ScaleNews

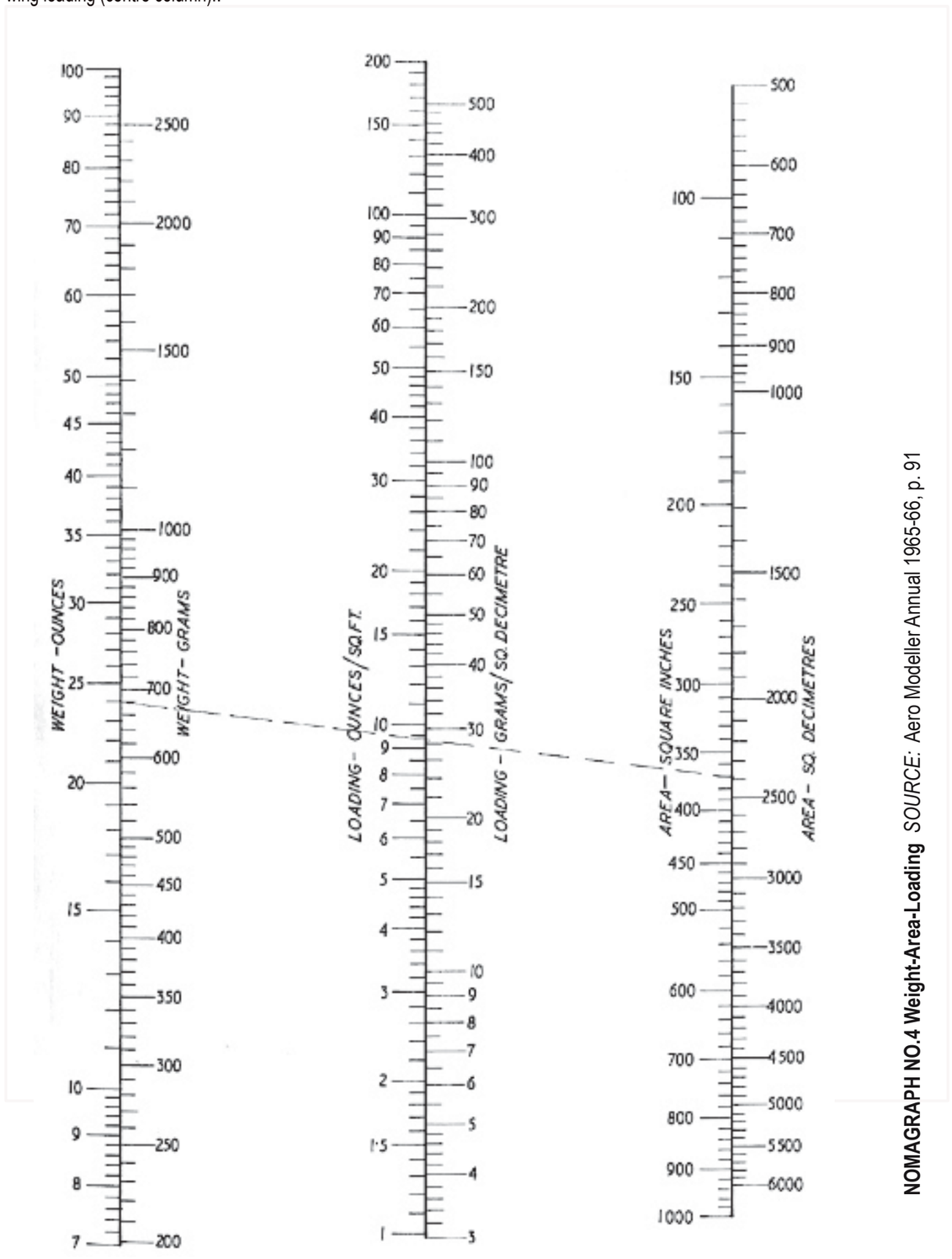
December 2021
Issue 7

Official Newsletter for Free Flight and Control Line Scale flying in New Zealand produced by the Free Flight & Control Line Scale SIG

In this issue

Wing Loading Calculator - a useful table

Here is a table that is easy to use. The dashed line shows an example of how the wing loading of your model can be found. Just create a line across the a weight of your model (left hand column) and wing area (Right hand column) to give you the wing loading (centre column)..



NOMAGRAPH NO.4 Weight-Area-Loading *SOURCE:* Aero Modeller Annual 1965-66, p. 91

ScaleNews

December 2021
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A periodic publication with news of interest to free flight and control line scale modellers in New Zealand and beyond.

COVER PHOTOGRAPH

Des Richards had a number of great flights with his Stahl Blackburn Skua built by Ivan Treen and flown in the Memorial Scale class at the North Island Free Flight Champs earlier in the year.

Photo: Stan Mauger

Editorial

There has been a much longer period between Scale News issues this time, for a number of reasons. Scale News was never intended to be produced with any regularity, but rather just as reports and other contributions have come to hand. I have been holding some contributions for some time, but expected events that would have contributed to Scale News like Morrinsville were cancelled because of Covid. The lockdown and limited flying activity elsewhere have meant that not much material has come my way to publish over that period.

This issue includes a number of contributions from overseas. I was pleased to receive photos and reports on building projects from Australian flyers to join the regular review of scale building nationally. Scale News was conceived as a means of showing free flight scale news nationally and international model stories are also most welcome. Thank you to all who have supplied photographs and information about free flight scale projects. Please send in news of recently built models to include in Scale News.

British scale modeller Pete Fardell's article on his Auster Agricola is evidence of the viability of this subject for free flight scale and a good accompaniment to the photos of the full-size aircraft in this issue. The Agricola is an under-modelled subject and an especially significant aircraft to New Zealand aviation where it enjoyed most success.

Moving to updates on scale contest flying, the 2022 Nationals will go ahead as planned. Refer to details on page 28. Note that there will be a final review meeting on December 20 and any changes to the Nationals will be notified to those who have entered, and these details will also be posted on the MFNZ website. Please contact Ricky Bould if you are planning to attend as it would be helpful to know how many are likely to be flying in free flight scale events.

It is strange to be producing an issue without other confirmed scale event notices. Hopefully this will change as the new year progresses. The Morrinsville Indoor day is scheduled to run again in October 2022. If it is possible to safely meet in indoor venues earlier that this, another Morrinsville Indoor day will be possible and announced in Slipstream and Scale News.

In the meantime, good luck to those flying in events at the Nationals and best wishes to all over the festive season,

Stan Mauger

Free Flight Scale at North Island Free Flight Champs

Having flown a number of free flight scale events on the Free flight field alongside free flight flyers at the 2021 Nationals, it seemed a good idea for free flight scale flyers to join them on other occasions as well. The North Island Free Flight Champs provided a good opportunity to do this. As those who have used it know, Rayners farm is a great venue for free flight and many of us have warm recollections of great scale and free flight flying there over the years. Scale flying there this year was compromised to some degree by stronger breezes than most scale models could handle, in the first two days of the event, although some good flights were achieved by Des Richards, with his Stahl Blackburn Skua and by Graham Lovejoy's Miles Magister.

The best morning was on the last day when conditions were ideal. There simply was not enough time for all free flight scale models resting in cars, to be flown or with the exception of Memorial Scale, to hold events in the time. This did not stop some great flights during the morning. Des's Blackburn Skua and Graham's Magister once again flew well taking the top places in the small field of Memorial Scale flyers entering the event. Graham also flew his small Taylorcraft floatplane that looked just as comfortable outdoors as in its usual indoor flying location. Antony Koerbin's nicely detailed Pilatus Porter in Mount Cook Airline colours is a colourful subject that flew well. Ricky Bould had a bootload of models and managed to fit in flying a number of them including his CO2 powered Comper Swift and VMC Bird Dog.The first of Stan Mauger's models away was his much flown Helio Courier that seemed to enjoy the morning conditions. This was followed by his Vickers Vildebeest that made some nice circuits of the field.

Despite the reduced window for flying over the weekend, scale flyers found this event well worth attending. We enjoyed the many on and off the field conversations with free flight modellers and the informal workshops held by the free flight SIG organisers, when conditions did not suit flying. Lets hope that we can repeat this event again in 2022.

STAN MAUGER

Results

Memorial Scale	Flying	Builder	Model
1. G. Lovejoy	63	B. Conroy	Miles Magister
2. D. Richards	61	I. Treen	Blackburn Skua
3. S. Mauger	51	J. Godfrey	Stinson Voyager

ABOVE: Graham Lovejoy's Taylorcraft floatplane climbing away nicely.

RIGHT: He had great flights in Memorial Scale with his Stahl Miles Magister built by Brian Conroy and restored in Irish colours..

UPPER: Stan Mauger with his free flight power scale Vickers Vildebeest biplane Photo: David Ackery.

ABOVE: Des Richards assisting Graham Lovejoy to set up his Taylorcraft floatplane.

RIGHT: Models brought by Des Richards and Graham Lovejoy included Blackburn Skua (above) and Miles Magister and Taylorcraft Floatplane (foreground).

LOWER: Ricky Bould's fleet (from left to right) included CO2 powered Comper Swift, Kit Scale Cessna Bird Dog, and Stahl Waco for Memorial Scale..

RIGHT: Stan Mauger brought plenty of models to fly and flew them all except the Kit Scale KK Cessna. While the Vickers Vildebeest and Helio Courier flew well, his Stinson Voyager and Fairchild Ranger Memorial Scale models needed some trimming.

UPPER: Antony Koerbin about to launch his Pilatus Porter in the calm morning air.

LEFT: These two views of the Porter show the fine detailing.

Photos: Ricky Bould

The Auster Agricola

Any consideration of the Auster Agricola in New Zealand must be tinged with ideas of what might have been. Most accounts suggest that this aircraft had many good features and was much liked by pilots, but it was overtaken by the locally produced PAC Fletcher.

The factory colour scheme for an Agricola was Auster deep green and silver. Unfortunately this colour combination was not highly visible in an agricultural setting and soon Yellow panels and fluorescent DayGlo tips were applied to these top-dressers.

ZK-BXO, the last airworthy Agricola was rebuilt from ZK-BMN, plus parts from other Agricolas. It was owned by John Stephenson and flown at airshows before eventually being sold and shipped to the UK. It is now back in New Zealand again where it is owned by Griffin AgAir.

The Agricola has seldom been modelled as a free flight subject. The following article proves its suitability. I have additional photos if further documentation is needed. Let me know if you would like any further views. The photos below and right were taken in the mid nineties.

STAN MAUGER

UPPER: Barbara Hope-Cross seen beside ZK-BXO in the early 1990s, lending scale to the aircraft.

LEFT: Underside details showing undercarriage, ailerons and top-dressing hoppers.

References

Jackson, A.J. (1974) *British Aircraft since 1919.* Vol.1. 2nd ed. London: Putnam

Wenham, T. Simpson, R. Philmore, M. (2018) *Auster the company and its aircraft.* Staplefield, West Sussex : Air Britain

John Stephenson doing preflight inspection (lower) and about to start the take-off run (top and centre) in ZK-BXO.

Auster Agricola - Pete Fardell

British modeller Pete Fardell has expressed a love for the Agricola and had a lot of fun with his small rubber version. The model is his own design, built in 2012 as a first effort in Open Rubber in the UK Indoor Scale Nationals. Since then, he has flown it a lot, outdoors as much as indoor. The Agricola is in his own words, getting tatty now, but has been quite a good flyer in both environments. For a small model it copes well in windy conditions, which is one reason he has flown it so often. The span is 24" and it weighs about 40g without rubber and it usually flies on two loops of 1/8". Rather than using a separate construction plan, the model was just built over a blown up Putnam 3 view. Construction is standard stick and tissue with the finish lightly sprayed on with thinned enamels. He did not deviate from scale, or not deliberately anyway, as the Agricola has good proportions for a rubber model. The only challenging aspects were its low wing and short undercarriage. The latter meant that he could not use a very big prop on it for ROGs. It manages alright on a plastic 7" Peck type though, cut down to 6.5". The model is finished as ZK-BMJ and most of his photos were from the rnzaf profboards website below, which is excellent. If he eventually does another he plans to enlarge it to about 30" span, and make it a solely outdoor model. Pete has supplied a couple of videos of his Agricola flying. They are:

Indoors at Nijmegen:
https://www.youtube.com/watch?v=5SSclHIb3IY
and Outdoors at Buckminster:
https://www.youtube.com/watch?v=QHujEJgVwQE
rnzaf profboards:
https://rnzaf.proboards.com/thread/12319/agricultural-aircraft-auster-agricola?page=2
(Putnam and Air Britain references are on page 8- Ed.)

Photo: Mike Stuart

ABOVE: The Agricola proving that this low-winger can fly very well outdoors under rubber power.

OPPOSITE, ABOVE AND LEFT: These views to show the colour scheme and nice detailing.

Ricky Bould's Auster Agricola & Comper Swift

The Auster Agricola came from the Hope-Cross stable and will make an addition to my Memorial Scale models. This model was finished in the colour scheme of one of the New Zealand topdressing Agricolas, ZK-BXO. The original colour dope finish has been rubbed down almost to the bare wood and tissue covered before being refinished in Humbrol enamels. The nose has been remodelled to represent ZK-BXO without the augmenter tubes, using the stub exhausts typical of some Agricolas instead. The model was originally fitted with an Allbon Dart, but has been modified to accept a PAW.55 which should offer ample power for this 42" span model. The glazing and knock off wing mount are the next items to require attention. With the rebuild overall weight is around 11 ounces including engine.

RICKY BOULD

RIGHT: The cowling layout has been revisited and shows plenty of room for the side-mounted engine and tank. .

BELOW: The model now back together again and awaiting the installation of a PAW .55.

There are many colour schemes to choose from for a Comper Swift. So far most that I have built have been in dark bue and silver so G-ECTF provides a change, but it still features the usual Pobjoy engine. This is a challenge to model. The engine on this Peanut version is based on small Williams Bros cylinders to which has been added cylinder heads made of balsa.

BELOW: Views of the new Peanut Scale Comper Swift that is now awaiting some indoor testing.

So far the model weighs 11g without rubber so should be a good flyer in Peanut. The hand carved prop was preferred as it provides a weight advantage and also greater blade area. The model is based on an Andrew Moorehouse kit with changes to undercarriage and engine detailing.

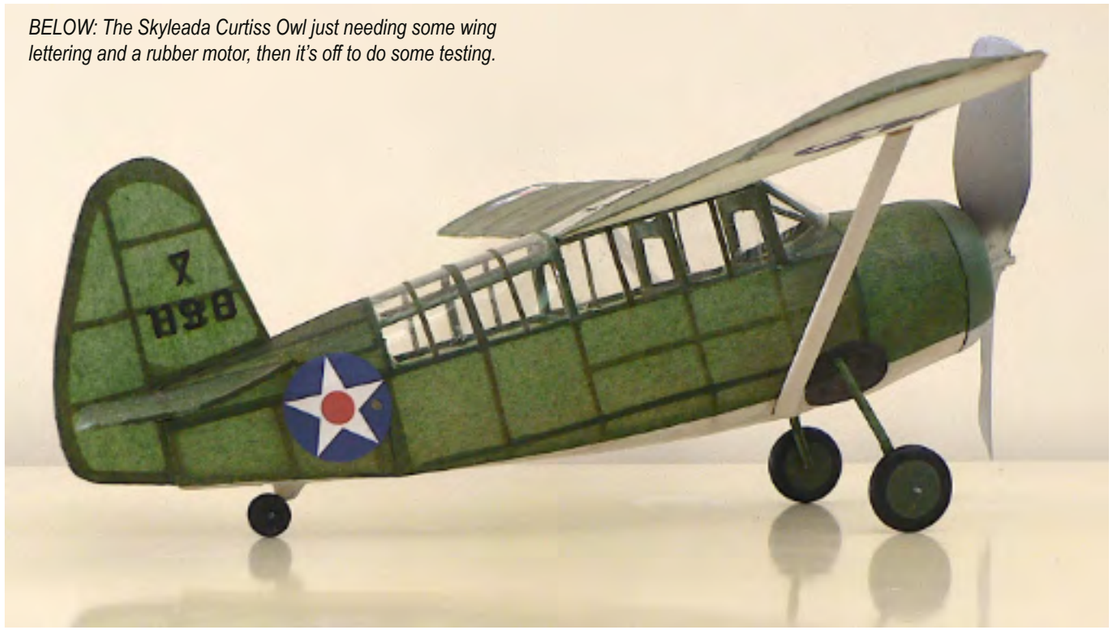
RICKY BOULD

Stan Mauger - Curtiss Owl & Auster Arrow

The Curtiss Owl designed by J. Bridgewood from the *Model Aircraft* plan made a lasting impression on me in my teenage years when one of the Timaru club flyers built one as a free flight scale model. It was soon converted to control line and powered by an ED Racer. There really have not been any accurate plans for this subject that I know of, but when Graham Lovejoy offered me the Skyleada rubber plan of it I could not refuse building it. It should be added that in keeping with other Skyleada designs that I am aware of, this is far from an accurate plan and some structure seemed to be missing around the tail area and the undercarriage length was impossible unless a tiny propellor was used. Nevertheless it is a charming design that I am looking forward to flying in Kit Scale as at just under 16" span, it is a good size.

STAN MAUGER

BELOW: The Skyleada Curtiss Owl just needing some wing lettering and a rubber motor, then it's off to do some testing.



My first Auster Arrow was built about 2011 using the kit wood in the Keil Kraft kit. Keith Williamson, also an Auster enthusiast, had given me the kit, knowing that I shared the same interest. On four strands of 1/8" rubber, the lightly built model spiraled up fast in outdoor Kit Scale events. Wanting something different from my first Indoor Kit Scale Model, a Keil Kraft Cessna, to fly in indoor Kit Scale, I reduced the rubber in the Arrow to one loop of 0.0145" rubber and enjoyed many nice indoor flights with it. Sadly, the best tissue match for the Australian Arrow colour scheme that I used for a for my model, was gift tissue. Over the years this had turned to a faded, slightly grey-mauve hue. This plus the inevitable repairs over the years led to the need for a complete rebuild. The model is now ready to test outdoors to confirm which way it will turn. I hope that it will turn right as the previous model did, as that seemed an idea arrangement for indoor flying.

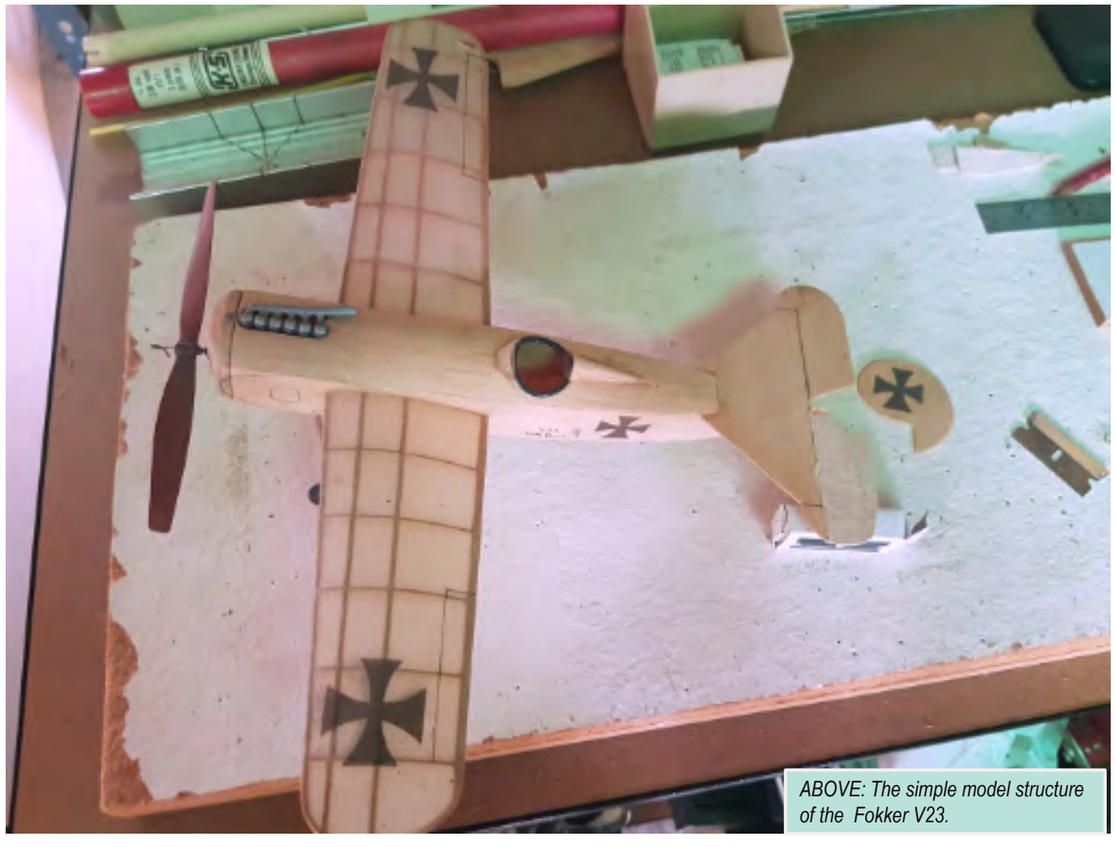
STAN MAUGER

LEFT: The original Keil Kraft kitset box. Wing struts will be added to the model after testing has been completed.

Des Richards - Fokker V23

My peanut scale Fokker V23 was made from the Walt Mooney plan that appeared in the May 1972 issue of Model Builder. It has progressed slowly having been started some fifteen years ago and never been trimmed or flown. The current task has been to repair hangar rash and get it ready for flight. With repairs completed and motor made up from 1/8" rubber, it is ready for testing. The all-sheet fuselage and tail surfaces may appear to be a contributor to more weight than ideal for a peanut, but so far without rubber the model is quite light. Building notes suggest a 1/8" rubber loop but do not specify prop size. However, the plastic prop in the plan measures 4½" which should be about right to achieve some test flights.

DES RICHARDS



ABOVE: The simple model structure of the Fokker V23.

Sopwith Tabloid - Mike Stoodley

The Sopwith Tabloid was built thirty years ago from the Ken McDonough plan in the December 1961 issue of Aero Modeller. Although the plan shows pendulums to control flight, the model was built without them and with an 1/8" wedge under the DC Dart to provide considerable downthrust, and CG as per the plan, the model was a nice flyer without any need to make trim adjustments . However, it was only flown a few times before converting it to electric power, first with a geared Mabuchi motor that proved to offer too little power and then eventually with the outrunner that is presently installed and is just right. Having covered the model with white lightweight Modelspan the covering has since been repaired a few times. The original covering was dyed by immersing it in teabag tinted water then left to dry. It was ironed to remove creases before being used to cover the model. The roundels were airbrushed on using masks.

MIKE STOODLEY

ABOVE: The Sopwith Tabloid now re-engined with an out-runner electric motor and prop-saver.

LEFT & ABOVE: These views show that the coloured Modelspan has lasted well.

Don Spray's McDonnell XP67 Moonbat

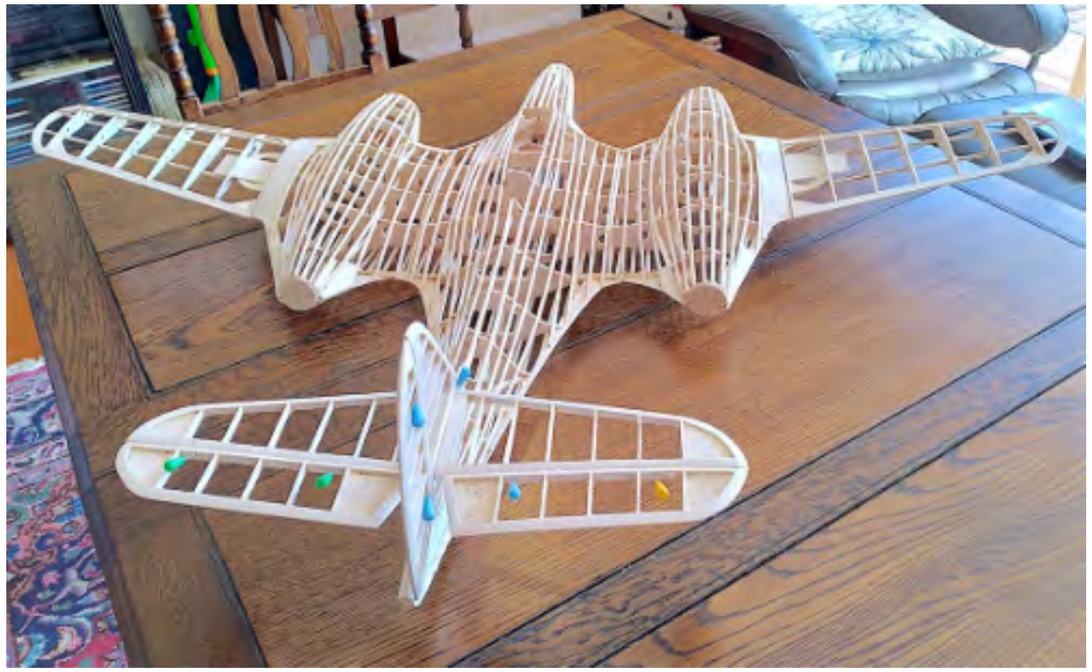
I was egged on by George Fay, to build my McDonnell XP67 (Moonbat) and it seemed like a good idea at the time, although it is definitely not ideal for a rubber twin build! The model was built from an enlarged Wylam three view and the span is one metre, a good size for this rubber model. There were plenty of cross sections shown on the three view, which assisted construction.
It is a complex design with barely a straight line to it and, thus, a pain to tissue cover. It consumed my supply of blue tissue. The props, are contra-rotating, so I will also have to make a special double stooge for testing. I will start with eight strands of 1/8" rubber motors. With flexible four bladed propellors built in the Ivan Taylor style, I am confident that I can safely leave the Undercarriage off. All I need is some calm weather and a place with long grass to test it.

DON SPRAY

UPPER: Waiting for testing, the Moonbat with four-bladed propellors incorporating 'strimmer' connection to the propellor hubs to protect blades.

RIGHT: The complicated fuselage, engine(s) and wing centre section unit with tail and outer flying surfaces.

OPPOSITE: Views to show the way in which central wing spars merge into nacelle and fuselage formers to make a tight unit.

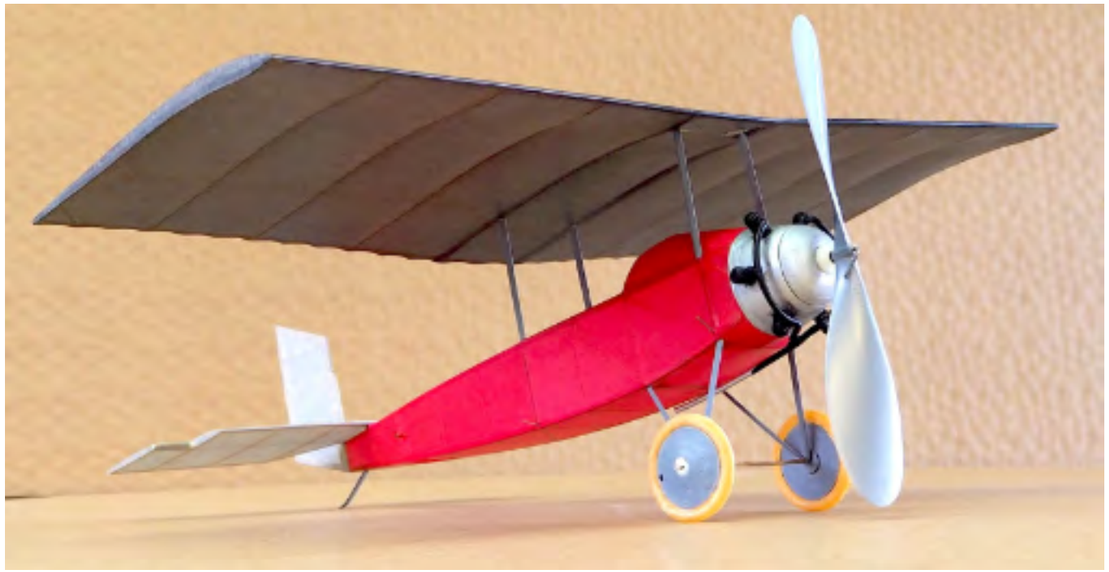


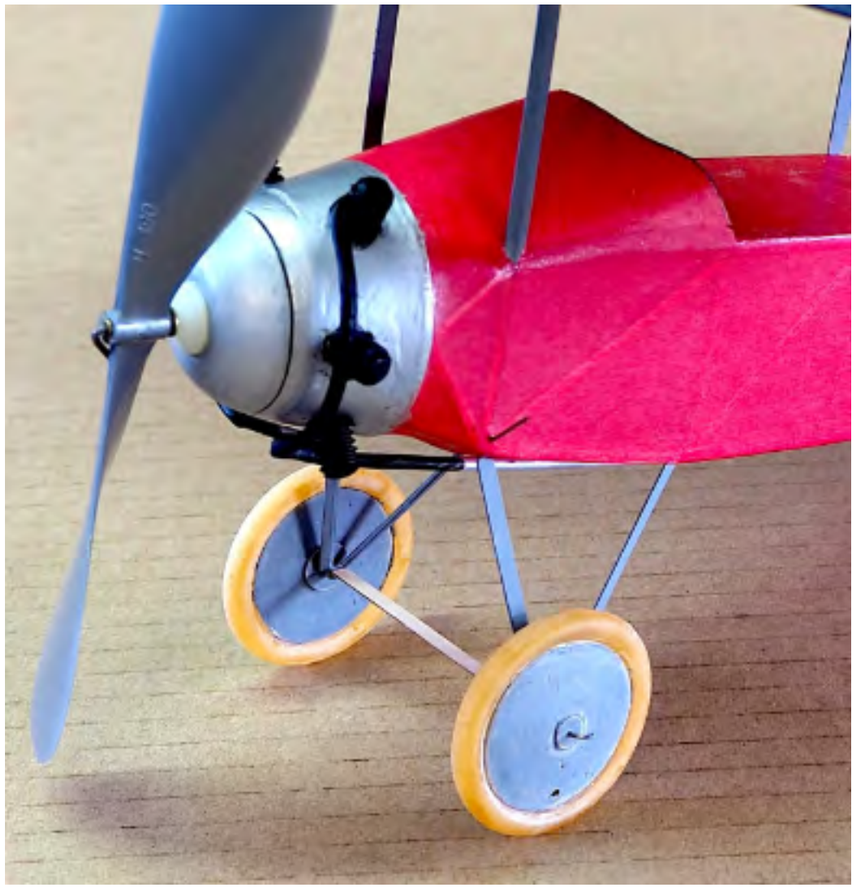
Bernard Scott's Carte Postale

My Carte Postale Indoor Open Rubber Scale model was completed during the first lock-down. Restrictions since then have meant it is untested. The wing is removable, although to keep the trim I will fix it once settings are finalised and struts will then be added at the four points where wires are exiting the fuselage under the wing. Tyres are from rubber tubing which bonds well with cyano glue.
The Carte Postale was a pastiche of parts from different aircraft. Loosely translated from the French, the design philosophy went something like this -
Henri: "All zees crashes! What to do with all zees bits?"
Jacque: "What about we cut zat wing in half and put it on top of zat bit over there and see what happens?"

I built it from a three-view drawing by Emmanuel Fillion in the first volume of Bill Hannan's series *Peanuts and Pistachios*. I have just the first volume, but a web search shows 1 to 6 are still available. My model is built to 16.5" wingspan which seemed a good size for Indoor Open Rubber Scale in a small hall. Weight without rubber is 30 grammes. Covering is the dreaded "domestic tissue". A peanut-sized version is on the build list - I will name it *Timbre-Poste* (postage stamp). The Fillon drawing will suffice in the 3-view department, but as I have only one fuzzy photograph, further photographs would be useful, if anyone can help.

BERNARD SCOTT





These views show some fine detailing and the good use of rubber tubing for tyres.

George Fay's Fighter Squadron

My rubber powered Kawasaki Tony was built from enlarged 3 views and proved to be a great flyer. Unfortunately, it was recently lost when it refused to turn and flew over the fence and into the reeds at the edge of the sports ground. Several have been previously built, all for rubber power and they have been excellent flyers.

The Vought Corsair was built from the Frank Scott drawing in the Model Builder plan book *Flying Scale Models of WWII*. It is a great flyer on four strands of x 3/16" rubber and is finished in Fleet Air Arm colour scheme. It follows several earlier models of this subject. The one built from a Herr kit was particularly memorable, giving some great flights at Richmond.

The Supermarine Spitfire is a Mk22 and was based on an enlargement of the HcHard MkI Spitfire plan in the same plan book but with the necessary changes to make it a Mk22. At 28" span it needs ten strands of 3/16" rubber. Tests so far indicate the need to experiment with more efficient propellors than the first one used on the model.

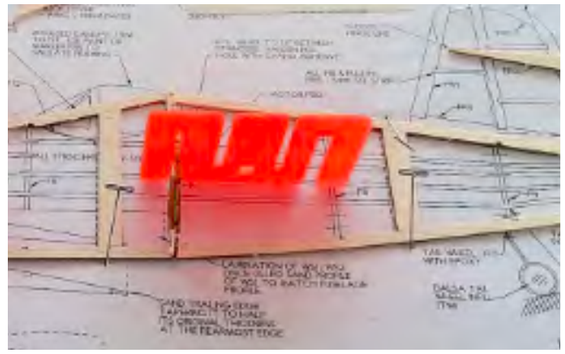
GEORGE FAY

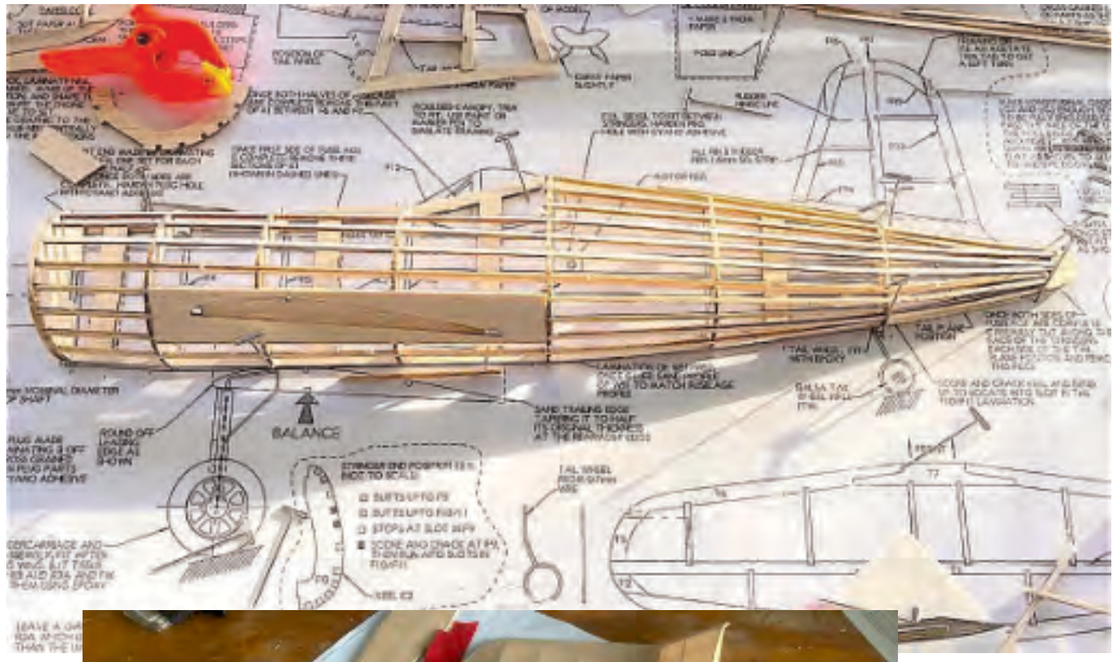
BELOW: George Fay's WWII fighter squadron including (upper left) Supermarine Spitfire Mk.22, Kawasaki Tony, (upper right), and Vought Corsair (lower).

Steve Warner - VMC Corsair

VMC produce really fantastic kits. The 500mm span rubber powered Corsair is for Kit Scale and was straightforward to build. It has ended up quite light. With the undercarriage left off the model will also be realistic in flight. Now that tissue covering is completed, it has moved on to detail finishing stage. The colour scheme will be cream and red of a Reno racer. The markings will be torn out so edges blend in better. I will then spray a couple of coats of easy dope to blend them. The plastic jig is a very useful aid to keep ribs and formers lined up properly. These were available from Airsail some years back and are well worth using. It is now not far to go before testing.

STEVE WARNER





TOP: The template from Airsail, used to keep parts properly aligned.

ABOVE: The model at framework stage.

LEFT: The Reno colour reference and markings printed out.

Malcolm Campbell's Fike E

It took me some time to warm to Scale because I wanted to compete against the clock when I returned to aeromodelling in 1997, after an absence of thirty two years. So I initially built and flew P30, A2, Vintage Glider, A1, Coupe, sport power and Oz Diesel. All balsa of course. Glider appealed most and fast forward to now and I thoroughly enjoy carbon fibre F1As and fast climbing E36s, but I still fly all the other classes mentioned above.

In 2000, Bill Thomas (RIP) got in my ear about Scale; he got in it many times until I eventually built a Piper Cub J3. I had heard horror stories of months, even years, spent building models that performed badly. I didn't want to go there so I built a Cub and never looked back.

Still a lazy Scale modeller with little eye for detail I thought "What next?" Well, I was doing some indoor work with Hanger Rat, P18 and HLG and I saw a Peanut Fike flying. It looked relatively simple and above all, it flew very well. I built an Indoor version scaled up 150% from Peanut and it ended up flying quite well too. I still wanted something that was more 'in your face' so I built one scaled to 300%, for outdoors. It did attract attention when it flew, and Big Bill Thomas said at the Queensland State Champs that it put in the best flight he'd ever seen from a 'Scaly Monster' (his phrase). With a wing area of 3.25 sq feet and weighing 13 oz, it was lightly loaded (4 oz per sq ft) and flew like it was indoors. When first built it even had a DT!

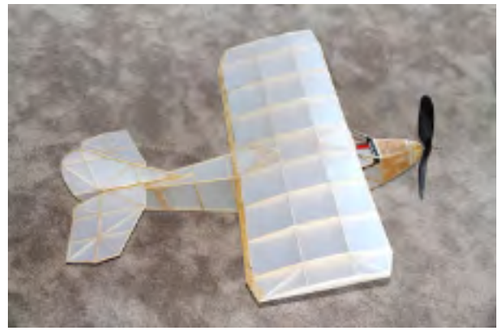
I flew it for a while and then sidelined it. Five years ago I brought it down to the field on a Fun Day, much to the joy of the easily amused club members. It still flew well, until the last flight of the day when, winding without a blast tube, the rubber became shrapnel, peppering the fuselage. It was put away until later.

'Later' arrived, five years later, and I stripped it back in January 2021. I built a new lighter and stronger stab and fin, repaired the wing tips and added some scale features. Now this is a Fike E, almost a flying lawn mower, so there's not much documentation out there from which to extract scale features. Some were listed as optional add-ons so I opted out (more weight). It has more detail now but its main purpose in life is to bring joy to the beholder. That it does in spades.

The refurbished model flew on Sunday 30 May, straight off the building board, reproducing the reliable flight of an indoor model with the added bonus of a slower flight. Six loops (12 strands) of 1/8 inch Tan Super Sport powered it, for 30 seconds off 700 turns. It should ROG off 800 turns – even then it's only 15 in/ozs of torque. Mike Mulholland, this is definitely not in your league but gee it sure looks cute in the air.

SPECIFICATIONS:

Wing	930 mm x 310 mm (3:1 ratio!)
Stab	450 mm x 185 mm
Fuse	310 mm x 115 mm
Weight	13 oz
Wing loading	4 oz per sq ft



OPPOSITE: The Fike's final outing before a blown motor necessitated a rebuild.

TOP LEFT: Starting the refurbishment

TOP RIGHT: Ironed on adhesive covering to waterproof it.

LEFT: Getting close to finished. Control surfaces were created using adhesive black motor trim.

LOWER: Cruising by, looking for a suitable landing site

Malcolm Campbell's Piper Cub J3

My original Piper Cub J3 was built in 1999 and was powered by a trusty Mills 0.75. For years, I've been promising myself that I would refurbish it. In recent scale comps, I've apologised to judges for its condition, suggesting the insurance claim for hail damage had been held up, or simply that the owner had run out of money and couldn't keep up the maintenance.

Brian Taylor encouraged me to transform my yellow Cub into a splendid red and white German Cub and he supplied the photo that got me started. Of course the plane put on weight as I added scale detail but hey, it's a Cub, they all fly well. And mine still does.

The Cub has done well with many wins and placings over sixteen years at State Champs. The German Cub won the Australian Nationals in 2019.

MALCOLM CAMPBELL

TOP LEFT: the transition from the yellow cub to the present model.

TOP RIGHT: Nineteen years of yellow colour scheme.

CENTRE: the completed free flight model.

ABOVE: Full-size German Cub aircraft for comparison.

Bob Craine's CAC Wirraway

The defining dimension of the Wirraway had to be a 4 in (10cm) dia plastic container for wipes, capsules or whatever, to form the radial cowling. My excellent 3 view from a book had to be enlarged five times exactly, which made drawing of the plan easy. The fuselage was a basic box followed by circular arc pieces, stringers and some sheeting. The nose needed later strengthening with gussets an infills. The cockpit glazing was from a plastic bottle of suitable shape. Wing and tail were built as tongue-in-box detachables.

The Wirraway has turned up one perfect minute long flight. It might be helpful to those who build low wing free flight scale models if I let you know some of my tricks in trimming. Firstly engine mount with 2 deg right thrust and same downthrust. CG near top of wing camber around 35% chord (A bit behind on Wirraway swept back wing). On the empennage I used trim tabs to scale about 4cm x 1.3cm with copper wire hinges. The rudder is set right. There is some elevator down on starboard and up on port. This makes the wing unwind that menacing roll to port. The funny thing is that a starboard roll is often more stable. When all this is worked out, I glue the empennage on. I build port wing flat but a bit of washout on starboard wing. There is 6gm of ballast - lead/Bluetac - on the starboard wingtip. The preferred prop is 8 x 5 (about 8 gm plastic or wood).

We are lucky here in my part of Australia, to have a deep overgrown grass paddock locally to use. It's small but ideal for trimming a low wing model and I have recorded some nice flights with the model.

BOB CRAINE

ABOVE: The CAC Wirraway in RAAF colour scheme

LEFT: The light blue undersurfaces in this scheme.

Morrinsville Indoor Day 2022

October 2022, Date to be confirmed

- Hangar Rat
- HL Glider
- Modelair Hornet
- F4D Rubber Scale
- F4F Peanut Scale
- Kit Scale
- Memorial Scale

Westpac Stadium Hall, 21 Ron Ladd Place, Morrinsville

Contact Stan Mauger 09 575 7971, stanm09c4@gmail.com
for more information

Organised by the Auckland Model Aero Club Inc
in conjunction with the Scale Free Flight & Control Line SIG

Free Flight & Control Line Scale classes at the 2022 NZ Nationals

FF/CL SCALE				
FC01	FAI F4A Power Scale	RC1	Mon Jan 3 - 6:30 am	Mon Jan 3 - 9:00 am
FC03	Kit Scale	RC1	Mon Jan 3 - 6:30 am	Mon Jan 3 - 9:00 am
FC04	CO2 & Electric Scale	FF	Tue Jan 4 - 6:30 am	Tue Jan 4 - 8:30 am
FC02	Outdoor Rubber Scale	FF	Tue Jan 4 - 6:30 am	Tue Jan 4 - 8:30 am
FC11	Memorial Scale	FF	Tue Jan 4 - 6:30 am	Tue Jan 4 - 8:30 am
FC09	F4B CL Scale	CL	Tue Jan 4 - 9:30 am	Tue Jan 4 - 12:30 pm
FC10	Sport CL Scale	CL	Wed Jan 5 - 9:30 am	Wed Jan 5 - 12:30 pm
FC05	Peanut Scale	Hall	Wed Jan 5 - 6:30 pm	Wed Jan 5 - 10:00 pm
FC06	Indoor kit scale	Hall	Wed Jan 5 - 6:30 pm	Wed Jan 5 - 10:00 pm
FC07	Indoor Open Rubber Scale	Hall	Wed Jan 5 - 6:30 pm	Wed Jan 5 - 10:00 pm

The 2022 NZ Nationals

The Nationals are going ahead, with a final review meeting on December 20. Unless the situation changes radically, the Carterton area will remain in Orange.

The COVID precautions include:

• On registration, flyers will need to show their Vaccine Pass. They will be given a wristband to indicate they are double-vaccinated. Council members will be around to check on wristbands during the Nationals.

• QR codes and signage will be made available at each flying site. Use QR codes wherever they are located

• Proof that you are double-vaccinated is required prior to coming to the flying sites

• Indoors, the use of a face mask is necessary. It is also recommended that a mask be worn at all times, as is practicable.

• Direct all visitors to flying sites to the CD who will record details and check their Vaccine Passes. Vaccine passes will be mandatory for all present at the Nationals.

• Rapid antigen testing will be available for those arriving and on leaving.

• The minimum number required for a competition has been reduced to two just for this year.