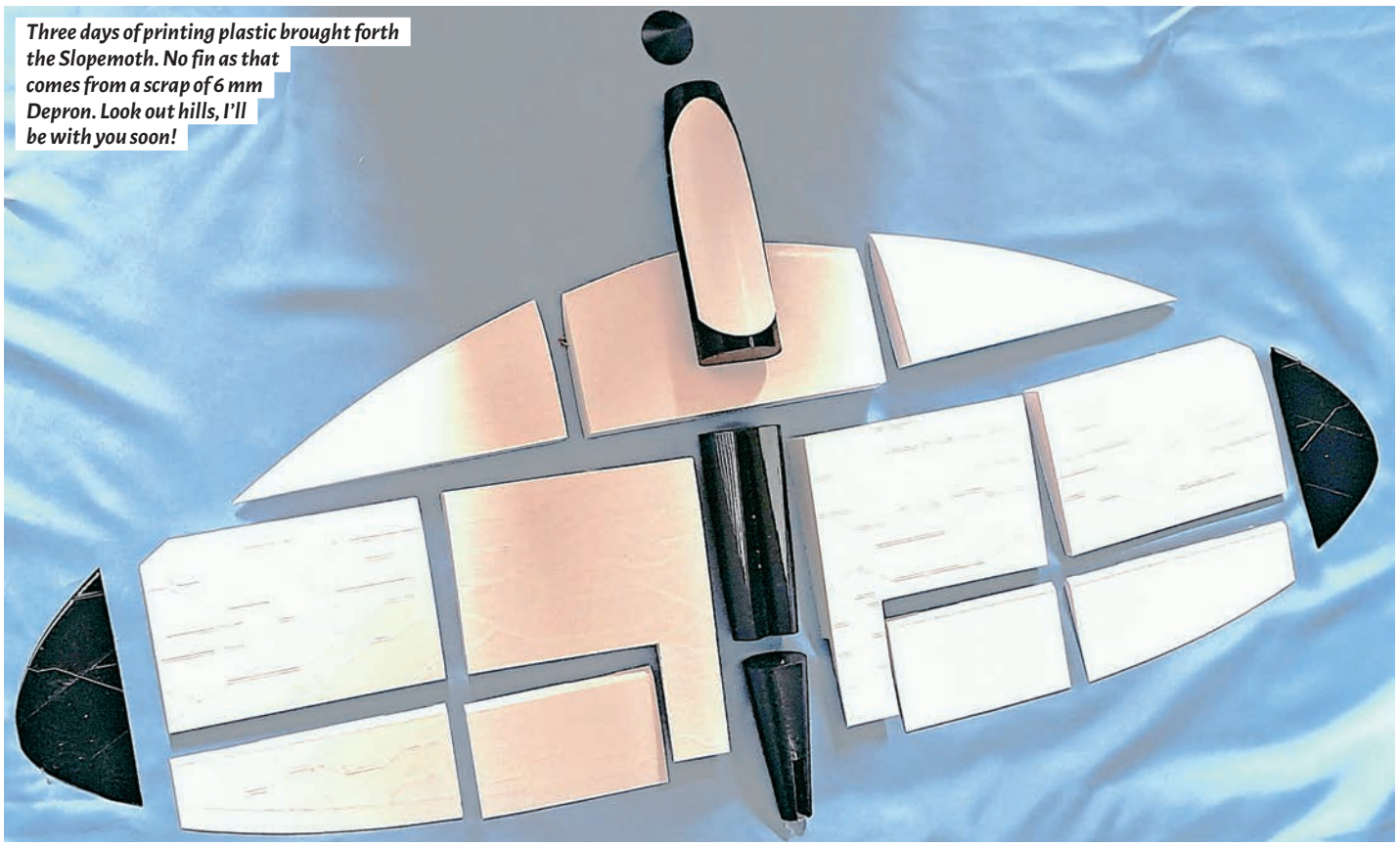
Tim Goodwin's 'Bix Pixie' is a lovely traditional build and looks right with its Carnival 'Tissue-over-Doculam' covering.



Although Carnival Tissue isn't model specific or water safe it can be cellulose doped over wood or Doculam successfully. A bonus is that it's very cheap!



Cream Carnival Tissue doped using two coats' of 50/50 dope/thinners over lite-ply. It's a lovely scale-ish 'linen' colour and easy to apply.



Three days of printing plastic brought forth the Slopemoth. No fin as that comes from a scrap of 6 mm Depron. Look out hills, I'll be with you soon!

The twist in this short tale is that Tim sourced his tissue from 'Carnival Papers', not a supplier I'd ever heard of or would have even imagined using. Apparently, some of their product is tagged as having wet strength, a priority for us model builders when doping with either cellulose or acrylic liquids; be aware that most of these tissues are NOT water safe.

Tim admitted that using dope - I assume cellulose - didn't stick to the Doculam well. I didn't have that problem with acrylic varnish (water based) on Eze-Tissue and mentioned it to him. I believe he might try it on a future model.

Taking a note out of his 'build book', I bought and intend to try some of the tissue from Carnival Papers. Their coloured tissue sheets are listed at 50 cm x 70 cm (20 x 27 inches), a handy size for our modelling needs. Weight is around 17 gsm which puts it in the realm of 'medium' when you consider 12.5 gsm Eze-Tissue as relatively light. The final clincher for me was reading the reviews, where a modeller reported that it's without wax coating and has consistent colouring. 10 sheets are between £1.80 and £1.99, plus £3.49 postage - a bargain, even if I must pass some of it onto my beloved for present packaging! I ordered two single-colour packs and one multi-colour, 30 sheets in all, for a smidge over £9, giving me enough tissue to cover many a model into my dotage.

WHIZZY STUFF

After my admission in the last article that I'd become the proud (?) owner of a 3D printer, I've been becoming more comfortable with the process of using it and have toured around the Thingiverse and other sites offering free downloads, all hobby related. I also mentioned that I'd found a small model to print and later fly.

Slopemoth is a little 700 mm (28") elliptical flying wing that caught my eye. After a couple of failed attempts to print parts properly (one was the wrong plastic filament type, the other a wrong colour selection) I began to produce the many parts that make up this pretty



The man, the models, the workshop! Mate Andy in his happy place. I don't know where the normally ever-present smile went!



Andy's PSS Fw 190 nears completion. I'll catch it later when it cavorts o'er the slopes.ever-present smile went!

little model. The print head has been all of a tizzy, whizzing around and exuding happily, whilst fascinating me and confusing Bob, our girl cat.

For me, it will never supplant wood as my building material of choice but like the steady increase of extruded/pultruded carbon use in models, 3D printing is here to stay and is finding its own niche.

It'll be a while before Slopemoth takes to the air and being a bit heavier than a traditionally built model it's likely to need stronger winds to support it. Whether it's a fine flier or buries itself in the hillside 'with prejudice', I'll likely pen the details here and add images to suit.

HANDY ANDY

You've come across Andy here before. He's the chap that donated indoor model gear to me, to pass on to the youngsters of a local indoor flying group. He also gave me his gifted-to-him airframe of the curvaceous Zaic 'Thermic 100' that I recently re-covered in Doculam and tissue.

The easy-going butt of many a mickey-take up on the local slopes, Andy is one of those chaps that loves this hobby and anything to do with it, even peripheral stuff. As I tap this out, he was renovating a model for PSS, a Focke Wulf 190 'Butcher Bird', or possibly the Ta 152 variant, and mentioned that he would suffer the chore of whittling a spinner for the nose or dust down his Myford lathe to turn the thing from solid. I offered to find a 3D programme out there on t'interweb and print him some to faff and cut about to suit. But that then led to a curious speciality...

Some of you out there with a preference for scale fighters, jets and gliders will already know of 'Tailored Pilots', those superb quality figures to various scales that dress the very best of model cockpits. Well, Andy is the man they call when they need extra help to detail these figures and add 'life' to their looks. He's also been the builder of many dioramas. "*My models from another hobby!*", he modestly mentions. I've added some photos to show what he's capable of. So, when you next hit the flying field and have a little humorous dig at a flying mate, be mindful that he might just have some serious and hidden skills that could benefit you and your aerial playthings!



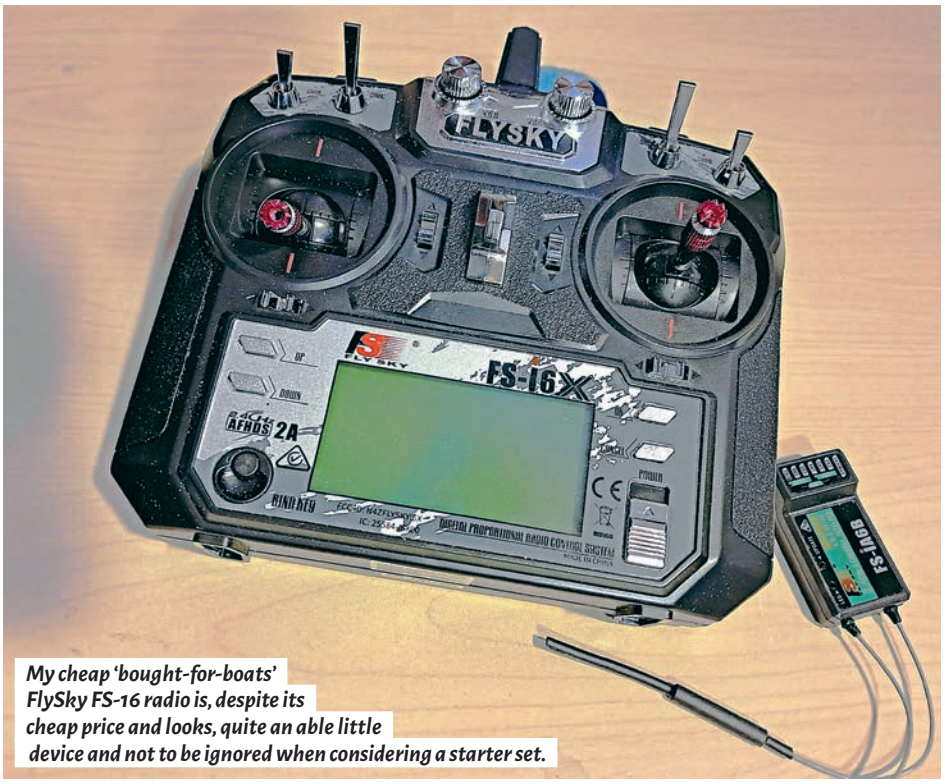
Artistry or what? Andy Gough has mastered detail painting and shading to realistic levels.



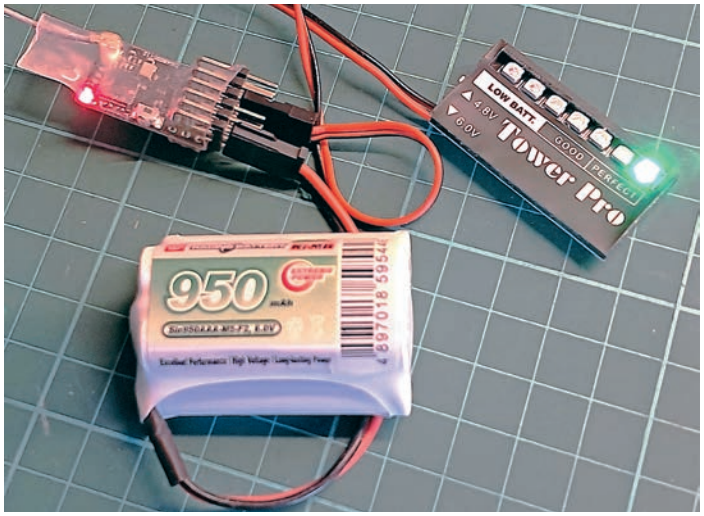
The other side of Andy's modelling skills covers dioramas and more. Superb workmanship.



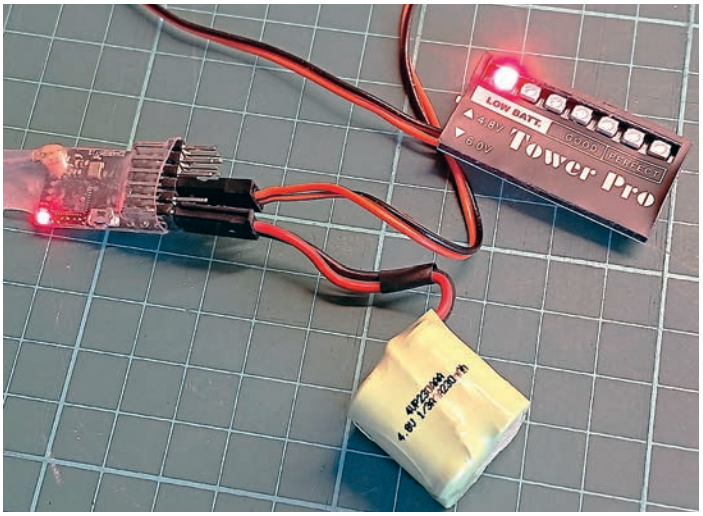
Found 'in the middle aisle', this 1/6 scale Harry Potter was due to sit in a yet-to-be-built scale plane. But then I found a programme for this 3D dinghy!



My cheap 'bought-for-boats' FlySky FS-16 radio is, despite its cheap price and looks, quite an able little device and not to be ignored when considering a starter set.



My 'power' club now demands battery level indicators be fitted. I'm safe with this 6V 'hump' pack.



Left uncharged for many a month this 1/3 AAA battery is totally unsafe for flight but remains rechargeable.

OPTIMISM

I sheepishly admitted a while back that I sometimes venture unto the dark and wet side of modelling - boats. After finding a 1/6 scale figure of Harry Potter on display 'in the middle aisle' of a supermarket and not having a spare 'Nimbus 2000' broomstick available, I looked around for something practical to match him to. A 3D printable 'Optimist' 1/6 scale dinghy, with a ready-made sail surprisingly and readily available, came under my purview and off went the plastic melting and manipulating machine.

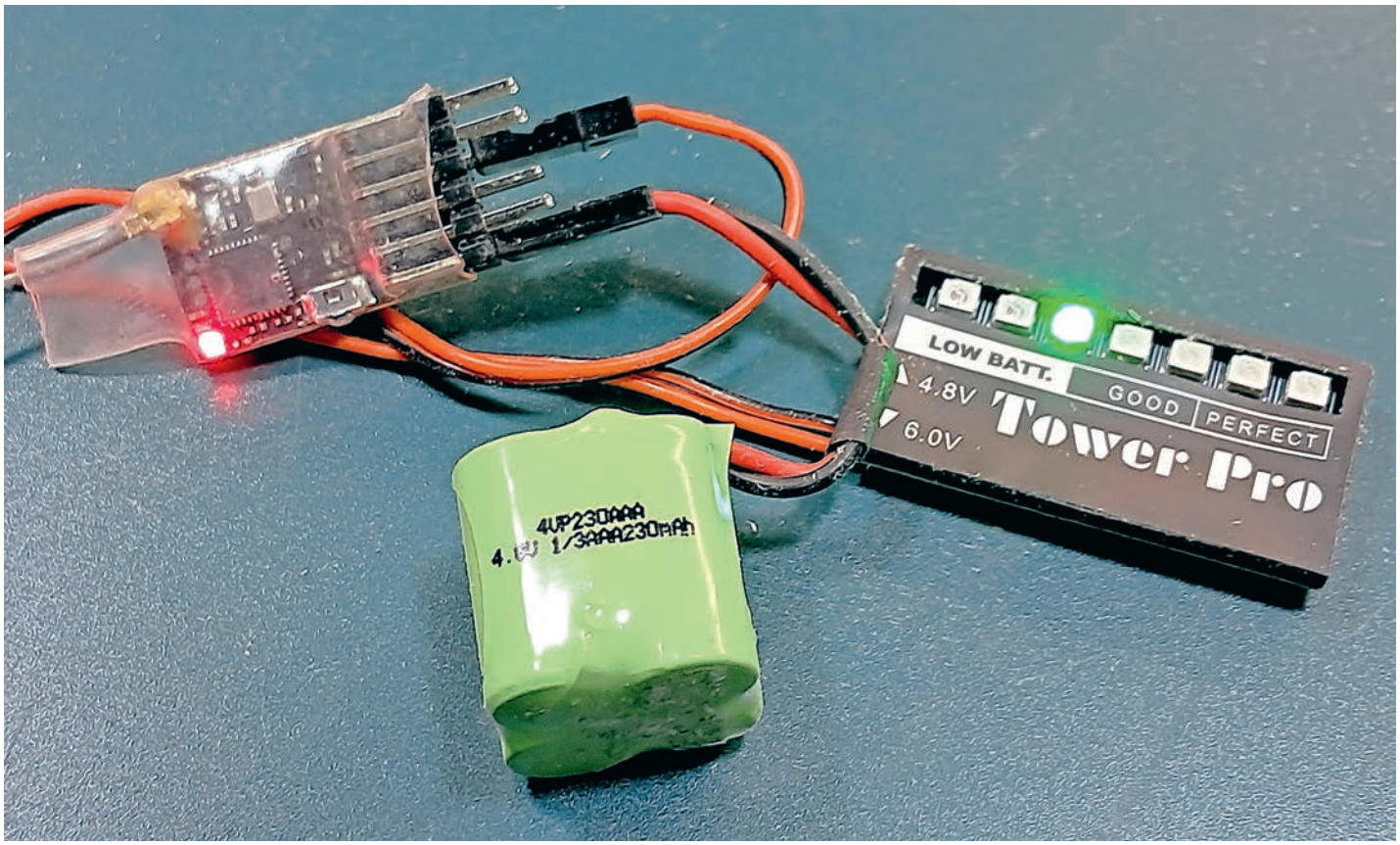
Only having black filament available it was obvious to my simple and fevered mind that the little puddle plaything had to have the name 'Pearl' and show the island of registration as Tortuga. Film buffs out there will be no doubt groaning and doubting my sanity, but I care not; my whimsy popped out for an airing and I avoided arrest, although the other sailors at the boating lake shuffled off sideways to avoid me! Harry waved his wand and a 'spell' of flotation ensued. All was well in the Caribbean... Okay, the Pavillion Gardens lake in England's highest market town.

One has a vivid (demented?) imagination. Perhaps it's the tablets...

WHAT PRICE TRANSMISSION?

Having no spare channels in either of my current transmitters and needing a few to cover the manipulation of my waterborne devices, I looked askance at the other rudder wigglers at the lake. Several were using the FlySky FS-i6 'basic' radio with FS-iA6B receivers. Further investigation told me that the 'cheap' equipment had a great reputation for both surface and aerial control. In fact, the stated operational range is 'between 500 and 1500 metres'. Available at amazingly low prices if you shop around, I bought a Tx/Rx set nearly a year ago when I found it advertised at just £50, with extra receivers at only £12 or thereabouts. A big surprise was that the Tx has a 20-model memory. Only originally needed for two or three of its available channels, I was a happy chappie when sorting out my watercraft.

But then I looked further into the abilities of this 'simple' transmitter, finding that it's far from basic. For a start, the Tx and Rx 'talk' to each other, with the tranny indicating the Rx battery state of the model you're controlling - very useful. Printing out the operating manual I found online there is as much going on inside this little transmitter that most 'basic' sets at a few times the price manage to offer. True, it looks a bit 'low rent' and plasticky,



Don't be tempted! Never mind the green LED, another flight would take this NiMH into dangerous territory.



The Balsa Cabin Fantasia kit was full of super quality wood, all in perfect order after some 40 plus years.



Us older modellers had to put up with 'die crushed' parts in many of our model kits. You have it easier these days with laser and router cut parts.

but that's just cosmetics; what goes on inside is where the action resides. Programming is a bit quirky, but by no means difficult once the logic of the system is understood.

I don't have space to do even a mini-review, but I will continue to explore the device and its abilities by using it to control aircraft models planned for near-future building.

From my minimal experiences thus far I've no doubt that this radio could comfortably take a beginner from a first model through to 'proper' multi-channel/multi-model flight and not break the bank whilst doing it.

SAFE, NOT SORRY

The 'power' club I fly with introduced a new model requirement at the last AGM. All models are now to be fitted with a battery voltage monitor. Not attending that particular meeting through illness, I was at first surprised and then a bit miffed. Was this more meddling with my playtime freedom? And then sense prevailed, causing the memory bank to kick in.

Back in Brittany, I had an English mate that I taught to fly. We'll call him Melvin. His care of anything to do with a transmitter and receiver was at best cursory, despite my regular reminder to, *"Put the batteries on charge as soon as you get home!"*

On one occasion he was flying his Calmato trainer when he hollered, *"It's not answering the controls!"* Stuck in a slight left turn in virtually still air, it droned around in wide circuits before the motor eventually cut through lack of fuel and it disappeared behind a copse. Out went the search party, discovering the damned thing totally undamaged in tall grass. Mel of the golden orbs had got lucky again. Needless to say, the battery was flatter than a motorway hedgehog!

He 'dismantled' a brand new 2.8 m foamie motor glider in a similar incident. The model





Fantasia wing is a totally traditional structure and simple to build. The smaller two-metre Sonata should be just as simple.



Boxy front fuselage of the Fantasia has lots of room for the avionics. All cheap stuff. A bare £45 for all the bits, with just the battery to add.

had been flying well when it suddenly began to cavort without sensible control, before performing a vertical 'nil points for style' arrival into the centre of the paved runway. Nothing of the model remained salvageable. The battery? Well, you already know, don't you. It was bereft of any adequate voltage.

So, what's a battery monitor? At a mere 4 g and just 19 x 38 mm (0.75 x1.5 inches) and 5 mm thick, the device I use can be stuck, using a self-adhesive pad, virtually anywhere that the 300 mm fly-lead will allow. Plugged into a spare Rx channel or a Y-lead it gives an instant visual indication of your receiver output, whether 4.8 or 6.0 volts (it's switchable). I shopped around online and found a pack of 10 units for just £22, including delivery. It's a small price to pay for peace of mind and the decision, or not, to take that risky *'Just one more flight'*.

MODERN CLASSIC

Today, as I write, a kit-shaped package arrived on my doorstep and caused my better half to yet again ask, *"That's not another b***dy model, is it?"*, plus spouting other invective that doubted both my sanity and parentage.

Good mate Glyn, from down in the Garden of England, had come up trumps again and sent me his old kit of the Cliff Goater designed Balsa Cabin 'Fantasia', the larger version of the still-available 'Sonata'. It's one of those models that is great for gaining flight experience as although its 100" (2.5 m) wingspan may appear daunting to fledgling pilots, the truism that 'bigger models fly better' holds fast with this kit. Launched by towline, bungee or off the slope, it's a simple to build and fly glider, yet add a moderately powered outrunner motor and your flight options change again. I'll be building this one as a mildly powered e-glider, giving me the best chance of flying over varied terrain. The kit contents photo shows the old 'dyeline' plan and a well-stocked box-of-bits, all well-prepared, except for the ribs!

Being 'of an age' the ribs weren't laser or router cut. As older model kit constructors out there will remember (and curse fluently about) the rib sheets were die cut items using the old system of pressing a cutter (die) onto a balsa sheet over a plastic base (platen). The problem was that the die cutter blades would blunt in use and if the balsa was a tad stringy or soft the 'cut' would end as a crush or squash, leaving a modeller attempting to cut through crush-hardened semi-cut balsa or ply, often with deleterious results to one's digits!

Out of a sense of devilment, I e-squirted a message to Glyn, giving him a right roasting for sending a kit with die-knackered rib sheets and I didn't hold back! Yes, it was done for 'fun', but I later had to apologise for winding him up. I think we're still mates.

The wing ribs in the kit? I'll work away diligently out of a sense of remorse for my indiscretion. Sorting them will take a bit of fettling time as there are a great many of them. Final finishing will, of course, be Doculam and tissue, as it suits the age of the model and I have quite a bit going spare.

The current two metre 'Sonata', being effectively the shorter wing version of the 'Fantasia', is now a laser-cut kit but retains the attributes of the older, larger model.

TAILSKID

Wisdom can be found in the oddest of places, even in popular movies. As Master Yoda said, *"The greatest teacher, failure is."* If you've had a catastrophic flying day and dumped models with monotonous regularity and extreme prejudice, you may, just may, have learned how not to do it again!

Send me an email: **coetquidan@yahoo.com** ■

USEFUL LINKS

Pilot figures, etc.
https://tailoredpilots.com
Battery monitor
Model shops
Free 3D print programmes
Online at Thingiverse, Cults, etc.
FlySky FS-i6 radio
Model shops
Coloured Tissue
https://www.carnivalpapers.com

Going Places

Diary dates for the coming season

If you are planning an aeromodelling event over the next few months, then please send details - up to 100 words maximum - to Beth Ashby at: **beth.ashby-njiiri@kelsey.co.uk**
If you intend to visit any events listed, then please check with the organisers before travelling in case of any last-minute changes.

SEPTEMBER

Sept 5 - 6

Southern Model Show at Headcorn Aerodrome, Kent. Bring the whole family to the South East's best RC model show, with something for all ages. Gates open between 9.30am – 17:30pm. Enjoy stunning flying displays throughout the day, featuring expertly-piloted model aircraft. On Saturday evening don't miss the pyrotechnic flying display followed by fireworks. Our bring & buy will be operating both days - bring along your old models for us to sell. Alongside this, there are a wide range of RC model stalls, selling models, kits, tools, and parts plus plenty of food and drink options. Model cars and trucks will also be on display, with opportunities for everyone to have a go. Weekend camping is available, with facilities including showers, toilets (including accessible), water points and waste disposal. Well-behaved dogs are welcome on a lead. For more information visit https://headcornsouthernmodelshow.uk/about

Sept 6

White Sheet Radio Flying Club Scale Event. Back-up date Sept 27. Weather call will be the Friday before. For more information visit https://whitesheet.bmfa.club

Sept 6

Basingstoke MAC 21st Electric Fly-In. Gates open 9am with a pilots' briefing 10am and then the fun starts. Free entry, BBQ, hot & cold drinks plus an on-site loo, but we hope to get you to buy some raffle tickets. BMFA proof of insurance required, location and contact details at bmac.club/events or @basingstokemac on Facebook.

Sep 12

Tonbridge Gassers and Rubber Fanciers Indoor Flying at King's Rochester Sports Centre, 601 Maidstone Road, Rochester ME1 3QJ. From 6:30pm until 10pm. Freeflight, Lightweight RC and 3D RC timed flying sessions throughout the evening. Contact Steve on 0208 942 5000 or Eric on 07763 398 416.

Sept 13

Scale Glider at Hole of Horcum, Pickering, North Yorkshire, YO18 7NR. A fun day for all R/C model PSS gliders. BMFA membership required. £5 for non-club members. Location: What3Words - snowmen.ordinary.caps. Lat - 54.332235. Lon - -0.690234. Due to MoD restrictions, please contact beforehand for details. For more information call 07747 614074 or email michaelkitchen@me.com or call 07796 364738 or email jonedison@btinternet.com

Sept 19-20

PSSA 40th Anniversary Mass Build event at The Great Orme, Llandudno, North Wales. Meet at the Tank Track car park for pilots' brief 10am each day. Proof of BMFA (or equivalent) Insurance and Pilot Competency Certificate required. All models to be fitted with compliant CAA OpID number. This event will stage the Harvard/AT-6 Texan Mass Build event marking the Association's 40th Anniversary. For more information contact Phil Cooke on 07772 224719 email: webmaster@pssaonline.co.uk or visit https://www.pssaonline.co.uk/about-us/events/

Sept 20

White Sheet Radio Flying Club Open Slopes. For more information visit https://whitesheet.bmfa.club

Sept 20

Cocklebarrow Vintage Rally at Aldsworth, Glos, on the B4425 between Cirencester/Burford and off the A40 between Northleach and Burford. What3Words -positives.arrival.calculate. All model types to 1975. BMFA membership required for flyers Contact Peter Marsh on 07831 193091, email: pjtvw@msn.com, or Paul Howey on 07405 164040, email: G4BBP@aol.com

Sept 25

UKCAA @ Buckminster (Classic Aerobatics) at BMFA NFC Buckminster, Buckminster, Leics, NG33 5RW. UKCAA visits the National Flying Centre. Primarily a fly-in for Pre 1996 Aerobatic and similar airframes. There will be the usual Pick5 and Pick7 contests over the lunch break.

Sept 27

Marston Green Model Flying Club Autumn Swapmeet at Nether Whitacre Village Hall, B46 2EH. Well attended by well-known swapmeet traders and local club members. 30+ tables with hot food and refreshments available. Ample parking and easy access from the M42 and M6 motorway junctions. To book, email mgmfc.committee@protonmail.com or visit our website mgmfc.bmfa.club

OCTOBER

Oct 4

White Sheet Radio Flying Club Open Slopes. For more information visit https://whitesheet.bmfa.club/

Oct 10

Tonbridge Gassers and Rubber Fanciers Indoor Flying at King's Rochester Sports Centre, 601 Maidstone Road, Rochester ME1 3QJ. From 6:30pm until 10pm. Freeflight, Lightweight RC and 3D RC timed flying sessions throughout the evening. Contact Steve on 0208 942 5000 or Eric on 07763 398 416.

Oct 11

LMA Gaydon Indoor Static Show at British Motor Museum, Gaydon, Lighthorne Heath, Warwick, CV35 0BJ. Large Model Static Indoor Display, Multiple traders, small swapmeet, access to the British Motor Museum included in entrance ticket, onsite café, tickets will be available online nearer the time via the British Motor Museum website. BMFA & LMA members receive discounted entry when paying on arrival. Follow the LMA social media accounts or check the events page on our website for all updates & announcements.

Oct 11

White Sheet Radio Flying Club Scale Event. Back-up date October 18. Weather call will be the Friday before. For more information visit https://whitesheet.bmfa.club/

Oct 13

PMAC Swapmeet at Chelford Village Hall, Knutsford Road, Chelford, Macclesfield, SK11 9AS. This is the very popular Swapmeet that used to be held at the Deanwater. From 7pm to 9pm, doors open for table holders at 6:30pm. Tables £10 each (includes entry for one person). Entry £3 per person. Tables limited to 30 only, table booking required. Vehicles greater than 2.1m tall will need to be advised to the organiser (below) due to parking restrictions. Table bookings required by contacting Tim Cheal on tim.cheal@btinternet.com

Oct 17

Delyn MFC Autumn Swapmeet at Halkyn Parish Hall and Library, just off the A55, junction 32B, CH8 8ES. wot3words charmingly.costly.repaying. Doors open for sellers 8:30am, buyers 9:00am. Table price £3 with plenty of tables available. Entry for buyers and browsers £1. Loads of bargains, come and fill your boots. Unlimited parking. For table booking ring Bill Lowes on 07811 159191 or email Peter on Knaus321@gmail.com.

Oct 18

Beverley and District MAC Autumn Swapmeet at Tickton Village Hall, Tickton, Beverley, East Yorks, HU17 9RZ. Doors open at 9am, teas and coffees available, entry fee £2 on the door. Tables £5 which includes one helper. To book a table contact Simon Tweedale on simontweedale66@gmail.com or call 07753 856758.

Oct 17-18

PSSA Fly for Fun event at The Great Orme, Llandudno, North Wales. Meet at the Tank Track car park for pilots' brief 10am each day. Proof of BMFA (or equivalent) Insurance and

Pilot Competency Certificate required. All models to be fitted with compliant CAA OpID number. For more information contact Phil Cooke on 07772 224719 email webmaster@pssaonline.co.uk or visit https://www.pssaonline.co.uk/about-us/events/

Oct 25

White Sheet Radio Flying Club F3F. For more information visit https://whitesheet.bmfa.club/

Oct 25

Rolls-Royce (Hucknall) Model Aircraft Club Swap Meet at the John Godber Centre, Ogle Street, Hucknall, Nottingham NG15 7FQ. Just a few minutes away from Junctions 26 and 27 on the M1 motorway. We are returning to this fantastic venue with lots of free parking and easy access for what will be our best swapmeet yet. Set up from 9am and entry at 10am until 1pm with refreshments available. Traders are £5 per table with one person and normal entry is £2. Book your table now by calling Ivan on 07858 913525.

NOVEMBER

Nov 1

Southern Counties Autumn Swapmeet at Mountbatten School, Romsey, Hampshire, SO51 5SY. One of the largest swapmeets in Southern England with over 50 tables. Sellers with a booking admitted from 8am. Buyers from 8:30am onwards. Noon finish. Admission only £5, under16s free. First table costs £10 (including one admission), additional tables cost £6 each. Refreshments will be available. More details at hmfa.bmfa.org/. To pre-book tables only call Mike Stokes on 07702 742647.

Nov 1

Retford Winter Swapmeet at Carlton-in-Lindrick Civic Centre, Oakham Drive, Carlton-in-Lindrick, Worksop, S81 9RE. What3Words – blog.otherwise.nurse. Table set up from 8:30am till 9:15am, tables supplied. Pre-booked tables £7. On the day £8. Admission £3. Doors open at 9:30am till 11:45am Hot sandwiches, tea and coffee available. For further information and booking contact Lee Davies on 07900 156803 or email lee301269@gmail.com or visit www.rmfc.bmfa.uk

Nov 1

White Sheet Radio Flying Club Scale Event. Back-up date November 22. Weather call will be the Friday before. For more information visit https://whitesheet.bmfa.club/

Nov 14

Tonbridge Gassers and Rubber Fanciers Indoor Flying at King's Rochester Sport Centre, 601 Maidstone Road, Rochester ME1 3QJ. From 6:30pm until 10pm. Freeflight, Lightweight RC and 3D RC timed flying sessions throughout the evening. Contact Steve on 0208 942 5000 or Eric on 07763 398 416.

Nov 15

White Sheet Radio Flying Club Open Slopes. For more information visit https://whitesheet.bmfa.club/

Nov 15

Horam Swap Meeting at the Horam Village Hall. Horam, East Sussex TN21 0JE. What3Words - self.planting.brave. Doors open to sellers 8am -noon. With a table and one person costing £9. Buyers, £3 from 09am – noon. Usual refreshments and delicious bacon rolls. Come and grab a bargain or catch up with friends. Booking essential. Contact Robert Richardson rob.richardson@talktalk.net

Nov 29

White Sheet Radio Flying Club F3F. For more information visit https://whitesheet.bmfa.club/

DECEMBER

Dec 6

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RCM&E 2014 PLAN RC2137, Jocasta N25400 1.76m wingspan built and RTF but never flown. Includes Spektrum DX6 transmitter in metal carry case. 3 x 3S 3300mah batteries with charger in fire retard carry bag. Two spare Props. Fully wired ESC, Motor, Rx, four servos. No elastic bands to hold wing on - as seen £150 ono, buyer to collect. Pics available. Email peter@prussell.f9.co.uk (Gloucs).

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Next issue

VICKERS TYPE 22

Most aeromodellers will have seen the 1965 film 'Those Magnificent Men in Their Flying Machines' which features a Bleriot look-alike. Steve Carr's 60% scale rendition of this flying machine is the subject of Mike Freeman's next Model Magic feature. The aeroplane featured in the film was a replica Vickers Type 22, this model of which was originally built by Roy Salter in the early 2000s. Steve bought it from the late Dave Johnson's estate in 2025 and set about a complete restoration





PRO-PLAN – PART 2 AERMACCHI IMPALA

Join Phil Stone as he completes building his slightly modified version of an attractive Power Scale Soaring model of the Aermacchi MB-326K Impala made primarily from Correx fluted plastic sheet. The designer of the model, Jim Beagle, has very kindly allowed RCM&E to publish his drawings as a pull-out plan. The fuselage plans were presented in the October issue so November's plans concentrate on the empennage and wing templates.

HORTEN FLYING WING

In the 1930s the Horten brothers built futuristic tailless gliders. During WW2 their design for a twin jet-powered bomber, the Ho 229, was ordered by the Luftwaffe. Three prototypes were flown, but the end of the war meant they did not go into production. So, this model is a small, scale model of a genuine aircraft that really did fly. AvinationRC, a new brand, has teamed up with CNHL, which is already known for its LiPo batteries, and entered into model making with an adventurous and rarely modelled subject. Our review sample is tested by Harry Curzon.



Editor: Kevin Crozier
kevin.crozier@kelsey.co.uk

Publisher: Tim Hartley,
tim.hartley@kelsey.co.uk

Publishing director: Dan Savage,
dan.savage@kelsey.co.uk

Design: Druck Media Pvt Ltd.

Advertising:
fiona.leak@kelsey.co.uk
Tel: 01507 529573

Group Advertising Manager:
Sue Keily: Sue.Keily@kelsey.co.uk

Marketing Manager (Subscriptions)
Beth Ashby-Njiiri: beth.ashby-njiiri@kelsey.co.uk

Head of Customer Marketing (Subscriptions): Claire Aspinall

Customer Marketing Director:
Kevin McCormick

Editorial address:
RCM&E, Media Centre, Morton Way,
Horncastle, Lincolnshire LN9 6JR

Website: www.modelflying.co.uk

General enquiries and back issues:
Tel: 01507 529529
help@classicmagazines.co.uk
www.classicmagazines.co.uk

Subscription: Full subscription rates (but see page 74 for offer): (12 months 12 issues, inc post and packing) – UK £76.20. Export rates are also available – see page 74 for more details. UK subscriptions are zero-rated for the purposes of Value Added Tax.

Customer services:
Tel: 01507 529529

Lines are open:
Monday-Friday 8.30am-5pm

Distribution: Frontline Distribution Solutions, 2 East Poultry Avenue, London, EC1A 9PT

Subscription agents:
RCM&E, Media Centre, Morton Way,
Horncastle, Lincolnshire LN9 6JR

Printed: Acorn Web Offset Ltd, Loscoe Close, Normanton Industrial Estate, West Yorkshire, WF6 1TW

Published date: RCM&E is published on the third Friday of every month

Next issue: 16th October 2026

Advertising deadline: 25th September 2026

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RCM&E, ISSN 0269 -8307 (USPS 25434) is published monthly by Kelsey Media Group Ltd, The Granary, Downs Court, Yalding Hill, Yalding, Maidstone. Kent. ME18 6AL

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PARTING SHOT

ONE MORE FOR THE ROAD

Simon Smith guides his Harrier, a 2.75 metre span F3F racer, across the slope at the end of an August evening soaring session on the North Kent Downs. The altocumulus-patterned sky adds an evocative backdrop of the sort that'll be remembered for a long time to come. This is why we do it, why we endure the mishaps, and the breakages. We may forget to charge the battery or even leave the transmitter at home, but moments like these remind us why we do it.

David Ashby

DATAFILE

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Shutter speed:	1/5952s
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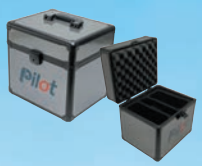
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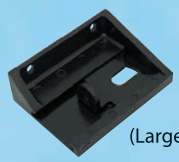
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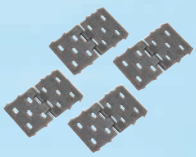
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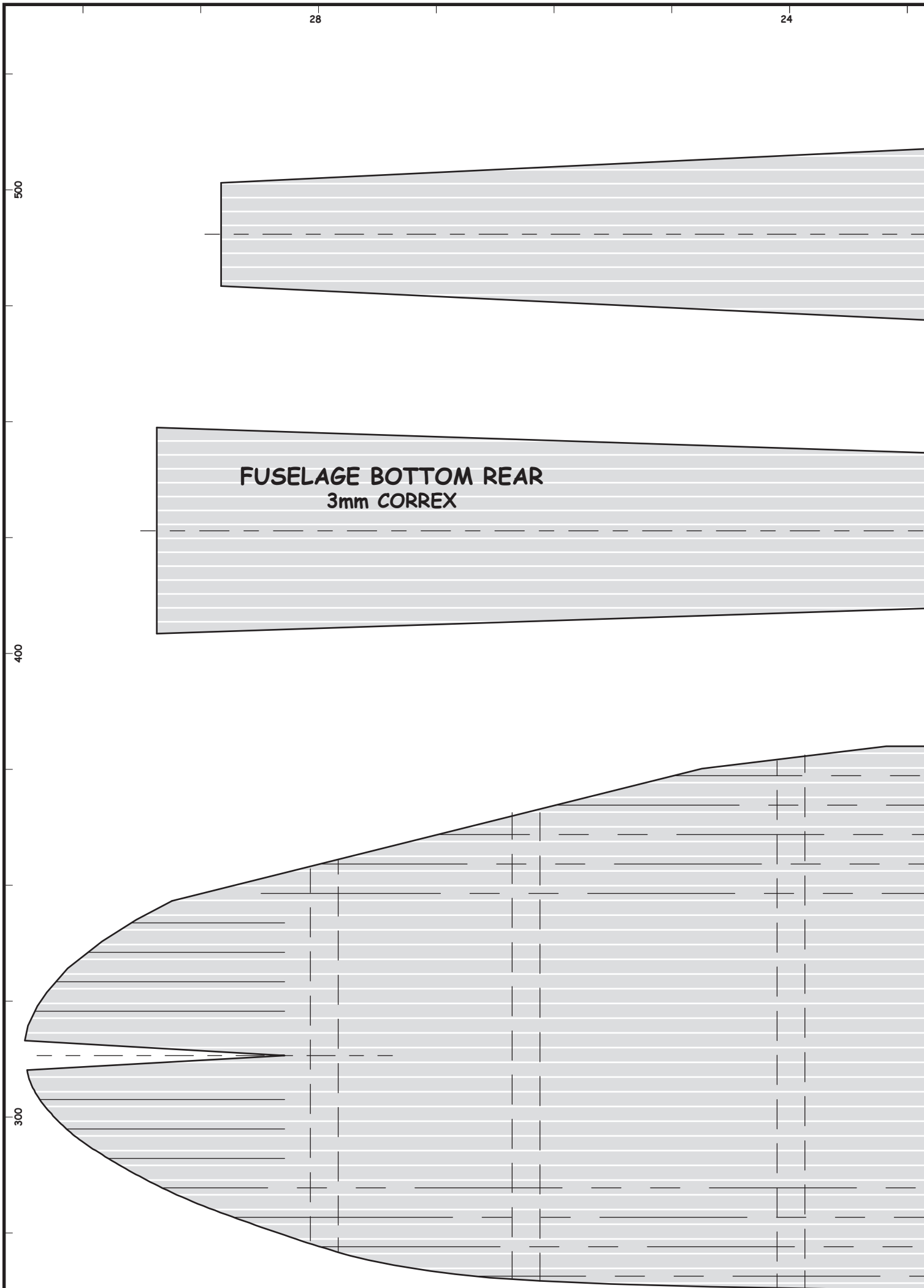
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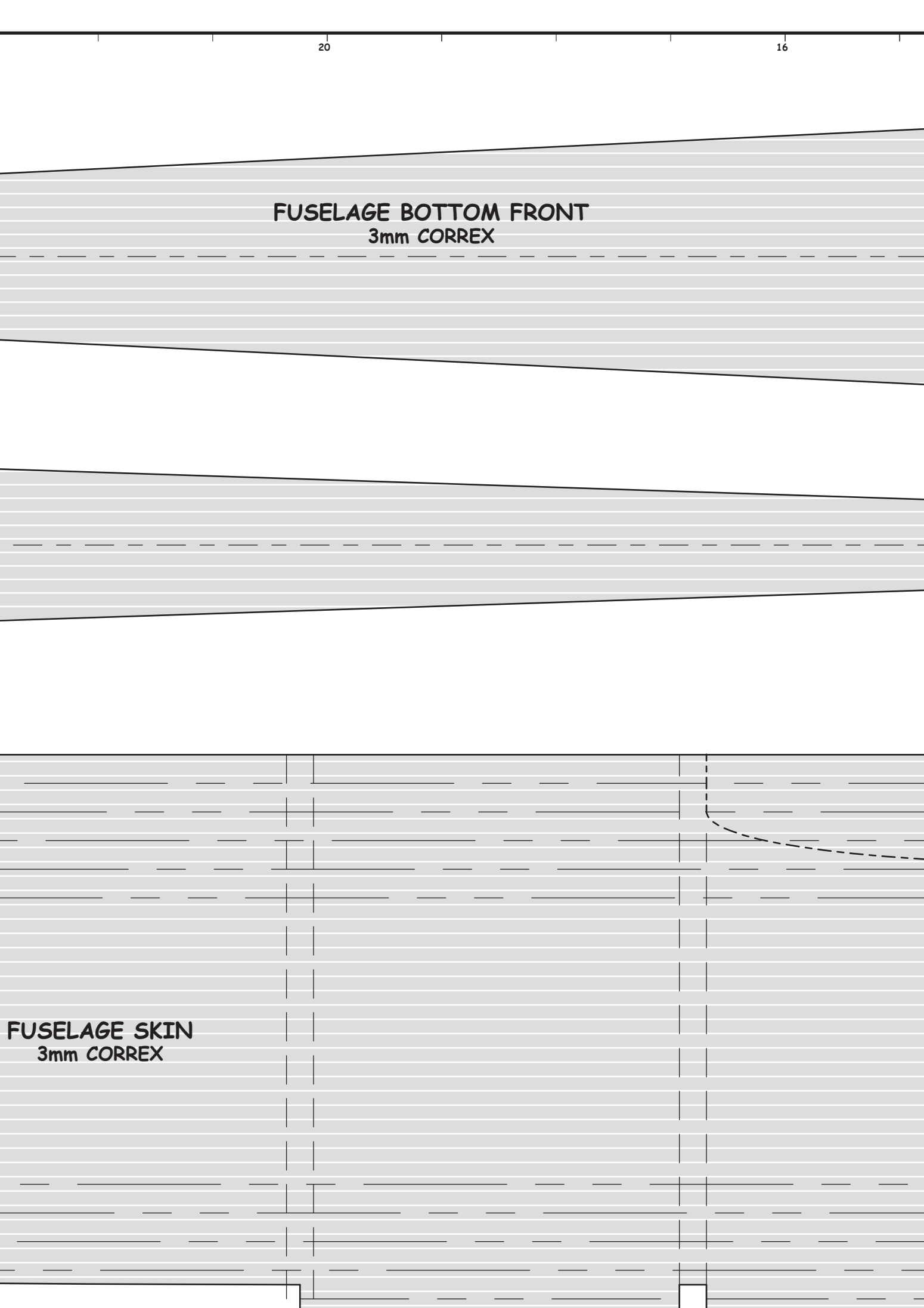
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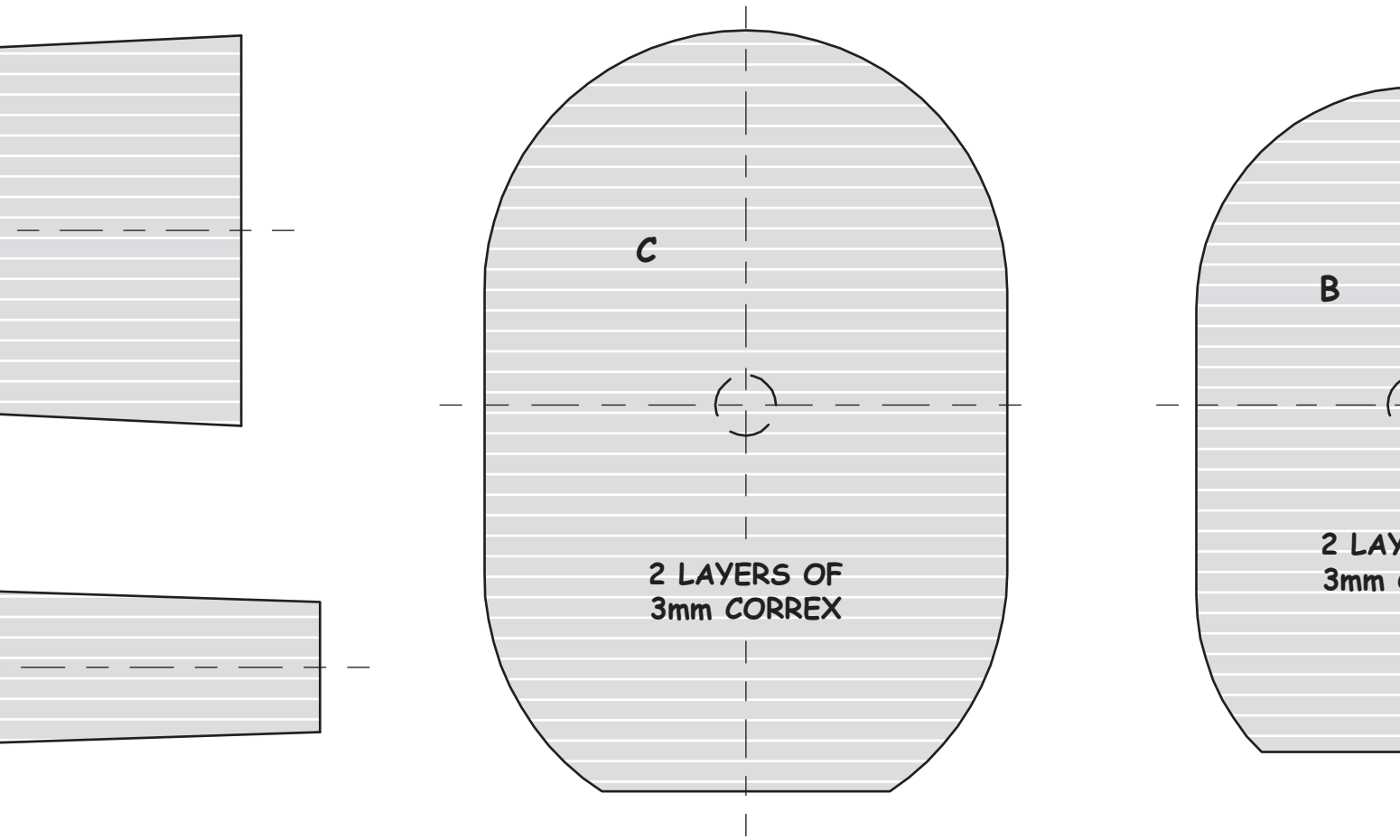
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LAMINATE LAYERS OF
FLUTES AT 90° TO E

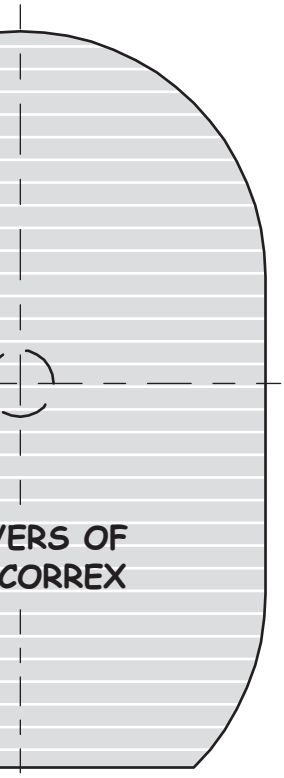

TRIM FUSELAGE SIDE TO MATCH WING PROFILE
CUT EVERY OTHER FLUTE ON INSIDE
OF CORREX, ALL SURFACES

SCALE
INCHES

RCM&E IMPALA

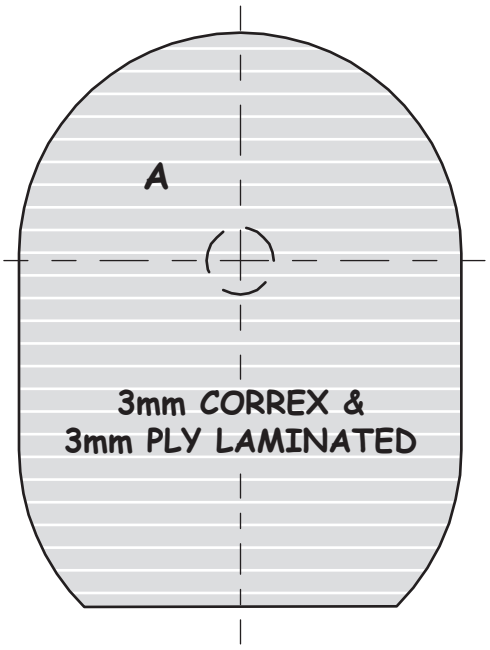
DESIGNED BY JIM BEAGLE

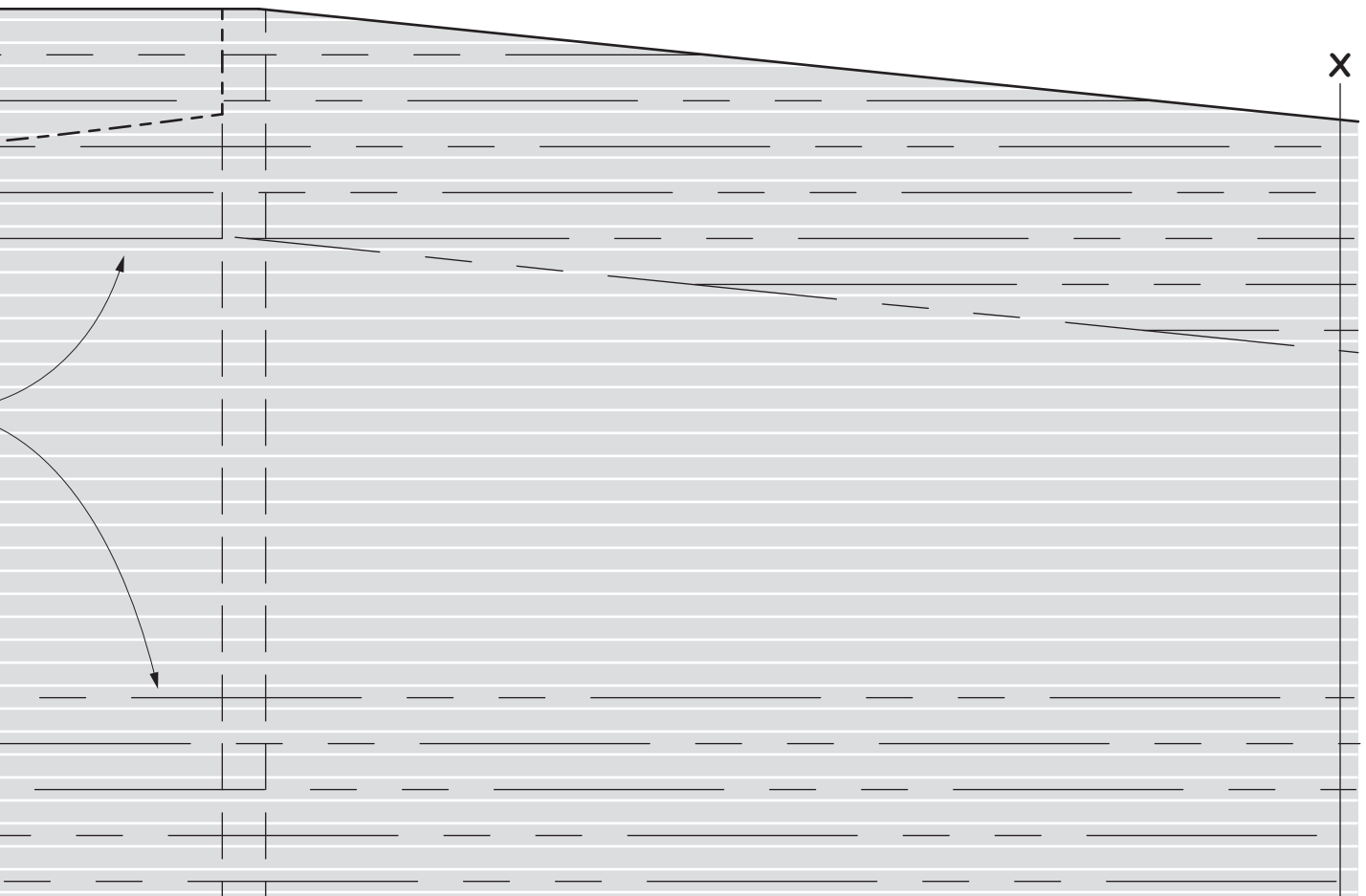
PLAN No: RC2286	No. OF SHEETS: 1 OF 4	First published in RCM&E October 2026

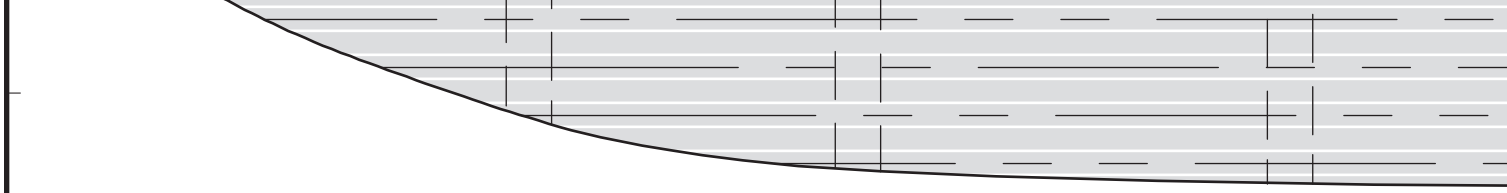


VERS OF
CORREX

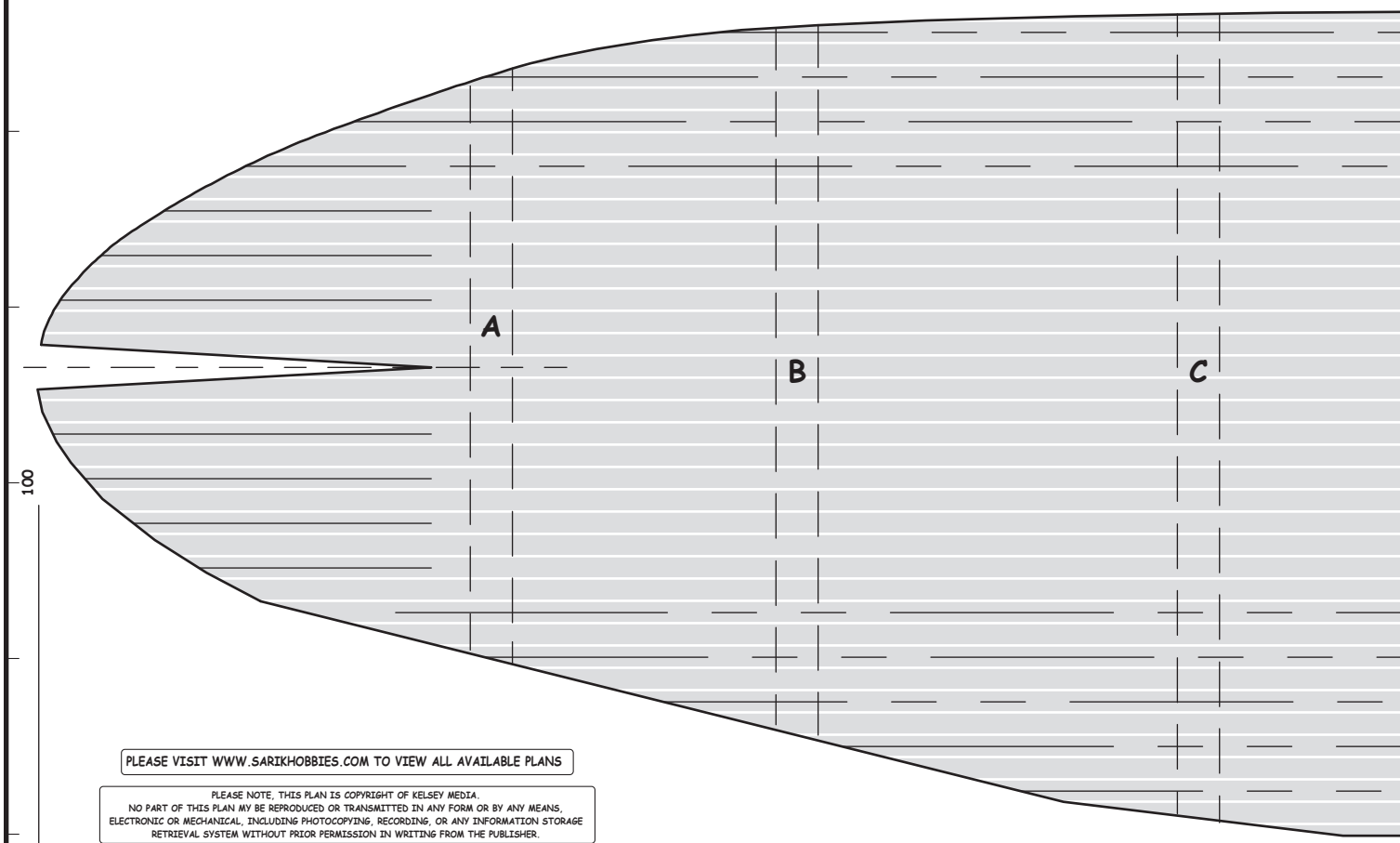
CORREX WITH
EACH OTHER







THE LINED SHADING INDICATES
THE CORREX FLUTE DIRECTION



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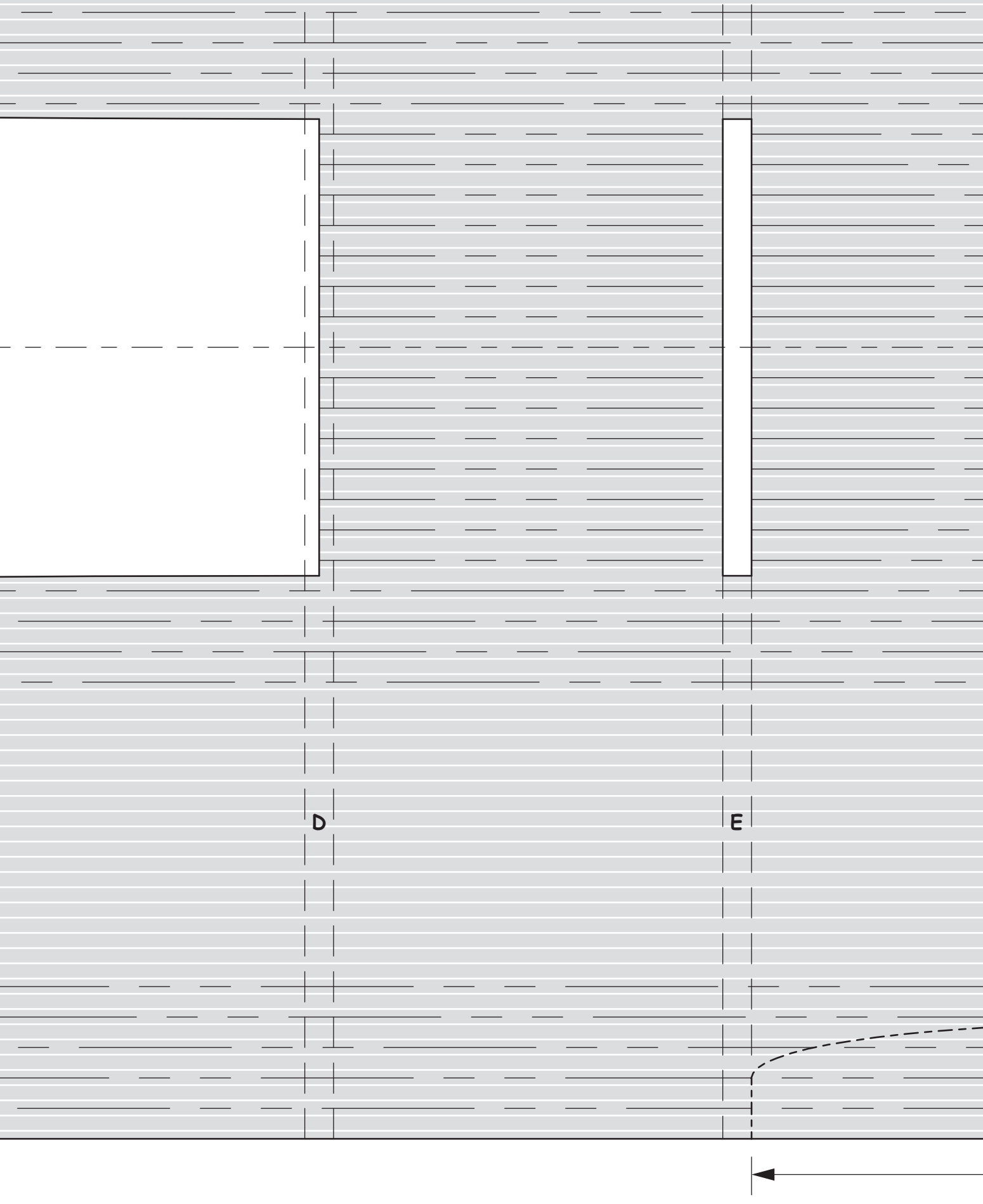
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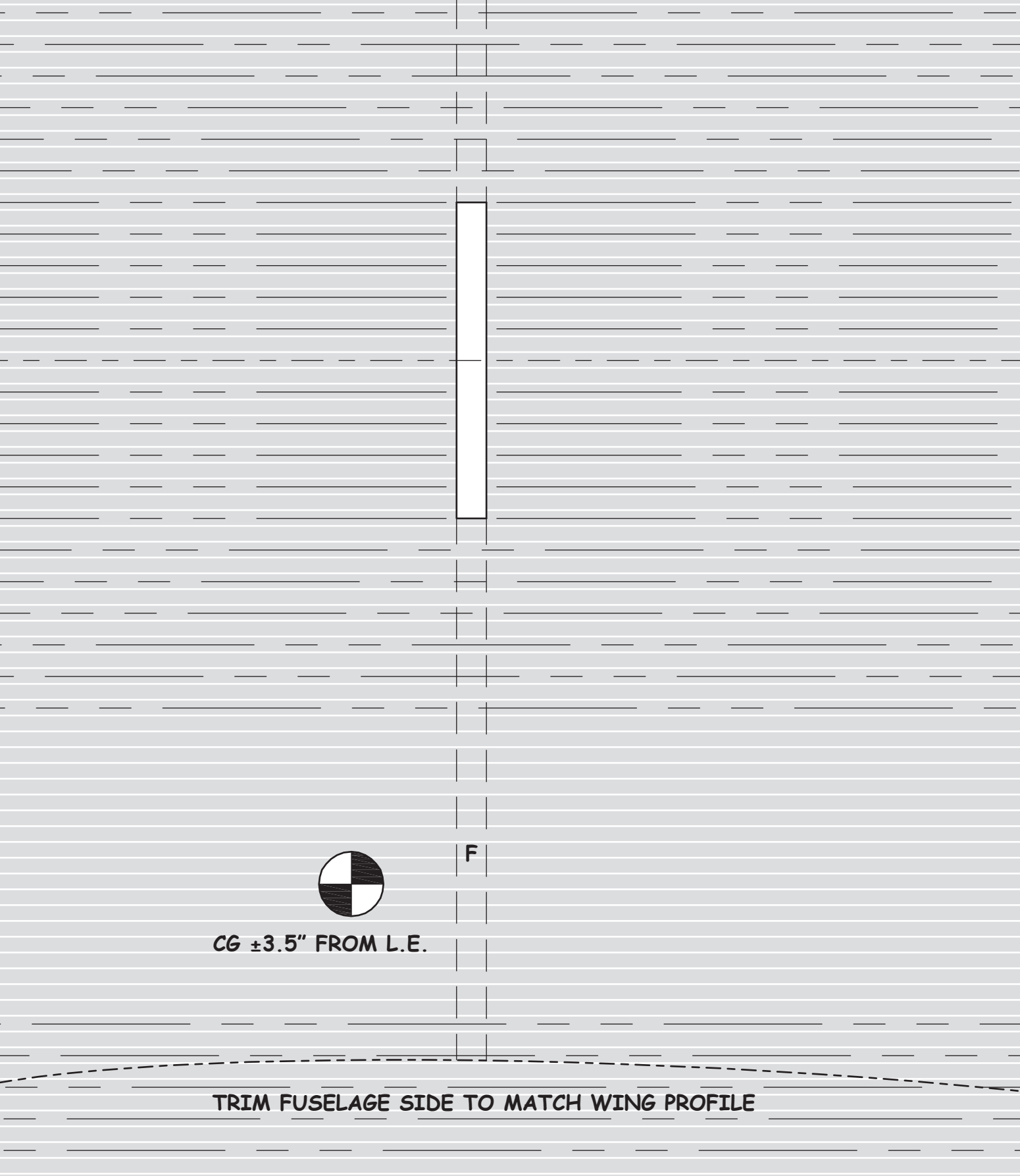
SCALE
MM

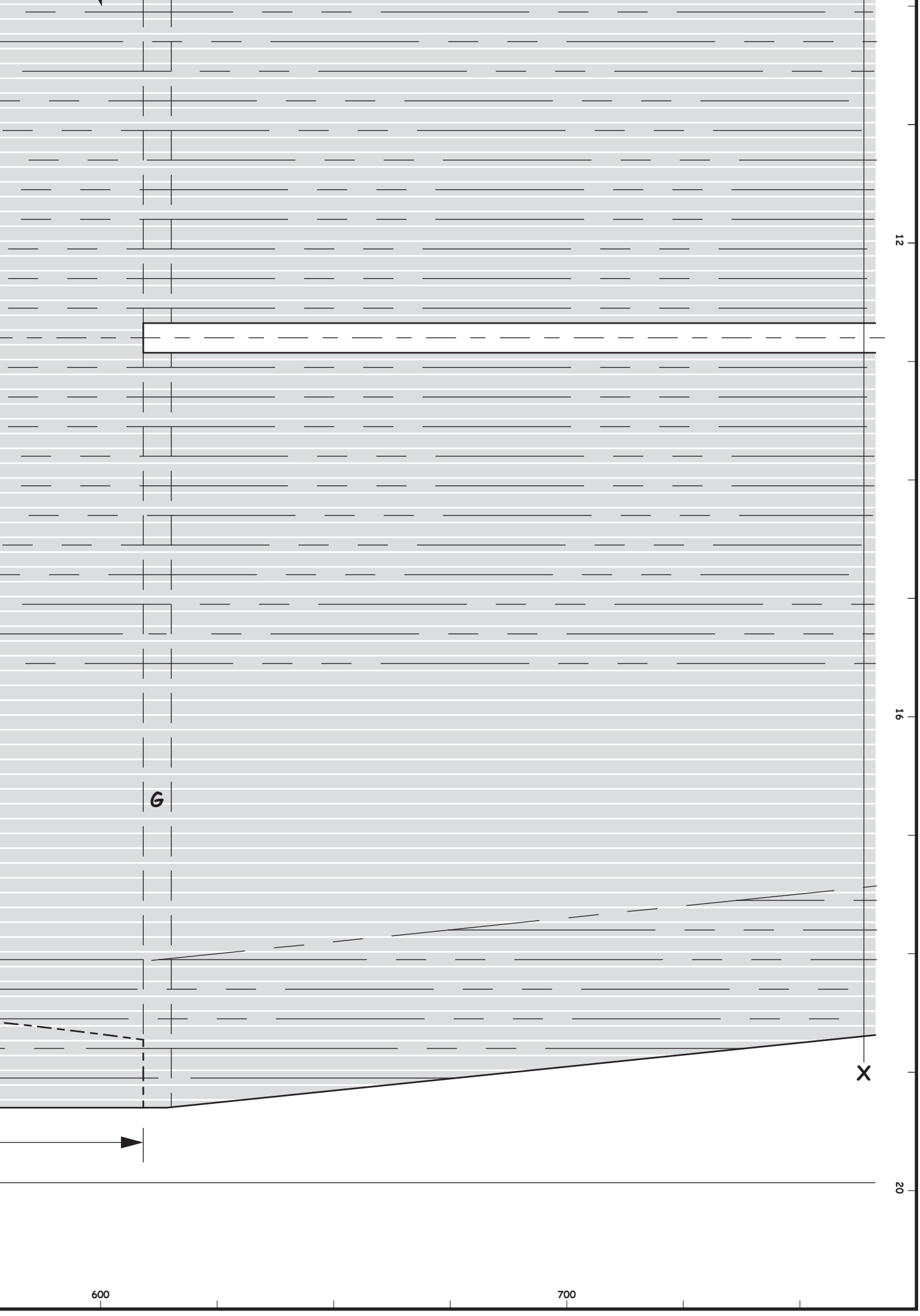
200

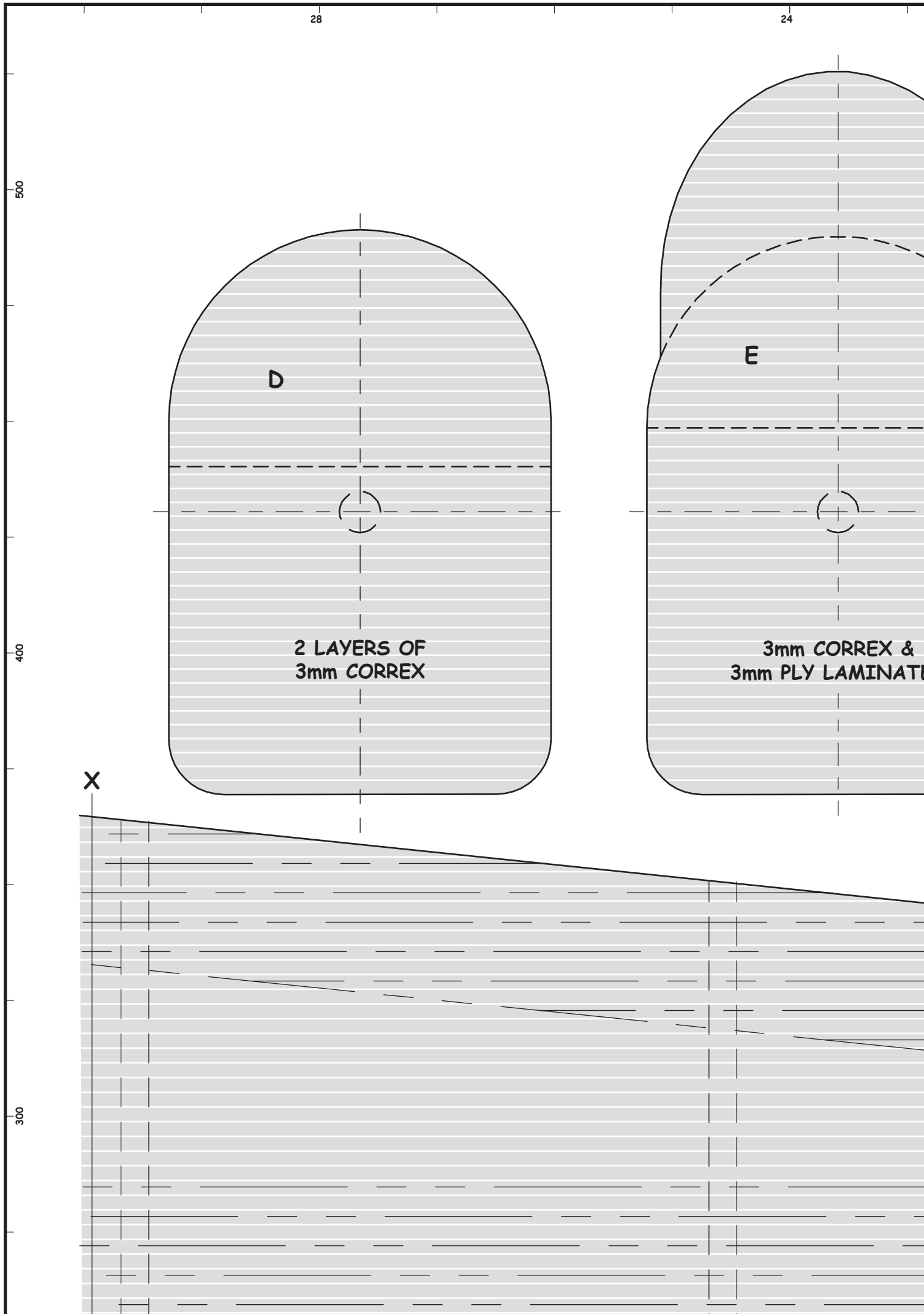
100

100

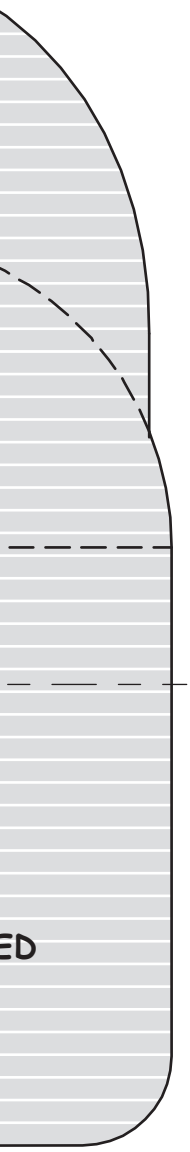

D
E
200
300
400

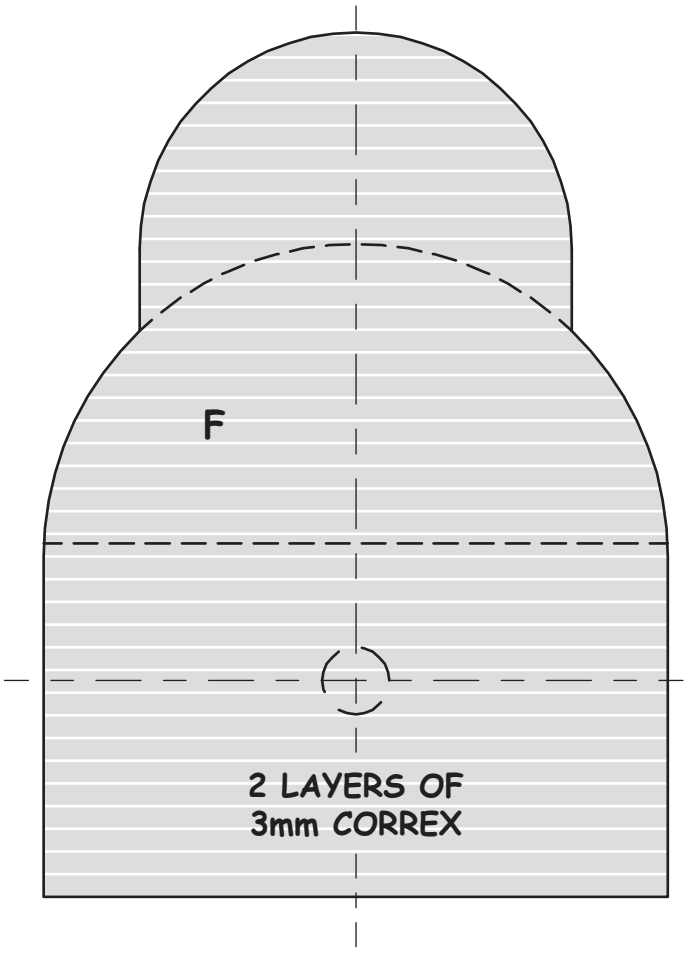

F
CG ±3.5" FROM L.E.
TRIM FUSELAGE SIDE TO MATCH WING PROFILE
10"
40.35"
400
500

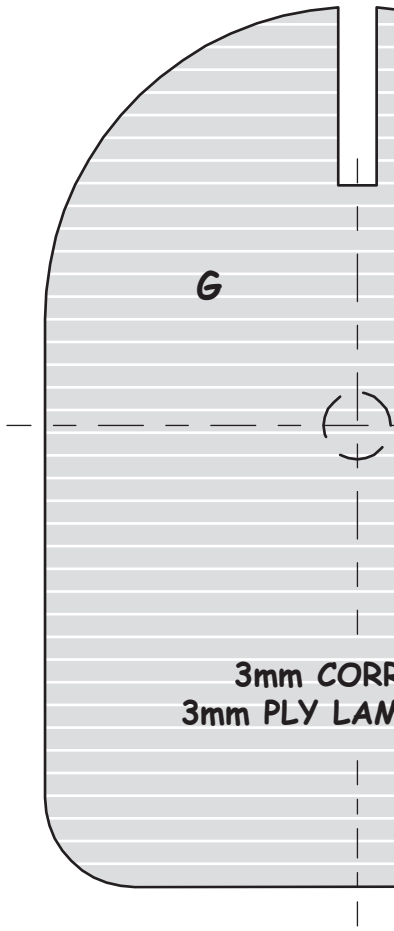

G
X
12
16
20
600
700

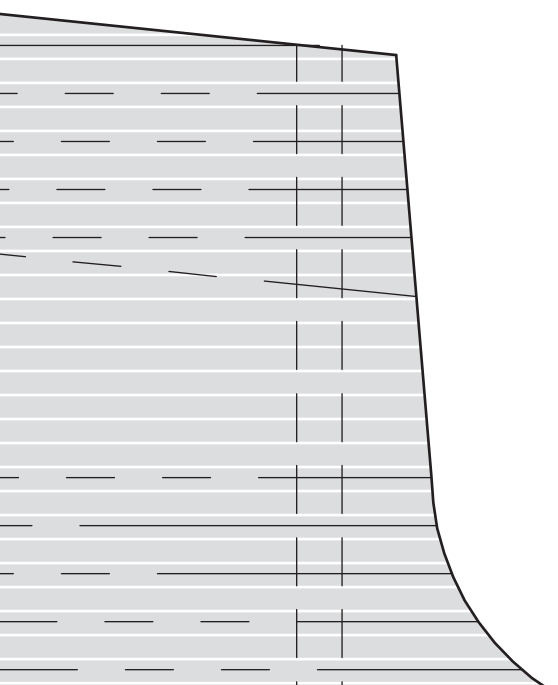

28
24
500
400
300
D
2 LAYERS OF
3mm CORREX
E
3mm CORREX &
X

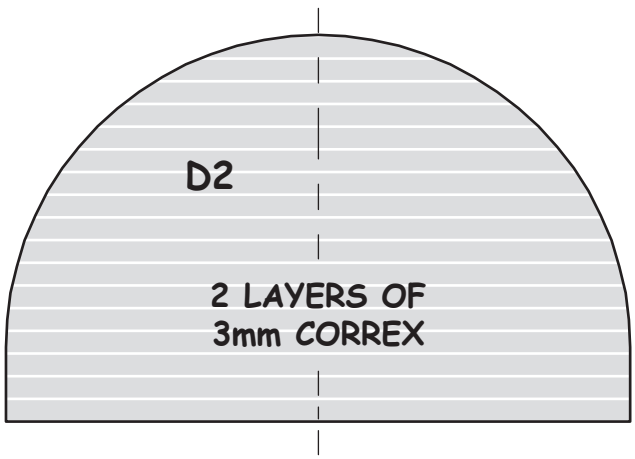
MAKE TWO
& LAM
DIAMET
DOW



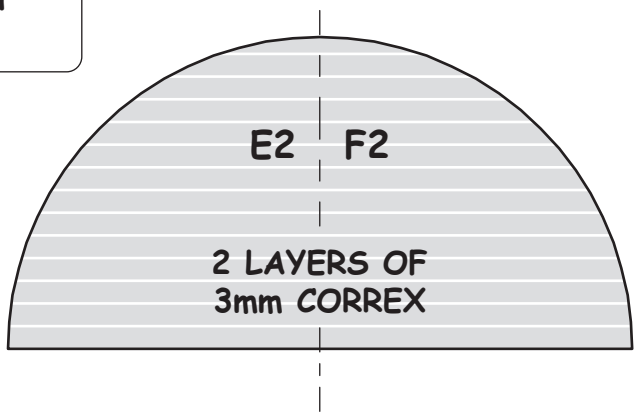


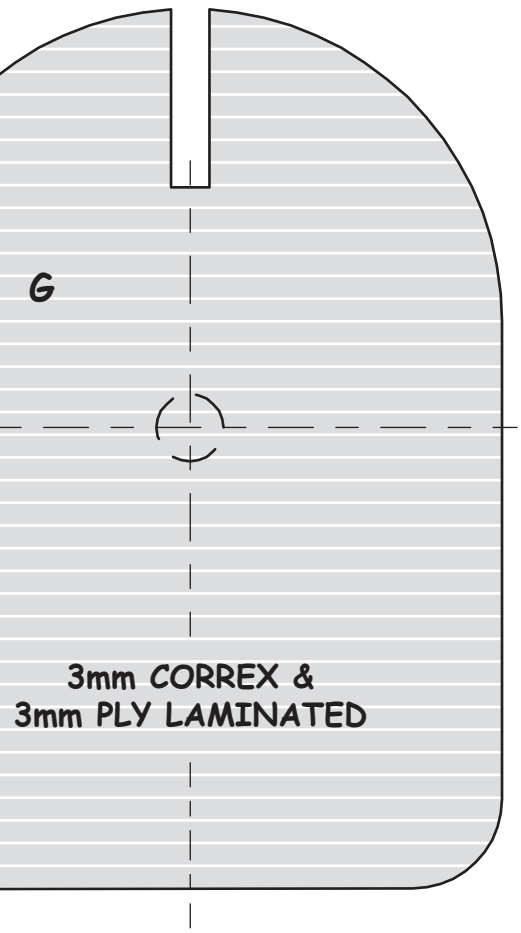


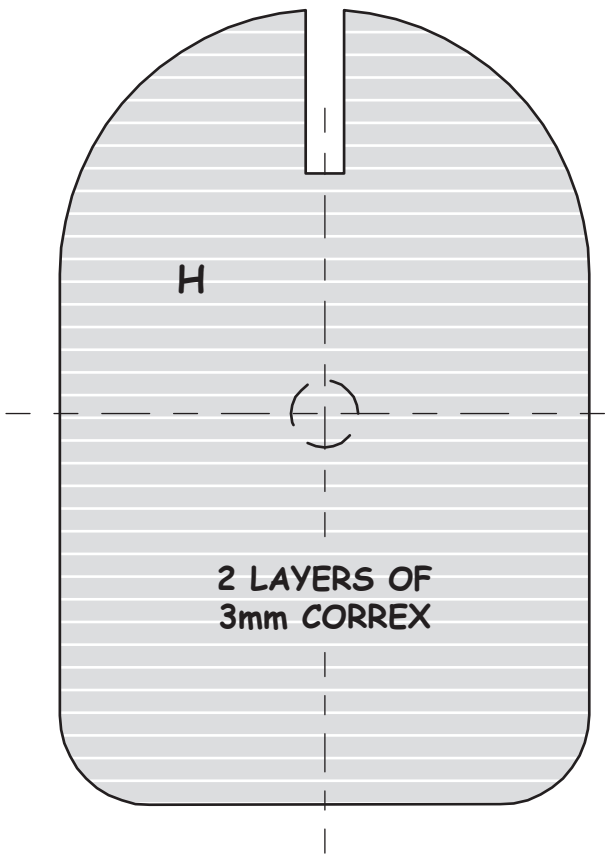


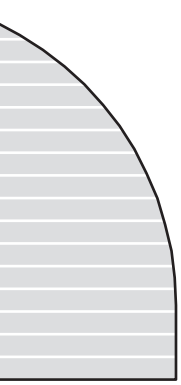


MAKE TWO SETS OF FORMERS FROM 3mm CORREX & LAMINATE WITH FLUTES BIASED 90° DIAMETER OF HOLE IN FORMERS TO MATCH DOWEL ROD USED DURING ASSEMBLY









NOTE FORMERS A, E, G & J ARE LAMINATES OF 3mm CORREX & 3mm PLY

SCALE
INCHES

RCM&E

IMPALA

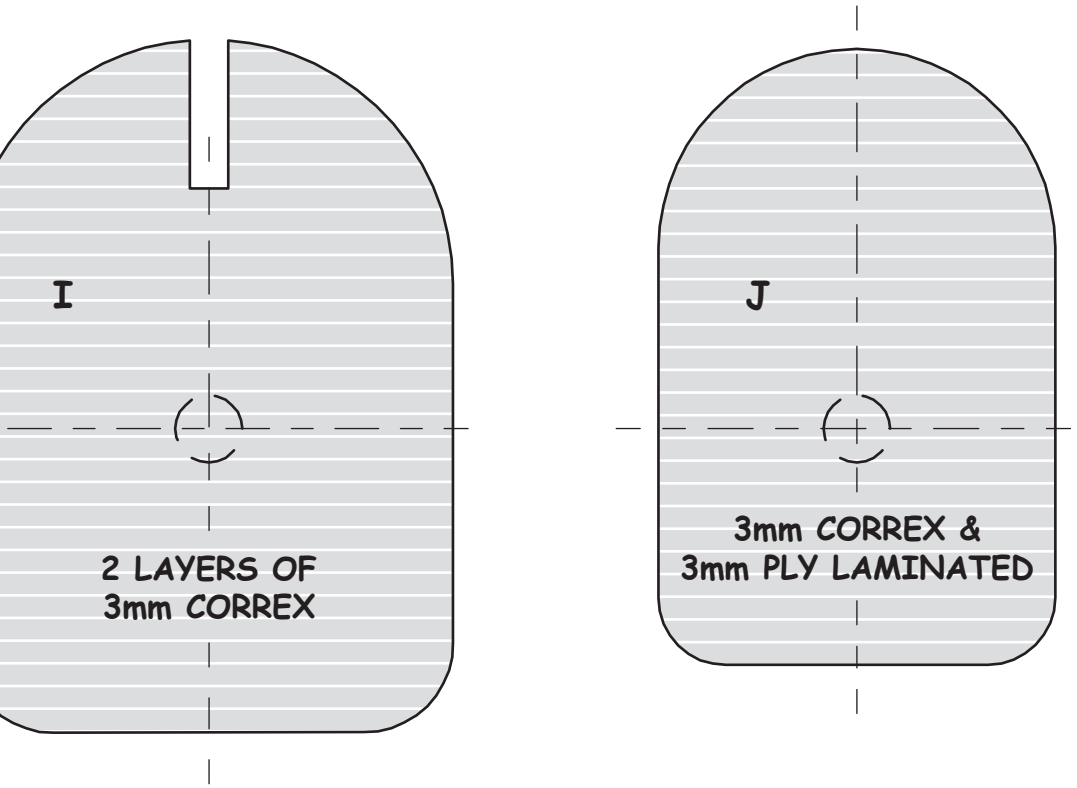
DESIGNED BY JIM BEAGLE

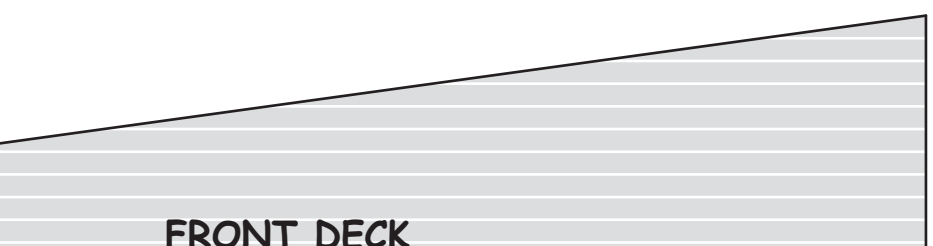
PLAN No: RC2286	No. OF SHEETS: 2 OF 4	First published in RCM&E October 2026

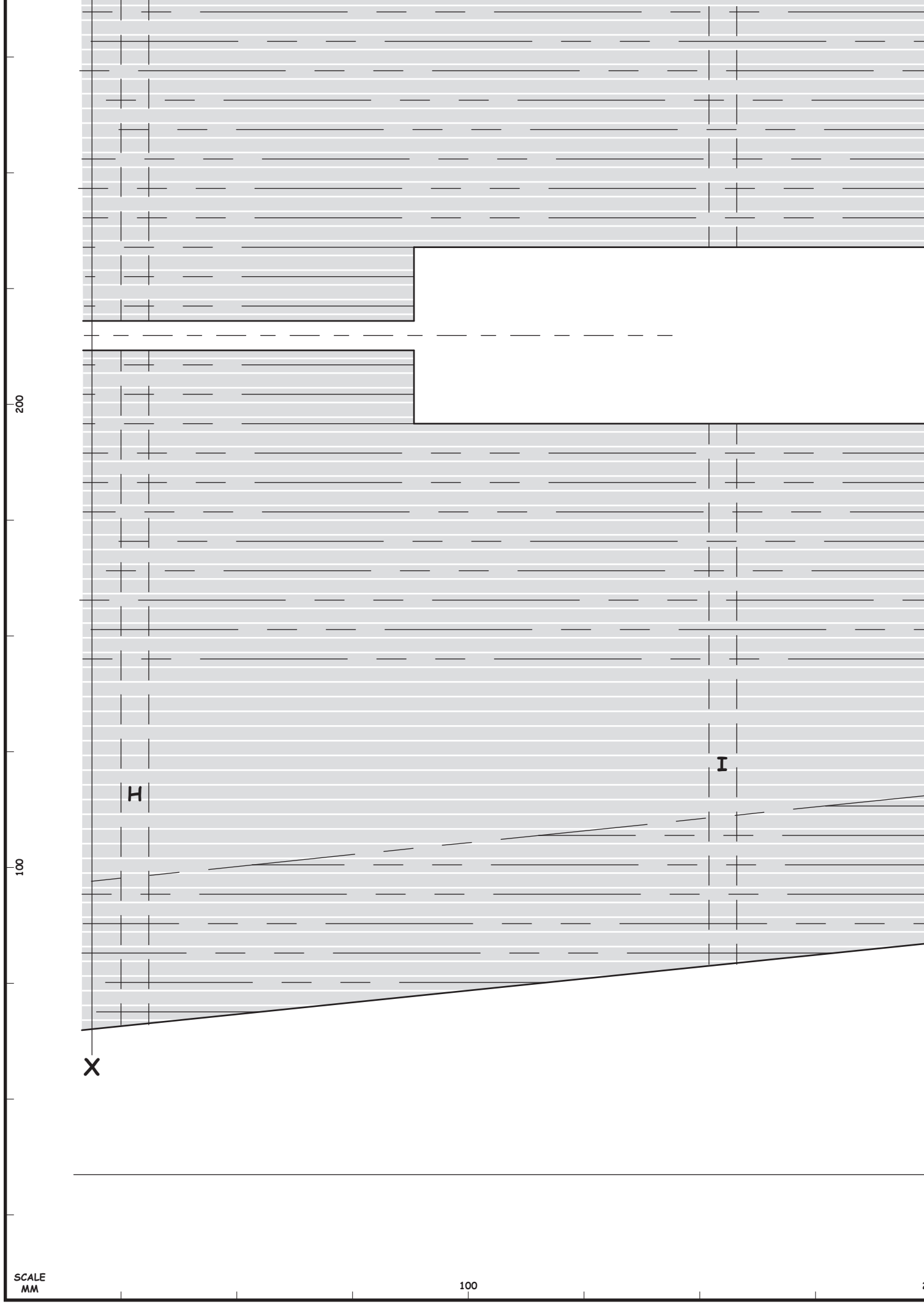
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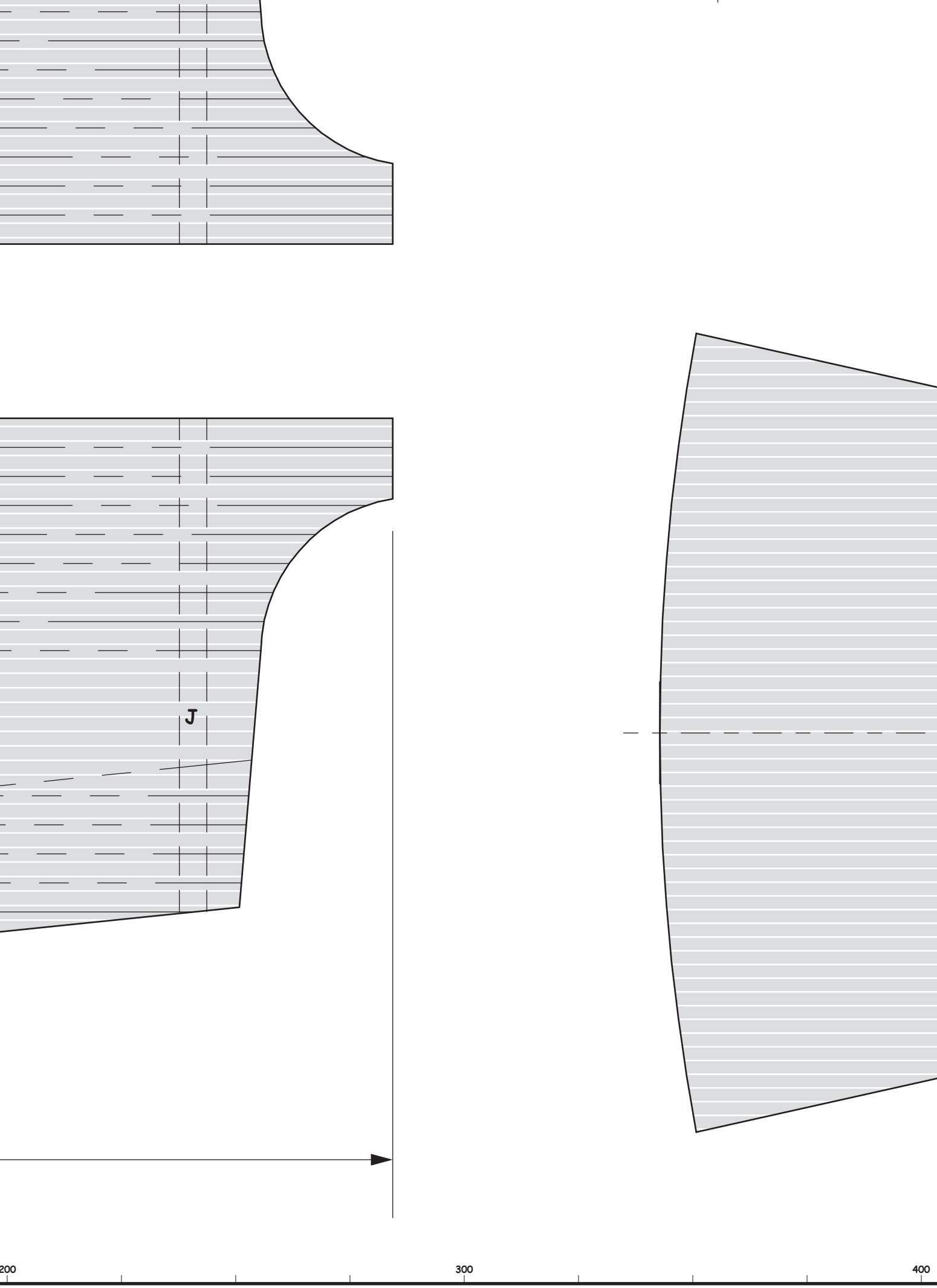
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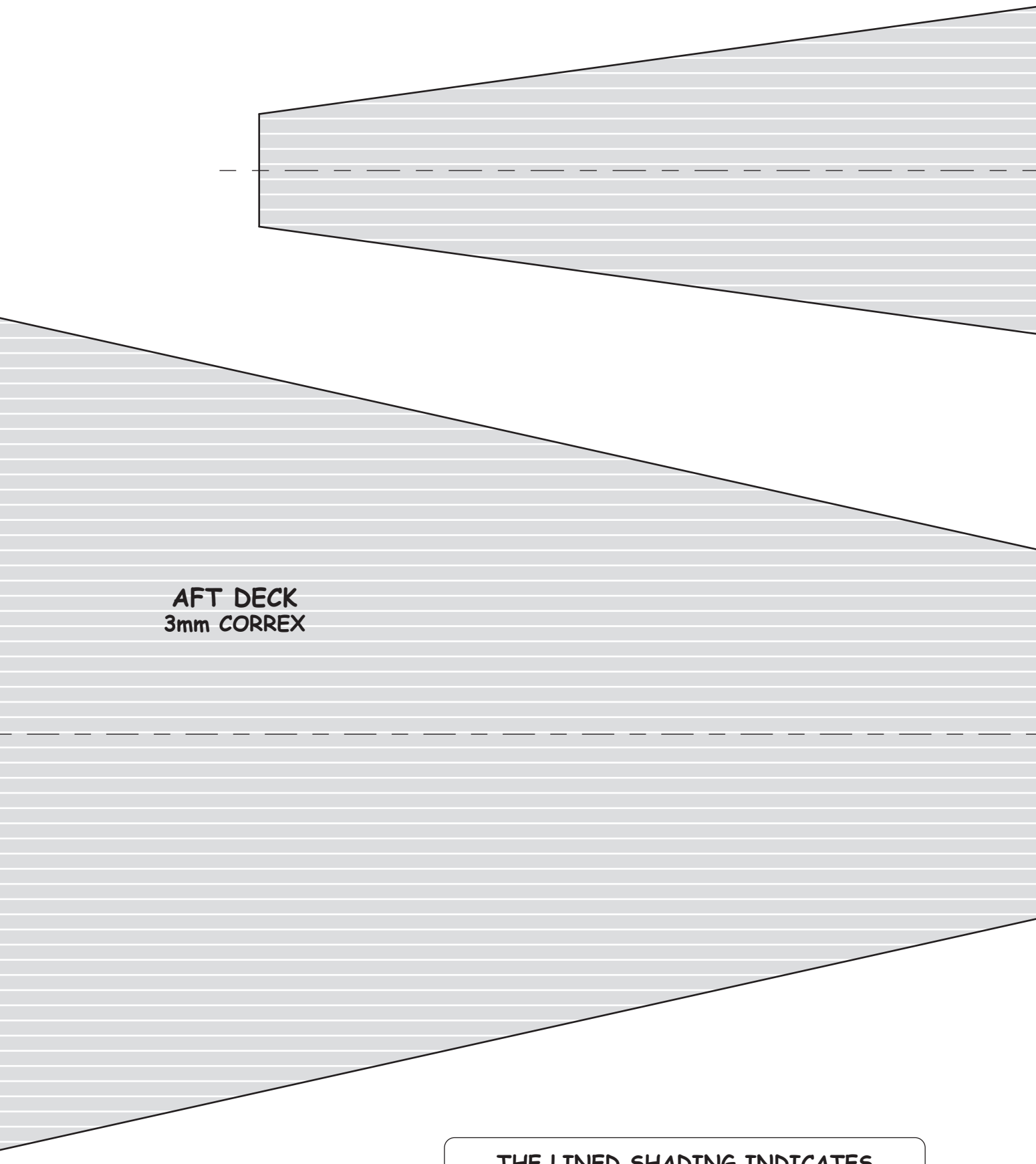
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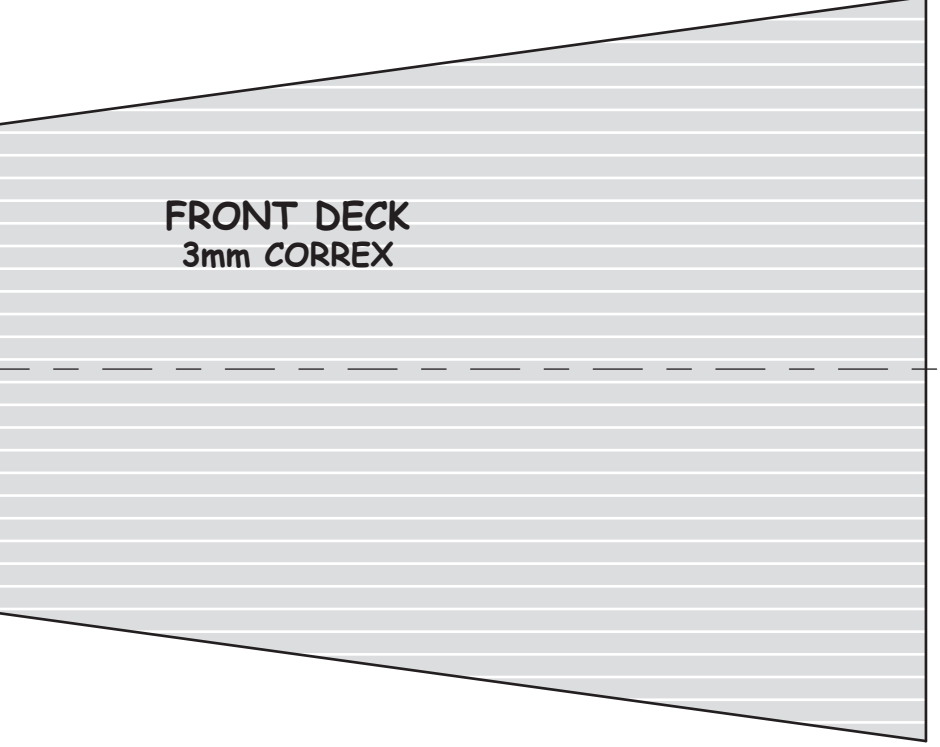

200
100
H
I
X
SCALE
MM
100

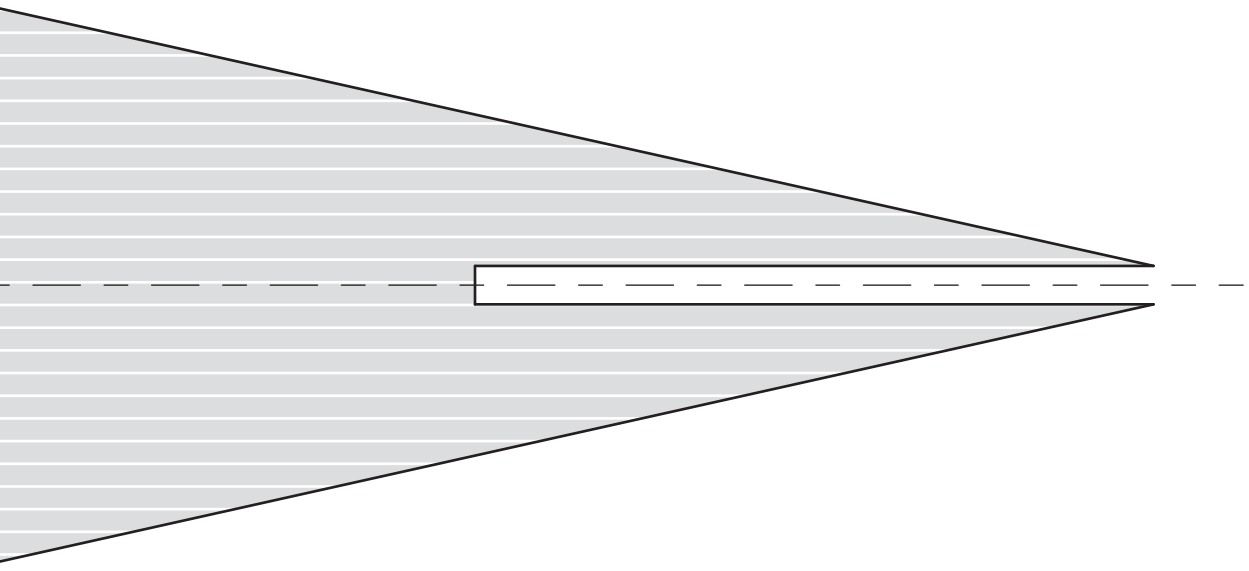

J
200
300
400



THE LINED SHADING INDICATES
THE CORREX FLUTE DIRECTION

400 500





WINGSPAN:	WITHOUT TIP TANKS - 1321mm (52") WITH TIP TANKS - 1378mm (54.25")
LENGTH:	1070mm (42.125")
A.U.W:	1800g
FUNCTIONS (SERVOS):	AILERONS (2) ELEVATOR (1)
CONTROL MOVEMENTS:	AILERONS +16mm/-8mm ELEVATOR +/-17mm