The electronic newsletter of the the Chichester and District model aero club

# **Clear Dope**

Januarv 2015





### Chichester and District Model Aero Club Committee 2015 John Riall President

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If any club member would like to submit any aeromodelling related article please contact me and I will add it to CD space permitting. Ken



### 2015

A Happy and Prosperous New Year, lets hope we have as many glorious days flying and fun as in our Poppy day meeting

### NEW LEGS FOR OLD (A MENAGE ET TROIS)

(Bruce crafts a pair of scale oleos for his 1: 6 scale static Mustang)

#### Prologue

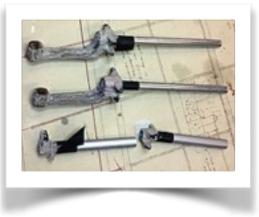
Second flight of the day with 'Bald Eagle,' my Reno Racer liveried, Brian Taylor P51-D Mustang and I gingerly open the throttle into a blustery southerly. Slowly she picks up speed and as the tail comes up I'm relieved to see her respond to rudder, holding her position true into wind. Suddenly, horror of horrors, a gust lifts her clean off the floor although she's not up to flying ground speed yet - I've two options: [1] Do nothing, in which case she'll almost certainly drop out of the sky from about three feet; or [2] slam open the throttle and hope I can control the torque swing to the left. I choose the latter but the instant response and mighty power from the Laser 150 over-rides the full Right rudder input and the model, 'just flying' veers to port and towards the long grass. Any right aileron input, at this stage, would most certainly cause her to tip stall violently and roll in to the left so I can only watch as she scythes into the long grass. \*\*\*\*\* Such are the joys of flying a heavily wing-loaded scale tail dragger with a scale laminar flow wing section and wafer thin tail feathers. Initial damage inspection suggests that it's just the port undercarriage leg that's broken away from the wing, having taken the brunt of the impact and drag through the grass, but back in hangar 6 it's obvious that there's substantial damage to the bearers and the wing's glassed skin has shattered requiring heavy, lengthy rebuilding and scale finishing.

Since building, finishing and spaying a new wing was likely to take about three months, even if the autumn weather stayed warm and dry, I decided I'd not rush the project and instead, get my scale flying back on track by installing the majority of Bald Eagle's gear into a YT ARTF Mustang. I'd been saving my pennies for some time to get the YT Bearcat for my DLE 30 petrol engine but this accident forced my hand and thus the Laser and YT air retracts with stirrup oleos were unceremoniously removed from 'Bald Eagle' and installed in 'Bald Eagle III' which is YT's P51-B razor-back. [Confused?]

Now as I commence the new wing build for the P51-D, I need a new set of retracts and oleos, and it occurs to me that I already have a full set of mechanical gear still installed in my first BT Mustang which is now relegated to static display duties only. Utilising Twilight Tear's retracts will not only improve Bald Eagle's ground handling as they'll put the oleos right behind the leading edge (I'd had to re-design the geometry on the original wing to take standard air retract units, moving the oleos back almost onto the CG) but it will also save me a lots of quids into the bargain. I'll just need to make a new set of scale oleos for Twilight Tear!

Sourcing the (non-aircraft-grade) aluminium for the oleos was easy with a quick visit to the local B&Q store. They carry an excellent range of steel, ali and plastic pre-formed stock and I quickly found rod and tube which slid nicely together. Next the stirrup shape was drawn up, photocopied a couple of times and 'Prit stuck' onto wood before the initial outline was cut with the fret saw. Once the holes for the oleo leg and wheel axle had been drilled the fun could begin as I set to, utilising those boyhood whittling skills, to reveal that inner smooth, rounded shape, whilst keeping a count of my fingers.





Once carved and sanded, the stirrups were given a couple of coats of lightweight glass

cloth applied with 'Fibretech' water based acrylic resin. Although this isn't as hard as epoxy finishing resin it's hard enough, dries within an hour and sands much more easily. After a couple more coats of resin the surface was taken back with 240 wet and dry paper before I epoxied on the various pieces of Futaba servo horn for the working trunnions. The ali leg 'sleeve' was also given three turns of glass cloth over the bottom 12mm ready to

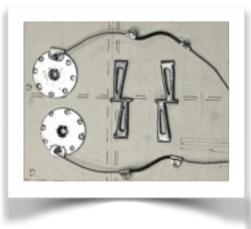


receive horns and brass tube for the wishbone and outer door piston trunnions. Lastly a coat of lightweight car body filler was employed to bridge any tiny surface flaws and smooth out the transitions to the newly added features. Holes were

drilled in the sleeves then the restraining slots cut with slitting discs and finally filed. Suitable springs were eventually wound (don't ask) and their top retainers bored and turned from lengths of the rod, to be pinned in place with 2 mm wire.

The stirrup piston legs were tapped to take M3 retaining grub screws in the slots and the upper sleeves drilled and tapped M3 through both sleeve and top retainers to take the mounting bolts.

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Did someone say "cheapskate?"

Wishbone halves were fret sawn from ply before adding brass tube ends then glassing, while the break disk outers once again utilised the ubiquitous Futaba servo discs. Dummy bolt heads were formed from a spot of epoxy with a screwdriver imprint made just before it cured. Pneumatic hoses were assembled from a little electrical wire and heat shrink tube, the brake calliper, fixings and retaining straps cut from litho plate. The metallic finishes came from a little 'Brasso' on the piston legs to simulate chrome, while from my paint stock I used a little 'Halfords' grey primer and wheel spray. All in all the oleos set me back less than a tenner.





Nick Gates, our glider guider rep has tried his hand at flying I/C powered planes of late. His latest is a Moth Minor powered by an very early OS61 four stroke, this plane and engine are well over twenty years old but this was it's maiden flight on a dull January day, however the Moth flew straight and true with no major problems except to say it'd barn door airbrake is very positive and nearly caught Nick out



## EVENTS CALENDAR 2015

Date	Event	Location
22nd March Doors open 9am Auction Starts 11am	The Great Southern Area Auction	Mountbatten School, Romsey, Hampshire, SO51 5SY.
2nd & 3rd May	South West Model Show	Bath
16th May	Blackbushe Model Show	Blackbushe
27/28th June	Wings and Wheels	North Weald Airfield, Essex, CM16 6AR.
30th July after 6pm	Evening flying at Goodwood	Goodwood airfield
22/23/24th August	BMFA Nationals	Barkstone Heath
27th August after 6pm	Evening flying at Goodwood	Goodwood airfield

### Club meetings Calendar 2015

January 8th	Simulator Night	
February 5th	Talk by Rod Dean - Flying and Display Vintage Aircraft	
March 12th	Auction	
April 9th	Talk by Mark Agate - PCM, Planes and Paradoxes	
May 14th	Indoor Flight - helicopters and Multi-rotors	
June 11th	Light flight and Control line	
July 9th	Light flight and Control line	
August 13th	Light flight and Control line	
September 10th	Possible talk under review	
October 8th	Quiz Night hosted by Quizmaster Andrew Gibbs	
November 12th	AGM	
December 10th	Subscriptions Night	

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Competition Calendar 2015

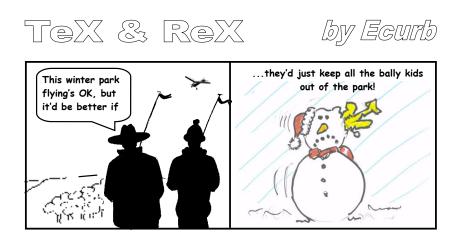




Date and Day	Time	Event	Venue
Saturday 14th March	11.30	Climb and Glide	Thorney
Saturday 11th April	11.30	Bomb Drop	Thorney
Saturday 16th May	11.30	Pattern	Thorney
Saturday 30th May	11.30	Slope Comp/Electric	Trundle Hill
Saturday 13th June	11.30	Carrier Landing	Thorney
Saturday 18th July	11.30	Scale	Thorney
Sunday 19th July	All Day	BBQ and Electric Fly-in	Porthole Farm
Saturday 8th August	11.30	Open Glider	Thorney
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Saturday 29th August	11.30	Open Glider	Thorney
Saturday 19th September	11.30	Electric Glider	Porthole Farm
Saturday 10th October	11.30	Slope/Electic	Trundle Hill
Sunday 8th November	Noon	Open Glider and Electric Duration	Thorney Donations to the British Legion Poppy Day Appeal

#### Committe meeting dates for 2015

3rd February, 3rd March, 7th April, 5th May, 2nd June, 7th July, 4th August, 1st September, 6th October 3rd November and 1st December



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Clear Dope - January 2004

If anybody has any items for sale and would like to advertise them on our web site please contact me our our web master David Gardener, David can be contacted at

webmaster@cadmac.co.uk

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

Please Try to leave Porthole as tidy as possible making sure no fuel is left on site For those of you who have not yet discovered it, Nick Gates has set up a group page on Facebook its well worth a look

Here is the link:https://www.facebook.com/ groups/ When Driving Around Thorney be aware of young children on bikes

New Medical Emergency Information Cards have been produced to allow members to record personal information that would be useful in the event of illness or injury on our flying sites. They are not compulsory and will be issued to members by the Membership Secretary on request at club meetings.

### Note to all Users of Porthole Farm

It is imperative that when entering and leaving the field **you must LOCK** the gate behind you irrespective of other people/vehicles still being there (i.e. Dog trainers) as the land owner has **INSISTED** that this be carried and is a fundamental clause in the use of the field.