

Torque Back



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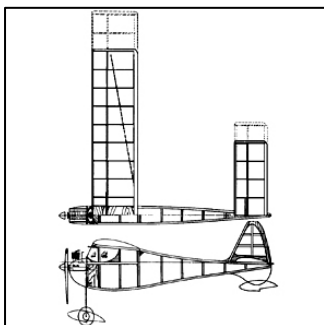
Presidents Report..

The State Electric Fly-in hosted by HMAC proved to be a success with good weather and quite a variation of models. As well as members from Tasmanian clubs, three visitors from interstate made the effort to attend and were rewarded by really enjoying themselves, flying mostly vintage style models. Thanks must go to Karen Jeffery, with the help from Geoff Leverton, who were pressed at the last minute to cook the BBQ, Geoff with his eyes running from slicing onions. Colleen Tonks usually undertakes this role but unfortunately was unable to make it due to husband Jack's hospitalisation. Jack is now back on his feet and making a speedy recovery and we look forward to seeing him flying again in the near future.

HMAC's stand at the Model Makers and Collectors Exhibition was also a great success drawing considerable interest and I believe we may have one or two new members directly attributable to this. Congratulations go to Peter Groombridge for getting first prize in the kit built model aircraft category with his 5 cylinder radial powered Yak, like many others I am looking forward to seeing it fly. Thanks go to Bill Deal for a great job he did in co-ordinating our setup as do thanks go to those members who displayed models and manned the stand. I did not feel that this year's show was anywhere near as well attended as previous years and question whether the Lions Club made any profit out of it, however it was a good PR exercise for us and only good can come from it. Pictures of the stand are now on our website. Hopefully the weather gods will be kind this autumn and there will be many good flying days., See you at the field **Mike.**

Phoenix Flyers Scale Fly-in.

17th April at Panzhangar—an event not to be missed. Visitors are most welcome and a canteen will be operating.



We are on the net. <http://www.hobartmodelaeroclub.org.au/>

Over the years there have been many items left at the field. I know I have left transmitters and my thermos among other things, but I can't ever recall leaving a complete model behind. Ian Searle reached this pinnacle recently and left his electric powered model complete with battery after a mid-week flying session.

Peter Lambert also suffered from old-timers disease when he left the wing of his electric powered Eagle at home.

Peter Ederle had a disaster when his new large scale Cap 232 suffered wing breakage after just a handful of flights. Fortunately his Saito 180 was undamaged. The model flew beautifully and the accident was most unfortunate.

David Christian and Peter Allen seem to be doing quite a bit of control-line flying lately. It is pleasing to see that the field is used for a variety of aeromodelling activities.

Ron McGuinness and son Peter have been having a ball flying a new Wild Wing. Unfortunately the stock of these models is now exhausted.

Chris Rowe is another to be flying a new Wild Wing. As is as usual with Chris, it is very nicely finished.

We welcome two new members, Felix Bambridge and Mark Turner.

Bob Morrison has achieved gold wings and Ken Sheppard has bronze.

When walking around the exhibits at the MM&C. I can't say that I was over impressed. I did see some very proficient electric helicopter flying, but the overall impression was that it had an over preponderance of model trains. Also the number of paying customers seemed to be down on previous years.

While the HMAC stand had a good variation of models covering most aspects of aeromodelling, in my opinion the show had a "same old" feeling about it. From a club point of view I doubt that we obtain much benefit from it, however as proceeds largely go to charity, participation is worth while to some extent.

It is pleasing to see Jim England flying regularly of late. Jim has an interesting array of models including an A380 Airbus.



Jack Tonks is recovering after a recent operation and he should be back flying again soon, as should Bill Jennings who had a knee reconstruction recently.

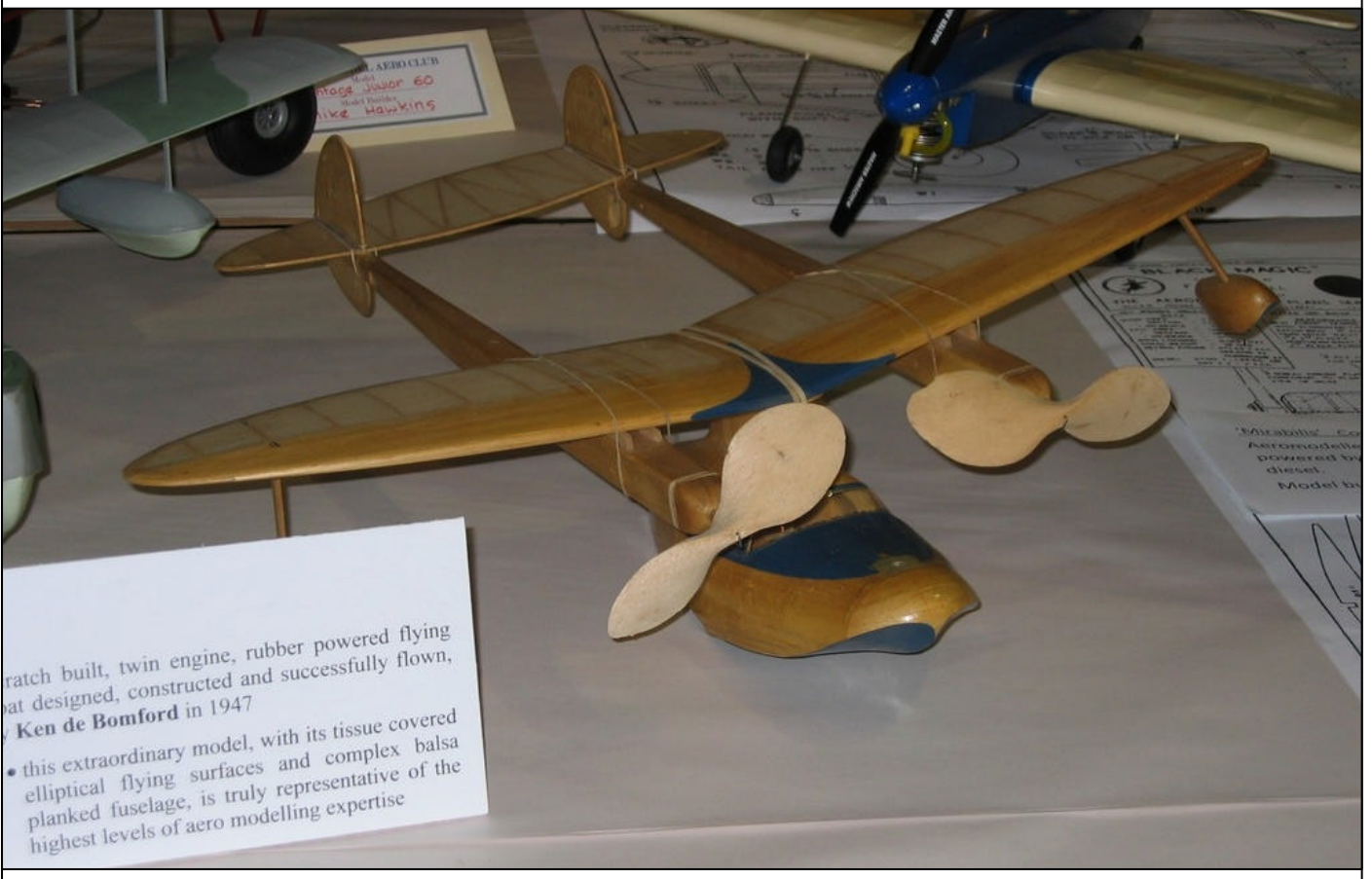
Peter Ralph has really been putting in the hours with his training program recently and should be commended for his dedication. He should have more support from his fellow instructors in sharing the work load.

Greg Hall is continually improving and updating our website. It is well worth a look.

I have heard that Joe Hedges has discovered girls and I wonder how often he will be down at the field in future.



Exhibition photos.



Member Profile—Bob Morrison.

4.

Bob was a foundation member of our club and also a member of our informal group prior to the formation . Bob is a very versatile modeller who has often designed his own models, scratch built helicopters, and constructed steam and four stroke powered locomotives.

His original designed Percival E.P.9 was published in the now defunct Radio Modeller magazine and proved to be a popular seller.

Pictured here are single channel Waveguide, Percival E.P.9, String-a-long biplane, original Helicopter and locomotive powered by an OS 60 FS.



Hi guys - welcome once again to **Bench Torque**.

In my previous article I indicated that the next column would focus on how I approached the construction of the custom mufflers that are, or were, hidden inside the cowlings of my Turbulent and Pottier aircraft. However, prompted by my discourse in the previous column, I was delighted to receive from Rob Gurney, a detailed description of the alternative technique that he has used in moulding canopies and other items, so this month I am going to take some time off and its over to Bob!

Torque Reaction

Custom Canopies and other Moulded Parts

In the last issue of Torque Back I was interested to read Chris Rowe's article on forming PVC canopies. Chris' method looks like it is well suited to forming very deep canopies with a height of about 60 mm or more. However, if you are after shallower canopies and are into immediate gratification, you might try vacuum forming for your next model. It only takes a matter of seconds to transform a hot pendulous sheet of PVC into a rigid canopy of complex form. Of course it takes slightly more time to construct a vacuum forming box, design and build a mould, and organise the use of an oven and vacuum cleaner - but don't be discouraged. By following the series of steps below (all of which I have copied from various articles in hobbyist magazines) you will be looking to vacuum form all kinds of objects aside from canopies, such as wheel bays, air scoops and bumps and warts for wings and cowl.

Here's what you'll need:

Approx' a 2m length of 50 mm x 20 mm pine, Scrap 3 ply, 3 mm and 10 mm fibre board, 5mm foam, 0.7 mm PVC sheet,

Plaster of Paris and/or Balsa, Priming/filling paint, Wet and dry sandpaper, Adhesive contact, Oven, Vacuum cleaner.

Here's what to do:

Construct a vacuum forming box as pictured. Notice the blue foam which ensures a good seal. The holes in the fibre board are spaced at 20 mm intervals.

Make a frame to hold a sheet of PVC. I've used nuts and bolts to join the frame halves but bull dog clips might be a quicker and equally effective alternative. Insert 0.3 mm clear PVC into the frame.

Construct a mould of the desired canopy or object. I have used plaster of Paris to cast from existing forms and shaped balsa when producing a new form. Solid balsa can be expensive and I refer you to Chris Rowe's method of building a shape and skinning it with balsa sheet [Torque Back Newsletter 10 (2) 2010]. It's important to fix the mould atop a 10mm plinth of fibre board trimmed to the footprint of the mould. This will ensure that the stretch gap, produced during vacuum forming, will appear below the desired shape of the mould. The heated PVC faithfully reproduces the moulded surface including any imperfections such as sanding scratches or air bubbles. With cast plaster of Paris the finish is fairly smooth but balsa will reproduce grain marks and it needs to be painted with a primer/filler and sanded smooth. Flat balsa surfaces can be covered with adhesive contact to produce a smooth finish.

Set the vacuum box on a sturdy bench in close reach of an oven. Attach the vacuum box to the vacuum cleaner and switch the vacuum cleaner on.

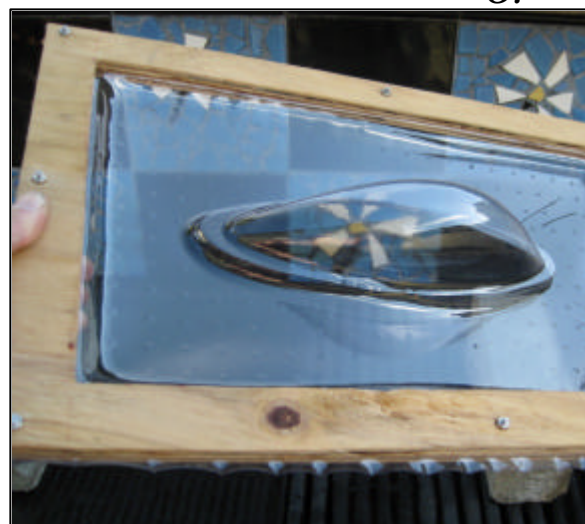
Place the framed PVC into an oven pre-heated to about 175°C. The heated PVC will release evil smelling fumes which, based on personal experience, will take about two days to clear from a domestic kitchen. I suggest using an outdoor barbeque with a fitted lid; it saved me a mess and possibly my marriage.



The PVC will begin to droop in the frame within a matter of 30 – 40 seconds. Once this occurs remove the frame in a deft, fluid motion, don't forget the kitchen gloves. Quickly place the frame over the mould which is set up on the vacuum forming box connected to the sucking vacuum cleaner.

Slurp, suck, slurp.

6.



Presto – a fully formed shape!

So there you are guys; now you have two entirely different methods to choose from! Hopefully we can now all look forward to seeing some stunning new models, all suitably adorned with custom canopies and all manner of scale gun blisters and other paraphernalia!

*So, largely thanks to Bob Gurney, that's it from me for this, the third edition of **Bench Torque**. In the next column, as previously suggested, I do hope to tackle the issue of building custom mufflers as previously promised.*

Finally, can I again remind you that, without continued input from you guys, I shall of course very quickly run out of things to write about! So please email me with your questions or perhaps, like Bob, with details of your favourite solution to any one of the myriad of challenges that we continue to face in this demanding but supremely satisfying hobby. Any contributions will certainly be welcome, and should be emailed to the Editor with a copy to me at: maidenerleigh@bigpond.com

Chris Rowe.

Wanted.

JR 2610 transmitter or similar.

Doug Keating.

keating_doug@yahoo.com.au

Ken de Bomford.

7.

It is with regret that I have to advise the passing of master modeller Ken de Bomford on 24th March 2010.

Ken was a model making maestro and I am sure that very few will achieve anywhere near his standard of workmanship!

Tributes to Ken de Bomford.

I cannot claim to have been a close friend of Ken de Bomford, but he undoubtedly had an influence on my approach to the construction of my models over a long period of time.

I first met Ken during the 1940's when he was living somewhere in Northern Tasmania (Scottsdale I think) and made the occasional trip to Hobart and brought some of his superbly built models with him. The standard of workmanship in these models somehow acted as an "ideal" towards which many of us strived in an effort to improve the quality of our building. No ARF or RTF in those days, everything was scratch built.

Ken was a very quiet and unassuming person and I imagine it would have come as a surprise to him to learn that he had been an inspiration to others.

Over the years Ken turned his hand to a variety of different projects and in an era where meticulous workmanship is becoming a rare commodity I believe he fully deserved the title of "Master Craftsman".

David Christian.

I think I first met Ken during an exhibition staged by the Hobart Society of Model Engineers at the Hobart City Hall in the late 1940s. He had two scale electric round-the-pole models of a Douglas DC3 and Bristol Freighter. He was well ahead of his time. Whilst I can't claim to be a close friend I have kept in touch with Ken over the years.

He won free flight scale at a national championships with a Nordyne Norseman which would have scored very high static points.

During the mid-fifties the M.G. TF was all the rage and Ken constructed plywood hard tops for these cars long before hard tops generally were in vogue. He became a professional model maker with the Hydro Electric Commission and, among other things constructed models of Hydro dams and villages to be on display before the projects were commenced.

Ken also made some beautiful musical instruments for members of the Renaissance Consort and I have a magnificent A class model yacht which he constructed for me, planked in African mahogany on steamed ribs.

His model of the sailing ship Carnegie, which has been on display at the Wooden Boat Festival, is a real work of art and is far beyond museum quality. It is constructed in exact scale manner from plans obtained from the Carnegie Institute.

Garth Wilmot.

FOR SALE

8

F4U CORSAIR, Wing Span 1000 mm

Complete with four servos, brushless motor, brushless 20A speed controller, two 1100 mAh lipo batteries, and spare prop. Price \$100.00



Apply Stuart Smith, 62477423

Garth's Specials.

<i>OS 46LA—one only</i>	<i>\$100</i>	<i>Flight box kits</i>	<i>\$30</i>
<i>Force 46—one only</i>	<i>\$100</i>	<i>E-RC P51 Mustang c/w 2.4 radio</i>	<i>\$100</i>
<i>Thunder Tiger PRO 46</i>	<i>\$120</i>	<i>Hitec HS-311 servos</i>	<i>\$18</i>
<i>Magnum 61AII</i>	<i>\$150</i>	<i>Hitec HS-81 servos</i>	<i>\$20</i>
<i>Elite Model Extra 330L-90</i>	<i>\$180</i>	<i>Hitec HS-55 servos</i>	<i>\$16</i>
<i>Phoenix Spitfire with retracts</i>	<i>\$210</i>	<i>Hitec Optic 6 Sport c/w 5 BB servos</i>	<i>\$200</i>
<i>Alps 1700E electric glider</i>	<i>\$110</i>	<i>Hitec Optic 2.4 complete</i>	<i>\$320</i>
<i>AT40L—foam wing— ideal 2nd model</i>	<i>\$110</i>	<i>4L castor base 5% nitro fuel</i>	<i>\$24</i>
<i>Fly Cam One—one only</i>	<i>\$100</i>	<i>1 mm & 1.5 mm plywood in stock</i>	

This second article, on the use of the modern microprocessor radio transmitters continues on from last magazine when expo was discussed.

Usually in the same section of the transmitter menu as expo and directly related to it, are dual rates. This facility is another which with sensible use makes flying easier, though D/R can be used in two completely different ways, discussed below.

You may ask - "What are dual rates and how do I get the cheaper of the two?" It is the facility to have two switchable control throw ranges on aileron, rudder and elevator, selected by a dedicated switch on the transmitter. One switch position (up) would normally be the full throw as advised in the manual for the aircraft and set via the control linkages on the model. The second switch position (down) is set as a lower percentage of the full rate.

On some transmitters there are switches handling aileron and elevator separately and on some one switch controls both. This latter is easier to use. When selected, reduced dual rates do not reduce stick travel or expo, just the range of servo movement.

How could this avoid soiled underclothing?

First - the method more applicable to the less experienced pilot flying a normal sports model. Once safely airborne full rates are useful to give decent control but the full range when taking off and landing may make the aircraft a bit sensitive to the relatively coarse stick movements common among less experienced pilots, so some reduction in control movement when close to the ground may be welcome - enter dual rates. Using this method if you find the model a bit of a handful during TO and landing, selecting the lower of the dual rates will reduce sensitivity and make life a little easier.

For the more experienced pilot particularly when flying a model with an extreme speed range, the reverse applies. Full rates on approach and landing where the control effectiveness is reduced because of the low speed, swapping to reduced rates for high speed flight where the control movements adequate for low speed would be just too great.

As a starting point, set up the aircraft controls per the book, then, depending how extreme they look, a low rate of around 60% to 70% will get you into the ball park, but it's not too critical in that if you overdo it a bit and find you need more control effectiveness, a switch back to full rates can be made instantly.

A word with pilots reluctant to use these facilities. I swear, some of the clubs top pilots could fly a house brick with a semaphore flag, all whilst playing the bagpipes, but for us mortals, using the qualities of the modern radio to match the latest models designed with such transmitters in mind, is just common sense. It is now common for retracts, and flaps to be fitted and for models to operate over a wide speed and manoeuvrability range. Even relatively simple models such as my glider have a huge speed range, the various wings require control mixes, so the features in the modern transmitter are there to be used and should be used.

Next issue - some other features.

State electric fly-in 6th & 7th March.

Saturday 6th.

The weather forecast for the weekend was somewhat unfavourable, however early morning rain on Saturday cleared to reveal a bright sunny day with light winds.

We were very pleased to find three Victorian visitors namely Laurie Baldwin , who attended last year, Ted Hall and Garry Ryan arriving for the event.

Ted and Garry are very active old-timer modelers and they had an extensive array of models crammed into their vehicle. The climb rate and general performance of their models was most impressive.

It was also pleasing to see Michael Rutledge arriving to fly after a fairly long absence from the field.

TMAA president and Hobart RC Flyers member Dean Williams had his usual collection of models with a preponderance of ducted fan jets. Rick Price also represented this club at the event.

Father/son team of Jim and Greg England had a wide variety of models from ducted fan to 3D. Greg in particular did some very entertaining 3D demonstrations.

The only down sides to the day were the swarm of flying ants on the flight line and the wing folding on Laurie Baldwin's magnificent Lanzo Bomber. Fortunately Laurie advised that the damage was repairable.

Those ants do bite and I had several as proof.

Sunday 7th.

10.

Sunday provided another ideal day, although overcast in the morning, we were treated to another sunny day with light winds.

Mike Adams from Launceston Phoenix Flyers arrived with more models than one would normally expect to emerge from one station wagon.

Mitch and Stuart Ednie along with Dean Williams represented Hobart RC Flyers.

LMAC member Greg Robertson did not make his usual pilgrimage from Launceston and this is probably the first electric fly-in that he has missed.

Garry Ryan and Ted Hall certainly took advantage of the conditions and seemed to continually have models in the air.

Stuart Ednie put on a show with a pylon racer which had spectators gasping and also demonstrated his skill with an impressive hot-liner.

There was no competition scheduled and everybody seemed to enjoy the low key activity.



Ted Hall with Saturday Special (1939)



1.



4.



2.



5.



3.



6.

1. Garry Ryan's Kerswap.

2. Garth Wilmot's fleet.

3. Dean Williams' collection.

4. Garry Ryan with Lanzo RC1.

5. Bob Morrison's own design.

6. The Ednie stable.

7. Peter Ederle with profile d/f jet.



7.