

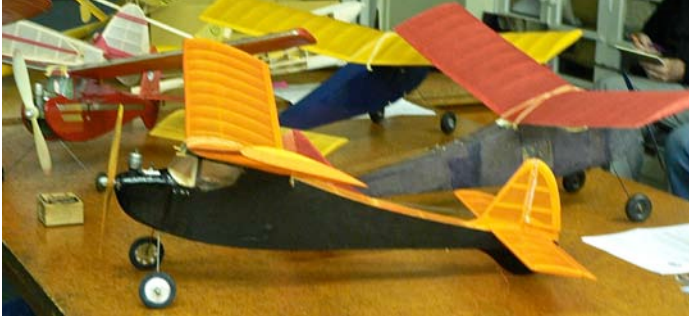


BULLETIN OF THE AUCKLAND MODEL AERO CLUB INC. EST. 1928

March 2015



Brendon Neilson
at Aka Aka with
his Albatross V Tail
electric powered
glider.



Tomboy & Texaco

Tomboy and 1/2A Texaco will be flown as a monthly competition at either the AMAC field at Karaka or the Tuakau Club field.

Contact Keith Trillo for confirmation of site and possible postponement, Mobile: 027 460 7180.

AMAC placings count to event Club points

Slipstream contributions

Contributions of photos and information about latest projects are very welcome for the Building Board section of the bulletin. Field reports and articles are too! Please just send them in.

Deadline for articles for the April 2015 Slipstream is March 28

Editorial – Wheels and other stories

It is purely a coincidence that this month's Slipstream includes two good articles on making your own wheels, for two different types of scale models. I have to admit that at the start of every month I am not sure, apart from the usual meeting table and field reports, what contributions I will have, to include. I am sure that the building board section is of interest to most, but it would be good to hear of new projects and rebuilds, not only from scale builders, but also from RC and free flight fliers in particular, as we still have active model building in these interest areas in the club.

On a different note, several ongoing competitions are underway again this year and entries are welcomed. I refer to the regular Tomboy, Texaco and Indoor events, and also to open rubber and plan scale. There are also NDC events listed under Hoteo in the calendar on page 23 and more can be found by going to the Model Flying NZ web site. Let me have stories about your flying activities (and building), for the bulletin.

Stan Mauger

Notice of AMAC Annual General Meeting

The Club's 87th AGM will take place on Monday 6 April 2015 during the regular club night held in the ASME rooms.

AGENDA

Apologies

Minutes of 2014 AGM

President's Report

Treasurer's Report

Other Reports

Election of Officers

General Business

Confirmation of Subscription

Michael Taylor, Hon. Secretary

AMAC subscriptions for 2015 are due after being set at this meeting

PROMPT PAYMENT PLEASE, BY CASH or CHEQUE TO Auckland MAC

Trophy returns reminder

Please return any trophies that you hold so that they can be engraved for prizegiving.

Please ensure that they are polished and in a fit state for engraving and awarding to the next recipient

Monthly Club Night - Guy Clapshaw reports

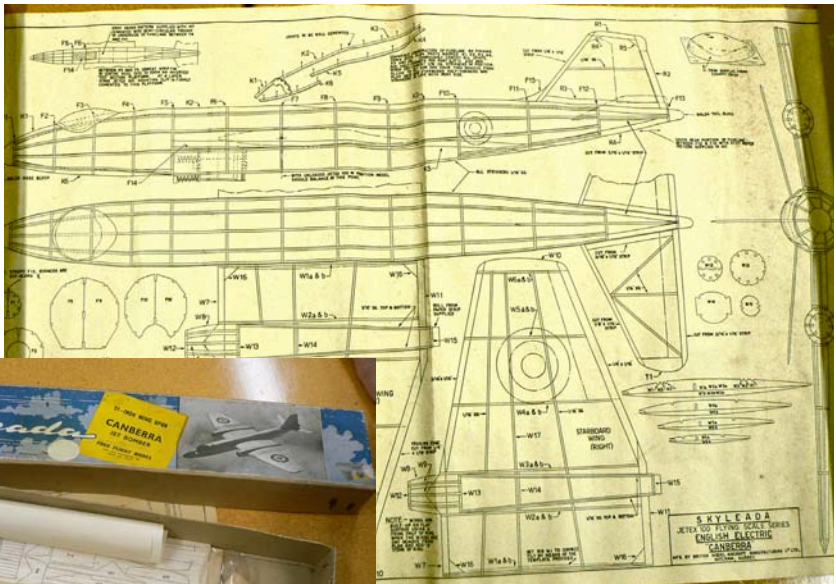
2-2-15

Present were John Bercich, Ricky Bould, Guy Clapshaw, Paul Evans, George Fay, Tony Hill, Angus Macdonald, Stan Mauger, Louis McNair, Mike Mulholland, Geoff Northmore, Arthur Pearce, Bryan Spencer, Michael Taylor, Keith Trillo, Stephen Wade, and Charles Warren.

A wide variety of aircraft contributions from a jet bomber kit of the 1950s back to a De Havilland Humming Bird of the '20s ensured our second meeting of the New Year didn't lack variety. Louis McNair brought along his recent kit find, a Skyleada Jetex powered free flight English Electric Canberra bomber and already had a Jetex 100 to power it.

Angus Mcdonald brought several models, one of which was an 18 inch rubber powered Monocoupe 90A American machine. Angus reported that he had covered the model with Litespan rather than the usual rag tissue, resulting in a weight increase of a mere 3.1 grammes . Angus had forgotten to switch off the Monocoupe's motor before the start of the meeting, so the propellor ticked over at a slow idle while we admired his handiwork. Very realistic, should do well in free flight scale judging comps, Angus. He also showed us a printed foam Spitfire that he'd bought at a fair in Meadowbank.

Don Spray's 900 mm (Oh alright then, 36 inches!) rubber powered Zlin Cmelák was the exact opposite of a Monocoupe, being semi-aerobatic. The model was built from a Don Spray enlargement of a plan from Czechoslovakia. When finished, it will have a semi-



Above: Louis McNair's, Skyleada Canberra project has single Jetex power and looks challenging.

Left: The kit is in great condition, but the original cement tube probably won't do much glueing.

flexible 3 bladed propellor. This particular aircraft was designed for aerial top dressing and crop spraying. Bryan Spencer is one of our more hospitable club members and very kindly brought along liquid refreshment in the form of six bottles of diesel fuel which he offered for sale. Diesels are a vanishing breed and the fuel is difficult to obtain so there should be no problem in finding a buyer among the control line or free flight brigade.

Paul Evans's free flight De Havilland Humming Bird G-EBHX, modelled after the Shuttleworth Collection's full size example, regularly does the impossible and unexplainable! Paul reports that it does immaculate figures of eight under power (this is a free flight model, remember) which nobody at the night's meeting could explain! This characteristic is perhaps the reason it came second in Free Flight Scale at this year's Nationals.

Michael Taylor brought along CDs of speeches from the club's celebration of the 50th anniversary of the victory of Vern Grey in the international Moffet Trophy contest of 1936. These had been transcribed from tape recordings from the Club's archives, for the archivists among us. Michael also brought along his rubber powered free flight 'West Wings' Aries, and members were intrigued by the ingenious freewheeling propellor mechanism. Recent modellers to our ranks may not have known that free flight rubber duration models require various devices to reduce drag when the elastic motor stops



Above:

Angus Macdonald is making steady progress with his SIG Monocoupe. Cowling rocker blisters described last month, are shown clearly.

Right Upper: Don Spray's propeller moulding process and in front of it, weed trimmer material for prop blade joiner.

Right: His rubber powered Zlin Cmelák looks close to testing. Should fly well.



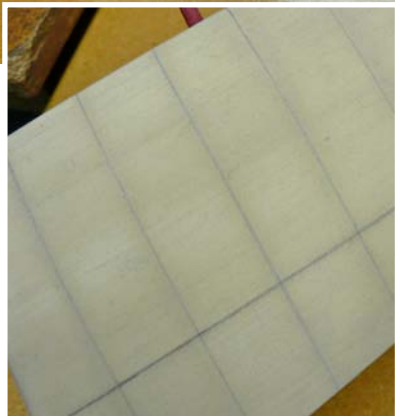
turning. These can be either a folding propellor similar to today's electric powered R/C gliders, a freewheeling propellor or a feathering propellor which turns the prop' blades edge on to the airflow to reduce drag as with full size multi-engined propellor driven aircraft (DC3s, Airspeed Ambassadors, Lockheed Electras, Britannias, Constellations).

Michael had also brought along a number of photocopies of past Aeromodeller front covers for his collection. This brought back happy recollections of the fifties, when the Reverend F. Callon's excellent articles in Aeromodeller magazine explained technical matters like wing washout, torque, incidence, propellor pitch and other terms, in a way that a fifteen year old modeller could understand in 1952.

Louis McNair is one of our more productive modellers. His Nieuport for free flight scale had shown considerable progress since it was last shown. Ricky Bould was quick to correct this reporter when he referred to the Nieuport as a biplane; it may have four wings but it's a 'sesqui-plane'. The model appeared airworthy but no details were given of its flight performance (Maybe still on the Armée de l'Air's secret list, Louis?).

Arthur Pearce brought along a classic kitset of a model from the 1960s when R/C was emerging from the single channel rubber escapement days, to the era of reeds and multi-channel proportional control. Arthur had kindly brought down his 'still in the box' classic Graupner Cirrus from the attic, in response to Guy Clapshaw's plea for a Cirrus. The Cirrus was high tech' in the 1960s with ten foot wing span, plastic pre-formed fuselage, moulded canopy, pre-cut ribs, pre-formed wire parts, low wing loading (about 9 oz/square foot),





Opposite page:

The nicely completed West Wings Aries, brought along by Michael Taylor, looks ready for some flying.

This page:

Top:

Paul Evans's new Humming Bird is a proven flier.

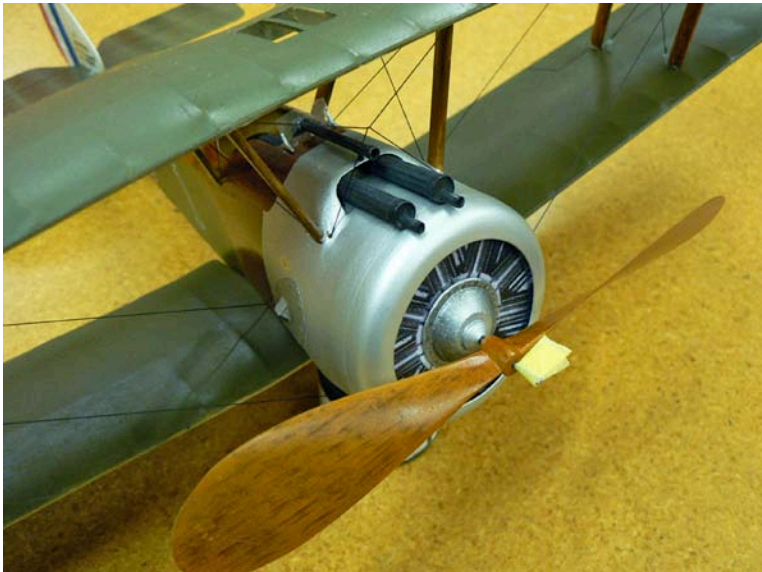
Centre: Louis McNair had made great progress in completing his Nieuport since its last showing on the table.

Right: Close scrutiny shows very convincing airbrushed rib emulation on the Nieuport wings.

excellent performance both on the slope and off the high start AND it is a scale model. Modellers then, wondered where scale modelling was headed - would we ever see a scale R/C Spitfire with retracts and four proportional controls? Never, this was as good as it got! Unfortunately for Arthur, two people had already responded to Guy's plea for a Cirrus, one of them being club president Charles Warren, who had built, but never flown a Cirrus, back in the days when Pontius was still in pilot training. Charles had delivered it to Guy only a week previously, apologising that the beautiful translucent blue canopy had gone missing but everything else was present. Guy lost no time in constructing a ply built-up canopy frame which he had matched to a suitable canopy, and brought it along to brag shamelessly about the immaculate fit of the canopy to the fuselage.

Where would a meeting be without a Tiger Moth? Tonight we had the prototype Tiger for a forthcoming kitset soon to be released by Gwyn Avenell's Avetek company. Gwyn had spoken of this kitset at an earlier meeting. Another Tiger? Yes, Mike Mulholland's rubber powered example was parked beside his Sopwith Camel. Mike's technique for simulating rib tapes with spray paint is ingenious and effective, and the Camel's wooden propeller was actually a plastic prop with simulated wood grain to give the model a very convincing appearance.

And then it was time for coffee and biscuits, while reminiscing on modelling techniques in the days when balsa wood cement was king, covering was tissue shrunk by water and clear dope. Some of us proudly exhibited our scars from those days when engines smelled of ether and were started by hand flicking! Now we have pre-built (A.R.F.) kits that can be built in a day, engines with over ten times the capacity of our Mills .75s and E.D. Bees, electric starters, retracts, simulator programmes to teach us to fly and multi-channel proportional controls. Surely this is as good as it gets?



Left: Skilful nose detailing and simulated woodgrain on the prop powering Mike Mulholland's rubber powered KK Sopwith Camel.



Upper: Cirrus glider now with Guy Clapshaw, sporting the splendid new canopy that he had moulded for it.



Above and inset: Mike Mulholland brought along his new Tiger Moth, having successfully tested it, to show the clever own-design prop free-wheel mechanism.

Aka Aka Diary - Charles Warren

AMAC flyers have been active in January and February in the Aka area. Sometimes at the Miro road site and sometimes at the Elbow road site.

The latter site has been used for aerial towing with Stuart Ward's Greenly tug often piloted by his son Hamish with Stuart piloting his large scale Dart glider.

On 18th January we were joined there by a visitor Ross Biggar, a member of the North Shore club. He flies large gliders exclusively and uses specialised long range radio gear by Weatronic and Graupner. He flew a 5 metre span MXC glider at the Elbow RC field and it was also towed up by Hamish with the Greenly Tug. Brendon Neilson was having help from Brett Naysmith trimming his new V tailed 2 metre electric powered glider. On 15th Feb the aerial tow gliders were in action again at the Elbow.

At Miro Road Brett has been flying his Prelude electric glider and his pink and white sun-burst patterned biplane. He has also been hard at work as instructor for Brendon flying his Calmato Trainer via buddy-box and assisting those of us who are feeling a bit rusty with "full-house" trainers. Michael Derecourt has been flying an ASW 28 electric glider and his Soar 40 powered low wing trainer. Tony Plough also has a n ASW28 E power in action and a Reaper 60 flying wing slope soarer.

Stuart Ward flew his 2 metre E powered Crimson glider. Charles Warren flew his o/d 2metre glider on the slope in January and his AT40 low wing tail dragger adaptation

On 8th Feb. Brett did the take off and landing so it lives to fly another day!



Left: Brendon Neilson under instruction with Brett Naysmith.



Left: Brendon Neilson with his Calmato Trainer.
Centre: Michael Derecourt with Soar 40 powered low wing trainer.
Below: Tony Plough with ASW28 electric powered glider.



Karaka Diary - Keith Trillo

8-2-15

The weather was overcast with calm conditions resulting in a pleasant low-key morning. Ross Northcott flew his E Tomboy and Lanzo Bomber. Keith Williamson had three flights with his Mills .75 powered Tomboy. Keith Trillo flew his E Tomboy and made trim checks on a new 44" span Stardust Special for 1/2E. There was no Texaco competition. Later in the morning John Swales arrived just to spectate.

15-2-15

There was blue sky and variable wind. We had to use our centre paddock as our regular paddock had been cut for hay and was awaiting baling. The thermals that originated from this paddock made it easy to gain height.

Angus Macdonald flew his E Texaco 8ball and had good flights in the thermals. Keith Trillo concentrated on making friends with his 44" span Stardust Special. The original 1940 Stardust Special was designed by Don Broggin, with a choice of spans 50" or 55 1/2". Keith had chosen to reduce the 55 1/2" span model to 44" resulting in a minimum competition weight of 11.5oz for 1/2E Texaco. It should be competitive when he can land it on the spot. Later in the morning Charles Warren turned up but did no flying, but took the photograph below.



Above: Angus Macdonald with his E Texaco 8ball and Keith Trillo with his Stardust special.

Luscombe Aircraft [Pt 2] - Mike Fairgray

Luscombe and his company

It is recognised that Donald A. Luscombe really started the idea of the private light plane back in 1927 when, with Iowa farmer Clayton Folkerts, he designed the Monocoupe – the first enclosed cabin, two-seat, high-wing monoplane to be offered to the public. Folkerts built the first prototype and Luscombe teamed up with industrialist W.L. Velie, who had previously manufactured automobiles, to build the model 70 Monocoupe from 1927 through 1929 and offer it as “The Ultimate Plane for the Private Flier.” 350 were built and sold, and Don Luscombe was on his way.

Donald A. Luscombe founded the Luscombe aircraft company in 1933, in Kansas City, Missouri. Luscombe had already made his reputation as an aircraft designer with the Monocoupe series of light aircraft, but he felt that the tube-and-fabric method of construction was too expensive and inefficient. He planned to create a light aircraft that was all-metal monocoque construction.

The new company’s first aircraft was the Luscombe Model 1, commonly known as the Luscombe Phantom. This was a high-wing, two-place monoplane of all-metal construction, except for the fabric wing covering. The Phantom was tricky to land, and was never a financial success.

In the winter of 1934/35, Luscombe Aircraft moved to Trenton, New Jersey, and was incorporated as the Luscombe Aircraft Development Corporation. Shortly afterwards, the Luscombe School of Aeronautics opened. Trainees from the school worked in the Luscombe factory, and the school helped to support the aircraft company for many years. The starting up years were not easy for the fledging Luscombe Company as only one set of instruments and an engine could be bought at a time, so that the completed aircraft could be completed and test flown. Only after it was sold could another set of instruments and engine be purchased to complete the next aircraft. Sales picked up, however, and it was not long before the factory was churning out aircraft at an average of thirteen per day. However, sales still remained slow and at times up to 130 unsold aircraft could be seen parked in the company yard. Profit from the sale of an aircraft was not large and a 1947 report to Shareholders showed that the overall profit on an aircraft was \$44.70.

By 1948 the future of the company looked grim. The beginning of the end started in 1947, when the U.S. economy was sliding into a post-war recession. Sales at Luscombe were not good. Money was getting short and suppliers put the company on C.O.D. at the end of 1948. Things got worse, and in 1950, Luscombe closed its doors. They had operated from 1933 to 1950.

However, this was not the end of the Luscombe Silvaire as the The Luscombe Endowment with Classic Aero Support (CAS) provides support for Luscombe aircraft in the way of parts, technical assistance and repairs. Go to

Luscombe model 8

It was the Luscombe model 8, a very efficient little two-seater that began life in 1937 as the Luscombe 50 at the Luscombe Aircraft Corporation's new plant in New Jersey, that was to make the name Luscombe immortal in the aviation world. It was designed with aluminium framing throughout (Luscombe didn't like wood) and used one of the new flat-four engines just introduced by several engine manufacturers. Luscombe began with the 50 hp Continental and quickly upgraded to the 65 hp version when it became available, re-designating the design as the model 8A. With its round monocoque aluminium fuselage and fabric covered aluminium wings it was inexpensive to build and was faster than the aircraft of his competitors using the same engine. The little two-seater sold well and Luscombe was hoping for a bright future. During the war years Luscombe competed for several defence contracts and while he was able to secure some sales under the Civilian Pilot Training Program (CPTP) he lost out to Cessna and Piper who won the biggest share of the defence contracts. Not to be one for grass growing under his feet Luscombe continued to develop the Model 8 and when a 65hp Lycoming engine went into production a Model 8C with a luxurious interior and a shock absorbing section in the instrument panel was introduced for sale to the public. A contest was held to name the civilian version. The name "Silvaire" was chosen and the plane went on the market with ample advertising for \$2495.

Some important changes had been made to the 8E. The wing and fuselage had been re-engineered to full monocoque construction with aluminium skin on the wings instead



Above: A Luscombe Model 8 seen at Oshkosh.

of fabric (The marketing photo of the time showed 28 people with a combined weight of 3,500 pounds sitting on the wing along the leading edge just to show how strong the wings were.) The fuel capacity had been increased to two 12.5-gallon wing tanks and the fuselage tank removed. This left room for small rear windows and a storage shelf behind the seats. In 1947, changes were made in the tail surfaces to simplify construction.

In my research for my scale model I found that it was not unusual for earlier models of the model 8 to upgrade to the later E model with the fitting of all metal wings (which allowed for the removal of twin struts replaced with a single strut) and even having the additional window cut into the side along with the fitting of the twin fuel tanks.

It was not until I saw several Luscombe's at the International Airshow in Australia sitting next to a Cessna 180 that I really could see how small the Luscombe is. It was like placing a Mini next to a Commodore. In my eyes it still looked the better of the two. A great source of reference is the book "Luscombe's Golden Age" by John C Swick an acknowledged expert on the Luscombe story. The book contains photos, construction notes, original drawings, three views and so much more.

Other Luscombe models

Luscombe Phantom; (A 16 and 25 inch rubber powered plan is available from <http://www.outerzone.co.uk>)

Luscombe mode 10 (A 23inch rubber plan available by Earl Stahl from <http://www.theplanpage.com>)

Luscombe model 11A, a four seat sedan commenced production in February 1948. It sold for \$6995.

References

Swick, J.C.(2005). *Luscombe's Golden Age*. (1st ed.). Brawley, CA. : Windy Canyon Books

Smith, A. *The Luscombe Silvaire Survives for 74 Years With a Life of its Own*
retrieved from: <http://inflight.squarespace.com/featured/2011/2/1/the-luscombe-silvaire-survives-for-74-years-with-a-life-of-i.html>

Postal Plan Scale Competition 2015 has now started

Any rubber powered scale model built from a published plan (or kit) qualifies. Flights may be put in at any site including your local park as long as the flight is timed by someone else.



Upper:

To add some context to this article, two views of the completed Camel, still with Williams Bros. wheels.

Below left: The sanding template using the throw-away cut-out from the wheel.

Below right: The completed wheels weighing in at 1.2g for the pair.



Building Board

Mike Mulholland reports on wheels for his KK Sopwith Camel

My recently completed 16" KeilKraft Sopwith Camel required a set of 30mm wheels. The usual candidates for the job, small plastic kit wheels, are generally only around 1" and look terrible, as did the original wheels supplied with the Veron and Keil kraft range. I found that I had a set of Williams Bros. wheels that were perfect in all respects except that they weighed in at a hefty 5g for the pair. This may not sound much to the average radio bod, but to get the issue in perspective, at this end of the hobby, 5g just about gets you a whole Peanut for a light builder. So, off to see Gwyn Avenell of Avetek fame who laser cut me a number of 1/16" balsa discs and rings. The rings were glued either side of the discs as you would expect.

Not possessing a small lathe, I had not been looking forward to the task of sanding the tyres, and in particular, forming the inside curve near the 'bead' of the tyre. A sudden burst of inspiration and the throw-away cutout from the rings provided a solution.

A sanding template was made by drilling a hole in some 3/16" sheet of the diameter of the tyre, (about 4.5mm), cutting the sheet in half lengthways and retrieving one of the halves with the resultant half circle cutout. I glued a piece of 180 grit sandpaper inside the half circle section and mounted this assembly on the circular cutout from one of the balsa rings.

I simply rotated the sanding assembly on both sides of the wheel blank until I had a tyre. A lightweight plastic tube hub bearing was cyano'd in using a length of wire mounted in my drill press to ensure true-ness,

Wheel covers were vacuum formed from thin ABS plastic and the flat discs on the back side of the wheel were cut from OHP film discs cut with a compass hole cutting tool.

The wooden parts received 4 coats of sanding sealer. All parts then were air-brushed in the proper colours and assembled with RC 56 Canopy adhesive. The wooden wheel idea has proved very successful and resulted in a final weight of 1.2g for the pair



Left:
A comparison of the Williams Bros. wheel and the new lighter one.

Stan Mauger reports on his Austerboxy project

This project came out of a desire to understand the best way to set up thrustlines and C of G on my 48" free flight scale Auster pictured below. My first free flight scale Auster, a 36" model, built back in 1989 went through the predictable trimming phase and then proved itself to be a reliable and stable flier. A second model from the same plan, set up with exactly the same thrustlines, C of G and washout, flew well with no trimming adjustments, which suggested that I had established the correct set up for this scale subject. When I built my 48" Auster C4 from an enlargement of the same plan, I transposed all of the settings from the first model. This seemed a sure recipe for a docile well trimmed model, but this was not to be. After signs that it clearly did not want to fly with these settings, the C of G was moved further forward and elevation varied, in early test flights.



Top: The 48" Antarctic Auster C4, free flight scale model, on hold until Austerboxy trimming experiments are completed.

Lower: The quick-build 48" free flight scale Auster, still unpainted, built to sort out the C4 trim questions. Has an ED Hornet diesel for power.

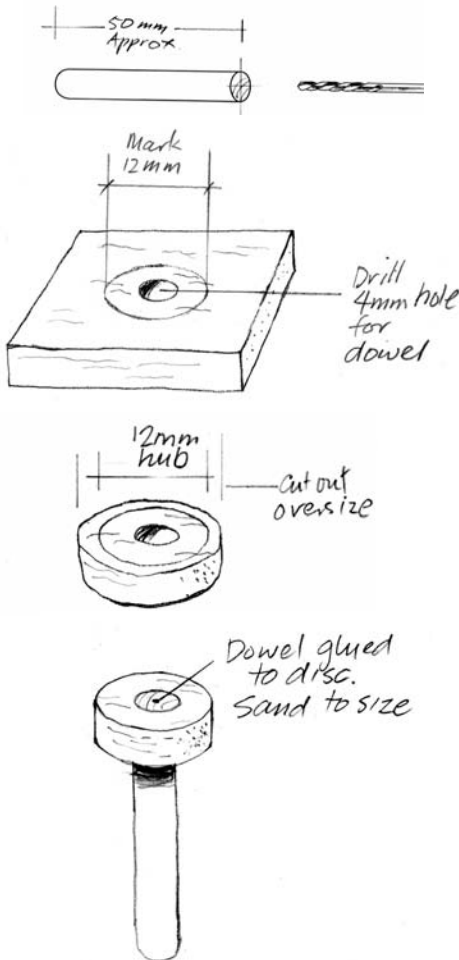
During 2012 I installed a succession of engines of varying power, and experimented with various propellers but I still found the results of trimming changes unpredictable. The model was starting to get knocked around in the process, so I decided to build a less detailed model from the same 48" plan, which with rear cockpit fairing, became an Auster Adventurer, to sort out trim set-up that could be applied to the original 48" model. I have not trimmed this out to my satisfaction. This still leaves me with the feeling that, having read many articles on trim set-up for flying scale models, I do not know the best trim set-up for a 48" Auster. Without marking reference points on the Adventurer, it is hard to systematically log how the interacting changes of thrustlines, C of G, and balance affect the flying of the model and besides, I have grown to like the Adventurer and want to preserve it.

Enter the Austerboxy! This model shares exactly the same design of aerofoil, same wings and same tail-feathers as my original 48" C4, but is otherwise a practical slab sided rugged model suitable for trimming experiments. It ended up looking not unlike Ron Moulton's APS Auster Workmaster, though its purpose is entirely different. Close scrutiny of the photo below will show that I have taped on reference points for sidethrust and downthrust angles to take the guess-work out measuring these changes. A taped scale of C of G positions is also marked on the fuselage under each wing. The top of the fuselage colour trim has established the datum line and a line of black tissue over the fuselage and centre section ensures that properly assembled, the wing alignment will remain constant. I have used the orange-red tissue on one side of the fuselage and corresponding wing under-surface and also yellow on the other, to make it easier to remember which wing has banked in a tight turn! The banded on wing is one-piece to withstand heavy arrivals and the tailplane and fin are screwed into the fuselage to make measurable trim adjustments. This set-up will also provide easy access for ballasting this model to the same weight as the C4. I will report on what I learn, in a future article.



Left:
The Austerboxy, purpose-built to experiment with trim set up. Also has an ED Hornet diesel for power.

Lightweight Wheels - Angus Macdonald



"That model looks good but those funny skinny plastic wheels spoil it." How often have you said that to yourself or even out loud? Yes, they may be very light but you can make good looking scale wheels very light. Here is a simple way to make them. Access to a lathe makes it very easy but a pillar drill, electric hand drill or even an old fashioned hand drill (with a helper to turn it) will do it. The drawing represents the wheels made for my 20" Gipsy Moth. Change sizes to suit your application.

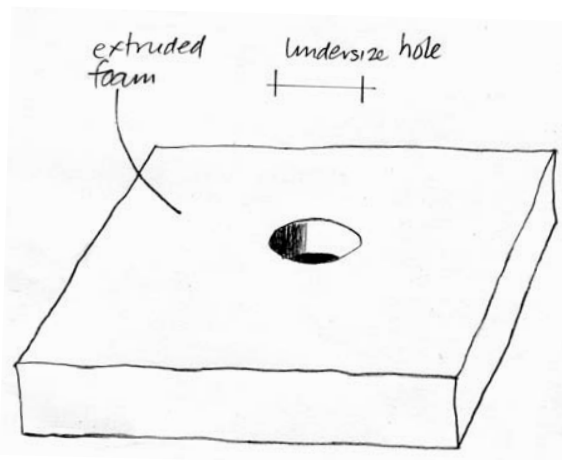
Axle

Drill in the end of a short piece (say 50mm) of 3/16" / 4.5mm dowel. You have a very fine drill – good. You don't? Then grind the end of a piece of straight wire to a chisel point, bevelled equally both sides. This will go into end grain hardwood easily in our sizes. The dowel is quite OK as a bearing but if you wish to bush it with ally, use a suitable size drill.

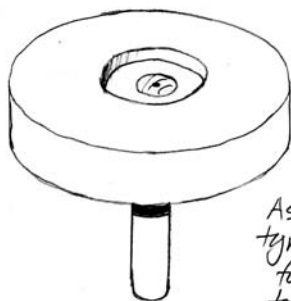
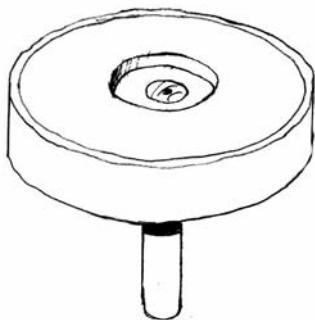
Hub

Draw a 12mm dia. circle on a soft piece of 1/4" (6mm) balsa. Drill a 11/64" (4mm) hole through the centre point. This is slightly under the size of the dowel to get a good joint here. The soft balsa gives a little.

Trim the balsa to a little outside the circle. Now glue the dowel into the balsa. When dry, hold the dowel in the chuck, switch on and very carefully sand the outer dia. to size with 60 or 80 grit. Try to keep it as flat as you can.



tyre trimmed oversize



Assembled tyre ready for shaping to profile

Tyre

Cut a piece (70 x 70mm or thereabouts) of extruded polystyrene foam to suitable thickness for the tyre. Make it a bit more (12–14mm) than the finished width of the tyre. Do not use beaded foam (the white packaging stuff) as the beads will break out easily and spoil the surface. The extruded foam is building insulation and comes in various colours.

Cut a hole, a little undersize for the hub, right in the middle and glue (foam safe - I use PVA) this in place on the hub. You will see that the tyre is a little off centre on the hub. This allows a shallow rear face to the wheel and a bit deeper on the front to allow for bending up the end of the axle. When dry (PVA will take some hours to set hard) draw a circle on your foam to your wheel diameter, with the compass point in the axle hole. Then trim off the excess foam to just (1mm) outside this line.

Now re-chuck the dowel, switch on and very carefully sand the foam to the tyre cross section. The 80 grit will take it off fairly fast so do not press too hard. The hard corners of the sandpaper are lethal and dig in very easily and spoil the whole job. Finish with 150 grit and then finer again.

Leave the dowel long. It is much easier to handle. Colour the tyre with black marker pen. On one pair I smeared black silicone liquid gasket (Selleys?) which dried to look like rubber.

Cut off the excess dowel with a sharp knife and there you are! For the domed

“DH” hub cap, an empty yoghurt pot was heated with a hair dryer and pulled down over a custom produced male mould. Well actually, it was the domed end of a broom handle! Cut the plastic to the hub diameter, paint and glue in place only when you have bent up or put a fastener on the end of the axle. Scribing through the blue paint with a sharp metal point, produced the white “DH” letters.

Monthly Club Meetings Diary

In the last few months, I have had some difficulty in ensuring that mailed out hard copies of Slipstream arrive very much ahead of meeting dates. The list below of first Monday in the month meeting dates that are included on the back page of the bulletin is unlikely to change, so can be added to your diary.

2015

March	Monday 2	August	Monday 3
April	Monday 6	September	Monday 7
March	Monday 4	October	Monday 5
June	Monday 1	November	Monday 2
July	Monday 6	December	Monday 7

FREE FLIGHT SCALE DAY

Sunday **April 19**, Patetonga
from 8.00am

Contest for all free flight scale classes

- F4A power scale • Rubber scale • CO2 / Electric • Kit scale
- Plan Scale entries

Intending fliers and visitors please check for cancellation because of weather conditions, by calling Stan Mauger on 575 7971 before departing.

organised by the Scale Free Flight and Control Line SIG in conjunction with AMAC

Calendar

For information about the location of club fields and cancellations or postponement of flying contact the field stewards

KARAKA

Sundays

Tomboy Extravaganza *(for Club points)*

Flying can take place between 10am and 2pm
(9am to 3pm for gliders and other silent models)
NOTE 1/2A Texaco is included in the Karaka/Tuakau Programme

Karaka Steward

Keith Trillo 09 298 4161 027 4607180
careith@hotmail.com

HOTEO

NDC events including 1/2A Power, Open Rubber, Open Power, P30, A1 Glider and Kiwi Power, Open Glider

Hoteo Steward

Paul Evans 479-6378 ziply@xtra.co.nz

AKA AKA

Saturdays & Sundays

Intending fliers should phone Brett Naysmith to confirm that there will be flying.

Instructors

Grant Domigan and Brett Naysmith

Aka Aka Steward

Brett Naysmith 09 235 8803 brejo@xtra.co.nz

CONTROL LINE

As advised

Control line flying
Intending fliers should phone Stan Mauger to confirm where and whether there will be flying.

C/L Steward

Stan Mauger 575 7971 stanm09c4@gmail.com

INDOOR EVENTS

Balmoral

Monday March **30**

Push E [7.30-10pm] - *for Club points*

Ellerslie

Tuesday March **10**

Michael Park School Hall
Indoor radio flying (7.00-10pm)

Tuesday March **24**

Indoor Radio Scale including ARF Scale, Simple Scale and Full Scale classes [7.00-10pm]
- *for Club points*

Indoor Steward

Bryan Spencer 570-5506 bspencer@xtra.co.nz

PATETONGA

April **19**

All Free flight scale events - *for Club points*
[See notice opposite for details]

OFFICERS OF AUCKLAND MODEL AERO CLUB INC.

Patron	Angus Macdonald	575-7232	angusmac@xtra.co.nz
President	Charles Warren	09 238-9430	cpwarren@ps.gen.nz
Vice President	Keith Williamson	625-9157	kcwilliamson@xnet.co.nz
Secretary	Michael Taylor	849 6336	taylor.mjk@xtra.co.nz
Treasurer	Jeanette Northmore	527-0158	morg1@xtra.co.nz
Club Captain	Stan Mauger	575-7971	stanm09c4@gmail.com
Recording Officer	Keith Trillo	298 4161	careith@hotmail.com
Bulletin Editor	Stan Mauger	575-7971	stanm09c4@gmail.com
Committee	John Bercich	534 0154	Jbercich@xtra.co.nz
	Ricky Bould	478-8949	unimec@ihug.co.nz
	Paul Evans	479 6378	ziply@xtra.co.nz
	Don Spray	828 4892	drlmspray@xtra.co.nz

Club subscriptions

NZMAA Affiliation is mandatory for Club flying

Senior \$53 (+\$67 NZMAA) **Family** \$55 (+\$72 NZMAA)

Junior \$10 (+\$20 NZMAA) **Social** \$40

Intending members with current NZMAA affiliation pay only the AMAC sub

Please make payments to

The Treasurer Auckland Model Aero Club

Mrs Jeanette Northmore,

20 Larsen Road, Panmure 1072, Auckland

NEXT CLUB MEETING AND NATTER NIGHT

Monthly club meeting

7:30 PM

Monday March 2, 2015

ASME Clubrooms, Peterson Reserve, Panmure.

Theme: DH Aircraft

Janic Geelen will give a background to his book on De Havilland aircraft, *Magnificent Enterprise – Moths, Majors and Minors*.

Items for the table:

Models, plans, engines, photographs etc

Trading table:

Buy, swap and sell

Visitors or intending members welcome