

# Clear Dope

September 2022



Chichester and District Model Aero Club: Committee 2022

**Chairman: Tony Chant:** [chairman@cadmac.co.uk](mailto:chairman@cadmac.co.uk)

**Hon Secretary & Treasurer: Tim Kerss:** [secretary@cadmac.co.uk](mailto:secretary@cadmac.co.uk)

**Thorney Rep Vice Chairman and Safety Officer: Derek Honeysett:**  
[thorneyrep@cadmac.co.uk](mailto:thorneyrep@cadmac.co.uk)

**Deputy Thorney rep: Jeremy Stuttard:** [thorneyrep-2@cadmac.co.uk](mailto:thorneyrep-2@cadmac.co.uk)

**Portshole Farm Rep. and Safety Officer: Ken Smith:**  
[portholerep@cadmac.co.uk](mailto:portholerep@cadmac.co.uk)

**Deputy Portshole rep: George Gilchrist:** [portholerep2@cadmac.co.uk](mailto:portholerep2@cadmac.co.uk)

**Slope Rep and Safety officer Trundle Hill: Nick Gates:**  
[sloperrep@cadmac.co.uk](mailto:sloperrep@cadmac.co.uk)



Please send more articles for CD  
Happy Flying and be aware of others



Another A certificate success ! Well done Simon Sherriff, who has recently re-joined the club after a very long absence

### **Glider competition round 1**

Please see the results of the gliding event held at Thorney Island on Saturday.

The day started with a light north wind which provided tremendous lift for those who had rigged their gliders and carried out test flights. The wind was however too light for models to go up the bungee though before long the sea breeze kicked in resulting in moving everything to the north side of the flying area and the competitions were then flown in a moderate southerly breeze.

Because the wind was from the south there was little if any thermal lift however you could get a reasonable time by holding the model into wind .

#### **Electric Glider (Three rounds best two times)**

1st	Adrian Childs	16mins 52secs.
2nd	Eamon Keating	16mins 36 secs.
3rd	Derek Honeysett	11 mins 21 secs.
4th	George Gilchrist	6 mins 05 secs.

Longest electric glider flight of the day was **Eamon with 10 mins 05 secs.**

#### **Bungee (Three rounds best two times)**

1st	Adrian Childs	21mins 39secs.
2nd	Declan Cousins	21 mins 17 secs.
3rd	Derek Honeysett	8 mins 40 secs.
4th	Bill Pethers	7 mins 00 secs.

Longest bungee flight of the day was **Declan with 12 mins 40 secs.**

Last Saturday the 20th August we managed to hold the next round of the glider competition. The weather was sunny however there was a keen breeze which got progressively stronger as the afternoon went on. This meant that the gliders went up the bungee really well and some excellent times were recorded. Because of the wind direction being from the south west there was no thermals coming across the airfield however patches of lift were found by holding the gliders into wind. Similarly, the e gliders also benefitted from the strong winds and again some good times were recorded .

Results were as follows:

#### **Bungee Glider**

(Best two scores 10 min max )

1st	Adrian Child's	20 mins ( two 10 min max ).
2nd	Declan Cousins	17 mins 31 seconds.
3rd	Derek Honeysett	13 mins 59 seconds.
4th	Bill Pethers	9 mins 51 seconds.

Longest flight was **Adrian with 15 mins 18s .**

#### **E Glider**

(Best two scores )

1st	Adrian Child's	22mins 29 seconds.
2nd	Derek Honeysett	13 mins 44 seconds.
3rd	George Gilchrist	11 mins 52 seconds.
4th	Toni Reynaud	4 mins 44 seconds .

Longest flight again was Adrian with 15 mins 31s.

We postponed round 2 due to the excessive heat and we are hopeful that this can be rescheduled in September or October.

RC flat field gliding is a different form of RC modelling especially bungee launching and makes a welcome change from our normal power flying, if you have never tried it come and have a go!

Kind regards

Derek

## AIRSAIL AUSTER AOP9 KIT & ELECTRIC CONVERSION BY WILL MARSH

I had been looking around for a semi scale electric conversion kit for a new build project and saw an Airsail Auster AOP9 kit on Ebay last year. I had always liked Auster aircraft designs and luckily I was the lucky bidder.



I started the build last November and recently completed it, so quite a long build time. The quality of the kit was very good with excellent plan detail and parts. The construction was relatively straightforward and the quality of the diecut balsa and ply was good. I did a few strengthening mods to the wing mounting areas and modified the wing attachment points using M5 threaded studs and wing nuts.

The airframe was covered in Cub yellow

Solartex and the cowl was painted in satin black enamel. All the decals came with the kit and I think give the model a good scale appearance.

I predicted the model would weigh at least 6 ½ lbs all up weight and therefore would need about 700 watts of power to allow a bit of leeway. The electric conversion consisted of an Overlander 710kv 700 watt 4250 3-4s lipo motor, a Skywalker 60A ESC, a 4s 4250mA Overlander lipo and a Power Max 12 x 8 wood propeller. Using an aluminium T section bracket the motor installation was fairly straightforward.

I bench tested the motor using a wattmeter which registered 710 watts at 42A at full chat. A result I was very pleased with.

The total weight of the model + battery is 7lbs 4oz (I had to add about 3ozs of lead to get the model to balance at the correct C of G point).

Overall I am very pleased with the finished model and look forward to it's maiden flight later this year – probably not with me at the controls!!!

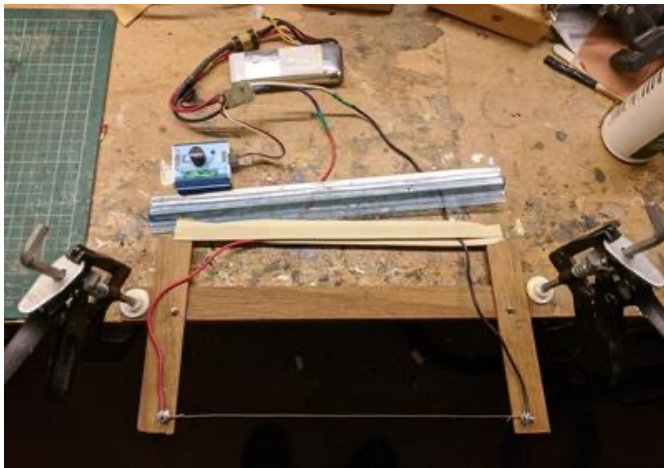


Toni Reynauld writes:- **Foam Hurricane build in pictures part I**

In 2009 I built a Hurricane in blue foam based on the Tony Nijhuis free plan. That one ended up tail heavy so I decided to try again but using expanded polystyrene for lightness. Rather than use the spine, formers and skin method again, I decided to cut fuselage sections between each of the pairs of formers and glue them all together to get a complete foam fus. The basic principle is to cut sections of the fus between the formers, left and right halves, then glue it all together to get the shape approximately right and smooth. This is how it went.....



The formers, all marked with the central datum line



Small battery powered hot wire cutter.



Fuselage section F2 to F3, one side cut, the other side still a blank with the formers nailed on and ready to cut.



All sections cut and lined up.



Sections stuck together – inside view looking down towards the tail.



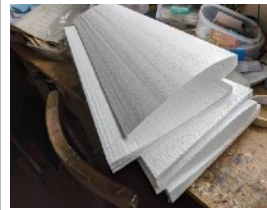
Cockpit area with wing root template in place and cockpit cutout marked.



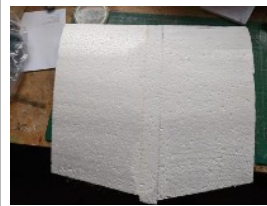
Wing seating cut out, fus laid on the plan to check I got it right. I did!!.



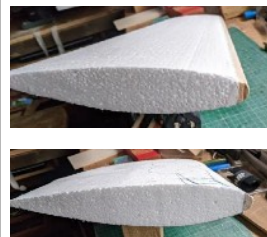
Bottom view of the wing mounting area after the cut out. Lots of room to put stuff in there.



Outer wing panels cut out. They look a bit ridged, but will take a light sanding to smooth them off a bit. The tip template is pinned in place for cutting with the trailing edge about 6mm high to give washout on the finished panel.



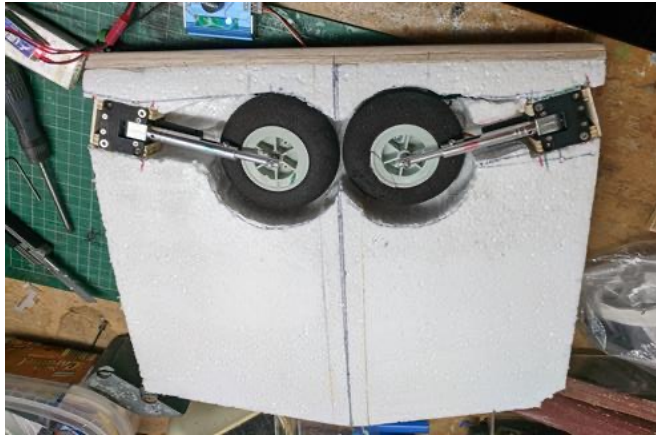
The two centre panels cut and placed next to each other for checking. Looking good so far.



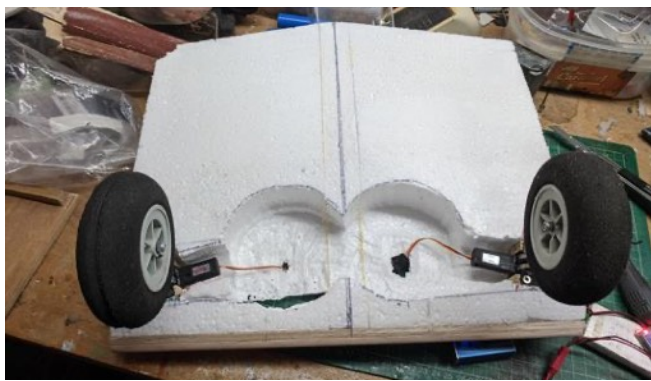
Outer wing panel and centre section panels with leading edge glued on.



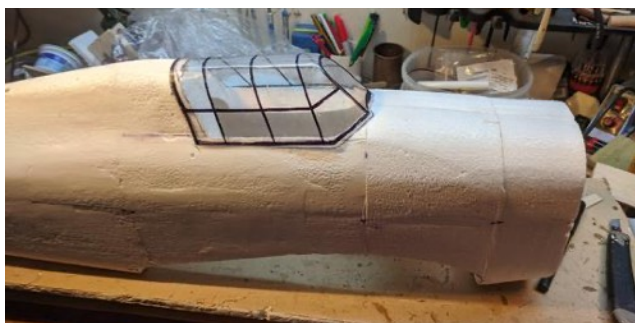
Centre sections glued together with the retracts positions marked



Ply mountings for the retracts made and glued in position. Not the best job because the foam wasn't really dense enough, but we'll see how it stands up to landing strains.



Trial run – clearances are all OK. The retracts were fitted and tested multiple times – they are a cheap set of sprung oleos from China, and the wheels don't hold a straight ahead position, so I had to give them toe out and hope that the rolling drag on take-off would pull them into the straight ahead line.



Trial fit of the canopy. The cockpit area was cut to profile, then bits of the inside carved out to make room for the pilot, and balsa sheet added at the back and front panel area. You can also see a bit of filling and smoothing has been done on the side of the fus.



Trial fit of the wings. The cockpit area can also be seen more clearly.

## Forty Years in the making a Story by Pete Rieden of the Border Mac

This was the kit I bought in 1982 as a background project – now finally flown:

Posed for the obligatory pre-flight shot with the original 40-year-old kit box and as I didn't have a banana to hand I've included the transmitter for scale: It was a touch blustery, but the wind was essentially down the runway. I handed my phone to a clubmate to get some snaps and he wasn't brilliant at letting it focus, but here's a shot of the take-off run and the climb-out at 85% power:





High fly-by:



Cross-wind leg before turning onto finals:



The model was flown with the CG in the middle of the recommended range, with a take-off weight within a few grams of 5kg ready to fly with a full battery. I fitted a 13-10 APCe prop for maximum ground clearance, which turned at around 9,100rpm on a fresh battery drawing 52A giving about 1200watts (1.6BHP in old money) on full power. Fears about ground-handling proved groundless - the model taxied well and steered easily on tufty dry grass and the outriggers didn't snag or catch at any time.

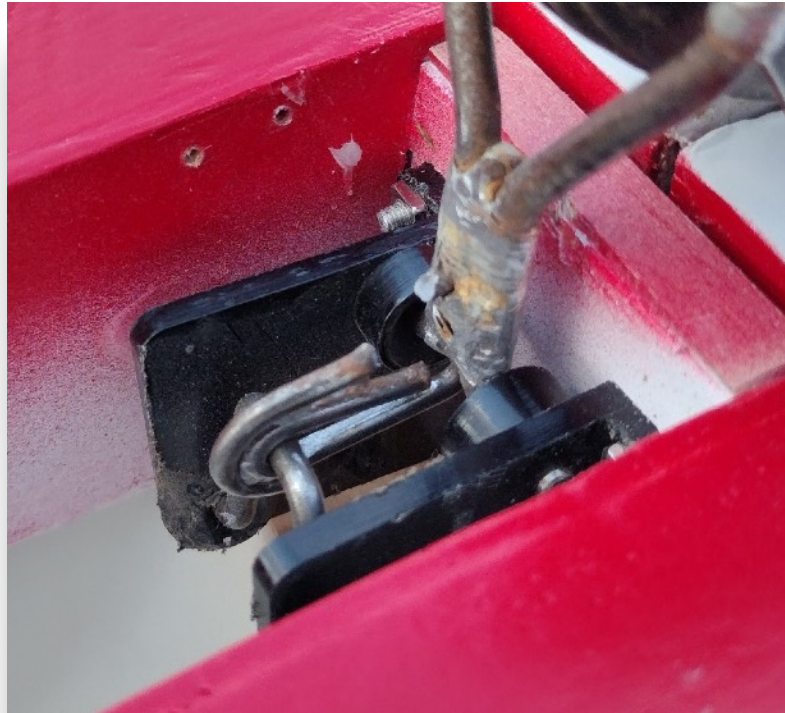
Take-off was a complete no-event, there being more than adequate power. I think I was only at 70% throttle when it became airborne and I nudged it up to about 85% for a safe first climb-out (but it wasn't needed). Rudder and aileron trims weren't touched, but I did add a couple of clicks of up trim (more on this later).

"The aeroplane handled well and all systems used functioned correctly" (dread to think how often I've read that in flight test debriefs!). It can be flown on just ailerons and elevator, but it really needs the rudder to be flown properly. With its size and colours it is easy to see and orient in the air. It has significant inertia and a very solid feel in the air. Pitch stability was positive, possibly excessive, indicating that the CG could safely be more aft. I took it to altitude and found it slowed a very long way before stalling (more on this later), but the actual stall break came with a port-wing drop, taking 50 feet or so to recover to level flight. With the recommended elevator throw pitch control was positive, but a little more would be needed for reliable flick and spin manoeuvres at this CG position. I had slightly more than the recommended aileron throws (and much less differential) even on low rate but I found ailerons to be light, precise and powerful enough - I'll probably leave them alone. The rudder was precise and effective.

Straight & level flight at 33kts (according to the uncalibrated Pitot sensor) needed around half throttle. Full throttle gave a significant increase in speed and a sustained climb angle of around 40 degrees. Full throttle in level flight for 3 seconds then allowed a vertical climb of over a hundred feet before throttling back to 25% for a stall turn. The stall turns with that huge wing rotating look very spectacular, as do large loops from straight and level flight which only needed 80% power. Rolls take about 3 seconds end-to-end on this aileron rate, and need a bit of down-elevator nudged in to keep the nose up as you would expect. Four-point rolls are graceful and look really, really nice. Airspeed on the down-lines of the Cubans was typically 46-48kts (indicated). Large Cuban eights will undoubtedly become one of this aeroplane's standard fare - I think I'll step through Bob Grimstead's (full size) RF-4d aerobatic display routine and note it down because that shows off the aeroplane very well.

After about eight minutes of aerobatics and passes I was down to 25% battery so I did some passes experimenting with the airbrakes. These are extremely effective allowing quite steep descent angles with just a hint of nose-down trim change. So I lowered the mainwheel and landed using airbrake down to about 4 feet and then releasing it. The model landed nicely and taxied back to the pits before shutting down with 12% battery remaining.

On reflection I was generally flying the aeroplane fast, and I think this as down to two things - I think I could use a lower pitched prop (perhaps a 14-8.5) and I also think it was nose-heavy. I'll wait until I have more experience with it to get the confidence to slow it down and take the CG back.



But I was very pleased with it. The second flight was much the same, right up to the landing where I forgot to release the airbrake button (I have the airbrakes on a momentary push-button) and so landed a touch hard. This actually broke the retract, snapping a 16swg piano-wire part in the downlock mechanism but did no other damage

I made a complete spare set of the wire parts, so for now I will simply make another one (it's about an hour's work), but if the problem recurs I might consider replacing the whole unit with the more modern unit Jim Reeves sells.

Overall assessment - very happy and looking forward to getting more familiar with it.

If people want to see the build log it can be found here: <http://www.flyingsites.co.uk/forum/index.php?topic=9837.0>

Some photographs of the cockpit and pilot  
**Pete**



Ray, a picture of concentration, I hate to think what he looks like flying a more complex machine



Toni Reynaud preparing for battle, `round one on this years glider competition



## Planned Club Activities for 2022

<b>Date:</b>	<b>Event:</b>
Thursday 8 <sup>th</sup> September	Club flying evening – Fishbourne Sports Field
Thursday 13 <sup>th</sup> October	Club evening meet – Fishbourne Centre
Saturday 5 <sup>th</sup> November	EDF jet competition – Thorney Island
Thursday 10 <sup>th</sup> November	Club AGM & evening meet – Fishbourne Centre
Sunday 13 <sup>th</sup> November	Remembrance Day Gliding event – Thorney Island
Thursday 8 <sup>th</sup> December	Club evening meet – Fishbourne Centre – subs.

### **A message from Ken Smith and George Gilchrist, Portshole Reps.**

To maintain good relations with our neighbours, may we remind all members that in no circumstances should you enter the waste water treatment site (the 'poo' farm) adjacent to our flying patch. Models occasionally end up inside the boundary of the site and it is tempting to head off to retrieve them. Please do not do this.

Even if you find the works gate open don't be tempted to go in. You may think you are just looking for the site operative but this will get logged as an unauthorised entry which the water company is extremely sensitive about.

If you do lose a model into the treatment site, in the first instance, you should contact one of us (Ken Smith 01 243 xxxxx79, 0xxxxxxx280; George Gilchrist 01 243 xxxx06, 0775xxxx735) and we will contact the site manager to get the model retrieved and returned. Martin Gentry, the site manager, is a very helpful chap and is very supportive of our flying. He will contact the worker on site to put the model back over the fence or arrange an escorted visit if necessary. If neither of us Reps is contactable Martin is happy for you to contact him directly (07775 xxxx74).

We are putting all these telephone numbers in the 'login' book at Portshole.

Thanks everyone.

Ken & George

## Roy Scott's Eagle flies



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!

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

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

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

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/>