

◆ AVANZ NEWS ◆

Issue 71

April/May 2003

FROM THE EDITOR

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series continues.
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and PLANS.

Well it certainly seems like no time has passed since I wrote the last News. Interestingly enough it has been a bit of a shuffle to get articles in so once again I have had to leave things out that I indicated would be here last issue. The bit on Beepers is one that has been put aside. I was hoping to have built one from the information supplied by Bernard Scott but somehow the time has gone by and it has not been done. Likewise the technical bits are not there but maybe next time, no promises though.

AVANZ has now been confirmed as moving to the status of a sub committee of the Vintage Technical group of the NZMAA, the last rites will be formalised during April. No panic required and none had, a smooth changeover being made thanks to Neil McDougall.

We seem to be seeing a slight renewal in interest in vintage judging from the comments I am getting when I have been to various non vintage events. With a couple of new classes being looked at this should assist in keeping that interest going. I have included a couple of designs that may spark some building for these new classes.

Quite a bit of historical content this time, I have made a conscious move to include this so that we do not lose track of where we came from. With the loss of our early pioneer modellers such as Bill Brown of engine fame this, I feel, highlights the need to get the memories to paper. I know others have also been doing this and in some cases I have covered the same ground, but maybe some of the content is new to our readers. The article taken from a tape supplied by Gil Couper a great sponsor of AVANZ is a case in point, the memories and photos are worth having on record. With the advent of computers and scanning these can be quite readily be recorded and kept in a permanent fashion. One of the features of scanning old photos is that these can be enhanced with the use of the computer so bringing out the detail.

An innovation for AVANZ is that we have available a CD of all the 2002 issues so you can keep a record of these.

The Celebration event for the R6 -B is well in progress, your Ed has his on the workbench for fuselage repair, and will be ready for the Queen's Birthday weekend so hopefully will join the dozens around the country that will join in the celebration. The Flier's World will be featuring the event in the April issue so we should get wider coverage there.

Finally you will note that the Plans Service has moved, we have had a large batch of new plans added and our past plans man Tony Taylor ran out of room to store them! Thankfully Ivan Treen has stepped in and is now sorting the new plans out for listing, so watch out for an enlarged plans service.

That's it for now keep the old ones flying *Graham Main*

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Early Aeromodelling in the Gisborne area. Recollections by Gilbert Couper January 2003

In my quest to get some the early recollections of aeromodellers around the country I noted that Gilbert Couper had supplied some information for earlier issues of AVANZ News. This lead me to prevail upon Gil for some more detail which he kindly sent to me. The article is edited and transcribed from a tape as Gil said his writing was not so good now he is in his eighties, and his health is not too good. My thanks go to Gil for providing this information and the photographic material, which may well have been lost in time. The Editor

Gil Couper came to New Zealand from the Shetland Islands in 1927, and his family settled in Gisborne. Gil who is now just over 80 sent the Editor a tape with his memories of the early years in Gisborne when aeromodelling was in its formative period and supplies were virtually nil.

As a boy Gil always had an interest in aeroplanes with his first sight of a full size aircraft when he and his lifelong friend Colin Andrew saw a flight of Air Force Bristol Fighters and D H 9's fly over Gisborne. When his family built a home next to what was to be the airfield for Gisborne his fate was sealed. That field was the brainchild of George Darton and was known as Darton Field the airstrip being cleared and levelled by using Depression labour as well as horse drawn ploughs and the like.

East Coast Airways was the first NZ airline and their aircraft was a Desoutter, flown by George Nichols and Harry Lett. A hangar was built in 1931, accommodated 4 Gipsy Moths but the Desoutter was too large for it and it stood outside under a willow tree becoming decidedly the worse for wear. Gisborne Aerial Transport Company started up later and flew from Gisborne to Hastings using a coupe version of the Gipsy Moth. One passenger up and one back, with the pilot Harry Lett. As a boy Gil spent a lot of time on the airfield, not getting in the way but helping at times.

In 1933, Kingsford Smith with his "Southern Cross" Fokker Trimotor monoplane visited Gisborne flying off Waikanae Beach as the Aerodrome was too small for the plane with passengers. Gil's mother gifted him the 7/6d for a flight in the plane with Kingsford Smith and as an 11 year old it was a never to be forgotten experience sitting in the wicker seats (no seat belts) with the engines alongside drumming the fabric to a fearful noise. The next year Ulm came in the "Faith in Australia" an AVRO built Fokker. Ulm was different from Smithy who had mixed with "elite" on his stay. Ulm played soccer with the kids and helped his mechanics, being "up to his armpits in oil" as Gil describes it.

Another memory was that of seeing the classic film "Hells Angels" which he and his friends went to see many times at the local Majestic theatre, coupled with the newsreels that showed from time to time model planes from overseas the fires were well and truly lit.

So this sort of thing set the scene for Gil's aeromodelling.

As Gil reminds us, there were no model shops but necessity is the mother of invention.

"We had lots of enthusiasm but not much money - "poor as church mice"- was how Gil puts it - these were the Depression days.

My first source of supply was from the local dump where some slats from wooden Venetian blinds had been dumped, made of redwood and cedar it was about 3 inches wide and 1/8 inch thick so provided our timber.

Celluloid was used for the car side windows at the time, and we used to get the panels that had been discarded due to age from the Gisborne Auto Trimmers. Duco thinners from the nearby Auto Renovators shop was obtained in small amounts by doing odd jobs like sweeping and cleaning around their workshops. So we had dope and the ingredients for cement.

The cement was made by dissolving the minced up celluloid in the thinners, but was of variable quality. We later found that Acetone was better for the cement so our local chemist Harold Armstrong was approached for this, after explaining what we were doing he sold it to us in small bottles. When we were short of celluloid I sometimes used bits of my sister's dolls, gave a pink colour but worked fine.

The Venetian blind wood was used for Hand Launch gliders, which were best with the wood available. We scraped the wood down to thinner sheets for these. Cedar was the preferred material but took a lot of

work to get to 1/16" thick.

When we got to build rubber models we needed piano wire, and the source for this was the local piano tuner, Bert Hanlon, who had broken piano wires from the many pianos that were then in vogue. We picked these up for cleaning the workshop, which was a very messy one. So that is where we got our piano wire from for hooks, prop shafts, undercarriages etc

Plumbers used banana oil. The hot water radiators were of a cast iron type and the expansion cracked off the paint. To get the paint to stay on banana oil was painted on first to provide a flexible layer before the paint was applied. Upholsterers also used the oil to keep leather car seats supple, so that was another source. We used the oil as "Glider polish" it was painted on the gliders, sanded and after a number of coats the whole lot polished with car polish for a final shine.

In those days the schoolbook drawing folio (about 18"x 12") had tissue paper between the pages. Mine, of course, was always missing as it had been used for a Peanut or Ranger, so I was usually "told off" for this at school. The advent of Jap tissue put a stop to this practise.

The hobby was hard work but enjoyable.

When "Modelair" came on the scene with their clubs and sub leagues, modelling supplies became more available, at a price of course.

We started in Gisborne as a Modelair Sub League, one of the early ones, no 1 or 3, I think. Fred McDonald of Modelair had an Auckland Star column under the name "Propeller" among the cartoon and comic pages. The older ones amongst us would recall the "Katzenjammer Kids", with Old Poppa, Momma and the Doc, as well as Jiggs and Maggie, good clean fun in those days.

The models presented in "Propellers" column became Modelair kits, all good quality stuff.

Betta Models were another supplier; Gordon Smith was the proprietor and I was the local agent for a while in Gisborne but dropped it as the quality was not as good as Modelair.

The photos show some of the activities around that time.



The group photo, taken in front of an East Coast Airways D.H. Dragon was taken in 1937, and is the earliest I have of any aeromodelling activity in Gisborne. In the back row from left is Mitch Bridie who was killed in Canada during the war, Noel Ottaway, (in the pith helmet) with a Redbird Senior, myself with a Peanut and Charlie Taylor who also died in the war. In the front from left are two younger guys whom I cannot recall the names of and on the right Colin Andrew who was a life long friend who died six months ago. He had a war record with 75 Bomber Squadron, flying 8 missions as a tail gunner in a Lancaster. "A good guy who never knew how to do anybody a bad turn."

The next photo was taken in 1940, our first big Contest with some members of the Wairoa club, who were very active at the time led by Geoff Hamilton and there was quite a bit of rivalry amongst us.

Most of the models are Redbirds; I'm in the white shirt in the back row. 3 days of events Hand launched gliders and rubber, not enough money then for gas jobs. Most in the photo are still alive but two died in the war. These interclub contests were a feature of the time, the fellows were billeted in homes and I don't think there were ever any problems. The parents assisted with providing the food etc for the Prizegiving that sometimes ended up with a bit of frivolity – I remember a pie-throwing contest at one. All good clean fun, no alcohol in sight in those days.



To be continued

Early Wellington Aeromodelling Excerpts from "Model Aircraft" the Official Organ of the Wellington Model Aero Club. February 1934: Part 4 of a series



After last months "back to the beginning" article we are going forward to the February 1934 issues.

This part covers Volume 1 Issue 20 to Issue 23.

Vol. 1 No. 20, Feb 14th 1934 This issue ran to 11 pages. The Editor bemoans the fact that new members have been introduced to the club to see some flying but instead had been subjected to lengthy discussions on the rules.

He notes that while there have been 150 boys and men connected with the club only 18 were active members/

(No change in today's clubs really Ed). A W Pearce has a good article on a set of simple scales for model weighing,, there is a bit on wing loading relating this to model speed and another column on seaplane models. Another small column gives a list of full size aircraft in New Zealand at the time 65 civil aircraft and 22 service aircraft, the

major civil aircraft being 33 Gipsy Moths. Also noted is the issue of a special stamp for "Faith in Australia's" Trans Tasman flight. It notes that New Zealand was the first country to use a special stamp for use by air mail. This was for letters sent by pigeon post from Great Barrier Island to the mainland.

An article on "Model aeroplane workbenches", notes that "the average builder works in a chaos of shavings, wire, small parts, tools and odds and ends. If he mislays a small part he is liable to be up in the air longer than the Fairey Long Range Monoplane before he finds it again" (The writer is obviously a soothsayer as he describes my bench so accurately in 2003 Ed.) Model Aeroplane notes covers rubber driven speed models some tips on rubber for duration and ways to achieve ROG with scale models, all in a page! A Scotsman's block propeller is described, taken it would appear from the MASCO catalogue. A review of models notes that a "K.P" had made an unofficial 6 minute hand launched outdoor flight with his high wing fuselage "Red Admiral" model. Elsewhere preparations are being made for the Easter Show noting that the Feilding Model Flying Circle "are coming down in force with their "super ditherers"

At the outdoor meeting at Strathmore Park J Finlayson won Fuselage H. L. with a time of 32 seconds, while at an indoor meeting N Milligan with his "Moth" raised the Spar ROG record to 55 secs, while W Waters made a club record in fuselage ROG with 60 secs.

Vol.1 No.21 February 28th 1934 indicates that the campaign to increase the circulation of Model Aircraft by contacting all clubs affiliated to NZMAA was making good progress. Details were being finalised for a New Zealand elimination contest for the 1934 Wakefield contest. Two pages are devoted to a design treatise by Charles Hampson Grant. Featured model is Indoor Spar model by Vern Grey taken from an "Auckland Star" article it notes that Mr Grey held the NZ junior Spar Indoor record with a time of 3 min 41 seconds until recently when he raised that to 6 minutes 29 seconds with an improved and lightened version. In the notes on the model Mr grey notes that a similar machine has done over 18 minutes outdoors on a calm day. (That must have been a magnificent flight, I had a real thrill when my Senator flew over 23 minutes on a calm day just this year) Ed.)

Club Notes has input from W B Mackley regarding the Auckland Grammar School Air Squadron. He notes that the club was started in the beginning of the 2nd term by Mr Gillespie one of the masters and a Flying Officer during the war. Regular weekly meetings were held and the club affiliated to the NZMAA. Flying had improved to where winning flights were over 2 minutes and sometimes 3 minutes. End of year prizes of a flight with Squadron Leader Seabrook were awarded to J W Mandens and R Lewis, with Mr Mackley also being awarded a special flight for his work with the club. W B Mackley is prominent in Club records sheet but K E Garret had the record for "Gliding from the Gallery". Other clubs calling in were Napier MAC and Feilding MAC, where Mr B Hobday advise that the Wellington group have no need to fear their 'super ditherers" as all their fuselage flying has been done outdoors, and that they were merely coming down to enjoy themselves and benefit from the experience.

At a display held in the Wellington Town Hall for the "2ZW Radio Army" it was reported that "About 9 o' clock members walked on to the stage and commenced flying. The audience were greatly amused with the planes and they clapped and cheered good flights these being made by W Waters with his "Red Admiral", Captain Pearce his "Birdy", G Chambers with "Miss Mahici" and J Finlayson with the original "Red Admiral". Those in the galleries were thrilled by the "Swallow" flown by Jim Burt which zoomed low over their heads. The model flown by W Waters put up a timed duration of 1 minutes 45 seconds the highest yet recorded indoors for Wellington".

To be continued.

NI Freeflight Champs. Vintage events.

From Graham Lovejoy

We had the North Island Free Flight Champs on 1st and 2nd March in Hastings, and here are my impressions of the Vintage events (*FFONZ will have the full results Ed.*)

I did not go on the Saturday, but it was no good for flying, but very good for socialising, I believe, with a good attendance at the RSA for a splendid meal. (*I can vouch for that as I have had some there when I was down for other events in Hastings Ed.*)

Sunday was overcast and drizzly with a light but determined breeze that freshened during the day, till it was fair piping through about 1 pm or so. By then most had got their flights in.

Combined vintage had four entries.

1st	Alan Douglas	Gisborne	Modelair Skyrocket	OT power
2nd	Neil McDougall	Wellington	Mad's Dream	Nos A/2
3rd	Terry Tank	Tauranga	KK Chief	OT A/2
4th	Graham Lovejoy	Feilding	Lulu	O/T Glider

Alan flew his Skyrocket extremely capably to first place, as I recall his score was well in front of the rest of us. Neil's Mad's Dream flew well as usual and handled the wind well. I remember that Terry's red and yellow Chief stood out well against the backdrop of parched grass on the distant hills, and looked great in the air as KK Chief's do. I put in low times but was well pleased—I recorded 3 flights and took the model home in one piece.

As well as the Combined Vintage, there was a good representation of O T Catapult gliders in the HLG/Catapult event. I flew my 16" 1936 Hervat, Neil was seen flying his 1936 Mayn, and John Malkin had a most impressive Vartanian, a 1941 MAN design which flew really well and looked great in the air.

As I recall the order of finishing was

1st	Graham Lovejoy	1936 Hervat
2nd	Neil McDougall	1936 Mayn
3rd	John Malkin	1941 Vartanian

I thought it was a great day, good flying and good companionship, with everyone seeming to enjoy themselves. The Hastings site is rather picturesque and well suited for Vintage style flying worth the trip. *Graham Lovejoy*



Terry Tank with his Chief slightly patched after clipping a fence

New Class Proposals:

These new proposals have been subject to a bit of debate, and we seem to be forming a set of reasonably agreed ideas.

For **Nostalgia Miniature Replica** The proposal is that the rules be changed to increase the engine size to 0.8cc, but to exclude the "hot" engines like the TD or similar types. The maximum wingspan rule would be deleted, while the other rules would remain the same so timers will be able to be used.

For the proposed **R/C Class A Texaco**, there has been quite a bit of discussion on what rules to use but it seems a consensus is forming to use the US SAM specification for the model and flight time specification but retain the NZ flying rules of 3 flights, a spot landing and a 1/1/51 cutoff date with age bonus included. This should mean that the model can be selected to comply with US SAM cut off dates where it will get bonus points in NZ competitions but will still be able to be flown to US flight rules for local SAM or postal competitions. The retention of NZ flight rules for NZ competitions is felt to provide less confusion between the 1/2A and A events and with the spot landing adds a certain amount of R/C skill requirement. In practice this has usually minimised the need for a flyoff. The bonus point system should encourage the older designs as it has in 1/2A Texaco.

The proposals are to be published in the Flier's World April Issue.

Commercial Column. Bits and pieces that may be of interest.

First up are some new items that we have available from AVANZ.

Catapult Starter Kits:

These comprise 2 packs of 3 plans plus a hint sheet for the cost of \$5.00 each posted.

Pack 1: Vintage Gliders. 36 Mayn, 36 Hervat and 38 Hervat.

Pack 2: Nostalgia Gliders: Winged Motors Beginners, Rucie and Mohican.

These are available from Neil McDougall address on page 1, they are also available on e-mail for free.

AVANZ News Back issues:

All the AVANZ News for 2002 (6 issues) are available on CD for \$5.00 each also from Neil McDougall. (Sorry we do not have any hard copies for those without computers. Ed.)

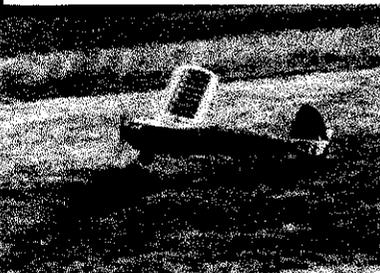
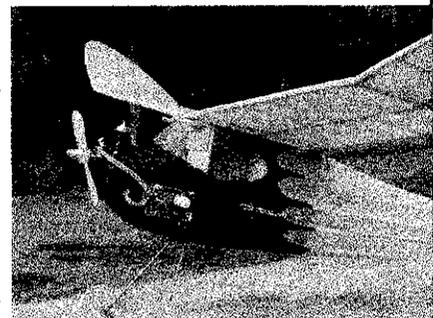
Right now to the commercial stuff. After losing my Miniature Replica model at the Nats I had to replace my engine timer. My original was a neat small Tatone 1/2A job which I swapped around models. I bought a timer from the FFONZ shop as I needed one to fly next day in Payload, but it was too large for the Replica size model. Looking at the SAMS Speaks I saw an advert from **Texas Timers** in the US and as it had a web site (www.texastimers.com) I looked in it. It was a good site easy to navigate and all the information there. A small pinch off timer was on offer and as they had a secure purchasing facility I placed an order.

Wow! Almost an instant response acknowledging my order and the items were received in 7 days! That's service, so I can recommend this firm to you. By the way the timer is a little beauty and it is installed in my Southerner Mite Miniature Replica. (See photo nearby).

This leads me on to **Ben Buckle Vintage Kits**. In the past few months I have built two models from this range of kits, the Southerner Mite, and the Electric Junior 60. My verdict is that these kits are very good and go together well, The Southerner Mite I have covered in a previous issue, but as you can see above is now finished. I used Litespan for the wings and tail but covered the fuselage with tissue as I was not sure I could manage Litespan on the lovely curves. With a TD 020 installed the model flies well but needs a little more trimming to reach its full potential.

The electric Junior 60 was built for a fellow club member, this seems to be one way I can encourage some others in the club to fly vintage. The kit went together very well, maybe better identification of what strip is used where would help, but if you sort it out at the start, then maybe you would not need to add a few pieces from your own stock. This one is covered in a transparent film Yellow wings and tail with a red (more pink) fuselage. This meant I had to build the model with care so the owner wouldn't have to put up with everyone pointing out badly fitted bits. The power is a 600 motor with belt drive turning an 11x4 prop. With this combination on a 7 cell pack there seems to be hardly any go as it is so quiet, but go it does, taking off grass and getting to good height in a steady if not spectacular climb. At 1.5kg the model goes up in lift on the glide very well. In all a good combination, the owner participated in his first NDC event with it and put in a good time, so he was really pleased. (Ben Buckle kits are available at Hobby Models in Cambridge)

For those of us who find kneeling and stooping with our models more difficult here is a use for those work tables that are now available in the hardware stores. Frank Higgins got his for \$30 on sale and made a couple of clamps faced with sponge to hold the model. Needs a little refinement but works well. The model is at good height and as you can see your support gear sits underneath. Folds flat for transport so is ideal for our purpose.



Memories of the R6B: The Ed's first R/C experience

The planned Anniversary event has brought back memories for me as the combination of the R6-B and the Wright/HMV radio equipment provided me with my first foray into radio control in 1956. The plan of the R6-B was published in the "Aeromodeller" of March 1955 and I obtained my copy of the plan plus a balsa pack for the model from Bettair in New Plymouth. My father worked for an electrical firm and I convinced him that I must have an HMV R/C set, which he managed to get after a lot of trouble. The paper round money slowly paid off the debt over a year or so.

My R6-B took shape and was finished in yellow and black on the fuselage with yellow wings and tail. At 60 inch span it was the biggest model I had built to that time. The biggest problem I had was making the metal brackets for the motor mount as no aluminium seemed available. A set of steel ones were made instead and my Elfin 1.49 installed. The engine, as I recall, was a reluctant starter so I set it up tractor fashion rather than the pusher shown on the plan. Our small aeromodelling group was keen to see the beast in action so with radio installed we were all set... First flights were more powered glides, none of the soaring on high with total control of one's dreams ..oh no. Eventually we got some sort of climb and with having to learn radio techniques dives to the ground were common. Many repairs later we flew it off a shallow slope and got some distance between plane and ground managing a few presentable flights. I remember there seemed to be much radio twiddling and range checking so we felt really pleased if we got one flight in a day. Looking back it was that we had very little experience in this new art, so were on a bit of a learning curve. Eventually a career intervened and the R6-B had its radio and engine removed and was sold off.

The radio went with me to Wellington and was eventually sold to raise some funds to keep me going. The 50th anniversary Nationals had an event for the R6-B so I built one from my original plan. This one was successful and flew well, but during the contest, I was proceeding round the course OK until the model started to dive after a turn and did not recover, damage was confined to the fuselage so with a little work it should be ready for the CELEBRATION, this time with an elevator just in case.

The Celebration Event.

Date: Queens Birthday Weekend 31st May to 2nd June 2003. Any day but if possible, preferably the actual anniversary date i.e. Monday 2nd June

Venue: Decentralised, Fly at your own flying site (as per NDC events)

The model: Any version of the R6B. Plans are available through the AVANZ Plans Service (see address at front of this newsletter)

Power: any IC motor (no throttle but cut off is allowed)

Rudder and elevator control. (See below)

The Task: To fly a the Single channel schedule of the fifties. The simplified version for club sites is:

Take off (Hand Launch OK)

Straight flight to marker 150 metres upwind

Turn over marker 90 degrees left and 270 degrees right completing turn directly over marker (direction may change to suit wind direction)

Straight flight back to take off area

Horizontal of figure of eight in front of pilot. (Stop engine if required and prepare to land)

Approach and landing on spot.

For the full schedule see the April 2003 Flier's World.

We suggest 2 flights the first using full controls, the second using rudder only. Of course you can use Single channel gear to be really authentic, (Wright gear preferred)

Report Back:

Date and takeoff time for each flight.

Duration of each flight

Whether schedule completed

Model details: Age, Engine and prop size, pusher or tractor configuration

Radio and controls used. Photographs would be appreciated

Send these results to:

Dave Mitchell, 217 Stanton Road, RD2, AMBERLY

Or e mail D.Ymitchell@xtra.co.nz

By 30th June 2003

REMEMBER THIS IS A CELEBRATION EVENT FOR A CLASSIC NZ DESIGN HAVE A GO AND FIND OUT FOR YOURSELF WHY IT HAS A GREAT REPUTATION

EVENTS calendar

CPMAA VINTAGE R/C EVENTS 2003

1st R/C Champs

Sunday May 4th 2003

OT R/C Duration, OT R/C Precision
and OT 1/2A Texaco

2nd R/C Champs

Sunday September 21st 2003

OT R/C Duration, OT R/C Precision
and OT 1/2A Texaco

Both at Levin MAC Field

Tararua Road Levin

Contact Neil McDougall

Ph 04 479 3106

Or e mail

N.mcdougall@Clear.net.nz

NDC VINTAGE EVENTS

- April 6th OT FF Precision
OT 020 Miniature Replica
- April 21st OT FF Glider Duration
Nostalgia FF Glider Duration
- April 27th Nostalgia Catapult and HLG
- May 4th OT R/C 1/2 A Texaco
OT R/C 1/2A Texaco Scale
- June 1st Nos. Rubber duration,
OT Rubber duration
- June 29th Nos Glider duration,
OT Glider duration

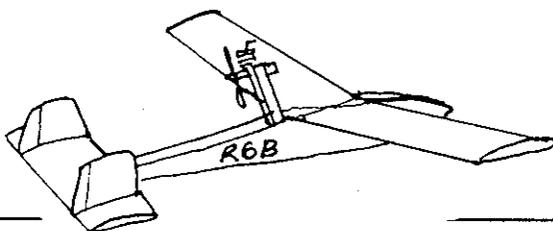
R6-B Celebration

Queens Birthday Weekend

Get your model ready for this

50th birthday celebration

of one of New Zealand's best known
models



INTERNATIONAL POSTAL EVENTS

Lulu 2003 International Postal .

Bert Whitehead advises that the Lulu Postal is on again for 2003 with flight dates between 1st May and 30th September 2003. Eligible models are the original 50" Lulu Mk11 the 30" Lulu Baby or the SAM 1055 106 sq in. version. Permitted mods are auto rudder, DT, repositioned towhook, strengthened main spar and mylar or film covering. 3 flights to 90 sec, if achieved 1 flight of 120 sec and then unlimited. First 3 flights must be made on the same day but the others may be made later. Longest flight prize as well.

Hilda Baker Tomboy Postal.

Nick Farley has the Tomboy postal on the go again this is for the longest flight by a Tomboy. Any power mode Glo, diesel, electric, CO2, spark or rubber. Either the 36" or 44" version. Flights between Jan 1st and July 31st 2003 count. Hand Launch, unlimited engine run.

A time will only count if the model is retrieved, without using radio bugs. **A lost model invalidates the time. No entry fee**

For further details plans etc. for these events contact Graham Main at the address on the front page of this newsletter.

VINTAGE Kits and Engines for sale.

Power Kits:

Klarich Partial Kit Goldberg Gas Bird (no strip wood)	\$25
Klarich Eliminator 52 WC	\$35
Veron Cardinal	\$50

Rubber Kits

4K Climber	\$50
Dietrich Convertible	\$50

Engines

CS Oliver Tiger 2.5cc	diesel	\$275
AE 0.1cc	diesel	\$125
AE 0.2cc	diesel	\$125
AE 1.5cc	diesel	\$125
Russian Eta 29 NIB	Glow	\$300
Russian Marz 2.5cc	diesel	\$ 75

Plus freight or buyer collect:

Contact Devon Sutcliffe, 11 Canterbury Street,
Karori, Wellington 6005

Phone: (04) 4769-883 E-Mail DANDEM.

Sutcliffe@xtra.co.nz

William L Brown. The Father of the Model Aircraft Engine.

1911 — January 8, 2003

Model aircraft flying is universally popular with the ready availability of lightweight, cheap (relatively), reliable engines for models. This was not always so. Prior to 1934 model engines were generally extremely heavy, unreliable, and usually hand made one-offs to special order.

In 1931 William Lykens (Bill) Brown III, while an High School Senior designed and built (including his own castings) his first successful model engine, and for it, his friend Maxwell Bassett designed "Philadelphia 3". This flew well enough to quadruple the existing record time for engine powered model aircraft. The drawings and building instructions for this engine were published in The Evening Bulletin-Philadelphia Saturday May 30th 1931. An enlarged version which in production became the much loved "Brown Junior" was used by Maxwell Bassett to win at the US National Championships, the Moffat, Stout, and Mulvihill trophies; previously open to power models but after Bassett's success now confined to rubber power.

After High School, Bill studied mechanical engineering at Pennsylvania State College and pressure of studies led to Brown Junior production being undertaken by Walter Hurlman. Later, Junior Motors was set with business partner Edward Roberts in charge of marketing, Bill had left University to personally undertake and supervise production. The Brown Junior was an outstanding success. From being first advertised in 1934 until production ceased in 1940 about 50,000 units were produced.

Brown Junior look alikes were produced in many countries pre and post WW2 including USSR, CSSR and New Zealand (Acme)

During World War Two, Bill returned to university where he was employed producing instruments for the university wind tunnel. He had an interest in small CO2 engines and established Campus Industries to manufacture these, the forerunners of the modern Telco and Gasparin engines Also the Campus .29 gloplug engine. Manufacture of the Campus engines was undertaken by senior engineering students. Finally Bill established "Brown Junior Motors Inc" with a workshop on his property where he personally manufactured the final range of Brown Junior CO2 motors, finally ceasing production about 10 years ago.

Bill was truly a "Renaissance man" as well as his mechanical background he was a Church Deacon, a Flautist in the Pennsylvania State Orchestra, a Stone Mason, a pilot of light aircraft and sailplanes.

May Bill rest in peace, all aeromodellers are grateful for the path he set.

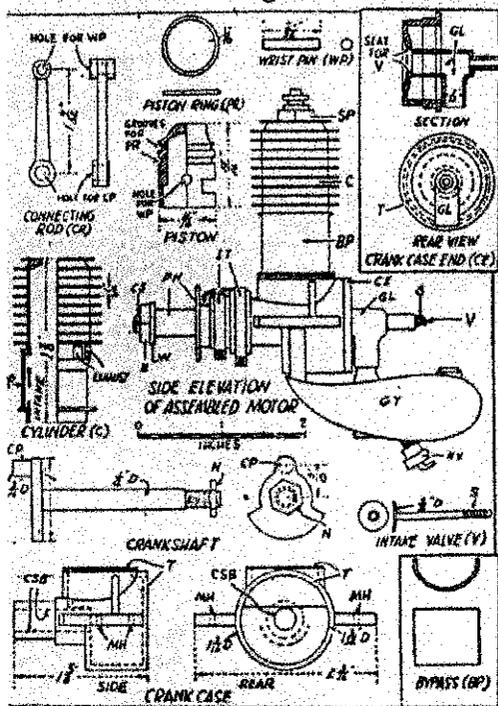
From Notes supplied by Rees Jones.

Below Left: The Original Brown engine, Right: The Brown Junior

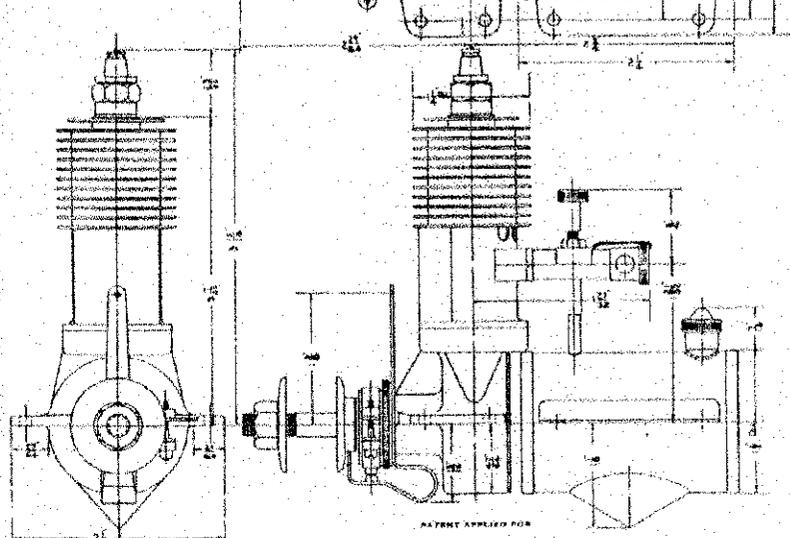


June 1938
Left to right, Bob Scarsdale, Maxwell Bassett, (with Cardinal) and Bill Brown

How to Build a Midget Gasoline Motor



CROWN MOTOR
JUNIOR MOTORS CORPORATION
BROAD STREET STATION BUILDING
PHILADELPHIA
FULL SIZE INSTALLATION
DRAWING



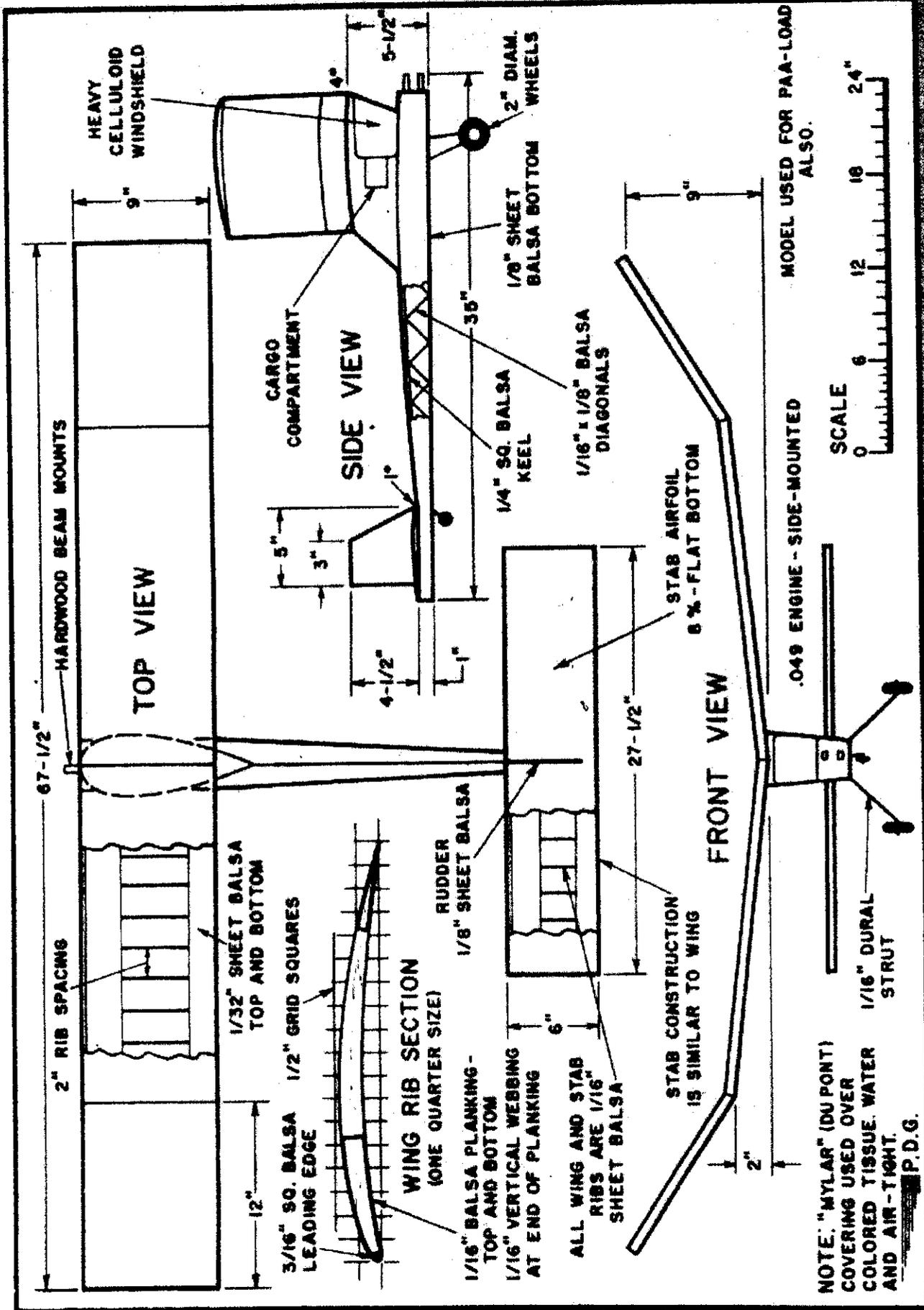


SNIPPETS

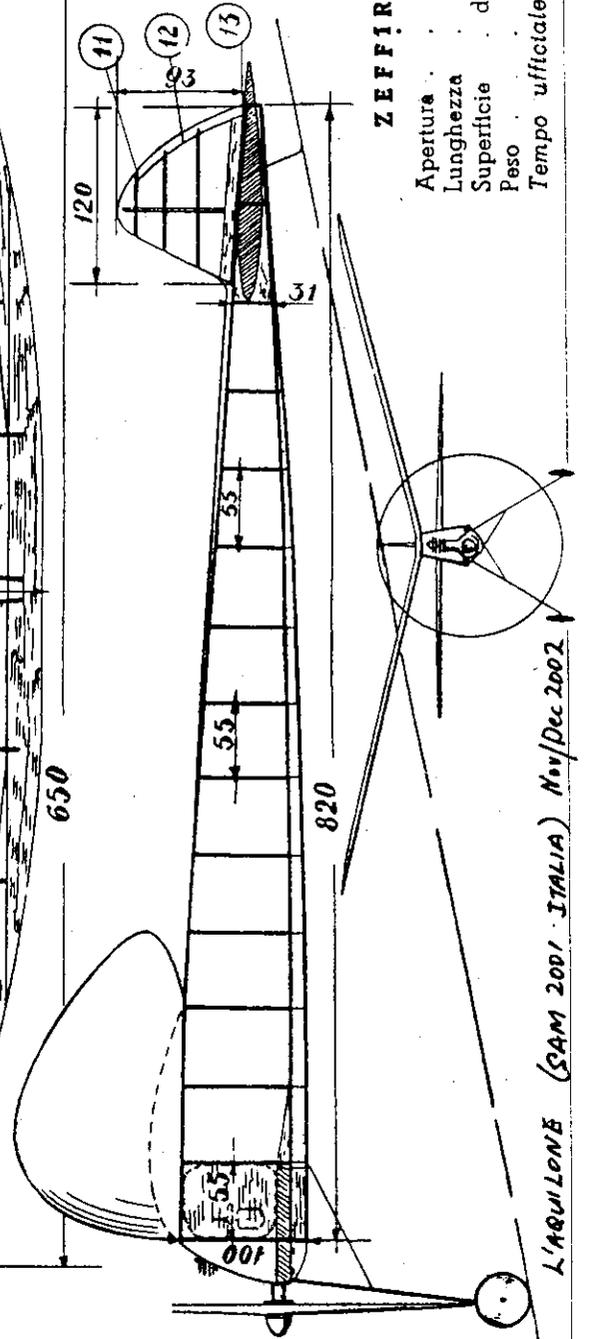
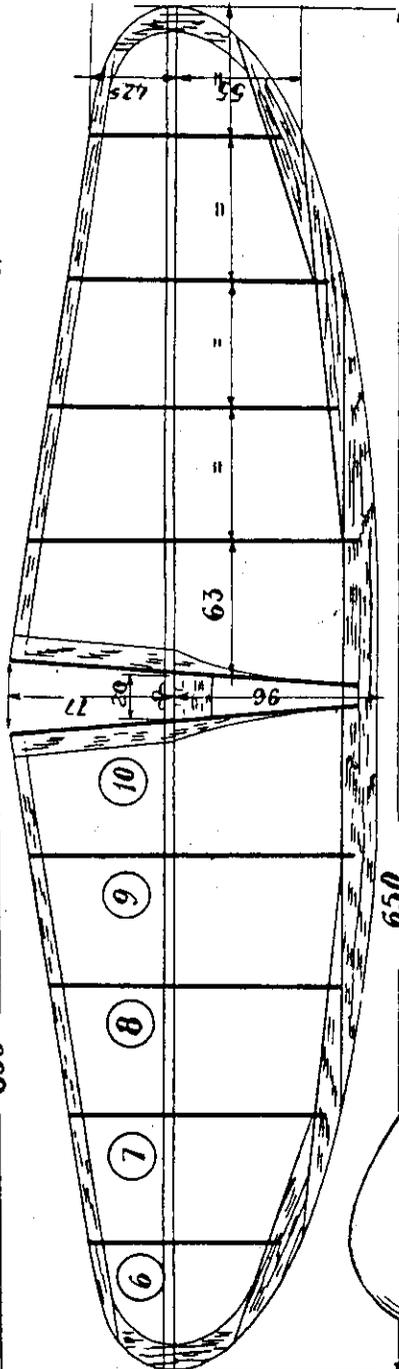
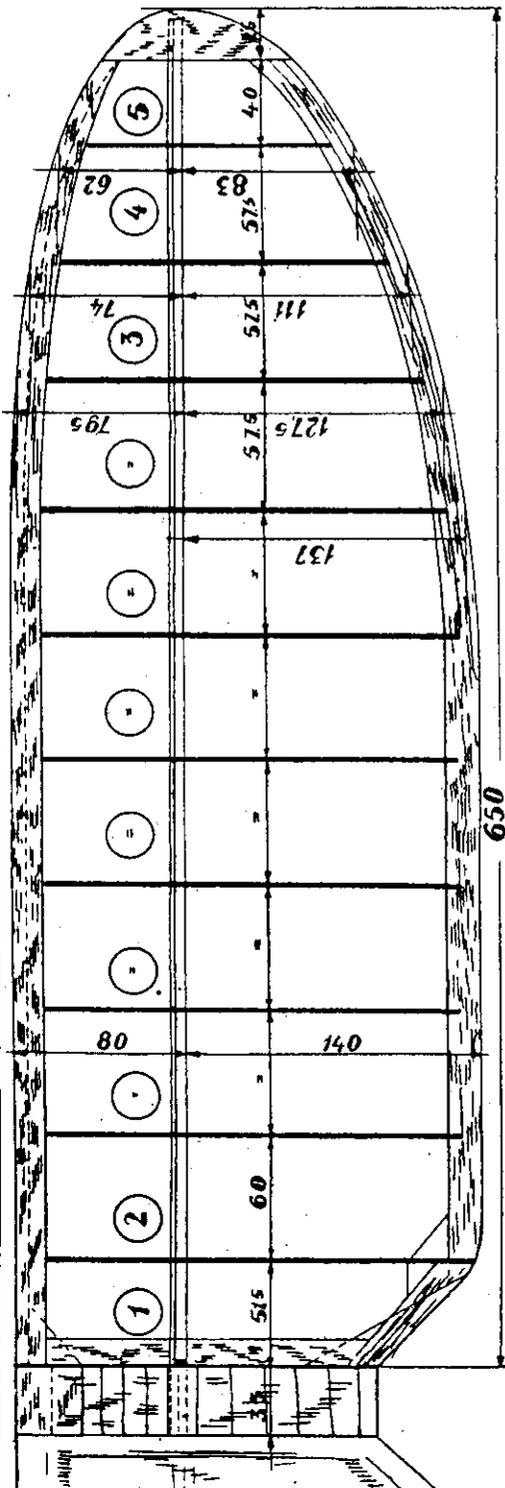
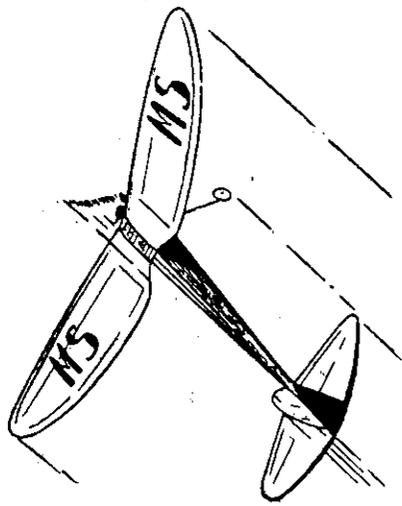
- The **AVANZ Plans Service** has had a change of address. The Service has now been taken over by Ivan Treen in Levin, (address on page 1). Also new is the addition of a few hundred more plans. The new listing is being made up in the next period and then will be posted on the NZMAA web site.
- The **AVANZ (Inc)** winding up proceedings have been completed and will be notified to the Registrar in April. The funds held as noted before will be transferred to the new NZMAA-AVANZ sub committee.
- On to other matters **Bryan Leeves** from Hibiscus Coast advises that he has his Lulu completed and test flown, found the auto rudder to his liking so is modifying his Saint to have one as well.
- Talking with **Lew Hale** at the Centennial of Flight meet in March I found that he is going to get a bigger tank for his KK Outlaw, I suggested he go for the 14cc Humbrol tin tank so he could try the A Texaco when it gets going. He also liked the look of Ivan Treen's Snipe so has that on his build list.
- A regular e mail correspondent is Art Lane in Canada, he runs a Postal event for the Hangar Rat indoor model by Harry Barr a member of the SWOOT group. Your Ed's efforts are getting better managed 90 sec the other night. OK not marvellous but improving. If you fly indoors why not give this a go, a lot of fun from a simple model. Locally we have found a good venue which we use for our Club nights.
- **Ivan Treen** reports that it is very dry in the Levin area. Paul Squires took advantage of this in NDC OT Rubber to max 3 maxes and a 3 min 15sec flyoff, Darn it rained all day where the Ed was. Ivan has really got back into Vintage after the Gareth Newton meet. He is building a Nos Glider, has a Nos power Spacer lined up and got the Snipe trimmed out. Reports that there is a strong interest in the proposed R/C Class A Texaco class with discussion going on over suitable models. He says the Ed. Is responsible for all this... *I don't know about that Ed.*

Plans for the month

- Now here's one for the proposed Nos Mini Replica class. A 67" **payload style** model for an .049 that used Mylar covering in 1958. Designed by Bill Bogart and published in the American Modeler July 1958. Yes it was **Bernie Scott** who tracked this one down always with an eye for the unusual. He contacted Bill about the use of mylar, and had this reply. "I was working for the Glenn L Martin company in Baltimore, Maryland and found that construction design of airplane parts were being printed on Mylar. A little snooping around resulted in my finding light thickness Mylar. I asked for a sample and got all I could use." As Bernie says there's nothing new under the sun.
 - Next up is another of those shapely Italian designs, the **Zeffiro**, which at 1300 mm (51 inch) span looks like a contender for the Class A Texaco event as well as Duration. The design is from August 1945 . Full size sections are on a separate page. Thanks to *L'Auquilone of Sam 2001* for the use of this one
 - Now a list of **Nostalgia Chuck/Catapult** gliders, that are available from past Aeromodeller magazines. If you need a copy contact Ivan Treen who may have them. Don't forget to put a bit of money in to cover the printing and postage, Ivan is a pensioner so cannot subsidise these costs
- | | | | |
|-----------|-----------------------|----------|-----------------------|
| Jan 1952 | Bicep Builder | Dec 1956 | Kinetic Energy Glider |
| Mar 1953 | Misguided Missile | May 1959 | Sailaway |
| May 1955 | Chuckaway (NZ design) | May 1960 | Vie et Arme |
| June 1956 | Long Tom /Little John | | |



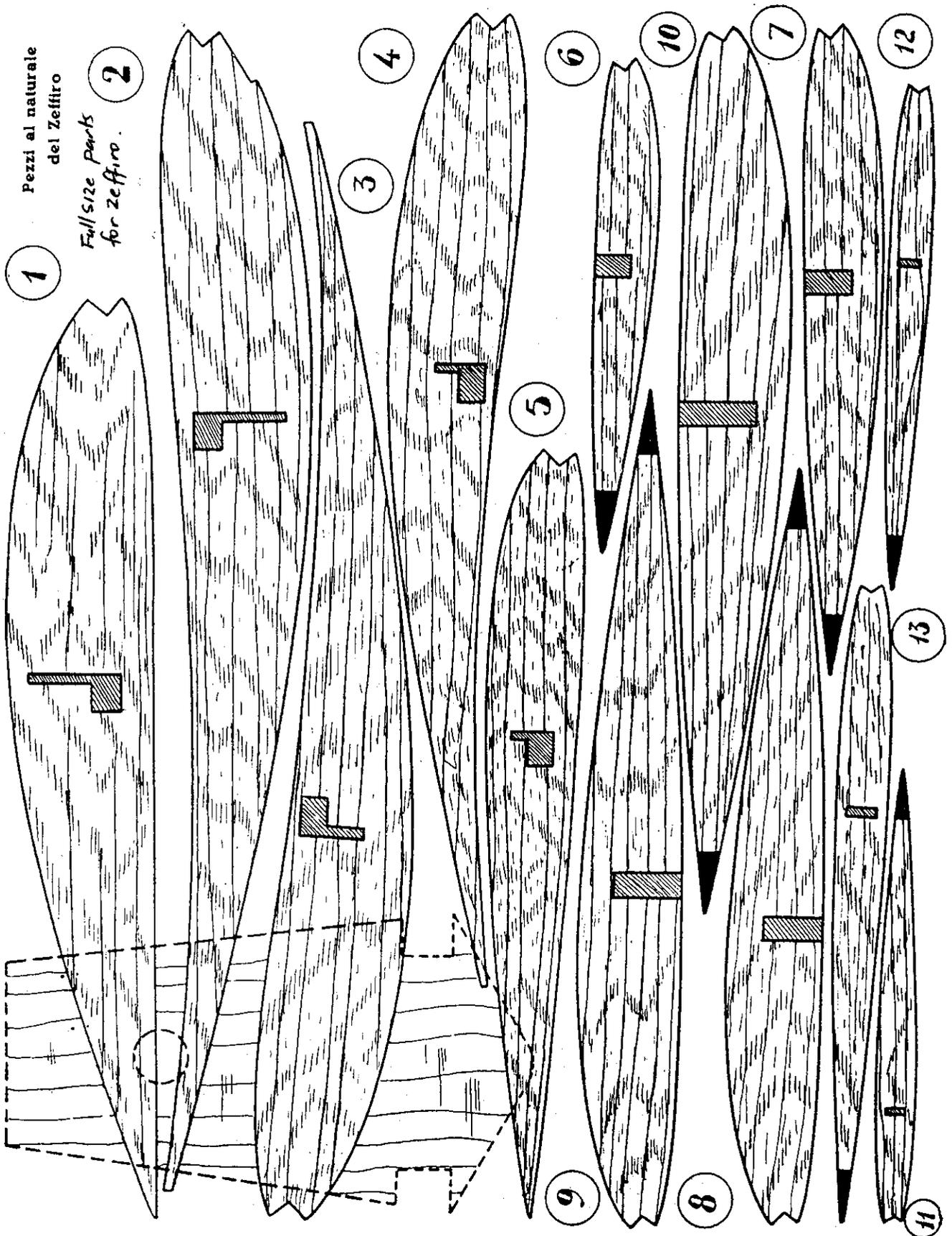
BILL BOGART'S DAYLOAD / OPEN .049 MODEL Note Wing Section / Mylar Covering in 1958?



Designer: **Leardo Goi**
 Published: **L'Aviazione per Tutti**
 August 1945.

ZEFFIRO
 Apertura . . . cm. 130
 Lunghezza . . . 87
 Superficie . . . dmq. 24.7
 Peso . . . gr. 390
 Tempo ufficiale 6' 41"

WITH THANKS TO L'ARQUIONE (SAM 2001 ITALIA) Nov/Dec 2002





Gisborne New Zealand group 1937.
Back row left to right, Mitch Bridie, Noel Ottaway (in pith helmet) with Redbird Senior, Gil Couper with a Peanut, and Charlie Taylor.
Front row from left two unknown and on right Colin Andrew with a Peanut.



1940 East Coast contest, with Wairoa and Gisborne members. Gil Couper in white shirt in back row. Most of the models are Redbirds.

Terry Tank with his KK Chief at the NI FF Champs at right



KK Southerner Mite with Texas Timers Mini Fuel cutoff timer fitted.

Right: The electric Junior 60 takes off.



Left: Frank Higgins' model stand derived from a cheap worktable.

Right: Left to right, Bob Scarsdale, Maxwell Bassett holding the Cardinal, and Bill Brown June 1938. First flights of the Cardinal. 4 flights at Somerton Airport, Phila,PA. Last flight on a full tank, model went OOS and found next day resting in a tree at Somerton Fire House 2 miles north.



AVANZ NEWS: E MAIL SUPPLEMENT.

In New Zealand The AVANZ News is posted out in hard copy form with the Free Flight Newsletter. In this latter newsletter there was an article by Neil McDougall on the use of silly putty timers for small Hand Launch and Catapult Gliders and rubber models. Neil has asked that we make this available to our e-mail subscribers so here it is.

A Simple Silly Putty Timer. By Neil McDougall.

Background.

I was looking for a reliable timer to replace fuses during fire bans. I did not want to use a clockwork timer because I have lost several gliders through timer failure. All the published plans for silly putty (now it seems to be called tricky putty) timers seemed to be too complicated and the moving arm could bind on a hard surface if slightly out of adjustment. It seemed logical to try a design where the arm pulled of the silly putty to prevent any binding and consequent failure. I use this system all the time now for my catapult models but I have colour coded the wire and plates for each rubber model so that I can keep the bits in the model box and install when needed. I feel that the system would be equally good for gliders with the usual start mechanism installed.

The System

This consists of a wire with one end bent and being pulled out of the silly putty by a force applied to a bend on the other end by a small rubber band. A third bend is for a bearing. The wire is fixed to the model by a thin aluminium plate. An Aluminium tube bearing around the wire is used under the plate to ensure the wire can move freely. Hammering the plate over an appropriately sized nail on a metal surface forms the kink in the plate. Each time it is set up for use the silly putty must be pushed all around the bend in the wire to ensure that it sticks to the wire. Otherwise the wire will pull straight out of the silly putty. In operation the wire slowly pulls the silly putty out of the hole or tube.

Operation.

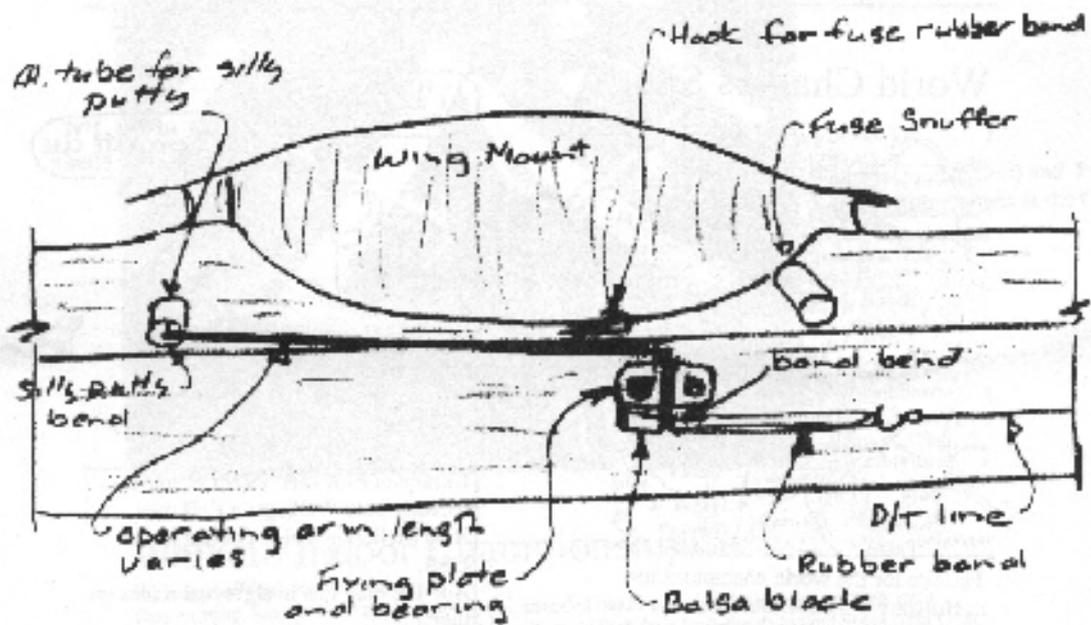
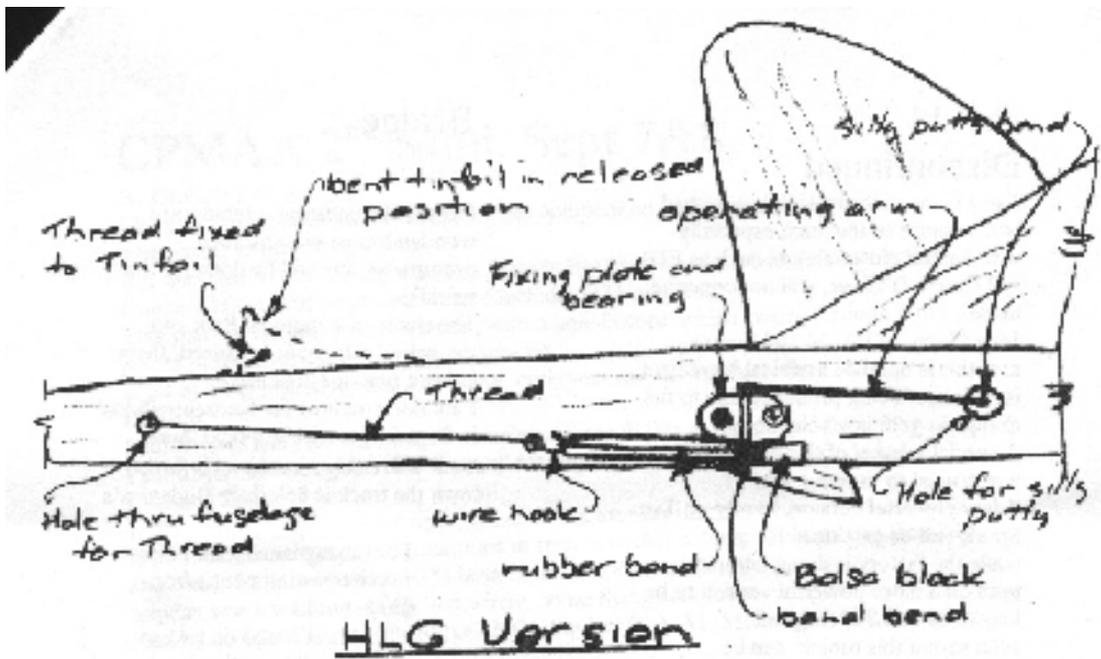
The HLG version (the sketch shows the installation on a swept wing OT model) uses a piece of bent tinfoil on the nose of the model to either cause the model to fly straight or to go into a spiral dive when the silly putty bend pulls out. I install the tinfoil on the side opposite the turn. A piece of thread is attached to the front of the tinfoil to pull it tight into the fuselage and goes through a hole in the fuselage and then back to a small hook for attaching to the band arm of the wire with a small rubber band. The silly putty is installed in another small hole in the fuselage at the other end of the operating wire. Both holes should be sealed with dope or CA glue on the inside to prevent binding. A small block of balsa approx. 1/8" thick is glued at the arm band to ensure the rubber band is placed at the same distance out from the bearing each time. The band needs to be at least this distance out from the bearing to ensure consistent operation.

The Rubber model version (the sketch shows a diamond fuselage model installation) operates in the reverse direction. The rubber band that would be burned through by the fuse is attached instead to the band bend of the operating wire and applies the force needed to pull the other end out of the silly putty. The putty in this case is placed in a small tube mounted on the fuselage. A small block of balsa is used at the bearing as described above.

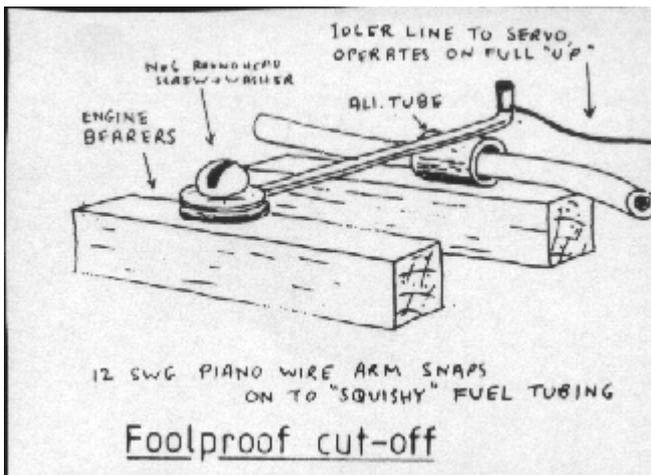
The time to operate is varied by the distance between the bearing point and the putty bend. Reduced times for testing can be obtained by moving the rubber band further out on the band arm, which applies more force and pulls the arm through the putty quicker.

Details of the bent wire are: Diameter 1 mm, both end bends 15mm, Bearing length 8 mm, Operating length – 90mm for approx. 3 ½ minutes, 60mm for approx. 2 1/2 minutes, 40 mm for approx. 1 1/2 minutes.

I have found the most convenient launch procedure with the catapult model is to set up the timer including the rubber band and hold the operating arm against the fuselage until ready to launch. With the rubber version I have found that it is best to set up the timer without the rubber band before winding. The rubber band is then fitted immediately prior to launch. With a simple system like this it will be obvious that the time to operate will vary with the materials used and the tension applied to the small rubber band. Some testing will be necessary to confirm operating times. Repeatability is obviously not as good as a clockwork timer and is probably lower than a fuse DT. However I see its big advantage is that it always seems to work even though the operating time may vary.



Rubber Model Version



A couple of useful cutoff ideas. The one on the left is from the Model Builder via SAM 35 yearbook No 2.. That on the right is via SAM 1 Exhibits newsletter and is a design by Joe Clawson from East Florida.

