

# CLEAR DOPE



*February*

## Chichester and District Model Aero Club: Committee 2017

**President:** John Riall  
**Chairman:** Tony Chant: 01243 262816, mobile 07766078977,  
[t.chant11@btinternet.com](mailto:t.chant11@btinternet.com)  
**Secretary, Hon Sec. and Social Sec:** Toni Reynaud 01243 370422, [a.busuttilreynaud@btinternet.com](mailto:a.busuttilreynaud@btinternet.com)  
**Treasurer :** Malcolm Farrington, 4 Little Babbsham, Aldwick  
Fields, Bognor Regis, WestSx. PO21 3SZ . 01243 821789 [members@cadmac.co.uk](mailto:members@cadmac.co.uk)  
**Membership Sec:** James Egington, 41 kestrel Close, East Wittering,  
West Sussex. PO20 8PQ 01243 672195  
**Competition Sec:** Ray Beadle 01243 670163  
**Thorney Rep and Safety Officer:** Derek Honeysett 01243 371093  
**Porthole Farm Rep and Safety Officer:** Keith Watts 07530 375113  
**Slope Rep and Safety Officer, Trundle Hill:** Nick Gates 07957 422941  
**Webmaster:** David Gardner: [webmaster@cadmac.co.uk](mailto:webmaster@cadmac.co.uk)  
**Junior Rep. & Junior Members Protection Co-ordinator:** Donna Goff  
**Senior Training Officer:** John Riall 01243 782922  
**BMFA Rep & CD editor:** Ken Knox 07885819911  
[kenneth.knox@btopenworld.com](mailto:kenneth.knox@btopenworld.com)  
**Membership Secretary:** James Egington, 41 kestrel Close, East Wittering, West Sussex. PO20 8PQ  
01243 672195



Hello everyone and welcome to February's Clear Dope. Ken is unable to produce Clear Dope this month, so as a special treat he has allowed me to have a go. Despite my best efforts with Mac 'Pages' I have defaulted to 'Word' on a PC, so apologies for the slightly different format.

Despite the cold weather both Porthole and Thorney have been busy, but with Porthole, it seems, receiving the better midweek weather. Others who prefer a warmer pastime have been busy building, or preparing, if not repairing!



Since (I think) 1964 the club has been flying at Porthole Farm, under the agreement with Ralph Shrubbs, the farmer. Due to Ralph's advancing years he has handed the running of the farm over to Robert Sadler and unsurprisingly this has resulted in a review of the rent paid by the club. The committee is currently negotiating the best deal it can for the future.



As most Thorney fliers know I have been having issues with my transmitters. After one low knife-edge pass my biplane suddenly flicked into the grass in a blink. The general consensus was 'too slow, you stalled it', to which I replied 'well the last pass was too fast!' Ah well, bits collected and front of the fuselage and wings were duly repaired. A

few weeks later and it was ready to go. A pre-flight check revealed that up elevator triggered full aileron deflection! Ha, not my flying after all! I quickly rebound to my reserve DX6i, set up the surfaces and all was ready. I trotted down to Thorney, ran up the engine, and off she went. By the time it had crossed half the runway I had no control, and after a short flight she nosed in, again in kit form.

Ok, so a disappointing moment, but what is going on? Well a range check revealed loss of signal at about six feet. My trusty Spektrum TX had finally been hit with the 'failed RF board' curse!



The following day both transmitters were returned to their boxes and posted off to the Horizon Hobby repair centre in Essex. They returned just under a week later with a new RF board fitted, and the other TX had a new gimbal fitted, all free of charge. Now all you Futaba users will now be rumbling on about how this would never happen to a Futaba set, and that's

what you expect with a Spektrum set; however, it is an excellent repair service, and it was with sadness that I heard this week the possibility that HH are closing the Essex works and moving all operations to Germany under the Staufenbiel name.

Now I can hear you all saying 'Range Check Before Flight!' and how right you are, but how many honestly range check with their regular gear?

### Convenient Radio Range Checking

Colin kindly sent in a method for single-handed range checking:

Here's a tip for making radio range-testing a one-person operation when you use receivers with fail-safe.

- 1/ Test all controls at close range.
- 2/ Fit a wing band around the Tx aerial and both sticks so as to pull the sticks inwards and upwards to their fullest extent, so that the throttle and control surfaces are set to max. deflection. If you are checking an electric model, it's most unlikely that you want it full throttle, so you'd have to bias just one stick.
- 3/ Switch on the Tx and Rx, check that the controls move to the offset positions and then place the Tx on your model box, just get it off the ground and with a clear "view" down-range.
- 4/ Walk your model to distance to the point where the system drops into fail-safe and the controls move to their fail-safe setting. This best done at a point where fail-safe operates when the model is placed on the ground, and control is restored when the model is picked-up.

5/ When control is restored, turn the model around full circle and at upright angles to check for dead spots in the radio coverage.

6/ Switch off all, job done.

This works well for me at Thorney on 35MHz, where I set the model down on the concrete on the far side of the peri-track, and with the Tx aerial extended to a single section. If you want to range-test an electric model with varying motor speeds, then you would need assistance.

Just in case I don't go all 35mghz and as belt and braces approach I have 'invested' in a pocket-sized power meter made in Southampton by Model Radio Workshops. This tests the output of your 2.4 set to give a little more peace of mind.



## Winter Building

For those blessed with a warm shed or understanding significant other projects have been coming together over the last few months.



**Phil Gardiner** has built a Radio Queen from a Ben Buckle kit given to him four years ago. The Radio Queen was designed by Colonel Taplin in 1949, and made a channel crossing powered by a Taplin Twin diesel engine. I am sure the Colonel would be very pleased to see his design still being flown and bringing so much pleasure to modern day modelling. Its powered by 4 stroke ASP 61. I am looking forward to its maiden Phil, you have done a cracking job!



## MAKING SAW-DUST

**The first article from Bruce Smith on the trials and tribulations of building from scratch.**

January saw me make an early expedition to Santa's Modelling Centre to cash in on the spoils from my kids' generous Christmas donations to my SMC account - much better than socks and hankies, I think. (Fig 1) I'm sincerely hoping that in the not too distant future that bag of balsa, beech, ply and piano wire which I carried away triumphantly will morph into a 1/5 scale Auster AOP-9 to be built from a 30 year old, Keith Humber, Traplets Plan.

While some people have a predilection for being tied to railings and being beaten with birch twigs, others of a similar persuasion prefer to scratch-build from a plan. 'Not a great deal of difference.

Following the demise of my Brian Taylor Plan P-51D 'Bald Eagle' in 2015, I've got a lovely little



NGH 17cc petrol engine looking for a home, and since I'd been flying a couple of mid-sized electric ARTFs during 2016, I've done no building or repairing so I'm definitely starting to get a bit twitchy to once again inhale that balsa dust and cyno my hands to the building table. I definitely wanted to build a war-bird of some description and the AOP-9 has always been a favourite since the days of my youth when it was about the only model from the Keil Kraft Scale Series (3s 11p) which I got to fly properly. The other big advantage is that lovely deep cowl which should swallow up the NGH nicely. (Fig 2)

Just flying any RC model, even from the box, gives a great deal of satisfaction. This enjoyment is greatly increased if you've fitted out an ARFT, more so if you've built from a kit and even more so if you've scratch built from a plan. I wouldn't particularly advise scratch building for your first real build although I have known it done successfully. It's probably better to get a couple of kits under your belt and get used to how the three dimensional model is represented on a plan. The two great advantage of kit building are: Firstly you've got pretty much everything you need, nowadays with ribs and formers ready to press out of CNC cut sheet; and secondly you'll have a comprehensive set of building instruction written by the kit's designer. There's no such help with the majority of plans on the market - the big exceptions being those featured in the major modelling magazines and especially those such as the Tony Nijhuis series from RCM&E where the Traplets organisation supports the builder with, not only the build commentary but also wood-packs, CNC pre-cut parts, designated mouldings and even designated retract systems and power trains. (A kit really.) Usually when you scratch build from a plan you'll have little more information than the type and thickness of the wood or metal to be used for any particular piece and it often takes weeks of study and cogitation before you can begin to understand what the dotted, dashed and solid lines actually represent on the designer's drawing. But that's the great joy of scratch building. Decoding that black and white 2D representation and creating a flying 3D beauty. Cracking the codes and solving the problems.

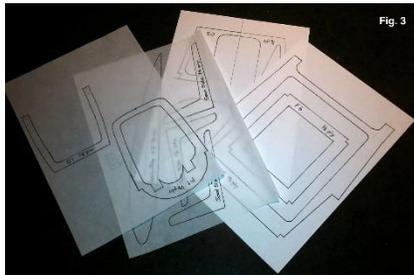
So, before we get under way, please let me say that I'd like this exercise to be something of a two way process. While I hope my ramblings might be the catalyst to get new RC pilots to take a step from ARTFs and start building, as I attempt to include helpful tips and bits of know-how. On the

other hand, I'd be delighted to hear and share your ideas on how I might have better achieved any particular aspect of the project. Learning from others is the mainstay of our hobby.

Right then, let's start making saw-dust. I've had the plan a few weeks, drawn up a building materials list and gleefully spent my kid's hard earned ackers on the lovely prime materials which now lie before me. My first task then is to transfer the shapes of ribs, formers and panels from the plan onto the virgin balsa and ply. There are companies such as 'Brain Cube' and 'Belair' who'll do this for you and CNC cut directly from your plan, but for about the same price you could buy yourself a decent powered 'fret saw' to jig your way round those ply-wood bad boys and personally I always find this aspect really enjoyable, if somewhat time consuming.



I usually begin with a book of A4 tracing paper and a medium black felt tip pen. I don't take hours and hours ensuring that my tracings are 'drawing office perfect,' they'll always have occasional wobbles and wiggles. I know that once you get slicing through balsa with a scalpel or moving ply through a fret saw you tend to smooth out the little imperfections in the same way that an artist

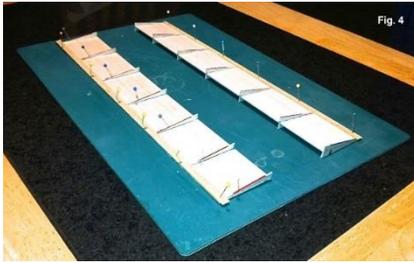


will tend to sketch a 'furry' shape with many lines and then see the definitive outline within them. Once the outlines have been traced I run them through the photocopier (Fig 3) onto plain white paper (some obviously need doubling up) so they can now be roughly cut out with about an 1/8th inch margin ready to be tacked to the balsa or ply with 'Prit stick.' You could, of course, cut from your tracings but I don't do this for a couple of reasons: (a) I like to keep a file of the patterns each time I build; and (b) if you mess up your cut you'll have to go back and trace

again instead of just whacking the pattern through the photocopier. Two words of warning though, before you actually commit your patterns to the wood. Firstly, measure a sample copied pattern against itself on your plan. Some printers/photocopiers reduce the copy by a fraction. If you've got a significant difference, then you might have to scan your tracings into the computer and scale them up a few percent; Secondly its worth taking a few minutes to lay out your patterns over your wood to maximise its usage bearing in mind that the run of the grain is important for structural strength. Also its sometimes possible to nest two or even three formers, this way you can economise greatly on wood use.

When it comes to cutting ply I use a powered fret saw with a medium blade of 15 - 20 tpi, while for balsa I use a Swann Morton scalpel with No. 26 blades. A decent micro fibre cutting board is essential and as you'll see from (Fig. 4) during the recent cold snap I actually used the back of the cutting board as a building board for my ailerons so that I could work in the warmth of the kitchen!

For the large structures the usual practice is to pin the required section of your plan over the cutting board and then carefully tack cling film over the building area. The cling film will inevitably get stuck to your structure but it's easily pulled or sanded off later. What you don't want is your plan stuck to your structure. Now every modeller will have their own idea on what constitutes the best building board - anything from Sundeala (pin board) to glass (yes, glass). I prefer to buy a four foot by two foot section of chip board from the local DIY stores and use a rubber mallet to secure my modelling pins - a metal hammer tends to shatter their heads. I also have a selection of full and half diver's weights as there's no way you'll get a pin through a spruce spar.



Back to (Fig. 4) and the ailerons, which are the very first bit of my build. There are a couple of things to note here. Firstly I've colour coded the hypotenuse of the half ribs (red for the upper and blue for the lower) as I relieved the paper pattern from them. It would be very easy to mistake the two very similarly sized pieces or glue them the wrong way. Secondly, I've departed from the plan where the half ribs are supposed to taper to the trailing edge. I've cut the last 1/4 inch off each half

rib and used a strip of 1/32. This can be chamfered to the correct section and gives the advantage of just a little height at the t/e. Now, when I eventually cover the open structure with Solartex I'll get an even line of adhesion instead of the covering sticking to the central sheeting in half-moons, which doesn't look nice at all. Of course on the full-sized, the Irish linen was hand sewn on before being painted with shrinking dope to tighten it. Now that's just one scale challenge too far for this modeller.

More on the Auster build next month, but in the meantime if you have any advice or suggestions for me then please mail them to Ken for CDe or post them on the CADMAC Facebook site.



**Mark Peters** is building a rubber powered Spitfire, and center is **Tonis Zoot Suit** wing. On the right is **David Haywards** Elan 100" glider wings.



## Zoot Suit

A group of club members are having a Single Model Fun Fly-in this year. The model is the **Zoot Suit** electric powered glider.

Sets of the laser cut ribs, available for £32. Plans are The Builders will need to buy stringers required which are and the Esc are shown noted which is to be the standard for from several suppliers.



formers and shaped parts are free.

the sets of strip, LE, TE and approx £13 50. The electric motor on the plan, also the 1300 Lipo this model. These can be obtained

The builder also will need to supply the servos and the covering. The competition will be held at the Porthole site. A set of dates have been arranged



which include weekday evenings and weekends over the year and published in Clear Dope and on the website. Quite a few have been built already, and are being fine tuned.

Rules for the start of the year will be a 20 Sec climb, timed to landing, in 2/3 rounds. Total maximum time for the day wins. The detail of the comp may change as the year goes on. Each day is kept separate, so it does not matter how many members are there on the day or if a day is missed. I have a limited number of Plans and Kits and Strip bundles for anyone who would like to join.

*Ray Beadle*

### ZOOT SUIT competition dates, all flying at Porthole.

Friday 3<sup>rd</sup> March, Sunday 26<sup>th</sup> March, Friday 7<sup>th</sup> April, Sunday 30<sup>th</sup> April, Friday 26<sup>th</sup> May, Sun 18<sup>th</sup> June, Friday 30<sup>th</sup> July, Friday 4<sup>th</sup> August, Friday 22<sup>nd</sup> September, Sunday 1<sup>st</sup> October, Friday 20<sup>th</sup> October & Sunday 5<sup>th</sup> November

To start 20 second Climb to landing. Sunday Starts from 12 o'clock Friday Starts all Afternoon.



## Competitions 2017

<i>Date, all starting at 11:30.</i>	<i>Competition and location</i>
Saturday 11 <sup>th</sup> March	Climb and Glide at Thorney
Saturday 15 <sup>th</sup> April	Bomb drop at Thorney
Saturday 29 <sup>th</sup> April	<b>Reserve</b> Comp day for Thorney or Porthole
Saturday May 20 <sup>th</sup>	Electric Glider at Porthole. Max three cell LiPo 2200 mAh.
Saturday May 28 <sup>th</sup>	Slope day at the Trundle or Electric glider if wind not on slope (SW)
Saturday June 10 <sup>th</sup>	Pattern Competition at Thorney
Saturday June 17 <sup>th</sup>	<b>Reserve</b> competition Day at Thorney or Porthole
<b>Sunday</b> July 16 <sup>th</sup>	Electric Glider at Porthole. Max three cell LiPo 2200 mAh. Plus BBQ!
Saturday July 29 <sup>th</sup>	Slope day at the Trundle or Electric glider at Porthole if wind not on slope (SW)
Saturday August 12 <sup>th</sup>	Open Glider <i>and</i> Electric at Thorney Island.
Saturday August 26 <sup>th</sup>	Open Glider <i>and</i> Electric at Thorney Island.
Saturday September 9 <sup>th</sup>	Open Glider <i>and</i> Electric at Thorney Island.
Saturday September 16 <sup>th</sup>	Slope day at the Trundle or Electric glider at Porthole if wind not on slope (SW)
Saturday September 30 <sup>th</sup>	<b>Reserve</b> comp day Thorney/Porthole
Saturday October 14 <sup>th</sup>	Electric Glider at Thorney. Max three cell LiPo 2200 mAh.

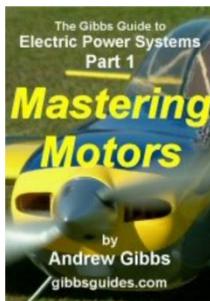
Next club night at  
Fishbourne

Thursday 9<sup>th</sup> February  
Talk on Pylon Racing by Barry Lever.



The clubs facebook page continues to build in popularity, with over 90 members. It has regular postings, from a days flying, some building and a bit of banter too. Come and join us at

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



If you are learning the ins and outs of electric power club member Andy Gibbs has very good guides available here. It's a much more economic method than trial and error!!

<http://www.gibbsguides.com/>

*This series of guides is awesome! As a previous customer of Gibbs Guides I knew the quality and value for money would be outstanding. Even so, I am amazed - you have really excelled yourself this time, Andrew!*

*David Johnson, AZ, USA.*

Finally, a few reminders...

**For those of you who have not yet renewed, the cutoff date before a rejoining fee of £20.00 is required is the 28th February! If you have not paid the BMFA you are not insured either.**



The Commander at Baker Barracks has decreed that there shall be absolutely **no drone flying** on the island.



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



The halls are located about 2 miles from the M3 and 5 miles from the M4 - an easy drive from most parts of Surrey, Hampshire, Kent and London.

Entry fee is £2 and the swapmeet is open to all attendees. Table hire is £5, including entry for 1 person. Space is available for a total of 45 trestle tables, so pre-book to avoid disappointment.

Contact Paul via email:

[ccmfa@mail.com](mailto:ccmfa@mail.com) or 07786 54 1959

West End Village Hall and adjacent Sports Hall, Benner Lane, West End, Nr Bagshot Surrey, GU24 9JP

Flying alone on Thorney is restricted to lightweight electric or gliders, and pilots are requested to concentrate on flying within the grass area to the west.

When driving around Thorney ,be aware of young children on bikes



*The BMFA has a Southern Area with two of our club members on the committee. It has a good website with a list of events and lots of good info for new and old hands.*



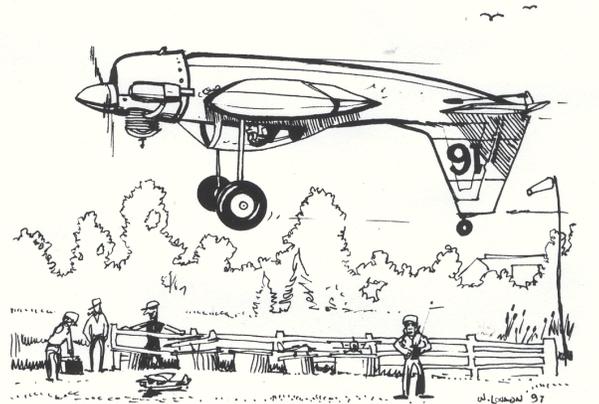
<http://www.sabmfa.org.uk/index.html>

*If anyone would like a repeat of the Theme Days we had at Thorney last Year, contact a committee member.*

*Next month.....*

*Send Clear Dope some news, large or small, and become famous.*

*Nick.*



*...HE SAYS IT TAKES THE SWEAT  
OUT OF FLYING INVERTED...*