

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



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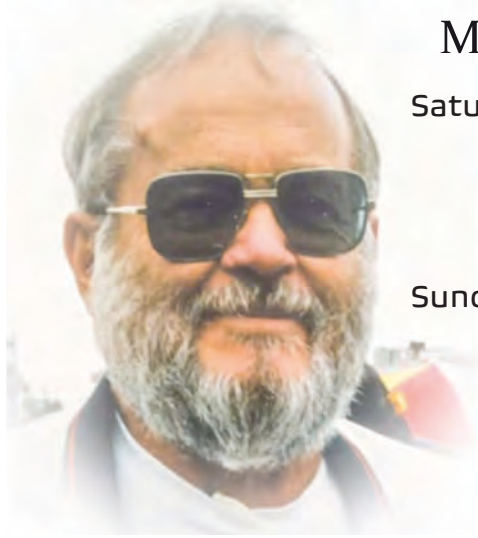
Graham Lovejoy's Lockheed Vega

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WMAC invites you to the Inaugural  
**Rees Jones Memorial Fly-In**

March 7<sup>th</sup> & 8<sup>th</sup> 2020, Portland, Whangarei



**Saturday:** 10am Round 4 of the North Island Stunt Series  
F2B Aerobatics, Sportsman Stunt  
Classic Aerobatics  
3pm Control Line Scale, Jet Speed

**Sunday:** 8am Outdoor Free Flight - Aggy , HLG , CLG  
930am Indoor Hangar Rat, IHLG, F1L  
Kit Scale, Peanut Scale, F4D Scale  
Modelair Hornet, Push-E  
10am Phantom Racing, Slow Goodyear  
Rees Jones Memorial Speed Event

Saturday Practice starts 0900, Pilot Briefing 0945, Round One starts 1000  
Sunday Outdoor Free flight events from 0800 (weather permitting) Hall Open 0930 for Pilot Briefing  
\$20 landing fee covers all events both days. Michelle's Famous BBQ Saturday!

**Whangarei Model Aircraft Club**

Contact Daniel Walker 021 450 338 danwalker@hotmail.com

**Free Flight indoor contest day**

# **Indoor Scale at Morrinsville**

## **Sunday October 11, 2020**

- **F4D Rubber Scale • F4F Peanut Scale**

Flown to FAI rules. Refer to link on MFNZ website under Scale FF & CL SIG

- **Kit Scale**

Flown to rules on MFNZ website under Scale FF & CL SIG

- **Hangar Rat • HL Glider • Modelair Hornet**

### **Free Flight & Control Line SIG AGM**

This will be held on **10 April 2020 at 7.30pm at 96A St Heliers Bay Road, Auckland**

Contact Stan Mauger 09 575 7971 or stanm09c4@gmail.com.

For the agenda go to: <https://modelflyingnz.org/phpBB3/viewtopic.php?f=6&t=90286>



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

## Editorial

Free Flight & Control Line Scale  
Special Interest Group  
of Model Flying New Zealand

### Committee

Stan Mauger (Chairman)  
Ricky Bould (Secretary)  
Mike Fairgray (Treasurer)  
Paul Evans  
George Fay  
Mike Mulholland  
Don Spray

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No Rep

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#### South Island

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The opinions expressed in this newsletter are not necessarily those of the editor or the Free Flight & Control Line Scale SIG or of Model Flying New Zealand.

### COVER PHOTOGRAPH

*Daniel Warner launching his Kit Scale  
Airsail Pilatus Porter in this event on  
the free flight field at the 2020  
Carterton Nationals.*

Photo: Lloyd Dickens

The Scale News issue 2/19 included a notice of the new provisional Memorial Flight class for models built by others now no longer with us or unable to fly them. This provisional class was offered at the last Carterton Nationals and whilst I was the only one to fly it there, at least a start has been made. Here's hoping that this new class will gain more support when it is offered as a provisional event, at the 2021 Carterton Nationals. A number of Jack Godfrey's models have been distributed to other modellers and these are obvious subjects to fly in this class, but I am sure that many have other models that have not qualified for the existing scale classes and are begging to be flown in future Memorial Flight events. Some of these models will need restoration as in the case of the AP-K5 described on page fifteen.

There is a report on the SIG's classes at the 2020 Nationals, on page seven. Notable, was the participation of junior flyers in both free flight Kit Scale and Control Line Scale. I left the Nationals with very positive feelings about both the support and the future of our classes.

Whilst it is my endeavour to report on current scale activity, it has been great to also receive articles on historic models in this issue, like the Hawker Audax from 1936 from Graham Lovejoy. His Modelair Lockheed Vega is also a vintage design. Many thanks to everyone who has contributed building articles. These are an essential part of Scale News. The extra work taken to record building stages as well as the models themselves is of great interest to other readers. Please let me have your building reports for inclusion in future issues.

There are notices for Whangarei and Morrinsville indoor flying events in this issue. These are both well established and enjoyable days, worthy of support. The Auckland MAC has been running enjoyable indoor scale evenings at Drury School Hall for some years. Other indoor flyers in the Auckland area and beyond are invited to join them on the dates listed below. Please send me notices of free flight and control line scale events elsewhere in the country, so I can publish them.

Stan Mauger

### AMAC indoor scale at Drury School Hall

Monday March **16** Kit Scale (and Modelair Hornet) - 7.30 - 10pm.

Monday April **20** Peanut Scale, Kit Scale and Open Rubber Scale - 7.30 - 10pm.



Scale indoor evenings at Drury School Hall.  
*Ricky Bould seen preparing his Luscombe  
Silvaire for kit scale with Keith Trillo beyond.*

# Scale models at Karaka

The Karaka Sports Park provides an easy drive from most parts of Auckland. Whilst not suitable for power models that may wander, it is quite large enough for trimmed power models on shortish motor runs or rubber CO2 and electric models. There have been several good days during the last two months for flying there. There were a number of scale models flown on January 12. Don Spray and Ricky Bould are both regular flyers there.

Besides the usual sport model flying, there were many good scale flights. Don had both his Piper Pacer for GM300 CO2 power and his rubber powered Stahl Stinson Voyager out to fly. These are both well-proven models so it was no surprise that they flew well. Pacer flights were brought to a halt when the model sustained some minor damage. The summer heat has made the surface of the park hard and unforgiving!

Stan Mauger was seen checking the set up of Don's model for comparison with his power scale Tri-Pacer that is in need of some trimming.

The model that really caught our attention was his Keith Ryder R4 Racer. After the first trimming flight it was flown once again to our delight. It completed several circuits at a good height and looked most realistic.

Ricky Bould was really pleased with the way that his small Curtiss Robin flew. It looked stable and well trimmed. His old standby, his CO2 Comper Swift made its usual smooth circuits if the field.

Stan took the opportunity to check some trim adjustments made to his Outdoor Kit Scale Keil Kraft Cessna on a couple of good flights. Those Albert Hatful designs really can be made to fly with some care in building and an eye on keeping weight down. This was altogether a pleasant morning both of flying and attending to trimming models.

STAN MAUGER



*ABOVE: Ricky Bould was happy with the way that his rubber powered Curtiss Robin was flying. RIGHT: Don Spray brought both his Piper Pacer and Stinson Voyager for some leisurely flying.*





*LEFT: Don Spray checking out the motor run on his smooth-flying Keith Ryder R4 Racer.*



*ABOVE: Ricky Bould with his CO2 Comper Swift before it made some nice laps of the field*



*LEFT: Stan Mauger's Keil Kraft Cessna out for some trimming checks.*



# The 72nd New Zealand Nationals



*TOP LEFT: Paul Evans had some great flights with his Longster.*

*TOP RIGHT: Ricky Bould hand launching his Auster AOP9.*

*LEFT: Ricky testing the air before launching his West Wings Westland Lysander in Kit Scale.*

*RIGHT: Stan Mauger had some sorting out to do with his Keil Kraft Cessna but eventually had it flying well.*

Photos: Lloyd Dickens

# Free Flight Scale at the Nationals

The Carterton 2020 Nationals are over for another year and there are some highlights to remember. As is well known by most now, the weather was excellent with no re-scheduling requirements for scale events. That certainly pleases contest directors. This year's format of F4A power scale flown on RC1 immediately before Radio Scale events is ideal for any RC Scale flyers wanting to take part in out Kit Scale event flown concurrently with power scale. The calm early morning start provided ideal conditions for these free flight scale events. Flying with the Free Flight SIG on the following day was most enjoyable, with interest from both SIGs in each other's events. The Rye grass was kind to tissue covered models and moisture did not seem to present too much of a problem to covering.

Importantly, despite the SIG's early fears of under-supported events, we did manage to reach the necessary minimum in each event, resulting in more participation than in previous years. A special thank you to all who came and supported our events, often when they had other classes to fly soon after on the day.

Thank you also to all judges, whose time and contribution is not taken for granted and is mentioned here because we appreciate your assistance given happily and often at short notice. In outdoor classes, thank you to Gwyn Avenell and Neil Schrader for static judging, Paul Evans John Dowling and Brian Howell for judging flying. Paul Evans also did the lion's share of indoor judging (Open Rubber and Kit Scale) and John Dowling Peanut Scale. This year static judging of several indoor scale classes was completed before flying leaving the judge a more comfortable task. I enjoyed the CD role in Indoor and Control line and thank Ricky Bould for being CD of the free flight classes.

This year the SIG was hopeful of a launching of the new provisional Memorial Flight class. In a sense it did happen as I made time during the events on the Free Flight field on Day 2 to fly Jack Godfrey's splendid Stahl Stinson Voyager seen on page 14, so we have made a start. Hopefully more models given by modellers' now unable to fly them or no longer alive, will be flown by others in an informal flying opportunity concurrently with future scheduled Nationals free flight scale classes. Having enjoyed great weather and great fields at Carterton this year, here's hoping for an even better Nationals when they are once again there in 2021.

## THE EVENTS

### Free flight scale power

Paul Evan's Longster proved what a reliable performer it is. It climbed away nicely and really looked the part in the air, returning a good flying score. Stan Mauger flew his Antarctic Auster again this year and it performed well in the calm morning air, with a gentle climb, good circuit and turn away to land. Ricky Bould's AOP9 appeared bumped on launch on the first flight attempt, ruling out further flying.

### Rubber Scale

Due to a late registration, this was unable to count as an official event. Nevertheless there were good flying performances. Ricky Bould's Tiger Moth received some trimming on the day and was soon flying well but needing more altitude. Alan Reed's Baby Ace was a consistent performer and great to watch. Stan Mauger had his Helio Courier trimmed out to fly with gentle climb and a good flat cruise with about the right amount of power.

### Kit Scale

Rating as now the best supported free flight scale event at the Nationals, Kit Scale brought a good range of kit models. Daniel Walker's Airsail Pilatus Porter achieved the best flying score with some excellent flying. Ricky Bould's now proven West Wings Westland Widgeon was also doing well with nice flights.

### Low Power Scale

There were three entries in this event, but Ricky Bould had an easy win with his proven and reliable CO2 powered Comper Swift as there were no other official flights by others.

STAN MAUGER

Results	Score	Model
<b>Power Scale</b>		
1. S. Mauger	1169	Auster C4
2. P. Evans	1047.5	Longster
3. R. Bould	709.5	Auster AOP9

### Outdoor Kit Scale

1. S. Mauger	81	KK Cessna
2. D. Warner	79	Airsail Pilatus Porter
3. R. Bould	73	West Wings Westland Widgeon
4. A. Reed	49	Peck Baby Ace

### Open Rubber Scale

1. S. Mauger	1257	Helio Courier
2. R. Bould	1137	DH Tiger Moth
3. A. Reed	687	Baby Ace



## Results

### Peanut Scale

1. D. Jackson	3	Lacey
2. R. Bould	4	Fike
3. G. Lovejoy	5	Lockheed Vega
4. C. Murphy	7	Bede
5. A. Reed	8	Eastbourne Monoplane

### Indoor Kit Scale

1. S. Mauger	124	KK Auster Arrow
2. G. Lovejoy	118	Comet Taylorcraft floatplane
3. D. Jackson	105	Comet Stinson 10A
4=. R. Bould	96	Veron Luscombe Sedan
4=. C. Murphy	96	Lacey

### Open Rubber Scale

1. S. Mauger	1257	Fleet Canuck
2. R. Bould	1137	Comper Swift
3. A. Reed	687	Chilton DW1

## Indoor events

This year all indoor free flight scale classes reached official numbers, resulting in a lively evening's flying. Paul Evans and John Dowling were kept busy judging the three classes flown and deserve a vote of thanks for their efforts. A good number of spectators arrived during the evening adding to the fun atmosphere of the evening. It was great to have their support. It was gratifying to see a good standard of flying in each class with very little wall banging by under trimmed models and the gallery of spectators and other flyers was treated to seeing some great flights.

### Peanut Scale

This was a tussle between Dave Jackson and Ricky Bould, both great flyers in this class, with Dave prevailing. Hall conditions limited exceptional endurance times in this class, but both achieved respectable flight times.

### Open Rubber Scale

Alan Reed's Chilton is a challenging subject. It started off well but encountered trim problems as flying proceeded. It is certainly worth persevering with, however. Ricky Bould's Comper Swift is a reliable performer and did not disappoint. It looked very much the racer as it made circuits of the hall. Stan Mauger's Fleet Canuck had some problems with undercarriage alignment, but this was finally sorted to allow the model to take off and make first position.

### Kit Scale

Kit Scale was once again well supported. There were some great flights by models in this class., however, Graham Lovejoy stole the show with his Comet Taylorcraft floatplane.

STAN MAUGER



### INDOOR ENTRIES

*TOP LEFT: Alan Reed entered an Eastbourne Monoplane (left) in Peanut Scale, complete with engine detailing and wire wheels. His Open Scale Chiltern DW1 (right) was challenging to trim but elegant in the air and worth persevering with.*

*LOWER RIGHT: Graham Lovejoy setting up his Lockheed Vega built from the Modelair plan, in Peanut Scale.*





# Control line Scale at the Nationals

Control line scale was well supported again this year and there were suggestions of others who might take part at future Nationals. This is heartening considering that the event was in the doldrums for several years. It is always a pleasure to see the juniors flying in this event. Max Wimmer started off well with his SE5 but his model was damaged in a touch and go, early in his schedule, ruling out completing further manoeuvres. Otto Wimmer showed us what a confident flyer he is.

John Carrodus's FW190 stunter flew very smoothly. It was taken through some fast flying in John's hands. Gerald Wimmer's Fairey Firefly flew gracefully giving the appearance of a light model as it completed the demonstration manoeuvres, and ended up close to Adrian Hamilton's score. Adrian's Mustang was flown with precision. The clear separation of optional demonstration manoeuvres and interspersed laps made judging easier and the flying more defined.

Special thanks to Gerald Wimmer for the work that he put in assisting others to take part in the event.

STAN MAUGER

## Results

	Points	Subject
1. A. Hamilton	390	NA Mustang
2. G. Wimmer	366	Fairey Firefly
3. J. Carrodus	330	FW 190
4. O. Wimmer	216	Douglas Sky Shark
5. M. Wimmer	48	SE5a



*ABOVE: Gerald Wimmer's electric powered Fairey Firefly looked great in the air and was flown very confidently.*

*LEFT: Adrian Hamilton flew good manoeuvres in a well defined sequence, with his profile Mustang.*





TOP: John Carrodus setting up his Focke Wulf 190 stunter.

CENTRE: Adrian Hamilton about to get under way with his Mustang, with Gerald Wimmer assisting.

RIGHT: (from front to back) Otto Wimmer's Wildcat, Gerald Wimmer's Fairey Firefly and Max Wimmer's SE5a.



# Rubber Scale Hawker Audax

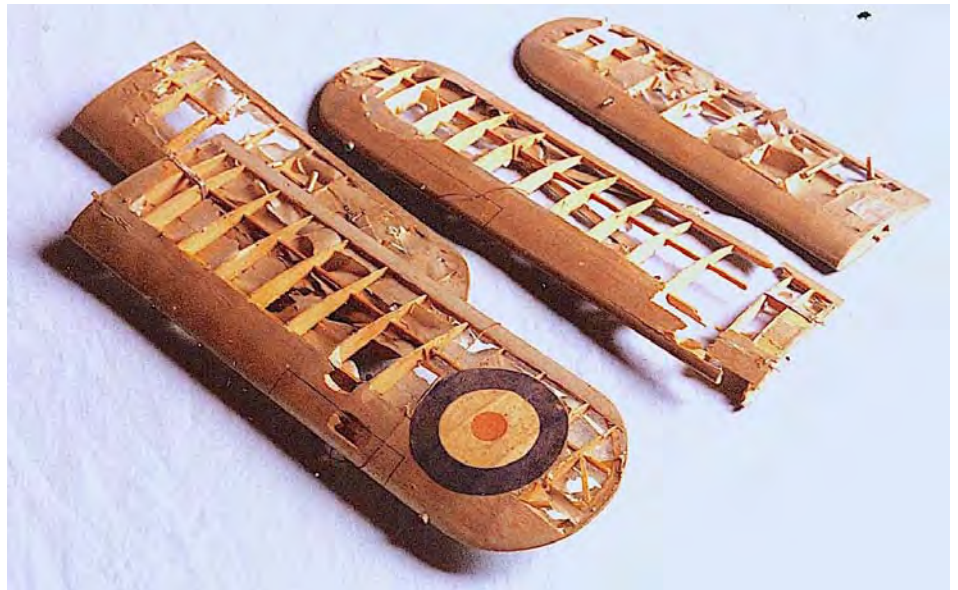
## Built in 1938 and flown pre WWII

This model was built by E.B. Lattey, whom I assume to be a modeller from the Wellington area. The model was seen flying in a park near Athletic Park in 1938. It is 28" span and possibly built from a kit as the lettering and roundels are printed paper stuck on to the model. The propellor is geared with two propellor-shafts. The workmanship is exquisite and the model is made with skill and care. However, over the years the tissue and woodwork have deteriorated, but a rebuild could result in a lot of the original work being lost, even if intended for static display.

The model was passed on to me by Brian Sutton of the Levin MAC who expressed a wish to see it restored, or at least preserved. It was one of twelve or so models from the same builder that were passed on to local modellers, by the family. Unfortunately this appears to be the only survivor, but I would love to be proved wrong. The registration number of K-3142 is correct for an Audax. The aircraft was built as an Audax but converted to a Hart Special along with others in batch K-3128 to K-3415. The Hart Special had a Kestrel X engine, heavy duty low pressure tyres and desert equipment fitted, and retained the long exhaust pipes that were a feature of the Audax. Later aircraft also had a tailwheel in place of the tailskid. A message pick-up hook was fitted as original equipment, but sometimes removed in service.

Brian Sutton deserves much credit for ensuring the survival of this historically important model. Does anyone know anything about E.B. Lattey? It is my opinion that there were many skilful modellers at that time. I have seen a beautiful contra-rotating prop assembly used on a Schneider Trophy rubber scale model built by a Wellington area modeller pre-war.

GRAHAM LOVEJOY





# Jack Godfrey 1931-2019

## A tribute

The scale aero modelling fraternity and the wider aeromodelling world lost a great friend and flyer recently. Jack Godfrey died in December and he was remembered by friends and family in a gathering in Hamilton last month. He had had a lifetime involvement in aeromodelling. Like most modellers he built a variety of models, but is probably best remembered for his free flight scale and control line scale models. He predates me scale in competition, but was certainly building very competitive control line models in the 1980s and was a force to be reckoned with in free flight scale competition then, and in the years that followed. His competition models were always well detailed and he incorporated useful engine controls he had designed, in them to add to realism. He designed a cam operated throttle for his glow powered free flight Cessna Bird Dog, which added realism to take-off runs. It was a Nationals winner. He was a great builder and flyer of control line scale models using multi-line control to get the best out of them. Jack also knew how to trim free flight scale models to get them flying well.

He loved a challenge and when asked to join the team for the Trans Tasman Challenge for the Hope-Cross Trophy in 2008, Jack responded with not one, but two models. He took his well-proven Cessna Bird Dog and a new 'mystery' model, his Boeing L-15. These were taken through Airport 'arrivals' and to the Richmond field in a large ply box that required a second person at the other end to convey it. Both models were to be 'show-stoppers' on the day. Jack really loved the buzz of that occasion. Above all, Jack was an enthusiast, and was always delighted to find others with his same interest in

scale models, and the techniques involved in making and developing them. Even in his last years he was eager to conquer processes new to him, as in the tissue over mylar covering on his Fearnley-designed Heston Phoenix rubber powered model, which sadly was uncompleted. In his quiet way, Jack has made a significant contribution to the scale modelling movement and his passing reminds us of the mark that he has left.

He was also a builder of a full-size aircraft. The first, a homebuilt Jodel was beautifully built reflecting his fine craftsmanship and woodworking skills. It still flies today after many hours on the logbook. More recently he constructed a replica Bristol Scout in conjunction with the commemoration of WW1.

He will be remembered for his friendliness, great craft skills, considerable accomplishment and his interest in our modelling discipline. His models will live on in the newly launched Memorial Flight class, for which they were donated by him, for distribution to scale flyers during last year.

STAN MAUGER

### PATETONGA MEMORIES

*BELOW: Jack's Boeing L-15 built from the Aeromodeller plan and powered with a Mills 1.3, needed substantial ballast to offset tail weight.*

*INSET: With an undercambered wing section the lightly built Stahl Fairchild Rancher was a great flyer and will continue to be flown, in Memorial Flight. events.*







TOP LEFT: A control line APS Cessna 310 built in 1957 less its two .5 Darts. It was flown at several Nationals and club contests.

INSET: Jack's KP02 powered Chrislea Super Ace. seen climbing away nicely at Patetonga. The model was built from the Model Flyer plan by Dennis Reece.

LOWER: Jack with his .09 glow powered Cessna Bird Dog, seen at the Trans Tasman Hope Cross Trophy Challenge, Richmond in 2008.





# Memorial Flight

## Jack Godfrey's Stinson and Waco

Memorial Flight class got off to a start at the Nationals with the flying of Jack Godfrey's Earl Stahl designed Stinson Voyager. Flown by its new owner, Stan Mauger, the model flew gracefully in the calm early morning air. It suffered no damage on landing. The Carterton Free Flight field had a splendid rye crop which was a great cushion for light tissue covered rubber models like the Stinson.

Photo: John Dowling

STAN MAUGER

Photo: Alan Reed

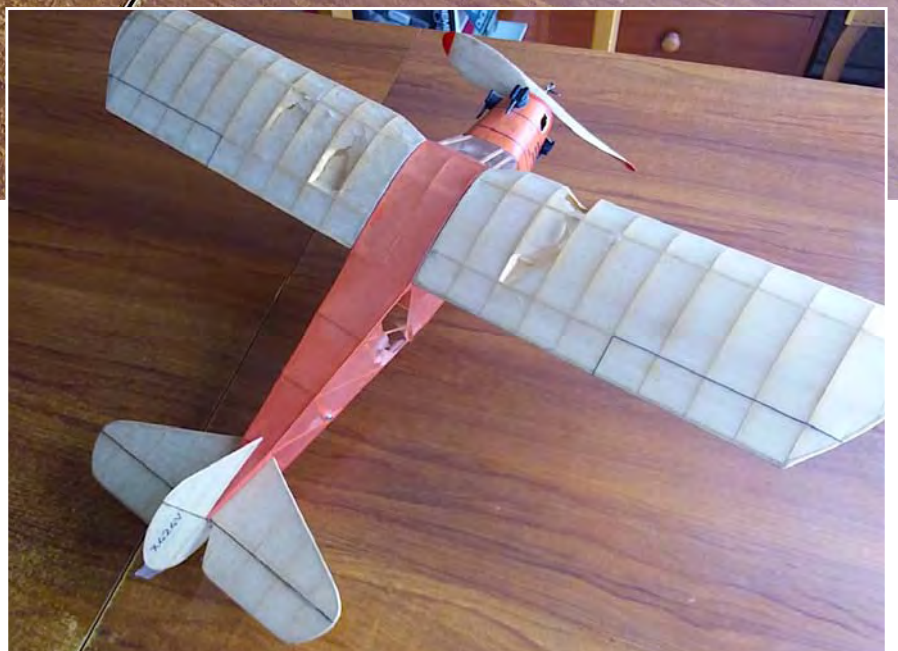


ABOVE This rubber powered Stahl Waco seen at Patetonga, is one of two built to different sizes, by Jack. Both were excellent flyers. It will be flown in Memorial Flight class by Don Spray.



# John Templeman's AP-K5

The full size Lincoln AP (All-purpose) was a well-designed aircraft with good performance. It should have been a success but it came on the market just as the Great Depression hit and many second hand aircraft were still available at low prices. There was only one AP-K5 built, which looks to be all silver. It was powered by a 100hp Kinner radial, but later fitted with a 125hp Kinner and renamed the AP-B5. A photo shows this to have a dark coloured fuselage and lighter coloured trim stripe. Flying surfaces appear to be silver. I will duplicate John's original orange/red on the fuselage, but do the flying surfaces in silver.



This model was built around 1985 by John Templeman in Palmerston North. The plan was published in Max Fax, the newsletter of the DC Maxcutters model club in the US, in 1984 and was designed by Hurst Bowers, one of the owners of Flyline Models. The model is beautifully built and detailed and is an example of John's modelling prowess. Some structural repairs need to be done, the tissue stripped and the model re-covered. I obtained the model when John moved into a rest home. In 2004 I did a quick refurbish and carved a new prop. It flew well and is well worth the effort to restore it. My intention is to fly it in the new provisional Memorial Flight class.

GRAHAM LOVEJOY



# Auster J1 ZK-AUX

These photos are from Jack Godfrey's Auster documentation file. Auster ZK-AUX was amongst the most historic of New Zealand Austers, having a fascinating history. It started life in England as G-AERO appropriately enough, as it was owned by Temple Press publishers of The Aeroplane Magazine. During its time in their ownership it became noted for its landing aboard the aircraft carrier HMS Illustrious in 1946 and aboard the HMS Magnificent again in 1948. It was exported to New Zealand in 1950 becoming

ZK-AUX. After going through a series of private owners it was eventually taken over by the NZ Vintage Aero Club Inc of Hobsonville in 1987 and restored in 1989. Sadly it was written off in a take-off accident in January 2000 south of Auckland. Whether the remains exist for a restoration, is unclear, but it is nevertheless a great subject for a civil Auster model project as Jack had realised.

STAN MAUGER







CENTRE: Seen beside AUX is Jack's radio controlled model built from the DB Models 87" span model plan.



# Modelair Lockheed Vega

## Graham Lovejoy

Receiving "Slipstream", the newsletter of the Auckland MAC is always a great pleasure, but the February /March issue was particularly welcome as Stan Mauger had reprinted the plan of the Modelair 'Lockheed Vega', and a most informative article by Maurice Poletti which contained much information on the background of this model.

### The model

The Lockheed Vega that I fly in Peanut scale was built from this plan, and the following notes may be of interest to anyone else contemplating building one. Mine was built back in 1993 and weighed 7.30gms without rubber. It is built pretty much to the plan, but I moved the rear motor peg forward to the former no4 position and used aluminium tube as the rear peg to allow a 20swg wire peg to go through and hold it in the stooze. No nose or tail ballast is required. The prop is 4" in diameter with .025" wire shaft. I use the Jim Clem style moulded blades, scaled down from Bostonian designs. Info on this was published in Larry Kruse's column in Flying Models magazine a few years ago. They work great but can be tricky to set up. The blades have bamboo stubs that plug into a 15mm length of Biro refill tubing. I'm sure that a carved prop would work well too. I used thinned bamboo for the u/c as per plan, but faired it with white sticky label paper.

I cheated on the glazing- for the front and windscreen area forward of the wing L/E I used blue foam sealed with PVA and painted silver. For the side windows I just painted them silver, I think using Testors enamel. I then added framing cut from white sticky labels. The model is covered in white Jap tissue, undoped on the wing and tailfeathers, but with a thin coat of dope on the fuselage.

The cowl is made from Airmail paper with Cyno glue rubbed into it, which imparts great strength- sort of like scale sheet metal. The cowl ends are butt joined together and reinforced with a strip of invisible tape. The lettering is cut from black tissue stuck on with glue stick I think. Letraset letters on the rudder.

### Aerodynamic set-up and trim

The tailplane has quite a bit of negative incidence. The L/E is 1/16" down when compared to the plan and there may even be a little more on the right hand side. I also have a small Gurney Flap glued to the rudder T/E on the left hand side of 1/32" x 1/16" x 13/16". The CG with motor installed is 3/16" ahead of the wing stub spar, about 28%

by my reckoning. I use a 14" loop of .070" Super Sport rubber which takes about 1,200 turns safely and usually results in around 40 secs duration, ROG. The model turns to the right and lands with a few turns still on the motor. The motor starts off as a 13.5" loop, but pre-stretching will cause that to increase in length slightly to the 14" mentioned earlier.

Incidentally, I find there is a bit of difference in power between Super Sport and Tan 2, so if the latter is used the rubber size may need to be increased slightly. Always use a winding tube (no I don't always use one either but I'm always glad when I do)!

This model is more in the original spirit of Peanut rather than a competitive F4F Peanut, but it proved it can fly well and is a lot of fun to fly. It is eligible for kit scale too!

Back to the building board!

GRAHAM LOVEJOY.



Photo: Rob Wallace





# Westland Lysander

## Mike Mulholland

### The front part of the cowling

These were vacuum formed. The very front of the Lysander cowling incorporates the collector ring for the exhaust and this is shaped in a venturi to aid airflow and cooling. On the model this meant that I would need a form for the cowling and a separate form to make the inside surface of the exhaust collector ring. This would have been

an easy job if I had a lathe of any kind - but I don't. So, old school again. The pictures shows the final results and the forms I made just using my table sander and profiled sanding blocks.

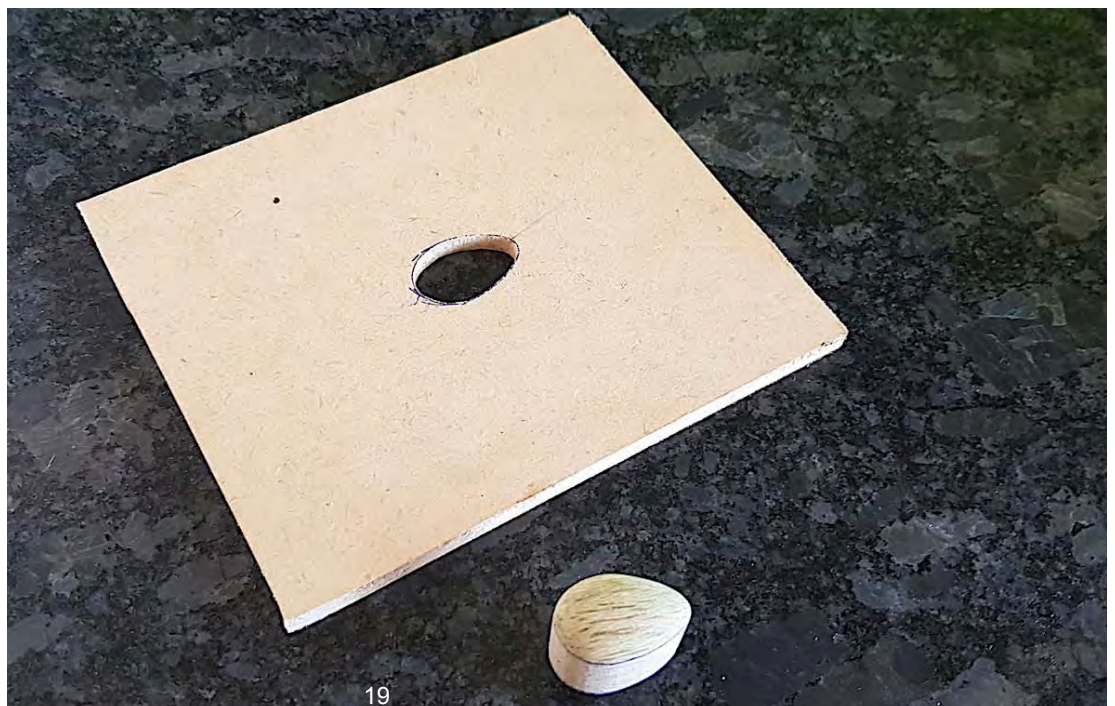
The rear part of the cowling and gills are fabricated from 010" styrene sheet without losing strength.



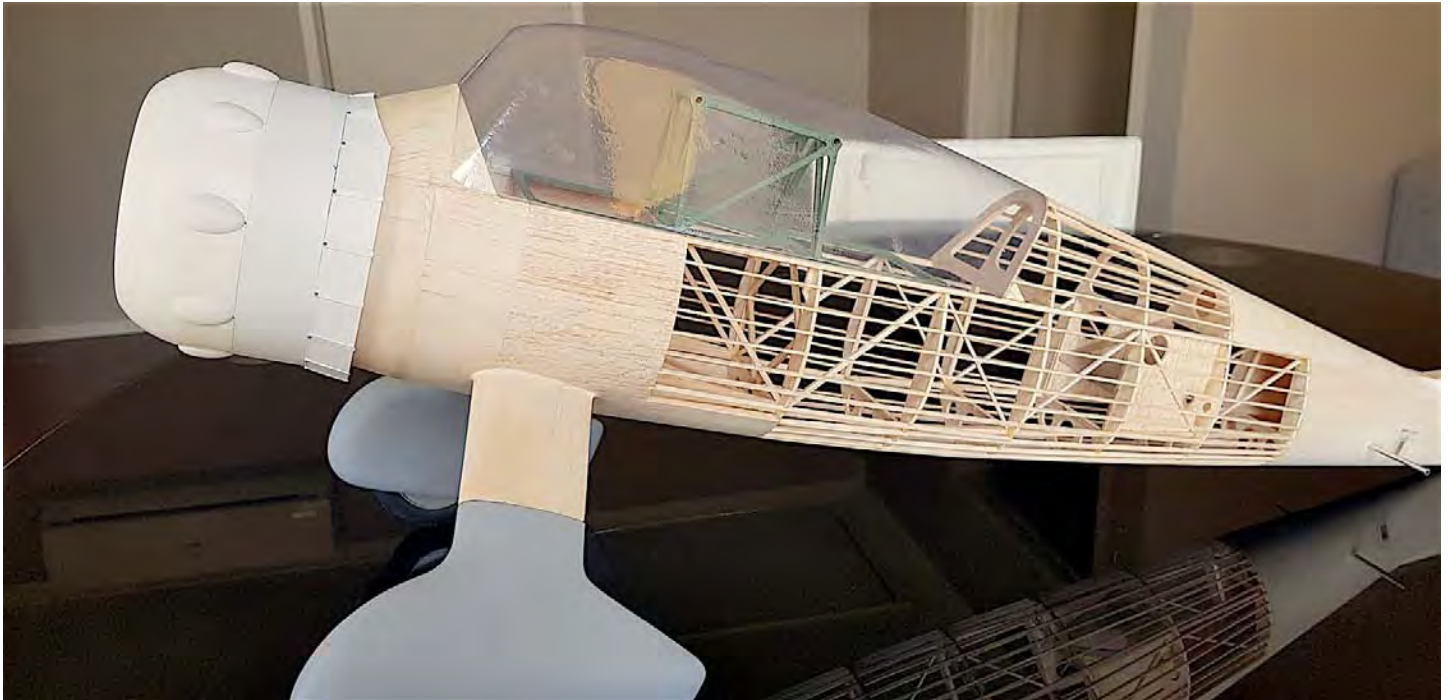
### The cowl bumps

These were plunge-moulded. This is the most basic type of styrene forming and works well for small parts of this nature - quicker and way less waste than vacuum forming. There has been a bit of chat on Hip Pocket Aeronautics about what works best to heat the plastic but I find that my Black and Decker heat gun works very well. The finished bumps are attached at the requisite 40 degree spacing using medium cyano flowed into the seam with a toothpick.

MIKE MULHOLLAND





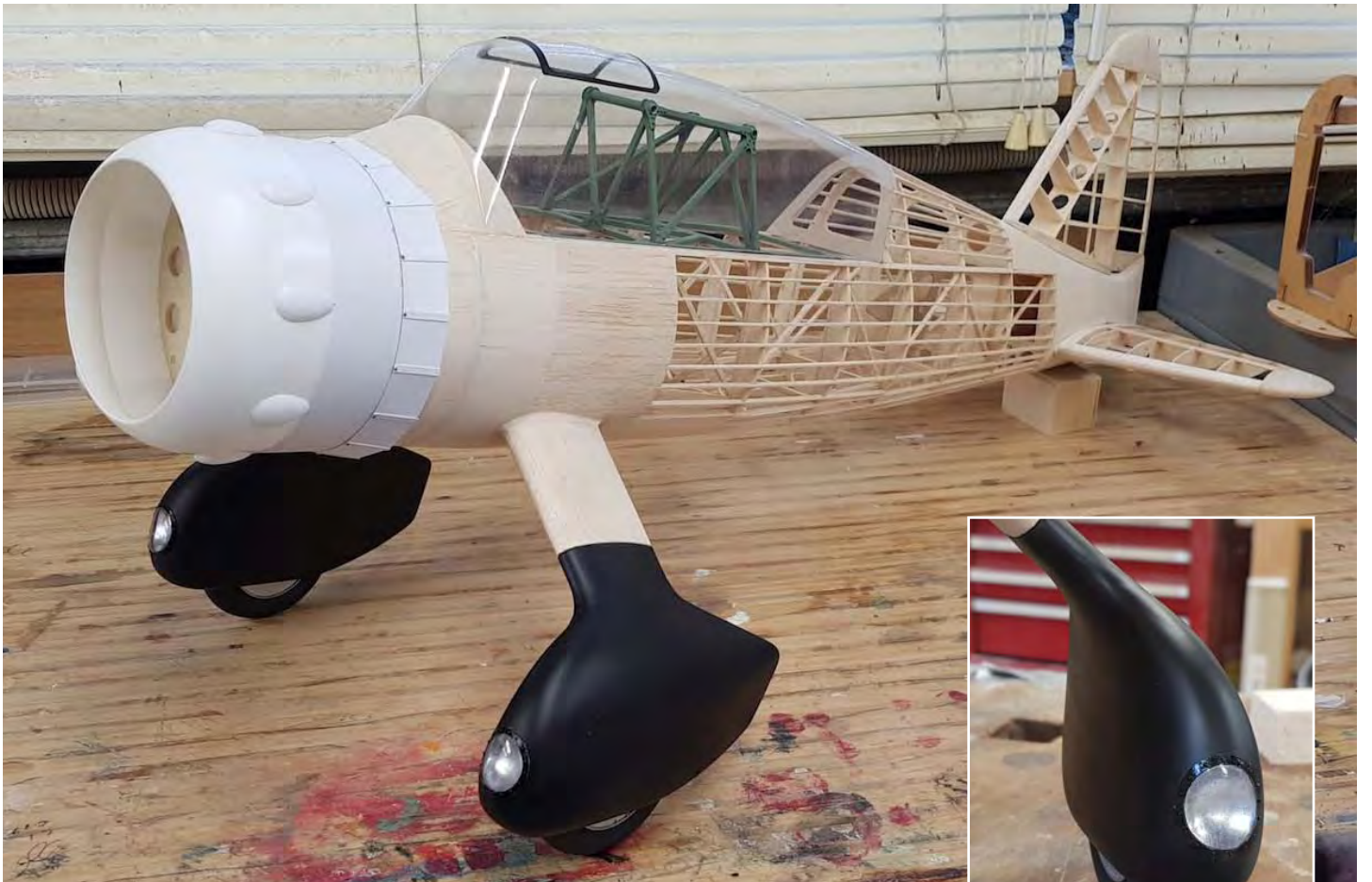
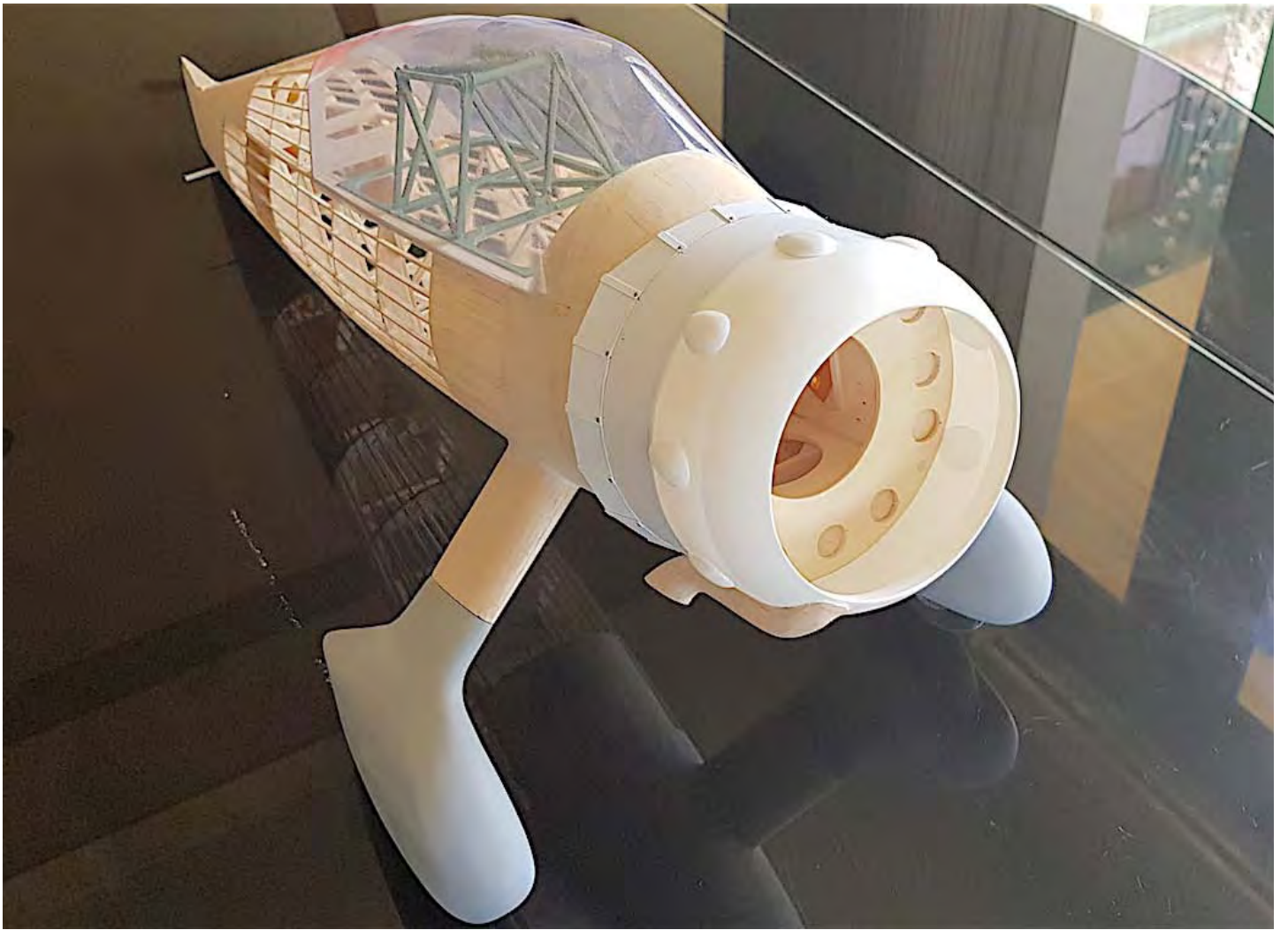


### Exhaust pipe

The exhaust pipe is simply carved from very hard balsa and then carefully Dremeled out. The beauty of using rock hard wood is that you can thin it out to a realistic appearance without losing strength.









# Focke Wulf Stösser

## Chris Murphy

Hopefully the Stösser will be flying by year's end. The only progress to date is a little bit of work on the wing struts. The wire locators on the struts (which are nicely airfoiled spruce strip) are very much a 'fit, try, re-bend, change angle' affair, though having lashed the wire in place with Kevlar, I have no fears of it coming adrift on me. The next bit of work outstanding is the undercarriage fairing and rather than use rubber as per the plan, I'll use some EPP, saved from random bits of it whenever I find them. And I need to solder some smaller 'L' shaped stays on the main lengths to sandwich between the fairing laminations and prevent the fairing rotating on the main leg wire. I have some 55mm wheels coming plus there is a

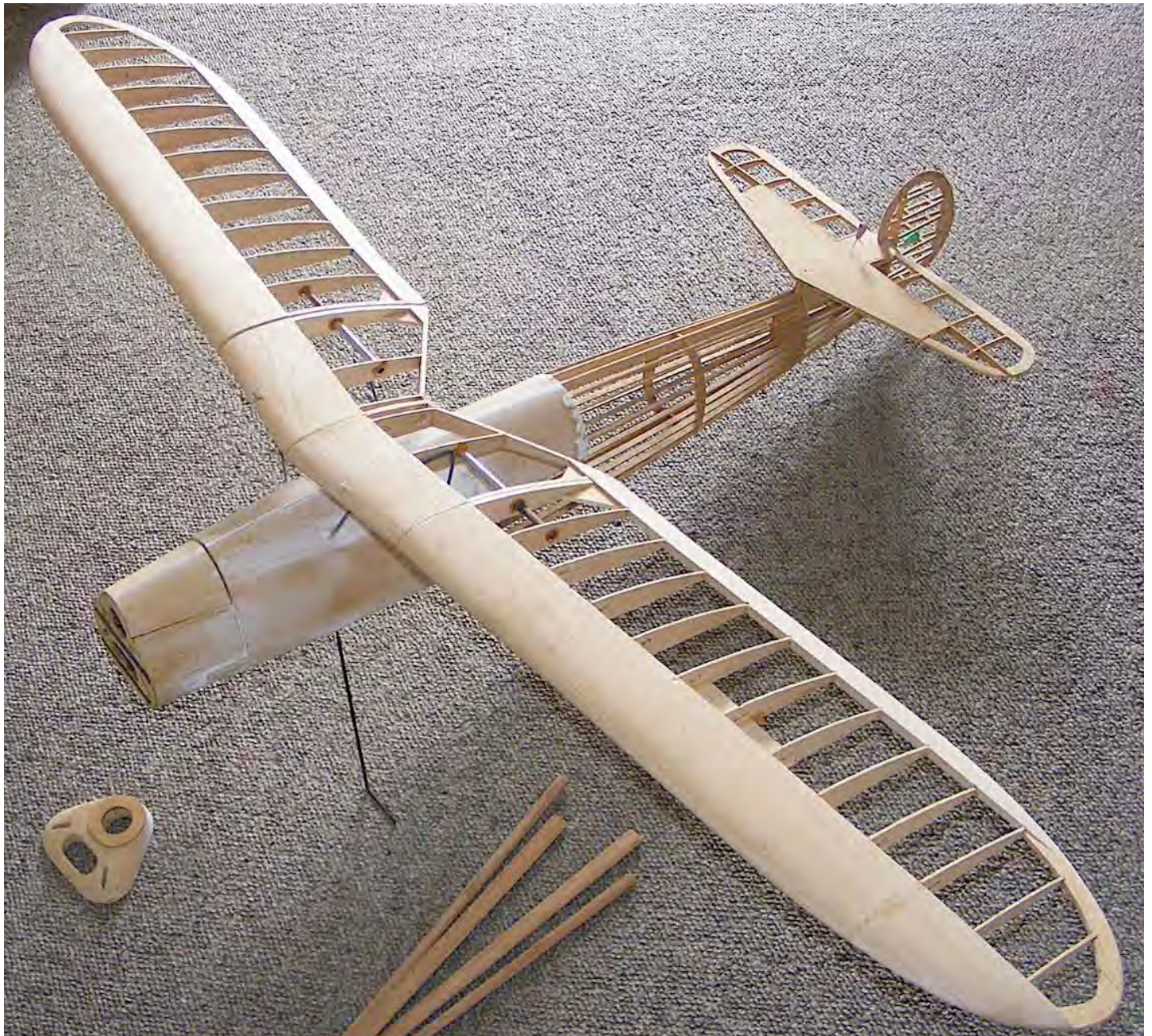
tiny airfoiled piece of brass rod to be soldered on the end of the tailskid, then I need to look at the area where the tailplane struts will seat on the fuselage, as there is no reinforcing structure in the fuselage. I have not yet begun to give much thought to cockpit and exhaust detailing.

So we might expect something around the 430-450g mark completed or 15-16 ounces, not counting any ballast required.

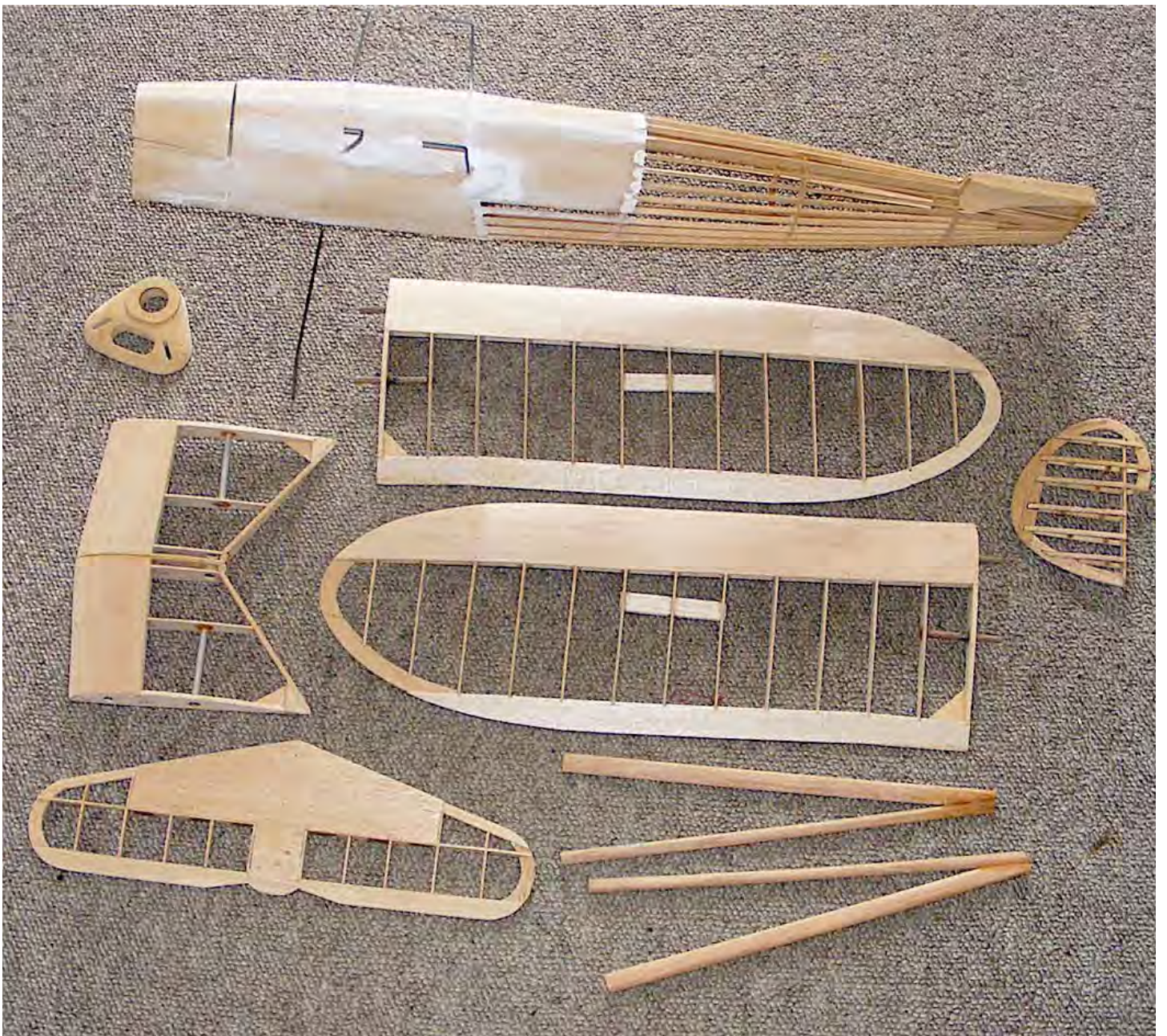
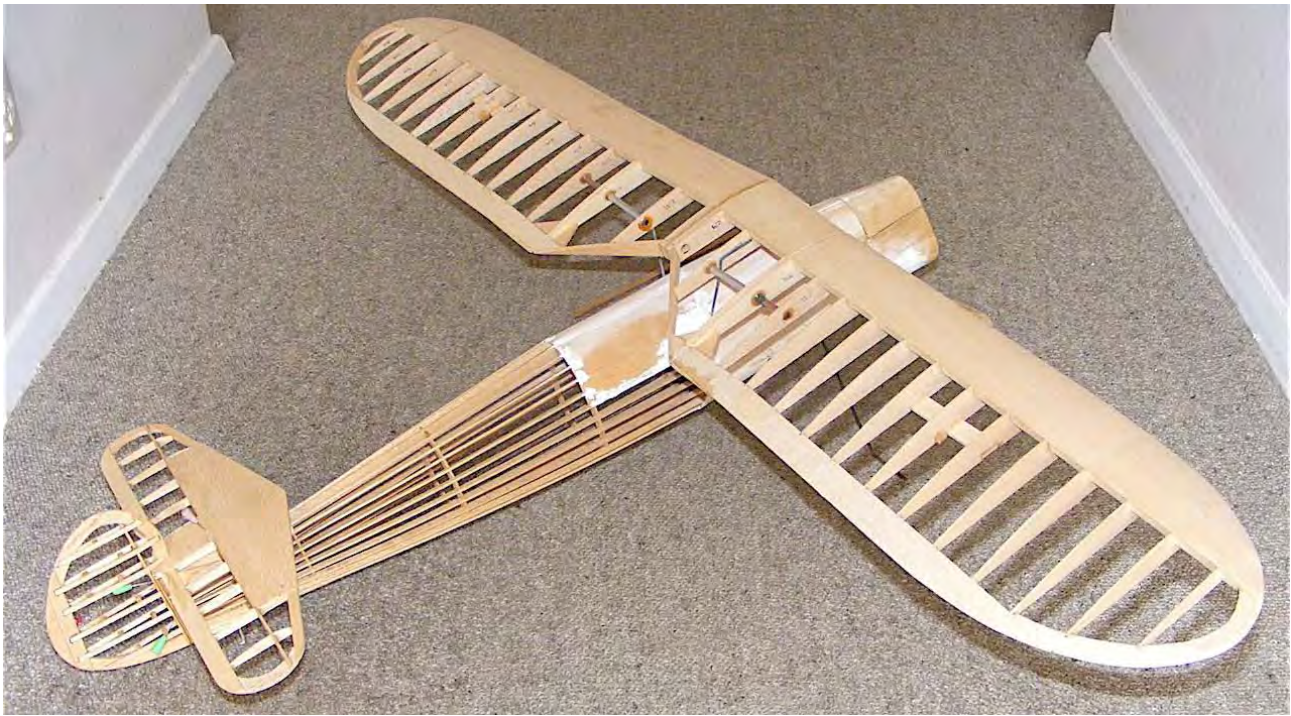
CHRIS MURPHY

### Some data

fuselage, uncovered, incl noseblock	173.0g
Tailplane	8.0g
Port wing	28.4g
Stbd wing	27.8g
Centre section	18.7g
Fin	3.9g
Mills 75, DC 8x4 and 1.5" spinner	71.0g
Wing struts (pr)	30.0g
<b>TOTAL:</b>	<b>334.0g</b>

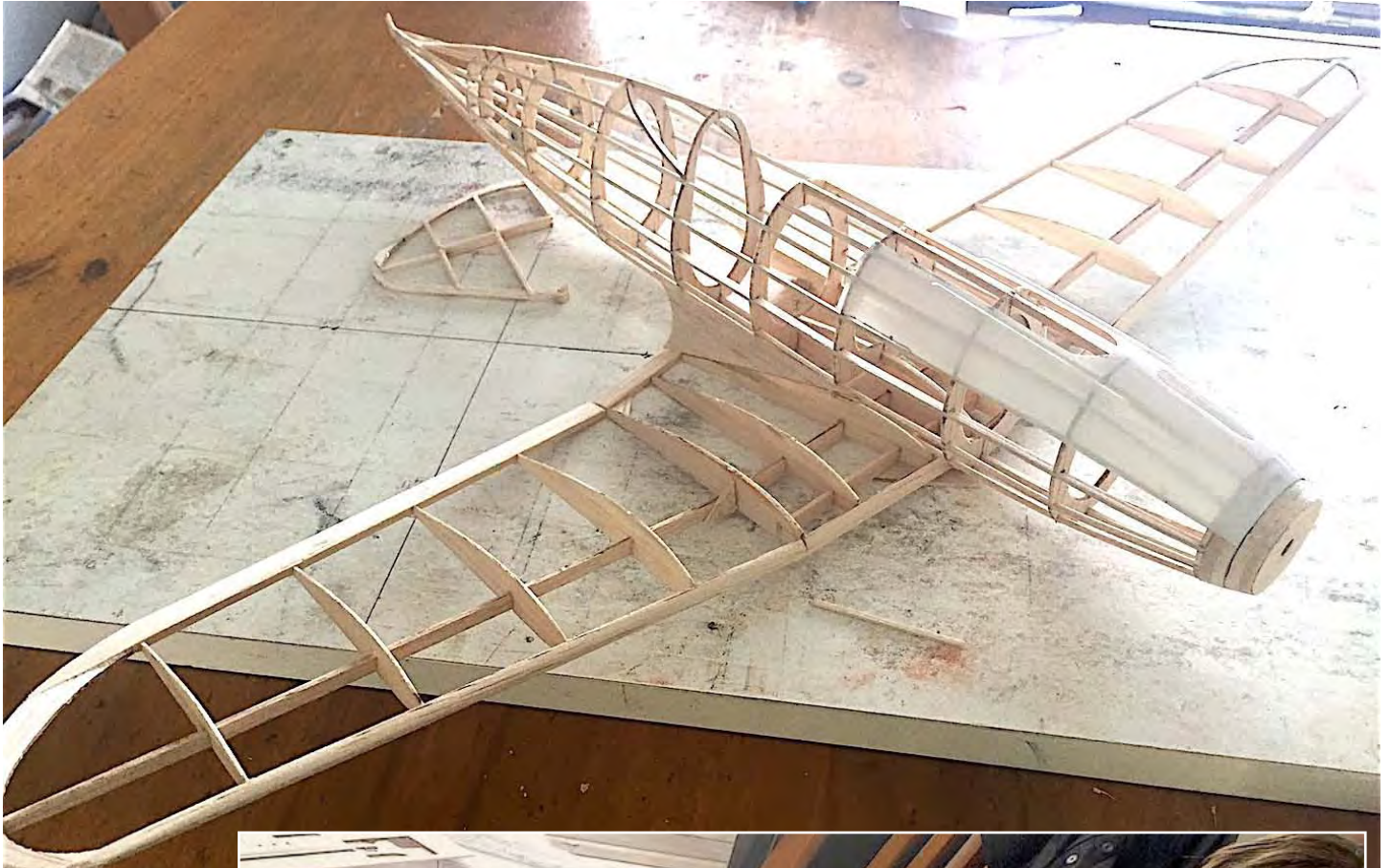








# Steve and Daniel Warner- Building board



From Steve Warner, updates on his Easy built Stahl Mig-3 and his son Daniel's VMC Bird Dog. Both projects are progressing well!

