

# Clear Dope



November 2023

**Chichester and District Model Aero Club: Committee 2023**

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Club Night 9th November a talk by Fraser Dibden on Foam board construction techniques.

Robin has organised an EDF Jet Day to be held on Thorney Island on Saturday 4 November providing, of course, that the floods have subsided and that it hasn't floated away! All EDF jets are welcome plus, of course, any other type of model. It's not a competition, we just want anyone with an EDF to bring it along. The more the merrier!"



I'm sure that those of you that attended Rod Dean's presentation about the de Havilland Mosquito will agree that it was a most informative and entertaining talk. From my perspective it certainly inspired a visit to Salisbury Hall near St. Albans in the not-too-distant future to view the Mosquito Museum which, Rod informed us, includes the prototype (W4050) and two other airframes. It's the only museum in the world with 3 Mosquitos on display!

Looking ahead, our next club evening will take place on **Thursday 9th November**, and will feature a talk by our very own Fraser Debden about the use of foam board for

model building. This will include some practical demonstrations and instruction, so it promises to be a very interesting and informative evening. **Start time 7.30pm** in the Blue Room, adjacent to the bar in the Fishbourne Centre. Everyone welcome, so please support your club and do come along!

Another date for your diaries is **Thursday 14th December** when we will hold our AGM and subs evening in the Main Hall. The format will be as for last year, with refreshments and seasonal nibbles available. This is your chance to learn how the committee has been running the club over the past year and to have your say. Moreover, it represents an opportunity to vote on how things should run in the future. I will send out more information in the near future, but in the meantime please flag up the event and plan to attend if at all possible.



Thank you.  
Tim



### Bill Ingram, Building a Moon Glow Wing (part 1)

I decided to document the build as it progresses so the Plan and a set of laser cut parts was obtained. The plan is very basic, no servo positions shown in the wing or fuselage, no detail construction for the fin and fitment to the fuselage, no mounting angle for the wing aileron horns and no positions in the ribs for the control snakes.

In a spare hour It was decided to review the laser cut parts, familiarise myself with these in respect to the plan and start by removing the ribs, one missing, luckily there was enough wood spare on one of the rib sheets. During checking the plan as regards the ribs I noticed that they are slightly longer than the plan and the sub trailing edge would therefore have to be notched for the ribs. A list of wood was completed and order was placed to to complete the wing construction.

The wood arrived and the spars, leading edge and the tapered trailing edge. The first task was to deepen the rib notches for the spars to fit just below flush with the top of the ribs, this is to allow a slight space for the glue and to ensure the spars are never proud of the ribs before sheeting. Check that the wheel mounting beech blocks fit in the ribs and cut these to length. Most of the older plans show the trailing edge fully tapered to a sharp edge and that's how you bought them, now they are supplied from what I have had with finished 1/16 inch rear edge. This had to be modified to be fully tapered to complete the finished rib taper and allow the sheeting to meet over the top giving a 1/8th trailing edge.

The next thing to be sorted was the aileron controls, servo position and buy three servos. Determine what height the snakes would exit into the servo compartment, and the height of the exit in rib seven to meet the 90 degree bell crank to allow the push rod exit to the aileron horn.

This would have been easy to drill the hole for the snake if the wing was parallel cord and constant thickness but this wing is tapered in cord and rib depth. It was managed ok in the end. For the notching of the trailing edge a jig out of aluminium was made to ensure that the rib spacing was kept to three inches, also allowing for the increase in length due to the taper of the wing root to tip. Also a piece of ply wood was cut to give the same space at the main spar, rear spars and leading edge position, also this is used to cut the spar stiffening pieces as well to the same measurement.

Now to set things up for the build, is the building board still flat, does it have twist from end to end. It did have a slight twist, I always check this by using two lengths of aluminium square section bar one at each end. I use my best eye to check and pack the cross beams of the board as required. The laser cut ribs have a building tab under neath in order to make building easier and eliminate twist from root to tip, but not quite correct on these ribs, so quite a bit of time was spent to make sure that root rib centre line was in line with the tip rib centre line.

The wing is built up the to a finished frame as much as possible before any glue is applied, using straight square tubes under the TE and in position for the LE, these will be held in position with off cuts of available balsa pinned to the building board to eliminate any movement.

The main spar is then pinned to the plan/board, using a straight edge to make sure the spar will be straight from root to tip as this becomes the basis of the whole wing construction. Lay down the undercarriage blocks in position. The trailing edge is supported on the flat straight bar, this bar is supported by off cuts and angled using trailing edge off cuts under neath to achieve flow from ribs to the rear point of the trailing edge.

Then the ribs are placed in position and into the supported trailing edge notches. Then the top spar is laid in position, checking it will be straight when glued in, if not adjust. Check that the spars will go fully down in the ribs and just below the top.

Any space under the spar will be taken up with the PVA when glued in place. Then fix in a straight bar into the rib leading edge notches and chock into position. Check that the rib spacing by using the rib spacing plywood and that they are upright. Next place all the pre cut main spar stiffeners in position and check that all is true, ribs are straight from LE to TE , also the wing has not moved and there is no twist root to wing tip.

Then remove the top main spar, using a flat straight wide bar which overlaps the spar width, glue in the top main spar with PVA and press down to ensure the this goes flush with the top of the ribs and place a weight on till dry. When this is dry then super glue the bottom main spar to the rib stiffeners in place, ribs to stiffeners and stiffeners to the top main spar also ribs to trailing edge, remove the leading edge bar, place the LE in position, checking the Ribs on the LE and their spacing, also they are still straight from to back. Using a straight bar check that the LE is straight in both planes and then super glue.

Fit the top rear spar and check that it is straight. This is important as the spar at the aileron position (rib 7 to tip ) becomes the rear point of the wing when the ailerons are cut out. Glue in the spar using PVA, press down into position using the straight flat bar remove the bar and eye ball the spar for being straight over its length, replace the bar and weight in position. When dry remove from the board, check that all is glued where required.

With the main spar dihedral brace make sure it will fit in position and retain for later. I decreased the dihedral to about half of that shown on the plan. **Part two next month**



## Scale Competition – Saturday 14 October - Thorney Island

### Competition Report by Robin Colbourne

After long periods of weather unsuitable for flying, it was agreed we would hold the scale competition in the afternoon, to ensure that those not competing had the opportunity to get airborne.

Brisk winds and a few spots of rain heralded the start of the competition, although the rain held off for the rest of the day.

Five competitors turned up, however Declan, who was going to fly his Mew Gull, found his transmitter hadn't made it into the car. He elected not to risk trying to program a borrowed one in a hurry., Considering the work that he had put into his model this was probably a wise decision.

This left Fraser Dibden, with his De Havilland Mosquito fighter bomber, which he scratch-built from foam board and wire cut foam, Ken Smith with a very realistic S.E.5a, Derek Honeysett with a Leicester Model Centre BAe Hawk, that I hadn't seen before, but he said he had had for a long time, and David Hayward flying a 'Bellanca Decathlon', which bore a striking resemblance to his enlarged 'Peggy Sue'. As this comp was all about the flying, I wasn't about to complain.

As in the June competition, marks were awarded, out of five, for the take off and landing plus three manoeuvres appropriate to type selected by the competitor for that round.

Fraser flew first, managing a very realistic take off diagonally across the runway into wind. He then brought the Mosquito round for a low pass down the middle of the runway. One could have easily pictured it attacking a ground target ahead with the four guns in the nose. He followed this with a wingover and a barrel roll. The landing was going well until the last moment, when a leg collapsed. Unfortunately this put paid to Fraser flying in round two.

Next up was Ken Smith flying the S.E.5a in RFC/RAF colours. Given the narrow undercarriage track and the blustery conditions, Ken's take off was surprisingly scale-like. A barrel roll and loop were followed by a spiral dive; a typical manoeuvre for either evading a pursuer or chasing an enemy attempting the same; either way, it looked good! As Ken brought the S.E.5a in for a landing, he realised that he was getting un-commanded roll movements, suggesting an aileron servo problem. Getting the model on the ground quickly being a priority, the landing was a bit bumpy. Fortunately no major damage occurred, however Ken elected to inspect the model carefully at home, so he too wasn't able to fly the second round.

From the oldest type to the newest, Derek Honeysett was up next with his prop-driven LMC BAe Hawk, finished in Red Arrows colours. Derek achieved a very straight take off with the roll distance and the climb both representative of the full-size, which scored him max points. Next came a reversal, followed by half Cuban (half loop with a roll out on the downward part). Derek finished his options with a touch and go; again with a scale-like approach, touchdown, acceleration and climb. Both this and his landing scored max points.

David Hayward was the last to fly in the first round. With Peggy Sue playing the part of the aerobatic Bellanca Decathlon, David had scope for more manoeuvres than with most high wing cabin types. The 70 four stroke in this relatively small model gave ample power to cope with long energy-sapping climbs.

The take off was straight, with a level-winged climb out, which may not sound difficult, however the gusty wind meant David had plenty to keep him occupied. A full Cuban eight was David's first manoeuvre. Both looping parts were good, although with one side being larger than the other, he unfortunately lost a couple of points. The square loop that followed was much better, with clearly defined corners and straight sides. Only a bit of twist in the square prevented David receiving a full five points. The final option, a stall turn, was very clean, with a well defined corner at the start from the level into the vertical up leg, a slow rudder turn over the top, and a vertical down leg matching the up.

The land was very straight and steady, earning David the full five points.

With Fraser and Ken retired, that left the two 'D's to fly the second round. Again Derek went first; this time with a large Red Arrows-style loop, a Derry turn and a roll. The first two were superb, although I considered the roll slightly rushed, losing Derek a point. The landing was not quite as smooth as the first one, but still good enough for four points.

David flew the last flight of the competition, with an outside loop, a spin and a stall turn as his options. All were well flown, with the spin scoring max points for a nice sharp entry, a well defined spin and a tidy recovery. The approach and landing scored four points as they were a bit bumpy but good considering the wind.

Thank you everyone who competed and thanks to all the other flyers who gave up half a day's flying, which allowed the event to go ahead.

## **Chichester & District Model Aircraft Club – Scale Competition – 13 October 2023 - Results**

Name		Take Off	Task 1		Task 2		Task 3		Landing	Sub Total	Total	Position
		Pnts	Description	Pnts	Description	Pnts	Description	Pnts	Pnts	Pnts	Pnts	
Fraser Dibden	DH Mosquito	5	Low Pass	4	Wingover	4	Barrel Roll	3	3	19	19	3
Round 2	Did not fly											
Ken Smith	S.E.5a	4	Barrel Roll	3	Loop	5	Spiral Dive	4	2	18	18	4
Round 2	Did not fly											
Derek Honeysett	BAe Hawk	5	Reversal	4	Half Cuban	5	Touch & Go	5	5	24	47	1
Round 2		5	Large Loop	5	Derry Turn	5	Roll	4	4	23		
David Hayward	Bellanca Decathlon'	5	Cuban 8	3	Square Loop	4	Stall Turn	4	5	21	43	2
Round 2		5	Outside Loop	4	Spin	5	Stall Turn	4	4	22		







Seen above the skies  
of CADMAC's  
Thorney Island flying  
site today, Oct 8,  
2023. Photos by Paul  
Diette

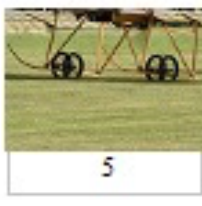
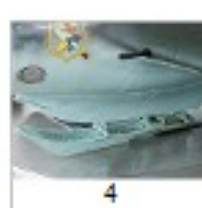


Robin Colbourne has produced these series of quizzes for CD

### Aircraft Identification Quiz

This is the first in a series of quizzes that I'm hoping to have in each issue of Clear Dope. Feel free to use reference books or the internet before looking at the answers!

#### Quiz 1 – Skid Row - Identify the aircraft by its skid or skids.



## Aircraft Identification Quiz

### Quiz 2 - The Name's the Same

Match pairs of aircraft which share the same name, model number or NATO reporting name.





### Aircraft Identification Quiz

#### Skid Row - Answers

1. <u>Avro</u> 504K	2. Bell X-15	3. Bell 47G	4. Messerschmitt Me163 <u>Komet</u>
5. Bristol <u>Boxkite</u>	6. Slingsby T-21 Sedburgh	7. Sopwith Camel	8. <u>Supermarine</u> Spitfire (Prototype)
9. Wright 1903 Flyer	10. Slingsby T-31 Tandem Tutor (or Cadet TX <u>Mk.3</u> )	11. Fokker Dr.I Triplane	12. Slingsby T.38 Grasshopper
13. Bell AH-1 'Huey Cobra'	14. <u>Göppingen</u> Go 3 <u>Minimoa</u>	15. Westland Scout	16. Robinson R22 Beta
17. Antoinette	18. General Aircraft <u>Hamikar</u>	19. Vickers <u>Vimy</u>	20. Bristol F.2B Fighter

#### The Name's the Same - Answers

1. <u>Avro</u> Tutor (See 18)	2. <u>Vought</u> Cutlass (See 19)	3. <u>Heinkel</u> He 111 (See 6)	4. <u>Rutan</u> Defiant (See 14)
5. Hughes Hercules (See 17)	6. BAC 111 (See 3)	7. <u>Antonov</u> An-12 'Cub' (See 12)	8. Miles <u>Magister</u> (See 13)
9. <u>Bee</u> Nimrod (See 16)	10. <u>Antonov</u> An-2 'Colt' (See 20)	11. McDonnell Douglas F/A-18A Hornet (See 15)	12. Piper J-3 Cub (See 7)
13. <u>Fouga</u> Magister (See 13)	14. Boulton & Paul Defiant (See 4)	15. De <u>Havilland</u> Hornet (See 11)	16. Hawker Nimrod (See 19)
17. Lockheed C-130K Hercules (See 5)	18. <u>Grob</u> Tutor (See 1)	19. Cessna Cutlass (See 2)	20. Piper Colt (See 10)

## Air ACES Chichester presentation - November



### **“Coal Gas to Concorde – WW2 to Concorde”.**

An illustrated talk presented by Peter Griffiths will be given in the Grand Hall, at Avisford Park Hotel, Walberton, Arundel, BN18 0LS, on Monday 27<sup>th</sup> November 2023 – 7pm for 7.30pm start.

Peter Griffiths comes back to Air ACES, to tell the second half of an amazing story.

This time, he will be covering the period between the WW2 & Concorde.

Having already talked about the attempts to cross the Atlantic by balloons filled with coal gas, then seaplanes, airships and infamous pilots, including Alcock & Brown, Peter will describe the adventures with other types of aircraft from the end of WW2 right up to the feats of Concorde. These included early inflight-refuelling, piggy-back flights, the Comet, Boeing 707, and then Concorde itself.

Entrance for Air ACES members is £5, guests £7 and under 16s free. Tickets on sale at the door, on the evening, no pre-booking. Doors open at 6.45pm, no reserved seating.

For further information about Air ACES, please see [www.airaces.org.uk](http://www.airaces.org.uk), or call David Batcock on 01243 823007







**Flying alone on Thorney is now not allowed on the grounds of safety**

When driving around Thorney be aware of young children on bikes and 20mph speed limit

**Please Try to leave Porthole as tidy as possible, making sure no fuel is left on site & lock the gate.**

**30 metres from “uninvolved” persons”**

**15 metres when taking off & landing, subject to mitigations**

**From 1 Jan 21 BMFA Article 16 is law: know the separation minima!**

**The Commander at Baker Barracks Thorney and the MOD have decreed that there shall be NO drone flying whatsoever**

**When flying at Thorney please keep an eye out for traffic(all kinds walkers, horses, bikes, runners, and low flying aircraft) coming from behind the flyers and inform them accordingly**

The club Facebook page is now in its fifth year. It has over one hundred members. It contains many contemporary site reports, and has a wealth of photos in its archives. Administered by Nick Gates. David Hayward & Ken Knox

Here is the link:-

<https://www.facebook.com/groups/Chichesteraeromodellers/>