

The Australian Thermaleer

Information, Competition Results and Articles for Australian SAM Chapters and Groups

Issue No. 6

January - March, 2021.



270
WESTERN AUSTRALIA



SAM 1993



SAM 84 Queensland



NOW

THEN

2021 216 passengers 7,200klm @ 858kph

1931 24-38 passengers 800klm @ 160kph

SAM 600 Australia - Victorian Old Timers Association Inc. Committee

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"The Thermaleer" is the official newsletter of SAM 600 of Australia, Victorian R/C Old Timers Association (SAM600) Inc.

SAM 600 PRESIDENT'S REPORT
Steve Gullock



Hi People. Hope you all got many models fixed and built during Covid. Next our first event for SAM 600 is at Brewster with hopefully good weather.

We will be trying the 1300mah battery pack models for Old Timer Electric Texaco. Models up to 1942 are eligible for this trial Texaco event. I hope this event will get more modellers to fly at events with height limiting systems of any sort so we can learn what height models are flying at and see how they look.

The reason for trying this type of Electric Texaco is that many modellers complain that the existing method of choosing an appropriate battery for a model is confusing and this is an attempt to simplify the choice and get un-flown models e.g. 75% Bombers and standard Playboys back in the air.

Regarding 1/2A, diesel engines should be allowed with a limited fuel amount. Any engine up to 1cc. to be used. Lots of engines of this type are in this Country that could be used. Similar to Cox engines they would be filled before take off. Throttles to be allowed, the speed of engine run would be up to the pilot.

P.S. The Brewster competition was cancelled because of the weather so Cohuna is our next chance to get a fly. *****Because there are no contest reports, results or photos in this issue of TAT we are featuring some nostalgia instead. Steve.**

Sam 600 Secretary/Treasurer Report.

From Don Grant.



Slow postage services and the cancellation of the Brewster event is causing problems with getting in the voting sheets from our members with their decisions for the proposed MAAA Oldtimer rule changes.

In any case the response from our members, despite my requests, has generally been poor.

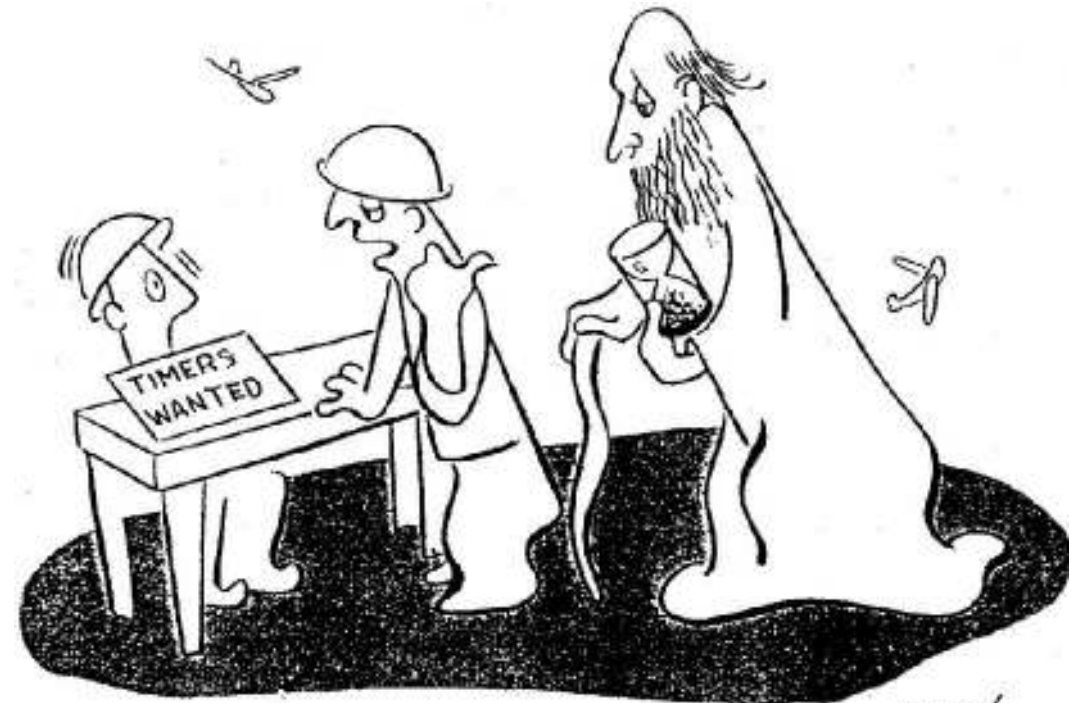
I had been hoping to get some replies at the Brewster competition but of course, due to the cancellation of this competition, this didn't happen.

I am still in Ballarat (20/3) and it is raining heavily at the moment. I will post what voting results I have when I get home and hope they get there on time.

I suspect that whatever the National result is we may just ignore what we don't agree with for our own competitions and comply when attending interstate competitions.

Hoping that members haven't been too badly affected by all the rain.

Stay safe,
Don Grant.



"He wants to know whether we still need help." Gerlach

SAM 600 ANNUAL GENERAL MEETING

Cohuna 9th January, 2021.

Report from Brian Laughton.

This is just a brief report for those that weren't able to attend at Cohuna on the 9th January, 2021, for the belated 2020 SAM 600 Annual General Meeting.

Unfortunately we have not been able to get together or fly during 2020 due to the Corona virus.

COMMITTEE CHANGES. The Committee has had a major change. Kevin Fryer retired after seventeen years as President as he justifiably wanted a rest. Brian Dowie also retired as Secretary/Treasurer, for health reasons, after an even longer period in the positions than Kevin.

It has been tough on both of these men over the past two years with all the work they have put in trying to get us what we wanted re the CASA/height limit bull---t, unfortunately to no avail. Maybe a lesson we should learn is to fly our toy aeroplanes within the law, and we should all thank Kevin and Brian for all the good, hard work they have done, solely with the aim of helping us to enjoy our hobby.

The new Committee comprises of Steve Gullock, President, Don Grant Secretary/Treasurer, and Robert Taylor, Contest Director. Ted Arnup is our new Committee Member. All other positions remain unchanged from last year.

COMPETITIONS. The main topic discussed was how long it takes nowadays to fly each comp when we are flying both I/C and Electric comps at the same time. So it was decided to trial a new format for $\frac{1}{2}$ A Texaco.

The comp will be flown with Electric and I/C at the same time. The C/D will nominate a time for the event, say 2 hours. Within that time the comp will finish. You will not be allowed to put a model in the air 15 minutes before the end of the comp, so you have $1\frac{3}{4}$ hours (in the case of a 2 hour comp) to get in at least 2 flights but if you are in the air past the 2 hours that's OK. **There will not be a fly-off.** The flyer with the longest single flight in each category will be deemed the winner.

So there will be no need to be hanging about waiting for the other class to have their fly-off before you can have yours. We will also know that the comp will finish at or about the designated time.

These changes were voted on and accepted by the members present.

OTHER MATTERS. The other things that were discussed were battery size and wing area for Electric Texaco, but it was pointed out that the 2nd page of the Electric Texaco rules gives the battery size permitted for various wing areas.

Also discussed was fuel allocations, engine runs and maximum flight times to be trialled during the year, to give us a safety margin on heights.

That's about it.

Brian Laughton.

**DID ANYONE PAY \$500.00 FOR THIS LOT?**

VOTA SAM 600 NEWSLETTER NO. 20 - JULY 1992

MODELLING ITEMS FOR SALE

All items are for individual sale but the first person to give me \$500.00 saves over \$150.00 and takes the lot.
Call Warwick Bates on 700-1214.

ENGINES

D.S.60 FSR Brand new in box. Never used	\$150.00
D.S.40 FSR needs' new front housing	\$ 40.00
D.S.CZ 11 1/2A Pylon motor new, no muffler	\$ 60.00
D.S.10 V.G.C. plus spare motor for parts	\$ 30.00
ENYA 60 F/S V.G.C.	\$ 60.00

C/L PLANES

43" Span C/L Stunter / Trainer c/w FOX 35 near new Motor	\$ 60.00
Junior Nobler damaged kit but buildable 15-25 engines	\$ 20.00

R/C PLANES

1/2 Built O/T Glider comes with plans. 70" Moby Dick	\$ 10.00
1/2 Complete Albatross O/T Power	\$ 15.00
1/2A Texaco Ranger. Fitted with QRC 049 c/w spare engine 2 O'haul kits and 2 Heads	\$ 50.00
Quiet Advancer Glider well used	\$ 20.00

RADIO GEAR

Very Old Futaba set (FP series) 5 Channel 3 servos, receiver, built in charger. May need batteries. Works.	\$ 30.00
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Miscellaneous

DREMEL SAW V.G.C. Flexi Shaft and spare blades. Circular Sander discs	\$ 80.00
Hi Torq Starter	\$ 10.00
Play Smoker Kit. Add smoke to your aerobatics. Includes valves, turbine and instr.	\$ 20.00
3 1/2" Pro Model wheels	\$ 3.00

Assorted Props

Top Flite Super M 8-6 (10)	\$ 5.00
B-4 (10)	\$ 5.00
Royal Nylon 7-4 1/2 , 8-4 1/2 (10 ea)	\$ 5.00



From Trevor Boundy.
 jtboundy@dcsi.net.au

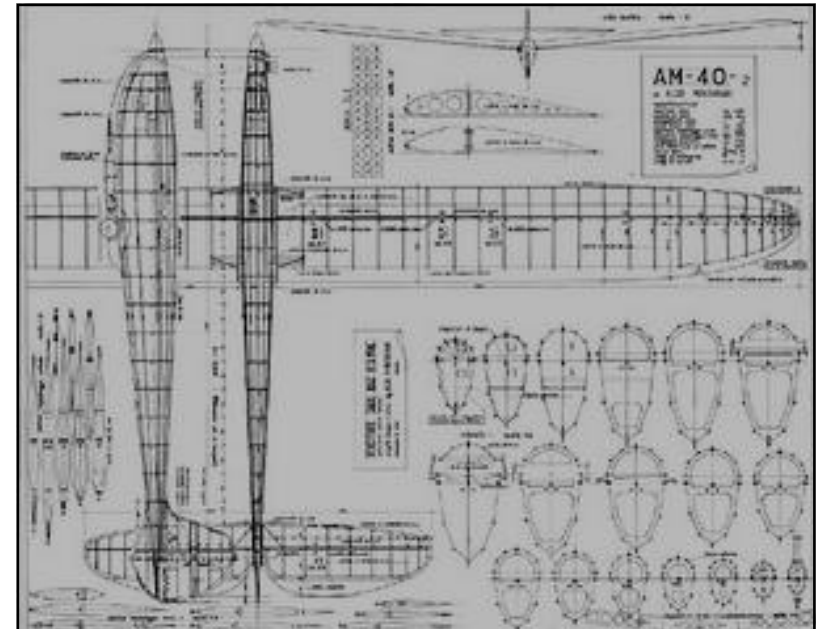
Here is a two picture contribution for TAT.
 It is an AM-40, 3.5m wingspan, 1940, by Aldo Montanari.
 (plan from Outerzone)

The second picture is of my laser cut formers, on a F/G mandrel.
 Kind regards, Trev.

From Outerzone.

About this Plan:

AM 40. Powered glider model.
 Quote: "here is the plan for the ALMO 40 by Aldo Montanari, a 3.50 meters glider that won the Nationals in 1946. In the late 80's Montanari built it again as a glow powered motor-glider as you can see on the plan. Enjoy."



Outerzone PDF Plan: <https://outerzone.co.uk/search/results.asp?keyword=AM-40>
 This is not a full-size plan.



Trevor Boundy takes out the hat trick (1997, 1998, 1999)

Top Gun Award

At the Eastern State Gas Champs, Wangaratta, 1999.
 Photographed here with the Shield and his two year old Grand Daughter,
 Rebecca Sanders.
 The other model is Elbert J Weathers "Westerner".



Former SAM 600 Thermaleer Editor,
 Peter Bennett with Jack Summers, his
 grandson aged 2, and the remains of an
 RC1 after a vertical from over 1,000
 feet. Powered by an OK Super 60.

TOP GUN AWARDS: Eastern States Gas Champs Wangaratta 1999

Senior: Trevor Boundy Junior: Tom Taylor

Past winners were -
 1995 Geoff Potter, 1996 Peter White
 1997 Trevor Boundy, 1998 Trevor Boundy

VOTA SAM 600 NEWSLETTER NO.18 - MARCH 1992

SOME THOUGHTS FROM OUR VICE PRESIDENT - AN OPEN LETTER.

To whom it may concern and the Old Timer Rules Committee.

Some suggestions to keep Old Timer Flying Alive

Point 1 - Some planes are getting too high and exceeding CAO legal height limits by a large margin !

Point 2 - Some planes are perceived as being too loud and annoying!

Point 3 - Some planes (Duration Mainly) are grossly overpowered to the point of self destruction if not flown vertical !!!
 (See notes on Duration in Vic State Champs - Ed.)

To keep height, noise and power within reasonable limits these are my suggestions :-

General The old 225 rule to apply to ALL motors.

Duration 25 seconds engine run for 2 strokes & 4 strokes.
 30 seconds for antique glow.
 35 seconds for antique spark.

Texaco Supplied standard fuel to be administered by "fuellers".
 2 stroke and 4 stroke 3CC/lb
 Antique 4CC/lb
 No 4 stroke spark unless genuine antique.

2CC Two rounds of texaco and duration.
 No circle bonus.

Cox RV Texaco
 Leave as it is.

Old time Glider
 No winches. Hand tow and bungy only.

New event Pure Antique Texaco
 Spark ignition only. December 1942 engine cutoff date. No scaling of designs. 225 rule to apply. 4CC of fuel per pound. Replica motors allowed

All events
 Mufflers compulsory on all motors except antique and if you can fit a muffler to your antique - GREAT!
 Yes Max, Muffler/Exhaust pipes were in use in 1942

If these rules, or some very similar, are not adopted, Old Timer will die or be **BANNED !!!!!**

Peter L. Donovan.



PAST SAM 600 WINNERS. Photos from Graeme Gulbin

Below: 2013, Haddon Field, left Brian Laughton, right Bill Lawson. Background standing Brian Dowie.
Above: 2014, Haddon Field, Ballarat, Left: The late Brian Stebbing and immediate past President Kevin Fryer.

Top Left: 2014, Haddon Field, Ballarat, Left: Don Grant, Right Bill Lawson, in the background Marg Dowie.

Bottom Left: Echuca, Left: Lyn Clifford and Right: Current SAM 600 President Stephen Gullock.





Pictured at the 1999 Eastern States Gas Champs - Don Southwell, Basil Healy and Harold Stevenson. Photo by Gerard Power, Yarrawonga.

A TEXACO
From Allan Laycock



The inaugural running of the first A Texaco event has been flown at the Belconnen Model Aero Club's field at Mitchell in the A.C.T.

The results are a mixed bag in that the original rules appear spot on in that it is a low key easy to fly event, the power of the 2.5 diesels is about right for the models and a cut out appears to be superfluous. Engine run times are about 2 - 2.5 minutes and the models do not get so high as to make them a dot that is hard to see or control.

There were four models at the first contest on a 15 knot cloudy day here in Canberra.

Terry Griffiths - Miss Fortune X (full size) CS 15D (throttle)

Allan Laycock - Shylark (scaled up) CS 15D (no cutout or throttle)

Alex Berkuta - Powerhouse (scaled down) CS 15D (throttle)

Allan Laycock - Centaur (scaled up) Taipan 2.5 diesel (with cutout)

The fuel allocation of 12 ml was sufficient to gain enough height that then required lift to obtain a max. No one did on the day and the best flight was by Alex with about 5min 40sec and was awarded the BMAC O/T Trophy for his efforts.

It is planned to fly again in February at the Goulburn Club as a means of ensuring the completion of their models.

1st December 1997
SAM 83.



**Engine Ramblings,
Mainly Diesels -
by Don Howie.**

Last issue I mentioned talking with Gordon Burford at the home of David Anderson. Gordon had with him the casting for his first diesel he made, a copy of the Sparey 5cc diesel, from the 1946/47 book "Model Diesels". He made three engines, one of which was stolen, and ended up in the USA and was recently returned to Gordon, and along with David Owen is making a repro of his first engines.

Recently saw a series 2, GeeBee 50 diesel in Leo O'Reilly's "Scram" model. The engine was designed in late 1949, sold well in South Australia until the Frog 500 was released mid 1950 in Australia. The first GeeBee diesel was much like the Drone diesel, but this model looked much different, perhaps like a Yulon 30 of 1949, with its square shape. Leo reports it goes very well in his "Scram" '38 Antique model.

Recently flying an AA 1.5cc diesel in my Strato Streak. The engine is made by the members of the engine class in Adelaide. Based on the Series 66 Taipan 1.5cc, it is set up to start easily and run smoothly. It runs much like the 1961 Taipan (that looks like a DC) that is fitted to my Hearn's Hobbies "Observer". The engines are not for sale, you must join the engine class run by Davis Burke and help construct one.

The 2.5 Burford diesels are in great demand at present for the GB event. The plain bearing versions seem easier to obtain, as they were lower priced and sold in greater numbers. Davis Burke has some of the original dies for these engines, and the engine builders are at present making the 64 model that has the head and cylinder held by 4 long screws (Oliver fashion). The screw together models tend to come loose if you run them too hard. Alan Coppock solves this problem with a screw through the crankcase, slightly into the cylinder. I tend to keep old engines as original as possible and avoid any external modifications. The replica engines are only for the engine class members and not for sale.

Other Taipan engine being used at present is the Tyro 1.9cc diesel that is suitable for the 2cc Duration

event. The crankshaft inlet can be modified to give better breathing and higher revs. This event is hardly ever run in South Australia, the Gordon Burford event I think will replace it in the future.

An interesting diesel being flown by the writer is the Bus 1.1 replica of Gustav Busek's 1947 to 1949 engine. Made in the Czech Republic, it is very well made and goes very well for a long stroke 1.1 cc diesel. The engine has a very small rotary intake, with a needle setting no more than 3/4 turns open. Two long screws hold the cylinder together, these should be kept tight to avoid the cylinder rotating whilst running. The secret of the engines performance is the considerable amount of sub-piston induction. The "Quaker Flash" was under-powered with the Irvine .75cc; now re-engined with the Bus 1.1 cc using a cut down 8x4 nylon prop, it goes like a rocket.



The other great engine from the Czech Republic is the MP Jet Classic 0.6cc diesel (shown above). The main criticism is the very small 3mm shaft thread. Stan Gurr made up a spinner nut for the engine, "Model Flight" have Taipan 7x4 clear nylon props available, that should avoid the shaft being broken. The metal tank should be clear plastic, I notice "Engines Unlimited" in the UK have some available for £1.50.

It is rather a pity that the English magazine "Aeromodeller" is no longer available through newsagents. Recently I caught up with some of the latest "Aeromodeller" issues. The other English magazine I enjoy is "Aviation Modeller International", I have now started sending contributions to this magazine as they cover a wide variety of model aviation interests.

January/February 1999

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Miss Arpiem & an Amco Diesel

(The ongoing saga of a Miss Arpiem, an AMCO diesel and several attempts to fly '38 Antique, by revered TOFFE, Barry Barton).

It began innocently enough years ago at Swan Hill where Bill Britcher flew the combination successfully. Len Mostert liked what he saw and decided to go down the same path with the Pond plan of Steve Kowalik's RPM and an Amco repro' by CS. Len finished the fuselage, then abandoned the project. I bought the lot, finished the building and began to try to come to terms with my first diesel experience.

Luckily Warwick Bromby lives close by, so after bolting down the Amco he attempted to indoctrinate me into the mysteries. The attempt was short lived as after only a short run the motor made funny noises had stopped - broken crankpin. Len wheedled another crankshaft from Tony Cincotta and away we went again only to have the same result a short time afterwards. Frustration began to set in amidst much gratuitous advice that the CS Amco was not up to scratch.

A phone call to Leo O'Reilly restored hope, he assured me that he would have the "improved crank" to me in a fortnight, that was 18 months ago!

Next desperate step comes from Geelong where a toolmaker member thought he might be able to get a crankpin fitted, the motor went to him, it came back quickly with a new pin pressed into the web. The motor ran for about 2 minutes before the pin fell out, severely mangling the inside of the cases. By this time I was past frustration and beginning to enter the manic depressive zone.

A new approach was obviously needed, I contacted Paul Lagan in NZ re an original Amco - no luck - I contacted England via a relative who ferreted out an original Amco at great cost - I bought it and buoyed up with new hope started out once more to learn diesels. The package did finally fly one glorious moment at TOFFE's, not well, but fly it did. Shortly afterwards the motor began to sicken without

apparent cause. Wozza to the rescue again, he spotted a crack in the front prop shaft housing, machined up a snug sleeve and shrank it on. Hereafter some short time of bench success as the air around Kardella was filled with diesel exhaust but the euphoria was short lived. The motor began to spit out metal coloured slurry, further examination brought to light extensive cracking right round the original Amco cases - this was the end, I was on the verge of burning the whole lot and stamping on the ashes.

It is at times like these that the human spirit occasionally surprises us. The entire project had cost as much as three other models and I was feeling like a marathon runner who collapses in sight of the finishing line but some stubborn nastiness made me search around for a solution.

We are fortunate to have Robin Hiern in the modelling fraternity; vastly experienced, obliging and obviously gifted in the ways of small motors. I took my basket case of bits to him, not expecting much but still with a flicker of hope that here was some one who could rescue the Amco.

He fitted the English crank to the CS cases, cleaned up the internal damage and made the motor entire. It now goes, and with further R&D on the entire package may yet fly in a '38 Antique event.

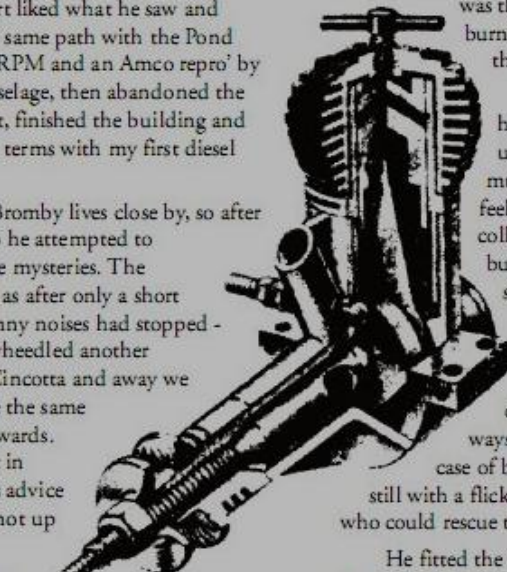
An update of the saga took place at Wangaratta, here with the assistance of "The Master of the Oily Fingers", Basil Healy, the Arpiem finally took to the air, not with a great deal of place-getting performance but up it went and down it came in all rounds without the engine spitting out bits.

Chris Lawson's Amco sheared its crank pin at this event, making us begin to cast around for a more reliable power unit.

The SAGA continues, positive contributors were :- Len Mostert, Warwick Bromby, Robin Hiern, Trevor Boundy, Peter Donovan, Kevin Fryor, Graham Sinclair, Tony Cincotta, Jack Goodall & Basil Healy.

Nice to note that such a willing, constructive, advisory body of men exists in aeromodelling.

BB



VOTA SAM 600 NEWSLETTER NO.18 - MARCH 1992

Hi ! You fellow Old-Timers,

Our worthy President, G.D.T. Brown, a friend of mine for around 44 to 45 years, has asked me to do a bit of an article for our VOTA newsletter but I'm damned if I know what to write about. So I'll just go into a bit of true nostalgia.

Back in 1955 well known past Aussie controline speed flier, Mal Sharpe, and I took two kids to the 9th Australian Nationals in Queensland. Their first big deal away from home without parents, they marvelled at the wonders of Sydney and King's Cross on the trip up, had a ball at the Nationals, had a ball back in Sydney on the return trip and so forth and Mal and I got a kick out of the fun they had. One we have unfortunately lost track of. The other was our steadfast stalwart member we all know as Trevor Boundy.

Back in 1964 there was a club known as the Stuntmasters. It was a controline club and you were steppin' into fast company to even be a member. Unless you were a National, State or many times local contest winner you were flat out becoming even a member. Our President and I were members and we were running Vintage Stunt Events at least fifteen years before the Yanks latched on to the idea. So how about that!

Also back in the mid 1960's there was two Victorians flying Old Timers before the movement was even started in the U.S.A. viz., Ford Lloyd and myself. Ford flew an occasional Old Timer (free flight) for kicks way back then and I was doing the same thing. Ford concentrated on the smaller jobs, but I, assisted by Brian Douglas of the Echuca Club (he made the wing, I made the rest) was flying a free flight Miss America powered by an Anderson Spitfire ignition 65.

In both instances of controline and free flight there was complete apathy from the V.M.A.A. members. But once the Yanks started it a few years later many many said 'How about this! What a caper.' and got on to it and things went rolling from there. Especially as propo radio had come on the scene by the late 1960's.

Australia can hold it's head high on the Old Timer scene. It just bugs me that so much went unrecorded and not acknowledged. The other thing that bugs me and the great John Pond warned me of it years ago. Once the pot hunters and hot shots take over you'll find, as we did in the U.S.A., they'll stuff it all up. How true.

The main idea in the preamble was to have fun. Are we losing sight of that?

Sincerely,

Life member V.M.A.A. VH-13

Life member: Knox Controline Club.

Life member: SAM (U.S.A.) 375L

S.A.M. 600 (V.O.T.A.) NEWSLETTER No 35 JAN/FEB 1995.

**'38 ANTIQUE POSTAL EVENT
TOPPED BY VICTORIA**

Interstate entries have caused an upset in the Lithgow '38 Antique results published in the last Duration Times.

Victorians Warwick Bromby and Len Mostert of SAM 600 made it a one/two, with Paul Baartz of WA coming in fourth.

Only Basil Healy managed to retain NSW honour with third.

Perhaps NSW was lucky that 40 knot winds kept the Queenslanders grounded. Vintagents' Col Summers reports that a Buccaneer, Scorpion and RC1 were on the field but were unable to fly, and that three other contestants saw the weather and stayed in bed!

Interestingly, Warwick Bromby's winning engine, an OK Super 60, is a type that would usually be voted least likely to succeed. This suggests the handicap system is giving everything and everybody a chance, which is the whole point of '38.

"Dear Dave

Please find enclosed score sheets for your '38 Antique Postal Event.

We ran a fly-in at Lang Lang (Vic) yesterday (30.10) and two of us who have '38 Antique planes recorded scores.

There are a few other sparkies around in SAM 600 but as yet are not set up in models which qualify for the event. Hopefully '38 Antique will increase in popularity as time goes on.

Looking forward to seeing the results of the '38 Antique Postal.

Warwick Bromby
President SAM 600 (VOTA)"

"Dear Dave

Herewith my times for the '38 Antique Postal Event.

The flying conditions were ideal, being fine with a warm easterly breeze. However the Ohlsson chose to exhibit erratic behaviour on the day and thus flight times were not as good as I had hoped however I managed to coax it into at least running out the full 88secs motor run on the last flight and this was gratifying in itself. I flew my RC1, with the Ohlsson 60 (teardrop exhaust), which weight 3lb 14ozs.

Flight times were 395 secs, 440 secs and 405 secs giving a total of 1240.

Many thanks to you and Alan for organising this event, and hopefully we'll catch up soon if not at the Nats.

Regards
Paul Baartz"

Final Results '38 Antique Postal

Name	Model	Engine	Score
Warwick Bromby (Vic)	Cloud Cruiser	OK Super .60	1756
Len Mostert (Vic)	Flamingo	Anderson Spitfire .65	1329
Basil Healy (NSW)	PB2	O&R .60	1271
Paul Baartz (WA)	RC1	Ohlsson .60	1240
Peter Werczyk (NSW)	MG2	Edco Sky Devil	1159
Ian Avery (NSW)	Buccaneer	O&R .60	979
Luke Werczyk (NSW)	MG2	Edco Sky Devil	908
Dave Brown (NSW)	Powerhouse	Cyclone .65	891
Alan Wooding (NSW)	Miss America	Orwick .64	719
Albert Fisher (NSW)	RC1	Super Cyclone	486

A Torpedo by Geoff Potter for '38 Antique at the 2016 Canowindra SAM Champs. Unfortunately did not fly due to radio problems.



REPORT ON O/T WEEKEND 15/16TH OCTOBER, 1994 WODONGA

The Saturday ended up being a great day of flying and "yarning". Two (2) one kilogram trout were presented by a choice of Club members to:

Barry Barton Winter Special
Mark Collins Super Quaker

Barry Barton had the audacity to question the decision of the "Deciders", and asked why did he get the fish. Because!!

We ate Barry's on Saturday night at a BBQ, nevertheless we were lucky to get a look-in since Barry became very protective. Mark Collins ate his with his father on Sunday evening at Chiltern. (The local vine has it that he was seen trying to strap an O49 to it).

The Sunday competition started at 10.am. and the day was even hotter than the Saturday. Peter Donovan started the day with breakfast at the Golden Arches and the Wodonga Flea Market. The first group to take to the air were the 1/2 A Models. We set 15 minute "Max's" with two rounds in order that we get through the schedule. Warwick B. took out the event and was heard to comment that the dry heat was causing the Gippsland Mildrew to flake-off his person. Special thanks has to go to Mark Collins for the skill-display he put on during his first flight. Stall turns, outside loops, knife-edge, etc... in order to gain height. The sports fliers in our Club immediately took note and VOTA should have an increase in new members soon.

Texaco was run along the same lines as 1/2 A, but with one rule change. In order that we make up numbers, the "year" was relaxed to 1994. The Western Trainer with an OS 90 was thought to have potential. In fact, this rule change brought home how skillful and specialised this event is. Mark Collins and Peter Donovan had an interesting time in the fly-off, with Mark pipping Peter. Too many McBurgers, Peter?

The Duration contest was won by Mark Collins ahead of Peter Donovan and Norm Campbell. Fred Chigwidden has still to replace the divot he left. Unfortunately Don C "tripped" on landing.

The weekend proved to be a success from our Club's point of view. An interest has been started in our Club particularly in 1/2 A. We did not have any Sydney/Canberra reps but they both rang with apologies. Allan Laycock (SAM 84) and Alan Wooding (SAM 1788) both want a report since the concept of having a Border Venue is promising, and we hope to build upon this. The flyers who turned up will hopefully add weight to the fact that our field is adequate, the Club is held together with enthusiasm and we are keen to have a good time. The weekend was a "taster" and hopefully the good news will spread.

We must thank our sponsors namely:

Old Timer Aircraft - Ingleburn, NSW
(66% Playboy and Buzzard Bombshell Kits)

Albury Toy Kindom - Albury, NSW
(Trenton Terror Kit)

Col Taylor Models - The Rock, NSW
(Playboy Kit)

Elite Line Models - Melbourne, Victoria
(Vouchers and Fuel)

Hume Weir Trout Farm
(Two x 1kg Trout)

Mery Buckmaster - Benalla, Vic
(Glossaries of Aeromodelling)

Also, thanks to Warwick B. for C.D.ing.

Regards,

R.J. Woodhouse

RAY WOODHOUSE - TREASURER

SWAN HILL RESULTS by John Whittaker

EASTER 1995 & POSTAL EVENTS

STANDARD DURATION (11 Entries) 2in fly-off

1. M. Collins	87.5% Cumulus	K&B 40	1750
2. B. Britcher	85% Bomber	OS 40	1742
3. I. White	Anderson Pylon	Webra 40	1388
4. L. O'Reilly	Kerwap	K&B 40	1383
5. F. Chigwidden	105% Playboy	K&B 40	1380
6. P. Donovan	Playboy Cabin	OS 40	1350
7. J. Kearton	85% Bomber	K&B 40	1345
8. R. Brown	Folly 2	OS 40	1290
9. G. Hall	100% Playboy	Webra 40	1089
10. P. White	105% Playboy	OS 40	1071
11. C. Lawson	88% Tabi Hornet	K&B 40	891

NOSTALGIA (8 Entries) 2 in fly-off

1. R. Brown	Civvy Boy	Super Tig. 51	1770
2. L. O'Reilly	Hyphen	Enya 40TV	1758
3. D. Howie	Hyphen	OS 40	991
4. B. Britcher	Hyphen	K&B 40	920
5. P. Donovan	120% Crescendo	Enya 29	923
6. J. Kearton	Tototi	Super Tig. 60	923

2CC (14 Entries) 2 in fly-off

1. G. Sinclair	75% Dallaire	OS CZ11	1206
2. L. Mostert	70% Playboy	OS CZ11	1143
3. B. Britcher	Strato Streak	S.C. 12	861
4. R. Brown	Polly	Enya CX11	792
5. S. Mostert	Kerwap	OS 10 FP	728
6. I. Promnitz	66% Playboy	OS CZ11	676
7. L. O'Reilly	Bowden Contest	Enya CX11	673
8. D. Cameron	70% Playboy	ASP 12	548
9. K. Lawson	MG2	OS CZ11	447
10. G. Hall	Coronet	OS CZ11PS	421
11. G. Mitchell	54" Spook	OS CZ11	401
12. C. Lawson	66% Playboy	OS CZ11	340
13. N. Campbell	50% Dallaire	OS CZ11	288
14. A. Laycock	Megow Ranger	Enya CX11	DNF

DURATION (20 Contestants) No fly-off

1. S. Boundy	103% Sup. Quaker	Saito 65	1827
2. R. Brown	Gberg Sailplane	Fox Quikie 500	1655
3. L. O'Reilly	Kerwap	S.T. Quikie 40	1601
4. M. Collins	87.5% Cumulus	McCoy 60	1588
5. G. Sinclair	75% Dallaire	Irvine 36	1395
6. B. Britcher	Kerwap	Dub Jet 40	1320
7. S. Mostert	110% Playboy	Rossi 45	1298
8. R. Spurnier	77% Bomber	Enya 53 4/S	1256
9. J. Kearton	85% Bomber	Sup. Tig. 40	1171
10. L. Mostert	105% Playboy	Rossi 40	1125
11. R. Adamson	77% Bomber	Enya 49	1051
12. I. Promnitz	105% Playboy	Rossi 40	1022
13. P. White	105% Playboy	OS 61 4/S	980
14. D. Brown	Enling	Saito 65	930
15. M. Robinson	Playboy Cabin	McCoy 60	920
16. G. Mitchell	105% Playboy	Enya 53 4/S	774
17. J. Whittaker	Miss America	OS 61 4/S	745
18. G. Hall	Hayseed	Saito 65	708
19. N. Campbell	Super Quaker	Hornet 60 Spark	485
20. C. Lawson	Playboy	McCoy 60	293
21. T. Boundy	Thermaler	Super Cyc. 60 Spark	8

Bad weather on Easter Sunday forced the contest to be abandoned, so it was decided that the rest of the competition would be held as postal events. The following are the results of these postal events. Many thanks to Alan Laycock for compiling the results from South Australia.

1/2A TEXACO (10 Contestants) 5 in fly off

It is a shame that the contest was blown out at Swan Hill, as we initially had a SAM 600 record of 23 starters for this event. It would have been truly something great to see. (and hear!) Maybe next year!!!!

1. W. Bromby	Polly	2482
2. W. Britcher	Playboy Cabin	2285

3. L. Mostert	Anderson Pylon	2019
4. G. Sinclair	50% Dallaire	1910
5. D. Howie	Miss Fortunex	1613
6. R. Spurnier	Playboy Cabin	1200
7. D. Cameron	Coronet	1163
7. R. Brown	???????????	1163
8. R. Adamson	77% Bomber	1145
9. P. Donovan	Atomizer	212
10. K. Stringer	???????????	DNF

TEXACO (17 Contestants) 4 in fly-off

As with 1/2A, we again had a record No. of 28 entries at Swan Hill. However, it was still great to see 18 people compete in the postal. It must have been the incentive of a Thermic 100" vintage glider kit as 1st prize!

1. G. Sinclair	MG2	Irvine 40 Diesel	4608
2. J. Kearton	Bomber	Enya 53 4/S Glow	3877
3. D. Cameron	Bomber	OS 61 4/S Glow	3716
4. B. Britcher	Bomber	OS 61 4/S Glow	3162
5. L. O'Reilly	Bomber	Enya 53 4/S Glow	2700
6. L. Mostert	Bomber	OS 60 Q/R 4/S Glow	2502
7. P. Donovan	Bomber	Enya 60 4/S Glow	2560
8. R. Spurnier	Bomber	???????????	2592
9. W. Bromby	Cloud Cruiser	OK Sup. 60 Spark	2455
10. D. Brown	75% Dallaire	OS 48 Surpass	2327
11. K. Stringer	Cumulus	???????????	2592
12. D. Howie	75% Dallaire	OS 26 4/S	2107
13. R. Adamson	Bomber	???????????	2040
14. I. McLeay	77% Dallaire	???????????	1977
15. S. Mostert	90% Rod. Bkr.	OS 40 4/S Glow	1963
16. R. Brown	Anderson Pylon	Enya 60 4/S Glow	1813
17. I. White	Folly 2	???????????	1500
17. I. Promnitz	Bomber	???????????	1500

My apologies to those statisticians out there for the lack of some engine information, however, some contestants did not return their official score sheets. The same applies for two of the models in 1/2A.

***3B ANTIQUE** (5 Contestants) No fly-off required

The initial No. of 12 entries at Swan Hill was excellent. This event is growing in popularity very fast indeed. There were at least 4 other modelers I spoke to at Swan Hill that were either building a model or had a sparkie engine on order.

1. W. Bromby	Cloud Cruiser	OK Sup. 60 Spark	2834
2. R. Brown	Mercury	Rocket 46 Spark	1542
3. L. Mostert	Flamingo	Anderson 65 Spark	1503
4. D. Howie	Miss Fortunex	Elfin 2 49 Diesel	1488
5. B. Britcher	Polly	OS K6 Spark	1113

LEO O'REILLY Pty. Ltd. & MODEL ENGINES (AUST)

Our sincerest thanks to Leo O'Reilly & Tony Farnon of Model Engines for their unbelievable & open generosity regarding sponsorship of this event. Jointly, they supplied all the trophies at no cost whatsoever to SAM 600. These would also have to be the best trophies I have ever seen. They were all in the form of a wall plaque, onyx black plate, with silver engraving (featuring an engraved antique aircraft) mounted on a stained timber back plate. (I wished I had won one!) They also supplied prizes from Thermic Glider, Goldberg Sailplane, Flying Quaker, Bomber, Ranger & Dallaire kits, Fuzzy Icons, Power Panels, Electric Starters & Servos down to Cyno, Glow Clips & Dome Nuts to a total approx. retail value of \$1500, to SAM 600 at less than 2/3 this cost!

Please support these people when buying your modelling supplies. It is in your best interests to do so, as they are supporting you by helping to make our premier Old Timer event at Swan Hill grow into the biggest, best & most enjoyable Old Timer contest of the year.

Thanks also go to Margaret Brown of Ray White Real Estate 20 Langhorne St. Dandenong, for donating a swag of clipboards and pens to Vota for this & future events.

We had a total of 31 contestants this year compared to 29 last year. Not bad, considering 5 people from last year who wanted to attend, could not for either business or financial reasons. Help get next year's entry level over 40. BE THERE!



**DURATION
TIMES**

Duration Times is the official Bulletin of SAM 1788
SOCIETY of ANTIQUE MODELLERS of AUSTRALIA Inc.
 SAM 1788 EXECUTIVE 2020-2021

President:	Peter van de Waterbeemd	35 Cosham Close, Eden, NSW 2551.	02 6496 4769.
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Committee:	Jim Rae 02 6495 3530. Basil Hedy 02 6651 6563. Anthony Vicory 0458 723 073.		

Email for The Australian Thermaleer - waterbee@bigpond.com



SAM1788 President's Report.

The new year is now well underway. We had a very well attended Competition at Orange, the "Alan Brown Memorial Shield", especially when considering the weather forecast for the weekend. In spite of fog on Saturday morning and strong winds on Sunday morning, all events were run with limited damage to models, although one of the fly-aways

was still missing at last report. As always, we were very well looked after by our hosts, the Orange Model Aircraft Club.

Work is well in hand for the 39th Championships to be held over Easter at Bogwood, Canowindra. There is some concern that the recent heavy rains may have taken some toll on the field, but I am confident we will be able to proceed and run all the events. However, wet weather gear and gum boots may be required.

We have planned a number of events for the remainder of the year, and these can be seen in the SAM 1788 Competition Calendar. The next competition after the Championships is the New England Gas Championships hosted by the Tamworth club on June 12 and 13

The voting for the 21 rule change proposals to the MAAA Section 5 Rules will most likely be finished by the time this is read as the voting closes on 31 March. The results will be collated, and members should know the final voting results in a month or so.

I look forward to seeing you all at Bogwood.
 Keep safe.
 Peter van de Waterbeemd
 President



FOR SALE	Ignition coil assemblies with transistor - ready to go. \$70	FOR SALE
	Peter Scott	
	(02) 9624 1262. qualmag@optusnet.com.au	

THE NEW ENGLAND GAS CHAMPS - TAMWORTH

T.A.R.M.A.C. FLYING FIELD, OXLEY HIGHWAY, SOMERTON

12 and 13 JUNE 2021



Saturday 9am Gordon Burford Event
 then R/C Std. Duration followed by R/C Duration
 Sunday 9am Cabin Scramble, then 1/2A Texaco
 followed by R/C Texaco

Get together in Tamworth on Saturday Night.
 On field accommodation. Toilets but no showers
 Information: Garry Whitten 0428 620 358 or Neil Jewel 02 6760 6257

HEIGHT INDICATORS

Harry Sokol's height indicator, as shown in The Australian Thermaleer #4, has been working reliably in my models for some time now.

Units are now available with upgrades incorporated.

So, if you would like to know what height you are at, with an audible "not to exceed height" warning, at a very reasonable price, I would recommend that you contact Harry on telephone (03) 9531 2274 or at email hgsokol@4dfx.com.au

Peter Scott.

Attention: July 7th-14th West Wyalong 2021

West Wyalong National Championships

PUT THIS IN YOUR DIARY

All MAAA Section 5 Old Timer Events will be run
 plus Cabin Scramble.

Any enquiries: Peter Scott (02) 96241262.



SAM1788 Competition Calendar

2021



31 March
to 5 April

SAM 1788 39th Championships - Canowindra

Events:

All 9 MAAA Old Timer Events
plus Cabin Scramble and Control Line.

Contact Person: Peter van de Waterbeemd 0412 632 470
See Official Program for details

June
12-13

New England Gas Championships - Tamworth

Events:

Saturday: Gordon Burford, Standard Duration, Duration
Sunday: Cabin Scramble, 1/2A Texaco, Texaco

Contact Person: Gary Whitten 0428 620 358

July
7-14

Nationals - West Wyalong

Events:

All 9 MAAA Old Timer Events plus other MAAA
modelling disciplines

Contact Person: Peter Scott 02 9624 1262
See Official Program for details

August
27-29

Cowra Oily Hand 2021 - Cowra

Events: ****Not Confirmed****

Various events plus SAM1788 Cabin Scramble

Contact Person: Andy Lockett 02 63423054

September
3-5

Coota Cup Old Timer Weekend - Cootamundra

Events:

Friday pm: Old Timer Glider
Saturday: Gordon Burford, Antique '38, Duration
Sunday: Cabin Scramble, 1/2A Texaco, Texaco

Contact Person: Peter Scott 02 9624 1262

November
13-14

Golden West Old Timer Weekend - Parkes

Events:

Saturday: 2cc Duration, Gordon Burford, Duration
Sunday: Cabin Scramble, 1/2A Texaco, Texaco

Contact Person: Paul Farthing 0427 640 264

THE MODEL BUILDER

TAIL SPINS



Pilot—What is the most important part of an airplane?

Student—The nut that holds the joy stick.

—W. H. Otto, N. Y. C.

* * *

Figure this one out. A New York paper reports that "the big Dornier flying boat Do-X measures 150 feet from tip to tail. Its wings are 100 feet thick and 15 feet from tip to tip."

* * *

And the New York Sun declared firmly that, at the Cleveland air races, "The airplane carrier Saratoga roared above the field."

* * *

Air Passenger (at busy airport)—Which plane do I take for Boston?

Mechanic—Stand right here and take plane No. 29 when it comes along.

Two hours later, passenger still standing "right here."

Mechanic—What's the trouble?

Passenger—The twenty-seventh plane just came along—I have only two more to wait for.

* * *

War Department bulletins say that a man can fall no faster than 118 miles an hour. That would be good enough for us, but something should be done about it for the benefit of pilots who like to travel fast!

* * *

Poetic Pilot—We are now approaching the lair of the eagle, the home of the swallow—

Airsick Passenger—That's swell. In about a minute I was going to be right at the home of the unswallow!

* * *

Believe It or Not—The report says that the plane came down in open water at the spot where some of the members of Nobile's party were marching.—*New York Herald Tribune.*



Control Line Racing at SAM1788 Championships



Control line Racing at the upcoming Championships will be run on Thursday morning from 9am to 12 noon in its own exclusive time slot.

The classes and engine rules which apply at the Championships are detailed below:

Keil Kraft Phantom: Two Classes:

Class 1 - Side port Diesels up to 2cc as per the current Class 1 rules.

Class 2 - Any production plain bearing Australian or British diesel, up to 1.5cc.

Any plain bearing Taipan/Burford engine up to 1.5cc produced before 31/12/1970.

British Engines: Frog 1.5/1.49cc; Elfin 1.49cc; AM15; ED Hornet, Allbon Javelin; DC Sabre; ME Snipe or any other British engine produced before 1970 and approved by the SAM 1788 committee.

The old Phantom Class 3 and Class 4 were phased out for 2019.

Note that it is a requirement for Phantom models that the engine is securely tethered to the control system with steel wire.

Keil Kraft Champ: Two Classes:

Class 1 - Any Australian or British engine, or replica thereof, up to 0.8cc produced before 31/12/1970. The MP Jet .6cc is included for historical reasons.

Class 2 - Any Australian or British engine, or replica thereof, up to 1.0cc produced before 31/12/1970.

The event rules for all classes are quite simple:

- The control lines are to be not less than 35' in length measured from the front of the handle grip to the centre of the model.
- The model is timed over 12 laps from a standing start.
- Each model has three timed flights with the lowest time to count.
- A competitor may enter more than one model in an event, but a model may not be entered by two or more competitors.
- An entrant may elect to have the model flown by another person.
- The engines in Phantom models are to be securely wired to the control system with steel wire.
- Requirements for control line racing at the Adrian Bryant Field. The events will be flown over the new bitumen hard surface. This surface can be badly degraded by diesel fuel, so it is mandatory that all filling of tanks and starting of diesel engines be over a large cardboard sheet. This sheet must be thick enough to absorb all fuel and spills and large enough to capture all spray and exhaust.



Cabin/Sport Model Scramble Rules

Version 2.1 28/11/2017

Model: Any cabin or semi scale sport model, designed before 1960. e.g. Tomboy, Cardinal etc.

Engine: Any engine up to 1.0 cc or replica thereof produced before 1960. (0.6cc MP Jet diesel engines are also permitted).

Flying: Models are to be launched from the flight line into wind. Model must land in the designated landing area behind the flight line as determined by the contest director. If any part of the model crosses the designated landing area boundaries when landing this will result in a zero flight score. If unsure ask the contest director.

At the end of the competition (usually after 30 minutes) the model **MUST** land in the designated landing area, otherwise a zero flight score.

Pilots must not enter the designated landing area until the model has landed.

Transmitters must remain on the flight line whilst the model is retrieved.

The model must have the engine stopped **BEFORE** returning the model to the flight line.

The engine must be hand started, no electric fingers.

No runners are allowed. Pilot must retrieve the model.

Contestant to arrange a time keeper and pen beforehand.

Time Keeper: Score sheets will be provided.

Minimum flight to count is 30 secs.

Maximum flight is 3 minutes (180 secs).

Flight times are to be written down in minutes and seconds.

Record all flights even if less than 30 seconds in duration.

Most time in the air, over the allotted time, wins.

The length of the contest will be announced on the day but it is usually 30 minutes.

ALAN BROWN MEMORIAL SHIELD ORANGE 13-14 FEBRUARY 2021

*Report from Peter van de Waterbeemd
Results from Dave Brown Photos from Karen Paton*

The Alan Brown Memorial Shield has come and gone but it was a great success. Dave and Karen Paton, George Bishop and I camped on the field on Friday night and experienced a very windy and wet night. The wind certainly rocked the caravan. On Saturday we woke to light rain and a very heavy mist which at times hid the far side of the field from view. By 10am there was a very good collection of old time flyers and their wives in the clubhouse waiting for the flying to start. But it was not to be. To pass the time, a committee meeting was held and when that finished at about 11am there was an improvement in the weather but still with a low cloud/mist ceiling. Lunch was prepared by the members of the Orange Model Aircraft Club and after some more chatting, it was thought that conditions were suitable for flying. The wind had come up a little, which drove the mist away, and this made for some challenging flying, especially when landing. As there were two events to be flown, it was agreed that both events would compromise three rounds with two to count.

First event to be flown **Saturday** afternoon was **Nostalgia**. There were eight entries with a variety of models and engines. Four K&B 40s, two OS 40s, an ST 40 and a Taipan 2.5. The first round saw no maxes, only two maxes in the second round and none in the third. All rounds were flown in strong wind and the results showed. Only one model landed out. There was no fly off.

Second event for the day was **Duration** with ten entries. A mixture of McCoys, two strokes and four strokes and an Orwick 64. A scattering of maxes over three rounds saw two into the fly off, both McCoy 60 powered. Five models landed out during the event! Unfortunately, Jim Rae lost contact with his model and it was last seen heading towards the village of Borenore. It has not been recovered as yet. Sad as it had a McCoy 29 sparkie on board.

Sunday morning started out very windy. Gusts up to 33 km/h. Not good flying weather for the smaller Cabin Scramble and 1/2A models. Peter Scott brought out an indestructible kite which was flown and crashed by many persons. Top Gun was George Bishop who could keep it in the air for quite a long time. By around 11am the wind had dropped sufficiently to fly **Cabin Scramble**. The air, as it came across the brow of a hill near the point of launch, was very turbulent, and made for some interesting hand launches. No models were damaged in the event but it was not for lack of trying.

Lunch followed and by early afternoon **1/2A Texaco** was flown. The biggest field of the competition with eleven entries, all of whom posted a time. Six maxes in the first round, five in the second round and a further max in the third round. Three models landed out in the third round. Seems to be a pattern here. In the second round, Dave Paton's model was hit by a savage gust in the glide phase whilst at great height and this folded the right wing, which unusually, stayed attached. The model spiralled in some 500 metres away and was soon recovered. Same thing happens to Anthony Vicary's model in the third round but as he had minimal control, he was able to crash in the landing area and scored a good time for the flight. Three models in the fly off, but only the winner was able to just score over seven

minutes. A good event in improving conditions.

Last event was **Texaco**. Nine entries, six Bombers, one Flamingo, one Airborne and Basil Healey's new GHQ Sportster. An unusual model but wholly in Basil's style. Five maxes scored in the first round, six in the second round and two in the third. So far four models had landed out. Six models in the fly off with three more models landing out, all these contestants scoring a fourth place. Three models did find the landing area and scored a trophy. This was the best event of the weekend.

Trophies were presented to the winners by Norm Barnes, President of the Orange Model Aircraft Club. The club was thanked for the weekend, the lunches and the facilities, and Norm, especially for his mowing. We have been invited back next year and that date has been set as the second weekend in February 2022.

Peter van de Waterbeemd.



*Above: Mist which delayed flying till after an excellent lunch prepared by Orange Club members.
Below: Jim Rae with his Mercury Teal about to fly. Jim won the Nostalgia event.*



RESULTS
Alan Brown Memorial Shield,
Orange, 13-14 February, 2021.

NOSTALGIA

Jim Rae	Mercury Teal	K&B 40	768
Anthony Vicary	Spacer	OS 40	767
Geoff Potter	Swayback	OS 40	660
Peter Smith	Swayback	K&B 40	629
Peter van de Waterbeemd	Swayback	K&B 40	574
Basil Healey	Sunstreak	K&B 40	477
George Bishop	Zoot Suit	Taipan 2.5	
Peter Scott	Jaded Maid	OS 25	

DURATION

Peter van de Waterbeemd	92% Bomber	McCoy 60	840	564
Peter Condo Smith	Playboy 112%	McCoy 60	840	558
Vince Hagarty	Stardust 70%	Enya 53	804	
Anthony Vicary	Playboy	Rossi 40	711	
Jim Rae	Wasp	McCoy 29	654	
Peter Scott	Playboy 112%	McCoy 60	644	
Garry Whitten	Playboy	Saito 56	613	
George Bishop	Cumulus	Orwick 60	120	

1/2A TEXACO

Jim Rae	Big Old Plane	840	429
Basil Healey	Stardust Spl	840	400
Brad Turner	Bomber 50%	840	351
Vince Hagarty	Megow Chief	827	
Anthony Vicary	Stardust Spl	817	
Sonya Grossmith	Megow Chief	800	
Peter Scott	Lil Diamond	793	
George Bishop	Baby Bird	722	
Garry Whitten	Stardust Spl	681	
Dave Paton	Stardust Spl	420	
Peter van de Waterbeemd	Stardust Spl	142	

TEXACO

Anthony Vicary	Bomber	OS 60 FS	1200	1188
Dave Brown	Flamingo	OR 60	1200	875
Peter van de Waterbeemd	Bomber	Saito 65	1200	833
Peter Condo Smith	Bomber	OS 61 FS	1200	
Garry Whitten	Bomber	OS 62	1200	
Jim Rae	Airborne	OS 61	1200	
Basil Healey	GHQ Sportster	OS 40S	1080	
Vince Hagarty	Bomber	Enya 53 FS	600	
Peter Scott	Bomber	Cunningham 60	593	

CABIN SCRAMBLE

Jim Rae	1221
Peter Condo Smith	1207
Anthony Vicary	1177
Peter van de Waterbeemd	1040
George Bishop	758



Clockwise from top left: 1. Basil Healy, assisted by Dave Paton, preparing his Sunstreak for Nostalgia. 2. Anthony Vicary gets his Spacer ready for Nostalgia. 3. George Bishop readies his Zoot Suit with Taipan 2.5 power. 4. Peter (Condo) Smith starting his Playboy in Duration. 5. Peter van de Waterbeemd with his Swayback for Nostalgia. 6. The group of Nostalgia fliers celebrating after the event.



Above: Garry Whitten (in khaki and brown hat) gets away with his Playboy/Saito 56 Duration model, assisted by Brad Turner. Below: Duration winners, 3rd Vince Hagarty with his 70% Stardust Special/Enya 53 4 stroke model. 1st Peter van de Waterbeemd with his 92% Playboy/McCoy 60, and 2nd Peter Condo Smith with his Playboy/McCoy 60. Nice looking weather but windy.



Above: George Bishop, Top Gun in the friendly Kite flying comp. Below: "Why won't it keep going?" Jim Rae asking the question, Dave Paton assisting. Must have worked as Jim won $\frac{1}{2}$ A Texaco.





*Top Left: Two genuine "Oldtimers" Basil Healy and George Bishop with Basil's ½A Stardust Special.
Above: Sonia Grossmith and Brad Turner with Brad's ½A Lanzo Bomber.
Bottom Left: ½A Texaco ... Gone, going and getting ready to go.
Below: Winners ½A Texaco, 3rd Basil Healy, 1st Jim Rae and 3rd Brad Turner.*





Left: The Texaco flight line. Top Left: Orange MAC's excellent facilities at the flying field. Top Right: Jim Rae's Lanzo Airborne powered by OS61 four stroke. Above: George Bishop's Cumulus powered by Orwick 60 spark and Basil Healy's GHQ Sportster powered with OS40FS behind.



Left: Dave Brown gets away in Texaco with his Flamingo with O&R 60 on spark for power, assisted by Steve White. Top Left: Basil Healy, assisted by George Bishop, checking out his latest model, a GHQ Sportster powered by OS40FS. Top Right: Dave Brown and Steve White with Dave's Flamingo and Jim Rae and Peter (Condo) Smith pondering over Jim's Airborne, both pilots checking their models for Texaco. Above: Texaco Winners, 2nd Dave Brown with Flamingo/O&R 60 spark, 1st Anthony Vicary with Lanzo Bomber/OS61FS and 3rd Peter van de Waterbeemd with Lanzo Bomber/Saito 65FS.

The Ramblings of an Ancient Aeromodeller.

From Basil Healy.

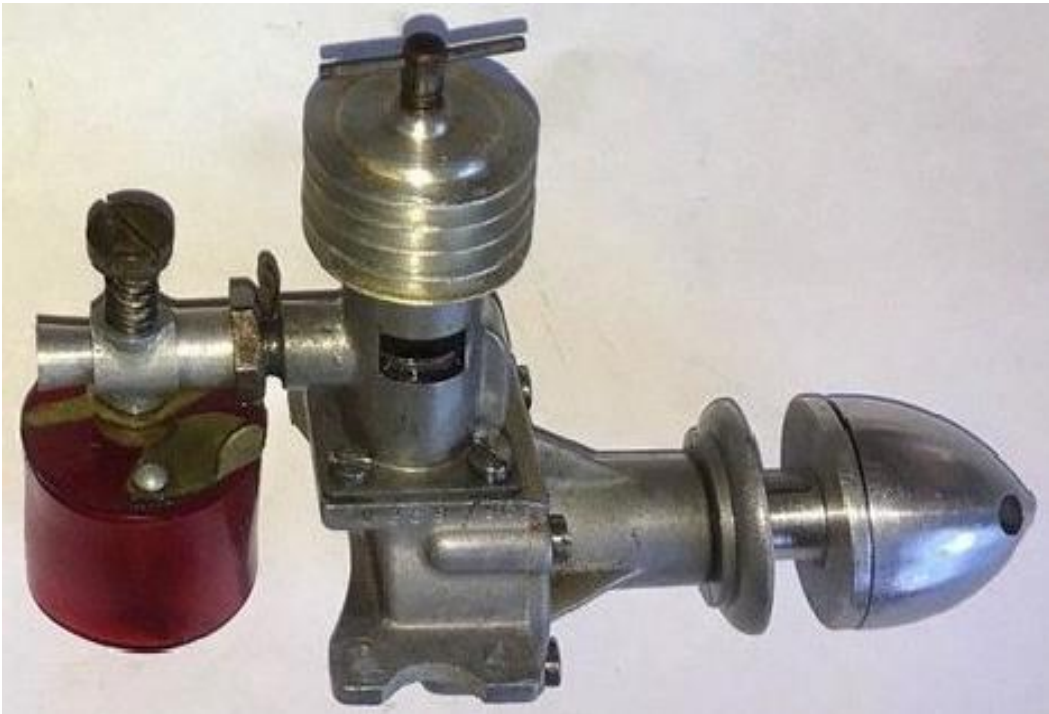
FUEL SYSTEM PROBLEMS.

Following the COVID 19 lockdown I experienced a couple of unusual fuel system problems, one of which had a number of very experienced flyers baffled as well as myself.

The first one was with the E.D. Competition Special in my new Antique model. The engine ran perfectly on its competition flight but refused to run on anything but the starting prime thereafter. Removing the needle valve and attempting to flush the jet out did not seem to work due to the jet being on the opposite side of the venturi tube. I gave up at that point and declared it a workshop job.

Back at home I removed the engine from the model, removed the tank and needle valve and looked straight through the pick-up tube at daylight coming through the jet. No blockage there !!

I then looked into the tank. Here the pick-up tube screws into a boss in the bottom of the tank. This boss has a hole drilled into it from one side level with the bottom of the tank. There, neatly blocking this hole was a sliver of silicone fuel tubing. How this got into the fuel tank is a mystery to me because my fuel filler bottle has a short length of brass tubing for insertion into the filler hole in the top of the tank.



I can only assume that in fitting the brass tubing into the length of silicone tubing attached to the fuel filler bottle had shaved off the sliver of silicone found in the tank.

The second problem was with my K&B 40 in my Nostalgia model. The engine exhibited exactly the same problems as with the E.D. Competition Special when trying to start it for the last round at the recent Orange competition this past February.

Back at home I dismantled the Perry carburettor, cleaned it and did find a small particle of what looked like glue of some kind. After re-assembly the engine refused to run on anything but the starting prime. From this I concluded that the pick-up tube had come unsoldered from the bottom of the tank, then vibrated in sympathy with the engine, setting up metal fatigue at the point where it leaves the tank and eventually cracked at that point.

As the model had been recently refurbished after ten years of good service, I was reluctant to cut holes in it to remove the tank. I opted for a new saddle tank on the side of the fuselage. Further engine runs showed that the problem had not been solved.

One of my friends found another Perry carburettor amongst his odds and ends so I fitted it to my engine. More engine runs showed that the problem still had not been solved. At this stage I was just about ready to scrap the engine but could not find a replacement.

Then while de-fuelling the model I omitted to remove the tube between the muffler and the fuel tank and was surprised to find that I could not get any fuel out of the tank. THEN THE PENNY DROPPED !! The pressure nipple on the muffler was blocked !!

Removing the nipple and cleaning out ten years accumulation of jellified oil and carbon solved all of my problems. The engine now ran just like it had always done in the past. It even started easily with a flinger flick.

As for the stream of small bubbles in the fuel supply, I think that they may have been there for some time because the engine now runs at a much leaner mixture setting than it had done previously.

Basil Healy.



FRIENDS -

We introduce you to the-

E.D. 2 C.C. MARK II and the 2 C.C. COMPETITION SPECIAL DIESEL ENGINES

A British product that has captured the hearts of Aeromodeller, Speed-Boat and Race-Car enthusiasts the world over.

FEATURES: Adjustable compression head, one-piece crankshaft. Runs inverted and in either direction. Aluminum or plastic tanks. Develops considerably more power than its petrol-driven counterpart. Built in cut-out control. Easy finger starting. Every engine guaranteed.

E. D. 2 c.c. MARK II

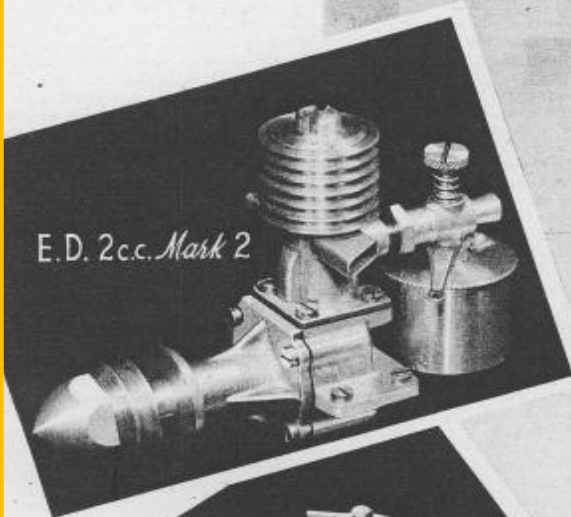
Bore 1/2 in. Stroke 5/8 in. Width 1 3/8 in. Length 4 in. Height 3 in. R.P.M. 8500. Static Thrust 24 ozs. Hole Centres for Engine bearings 9/16 in. x 1 9/16 in.

E. D. 2 c.c. COMPETITION SPECIAL

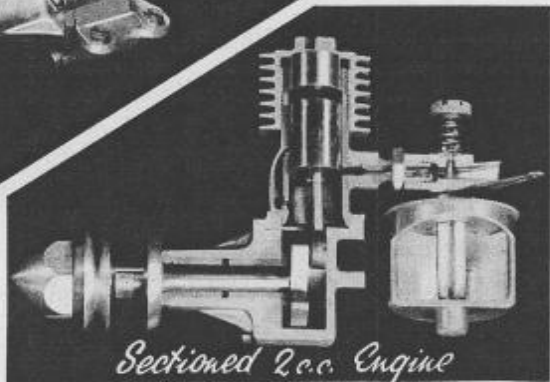
Bore 1/2 in. Stroke 5/8 in. Width 1 3/8 in. Length 4 in. Height 3 in. R.P.M. 8500. Static Thrust 24 ozs. Hole Centres for Engine bearings 9/16 in. x 1 9/16 in.

★
A precision built engineering job throughout. Perfect in every detail. Limits of 0.0001 inch maintained. Indefinite life. Phenomenal performance. Complete spares service.

E.D. 2cc. Mark 2



E.D. 2cc. Competition Special



ELECTRONIC DEVELOPMENTS (SURREY) LTD.

Development Engineers • 18 Villiers Road, Kingston-on-Thames, Surrey, England
SEND ENQUIRIES TO: USONA TRADING COMPANY, INC., 39 Broadway, New York 6, N. Y.

★
No plugs. No coils.
No condensers. No
wires. No trouble.

BENDING BRASS TUBING

by Clay Ramskill, 7 Towers RCC, Arlington, Tx

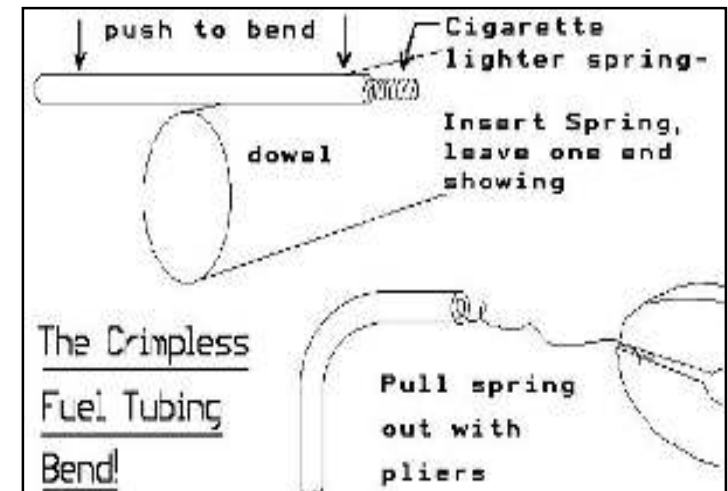
With just about every model we build, we have a new fuel tank, each with its own requirements - most of which involve bending the brass tubing that comes with the tank. We want the tubing to retain its full diameter in the bend to ease the flow of fuel to the engine. There are a number of ways to do this without crimping, narrowing, or breaking the tubing.

And just bending it between your fingers AIN'T one of them! The tubing will invariably narrow dangerously or crimp, after which it is useless. Use one of the below methods, according to your desires and what you have on hand.

- 1) Use a piece of 3/32" inch wire or what ever fits - insert the wire in the tube to the point where you want to bend, and bend slightly at the end of the wire; withdraw the wire about 1/16", and repeat as desired. While this doesn't give you a really smooth bend, it will work for small angles.
- 2) Weed whacker string, the .080 stuff, can be inserted into the tube before bending. As long as the bend isn't too great, the plastic string can be removed.
- 3) A long spring from a cigarette lighter (BIC and several others use these) can be inserted before bending; removal is easy because the spring unwinds as you remove it. This really works! Very tight, over 180 degree bends can be accomplished this way. Note: The BIC springs can also be inserted and LEFT IN flexible tubing when IT tends to narrow or crimp in a tight situation. While the spring in the tubing does restrict flow a little, it will keep the tube open and reasonably free.
- 4) Another system involves taping one end of the tubing, filling with water, taping the water in, and freezing overnight - the ice will keep the tubing from crimping as you bend it.

- 5) A similar suggestion (I haven't tried this!) is to tape the tube filled with SALT before bending. Worth a try!

- 6) Harry Higley makes the BISO bender - this little tool works OK for shallow bends.



MY QUEST TO FIND AND BUILD A VINTAGE GLIDER

From Geoffrey Malone

My name is Geoffrey Malone and I live in Canberra, Australia. I have been a modeler for some 60 years and commenced RC flying about 40 years ago. Some 36 years ago I joined the Society of Antique Modelers (SAM1788) Australian chapter. One of the events flown by SAM is Oldtimer glider. The rules for this event state that this must be a glider pre 1950. I searched and examined many possible gliders that fitted the criteria. Then one day, on a YouTube video I saw John Woodfield slope soaring a beautiful sleek and elegant glider from the cliffs near his home in England. (<https://www.youtube.com/watch?v=4cQ-b8kwBS0>). I immediately decided that this would be the one I would build.

Further research identified this glider as a 1946 Fillon Champion with a wingspan of 111 inches. Fillon was the name of the gentleman that designed and drew the original plan/drawing for this model back in 1946 as a free flight model. Now to find a plan. I discovered that Aeromodeller Magazine in England many, many years ago had featured this glider in an article with a A4 plan. All plans that are featured in the magazine, although the magazine is no longer published, are still available from their plans service. I proceeded to connect to their site and search their plans library and located a full size plan of the Champion glider. I immediately ordered the plan and waited for delivery to me here in Australia.

Finally some weeks later the plans arrived consisting of three full size sheets. I proceeded to take these to my local plans service (Office Works) and had the plans enlarged to 120 inch wing span as this was to be my final construction size. Initial perusal of the plans indicated the following:

- The Fuselage was open oval formers with external longerons.
- All the way around the fuselage to the rear of the main wings was fully sheeted.
- There was no elevator or rudder information as it was designed as free flight model.
- The main wings were swept back tapered, under cambered with curved tips for the last third of their length.
- There was a complex shoulder section as part of the fuselage that the wing joiners slotted into.
- A fixed tow hook was located at the end of a front skid.
- The tailplane was also an under cambered section.

So many things to consider and design to enable this to be a successful radio controlled model. Being a fixed slot in main wing design made it imperative that it had



a full moving elevating operated by internal bell crank and push rod to enable fine trimming of incidence for a good flat glide. I drew in a new stab post for the split point to provide for a hinged rudder that would have a closed loop cable system.

Re-design elements taken care of it was down to the building. I started with the most critical fuselage former being the one containing the slot in wing joiners that I constructed out of 1.8mm aluminium sheet. These had built in dihedral and were located by a three-layer ply sandwich leaving slots in the centre section.

I proceeded to cut out all the other oval fuselage formers including notches to locate the final external longerons. Assembly of these relied on a jig that held the bottom longeron, front skid and nose support section. With all the formers in place and aligned I added the crutch formers that would flow into the main wings.

I then proceeded to sheet back to the rear of the main wing. This was done by soaking balsa sheets in water and a small amount of bleach before folding them around the fuselage, pinning/securing and gluing with a water based glue.

This technique was also used to create all wing tips, stab, rudder and rear skid, all in one piece by laminating eight 1mm layers of balsa around a readymade form before cutting them and gluing them to the frame. The shoulder block and bell crank that would hold the full moving elevator was glued in the stab followed by the fitting of a control push rod. A plastic tube was installed to run the closed loop rudder cables through at a later date. All the longerons were then glued in place. Carried out some final sanding and smoothing of sheeted areas and transition to longerons ready for covering.

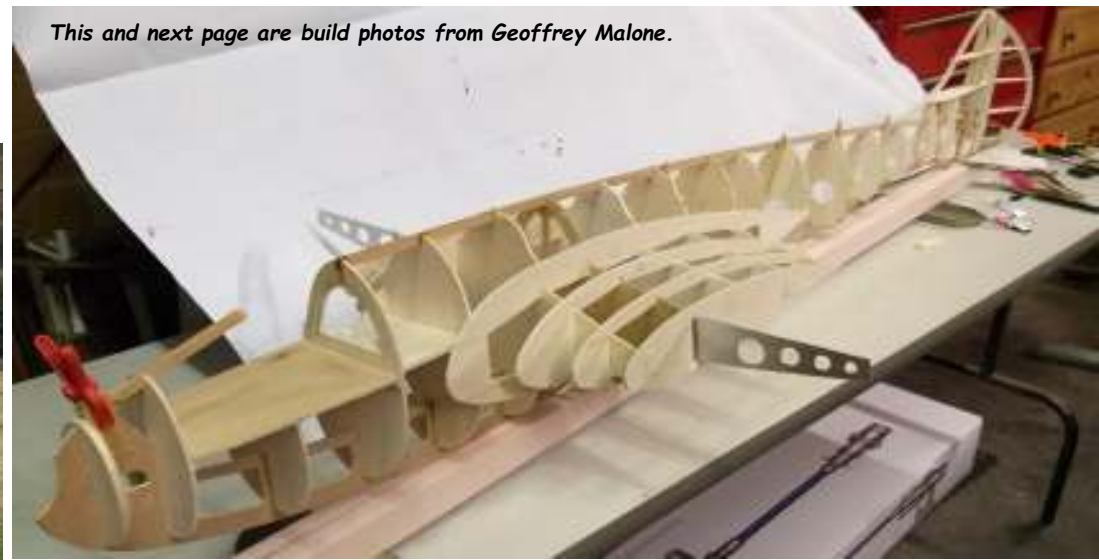
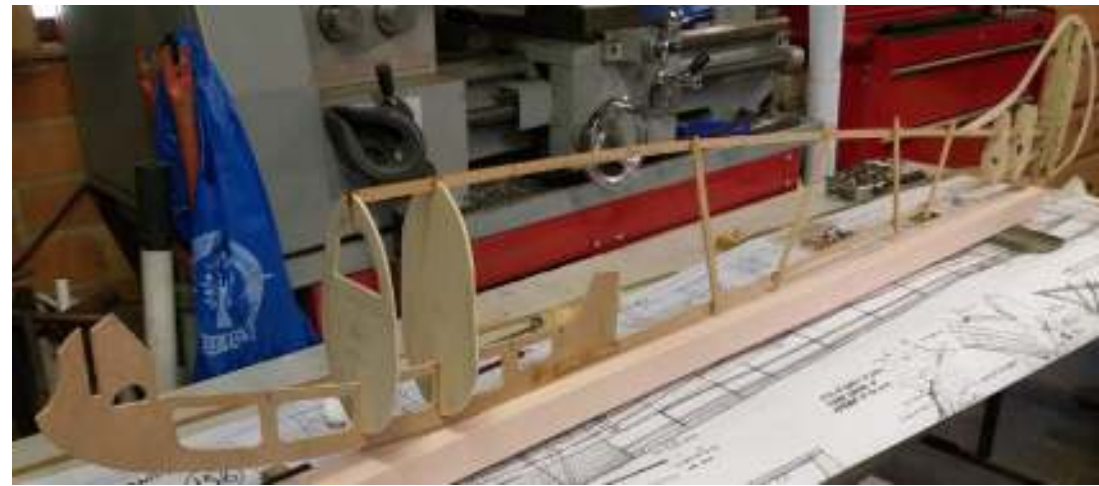
I first masked off and spray-painted the sheeted surfaces on the front half of the fuselage, then covered the shoulder/crutch formers for the main wing with black

solar film and yellow mica film that required adhesive to be painted on the balsa.

Same with the back half of the fuse that was covered in one yellow Micafilm piece starting at the bottom and overlapped at the top. Completed stab, rudder and skid in black Solarfilm. Covered the two plug-in elevator sections in yellow Micafilm. I then covered the two main wings with a combination of yellow Micafilm, black Solarfilm and large clear centre panels of laminating film. This covering added considerable strength and rigidity to the main wings. Covering complete.

I fitted standard size servos for both the full moving elevator and a closed-loop cable rudder system. Added a battery, switch and 4 channel receiver. Carried out control surface movement checks and CofG balancing before taking the glider out for its maiden flight. Launched it via a bungee system and glided off the top. A little up trim and I was away thermalling with a beautiful and majestic vintage glider.

This was a very challenging scratch build, only for the experienced builder, that took about 240 hours over a period of five months whilst in Covid isolation but it gave me great satisfaction in completing the Champion model and finally seeing it fly so beautifully.

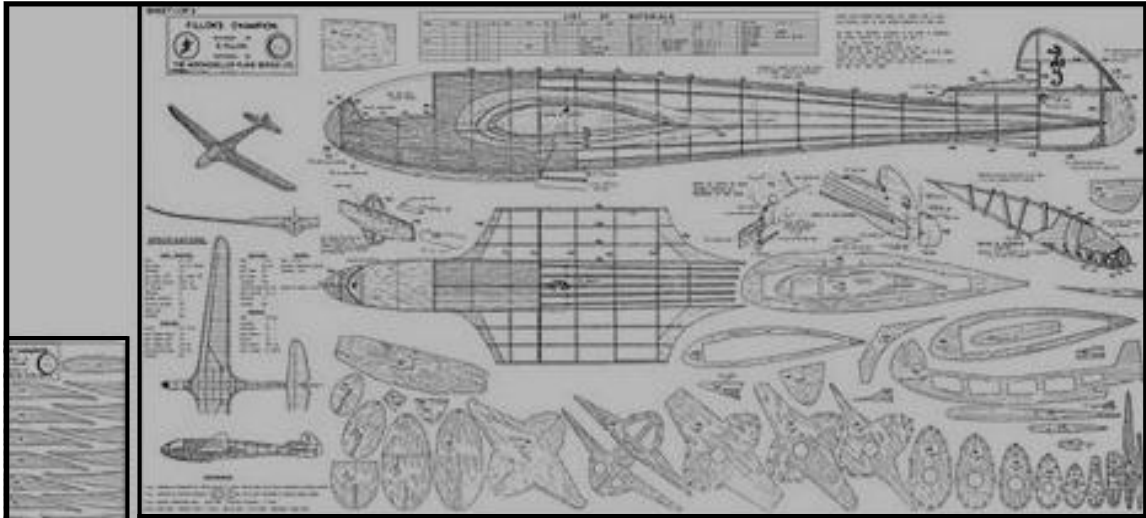


This and next page are build photos from Geoffrey Malone.



Geoffrey Malone with his "Covid Build" Fillon Champion Glider for the SAM Oldtimer Glider event.





Emmanuel Filicen



The Original

Wingspan:	2828 mm
Wing area:	63.87 dm ²
Elongation:	12.5
Wing profile:	Eiffel 400
Salmon profile:	NACA 2.30.12
Cell length	1550 mm
Stabilizer wingspan:	900 mm
Wing area:	15.49 dm ²
Profile:	RAF 32

The Masses

Wings:	350 gm
Fuselage:	580 gm
Stabilizer:	40 gm
Ballast:	120 gm
Total mass:	1090 gm
Wing load:	17 gm/dm ²

The performances achieved...

May 11, 1946

Eliminatoires Ch.De France Chelles 5th
509 "lost to follow-up and found in
Bonneuil, ie 15 km.

August 4, 1946

Concurs de Chaumont (H Marne) 1st lost
to follow-up and found in Freville
(Vosges) i.e. 54 km.

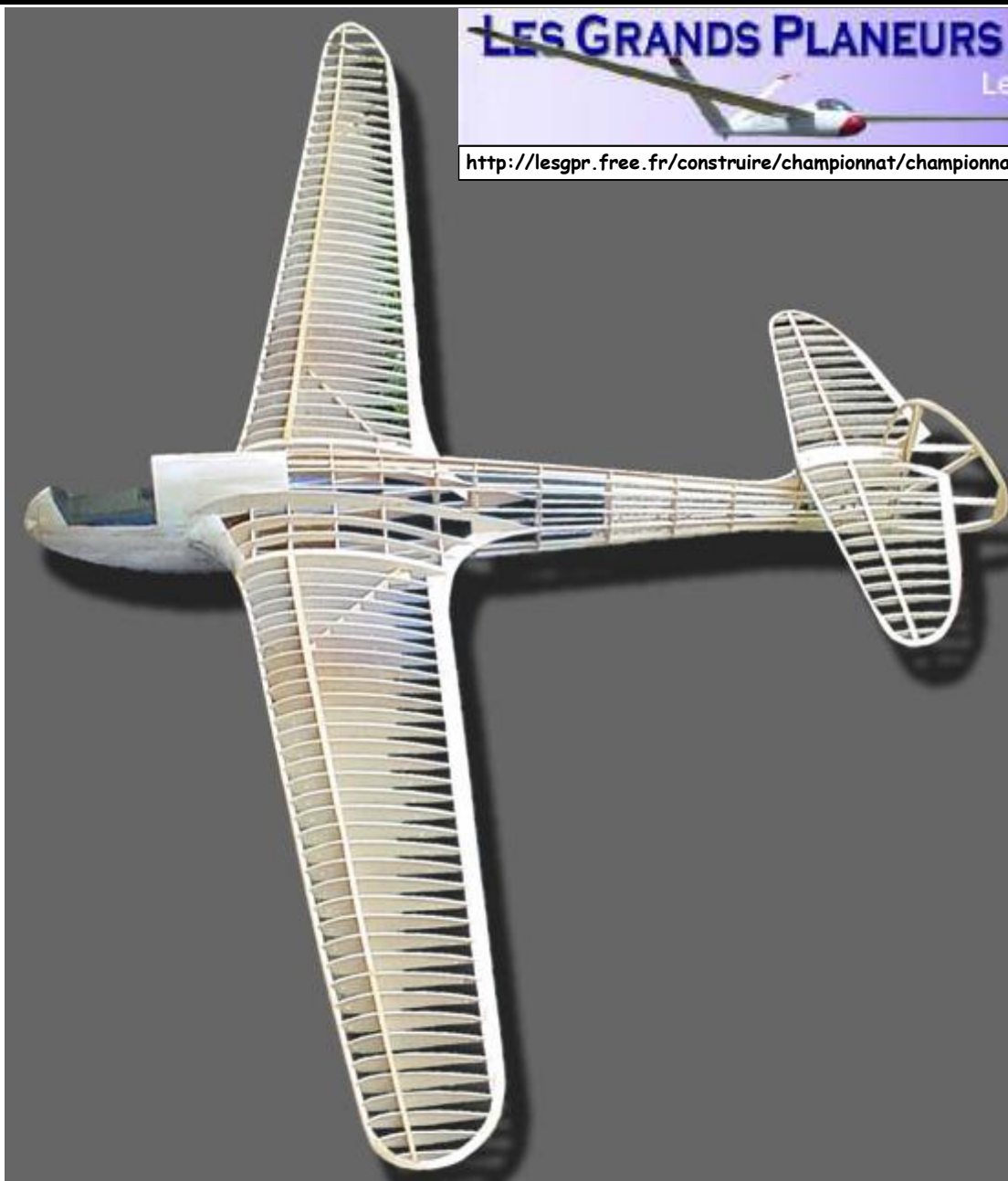
August 18, 1946

England-Intenational Week Eaton Bray
1st in the Concours d'Elagance! Duration
1st 548*, lost to follow-up and found
at 4 miles (7km)

1st Nivelle Belgium competition and lost
to follow-up...

Done in Paris October 1946

E. Fillon



LES GRANDS PLANEURS RC

Le "Champ'46" d'Emmanuel Fillon

<http://lesgpr.free.fr/construire/championnat/championnat.htm>

Claude's radio-controlled model

Wingspan:	2828 mm
Wing area:	63.87 dm ²
Elongation:	12.5
Wing profile:	Eiffel 400
Salmon profile:	NACA 2.30.12
Cell length	1550 mm
Stabilizer wingspan:	900 mm
Wing area:	15.49 dm ²
Profile:	RAF 32

The ancestor of the GPR: A huge glider with a wingspan of 2.89 meters delivered to itself because the RC did not yet exist.

Amazing distance flights 54 km! but the most surprising thing, it seems to me, was to find him.

However, Claude's will be discreetly radio-controlled in 2 axes.

Claude Dubois, builder of this "Champ'46". Difficult to grasp the "Champ'46" with its low wing and its enormous karmans. Imagine the flight of this glider in 1946, left to itself because it was free flight ... Claude is an active member of the "4A": the Association des Amateurs d'Aéromodèles Anciens, France.



INSULATED POINT NUT FOR O&R 60

From Bruce Ramsay.

Following up on a request from Vince Hagarty for an insulated point nut for the O&R 60 timer. The Timer is the same across the O&R range .

As for manufacturing nuts:

The attached Table 402 from my Caxton Engineers Handbook is the chart of threads that I think your O&R60 would use, or any other USA made engine. (pre Unified Threads c 1955)

So I measured the OD of the thread of my O&R60 insulated point stud. **The OD was 0.094 inches.** It has a very fine thread that I can't check but I can ascertain from the chart.

The chart does not give the OD but it gives a diameter at 75% thread.

The nearest to 100% thread size 0.094 inches would be, by calculation:

Eg 1 #1 Gauge -72 TPI . Calc: OD/100= 0.0595/75 = 0.7933 inch OD

Eg 2 #2 Gauge -64 TPI. Calc: OD/100=0.0708/75 = 0.944 inch OD - Voila!

A 2-56 nut as found in model shops will not run on this thread.

These nuts are probably available in Australia thru hobby engineering supplier.

It turns out that Vince's engine had been modified and has a larger diameter contact stud with 47 TPI-Unusual. My three O&R engines, 2 x 23 and a 60, have the stud with an OD of 0.094 inches.

All the Best, Bruce Ramsay.

The image shows two pages from a technical handbook, specifically 'TAPPING AND SCREWING' tables. The left page is Table 401, titled 'TABLE 401—TAPPING DRILL SIZE—AMERICAN NATIONAL COARSE THREAD (UNC)'. The right page is Table 402, titled 'TABLE 402—TAPPING DRILL SIZE—AMERICAN NATIONAL FINE THREAD (UNF)'. Both tables have columns for 'Number of Threads per Inch', 'Drill Size', and 'Tapping Drill'. The tables provide detailed specifications for various thread sizes and their corresponding drill sizes.

To read these pages zoom up to 200%



From John Tidey

I just noticed I sent you a picture of my KK Champ replica but I didn't give you any details.

The Champ was the **very first** C/L model I built and was powered by an ED Bee MK II. The very same engine you see in the picture..

However I am not sure if the motor still runs I am having trouble getting diesel fuel and Ether is not available at my local pharmacist. Will let you know if I have any luck.

Regards John Tidey MAAA 3295



Official Journal of the WA Model Aero Club (inc) and
SAM 270 Western Australia



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Contest Director: Rod McDonald 0447 244 549 rodjmed@bigpond.com		

Hello all,

Not much to report for the Australian Thermaleer this issue. No flying in Western Australia because of weather, mainly strong winds and fire bans due to high temperatures.

I'll attach our contest calendar which we finalised last night.

I also don't have much to contribute personally.

I'll send an SOS out to my fellow Old Time modellers for some copy but don't hold much hope as they are suffering with the same problems as me, as mentioned above.

I'm leaving for the East Coast and Canowindra on Monday week (22nd April) all things being equal.

I have the appropriate passes and return entry into WA. I hope that nothing untoward happens in the next week or while we're on the road.

I've done a bit of work to the wings of the scaled up 120% Texan but that's pretty mundane stuff, and, other than the wing joining system I use and was described in the building article of the standard model, there is little else of consequence happening in my shed.

Hope you and yours are well and may see you in Canowindra if you're going there.

Fond regards,

Hans.

hans.vanleeuwen@bigpond.com



WAMAC CONTEST CALENDAR 2021

	Free Flight Events	Oldtimer Events		
21 Mar		Standard Duration	State/Club	Beverley
28 Mar	Combined Open FF		Club	Beverley
4 April	Easter			
11 April		1/A Electric/2cc	Club	Beverley
18 April	1/2A Power/E36		Club	Oakford
25 April	Public Holiday			
2 May		R/C Texaco	State/Club	Beverley
9 May	Mothers' Day			
16 May	P30/Coupe		State/Club	Oakford
23 May		R/C Duration	State/Club	Beverley
30 May	Slop/Nostalgia		State/Club	Beverley
6 June	Public Holiday			
13 June		'38 Antique	State/Club	Beverley
20 June				
27 June	Open Power		State/Club	Beverley
4 July		Nostalgia	State/Club	Beverley
11 July				
18 July	Open Rubber		State	Beverley
25 July		1/2A Texaco	State/Club	Beverley
1 August				
8 August	Combined FAI		State	Beverley
15 August		Burford	State/Club	Beverley
22 August				
29 August	F1Q/Open Electric		Club	Beverley
5 Sept	Fathers' Day			
12 Sept		Oldtimer Glider	Club	Beverley
19 Sept				
26 Sept	Public Holiday			
3 October		Tomboy IC/Electric	Club	Beverley
10 October				
17 October				

 <p>VINTAGENTS SAM 84 QUEENSLAND</p>	<p>President: Tony Hart Phone: 4923528 Email: t.hart1946@gmail.com Treasurer: Ian Alexander</p>
	<p>Phone: 32028464 Email: ial32263@bigpond.net.au</p>

No reports received from Vintagents

**FROM JIM HARDY
CALVERT RADIO AERO MODELLING SOCIETY
OLDTIMER GROUP**



**POSTAL EVENT
C.R.A.M.S CLIMB AND GLIDE**

To all recipients: this article is introducing an event promoted by members of the Calvert Radio Aero Modellers Society old timer group in an effort to encourage interest in the building and flying of Antique, Old timer and Nostalgia era aircraft powered by Internal Combustion Engines in a remote but competitive environment across the Country.

The intent is to use existing MAAA rules to cover the construction and operation of the aircraft to be used as far as practicable.

Rather than complicate matters we have opted to adopt a combination of the regular duration events to get the competition under way.

The variations being:

- Engines run 21 seconds.
- Mufflers are optional.
- There are no rounds; each flight is timed until it touches down.
- Wing area rules for 2 and 4 stroke engines apply as normal.

Each event will have classes based on engine capacity to boost interest in the construction and competitive flying of a greater variety in model size and related engine capacity.

The initial time table for the first events being:

- Duration, Good Friday until May Day.
- Texaco, May 2 until the end of the Queen's Birthday weekend, June 14.

- Nostalgia, June 15 until Bastille Day, July 14.
- Gordon Burford, July 15 to August 15.

Flying time for each of three attempts is to be forwarded to our email address and from that information, the best all round performance and best single flight can be deduced.

Time to make your flights: any day in the time period advertised and you may enter as many aircraft as you wish in that time frame.

Information required to support your entry:

- Your name, AU number and the timekeeper's name.
- Model name and engine make, type and capacity.
- Wing area, or wing and stabilizer area in the case of a Nostalgia era model.
- Entries forwarded to Phil and Jim at: **CramsOTG@gmail.com**

To open up the event models will be grouped into A, B and C classes based on engine capacity and results will be based on the best performers in each class.

- Initially A class will be for engines up to .21,
- B class to .32 and,
- C class up to .65.

Results including models and engines used by all will be sent to competitors early the following month.

The decision to stage a duration event encompassing all three classes in a postal competition initially is to gauge the amount of interest in this style of event before we branch out into more traditional OT classifications in the months ahead.

Taking precautions in the form of face masks, hand sanitization, avoiding close contact for extended periods and emailing your results is not too big a price to pay to exercise your new potential Nationals Winner at your local field on a big stage.



At the 2014 Queensland Oldtimer Nationals the Texaco Event had a multi-state result.
Left: NSW's Basil Healy, Winner in the middle Mike Smith from Queensland and Peter (Canberra) Smith from the A.C.T.

THE VINTAGENCY
SAM 84 - THE VINTAGENCY
somewhen in September 1994

I am sitting here trying to to draw up the enthusiasm to essay the discussion of rules and the organization our sort of flying demands. Simon and Garfunkel are sitting in the corner of the workshop singing about urban alienation, and it struck me that... I enjoy this schlock because it brings together a set of people with whom I share a vocabulary; I, personally, do not need rules or an organization but I do need the tribe of OT within which to base my rituals and this tribe seems to agree to meet only under the compulsion of a competition program.

What rules and events do we need? Let me remind you of the SAMUSA Competition Rules Preamble which goes part way towards providing a fair rationale for what we do. Remember this preamble begins the rules. It is not a preamble to the life of aeromodelling

"The competition flying of freeflight and radiocontrolled model aircraft of vintage design is intended to be casual, enjoyable, and interesting for both competitor and spectator alike. It is neither desired to advance the state-of-the-art of aeromodelling, per se, other than to increase participation in the sport generally, nor to re-prove again that which is already recorded in aeromodelling history books. The intent of these rules is to categorize the basic types of vintage models and establish an equitable and simple framework of regulations for competition purposes. Therefore, model designs that revolutionized free-flight competition and necessitated the formation of two basic classifications, ANTIQUE and OLDTIMER, are expected to compete in the oldtimer events."

This Preamble presupposes an Amble which I suspect considers the notion of enjoying yourself simply flying OT aircraft for your own pleasure - flying your Quakers, Snow Queens, Porlock Puffins, whatever for the sheer joy of seeing those forms in flight. Is it not strange the only models we fly are chosen for their competition efficiency not for their aesthetic delight. I love the Air Trails Sportster but I need to see it flying. I cannot see the thing at 1600 feet or 487.68097 meters or whatever. Where is the pleasure?

Perhaps we all need to have a look at the why and wherefore of our rules, particularly now we are facing a new rules cycle.

Ah, Thermals.

B.G. Dent
33 Madeira St.,
The Gap, 4061

TYING A LUBRICATED RUBBER MOTOR By George White

One of the best features of attending the Flying Aces Club Nationals in Geneseo is the opportunity to see and learn about new ideas. Since my models and flying skills aren't competitive with at least half the people there, that's my justification of driving that long distance. I also failed to mention that those are probably the youngest, most friendly and fun-loving group of modellers anywhere.

Anyhow, I stumbled upon a small group of guys huddled around Don DeLoach watching him tie knots in a rubber motor. I couldn't imagine what could be so exciting about that, so I walked over to watch. Don was tying a knot in a heavily lubricated rubber motor, and swore it would not come loose. I was sure he was in the league with snake-oil salesmen with that idea, but after watching, I'm now convinced it can be done. The days of throwing away a motor because of a broken strand are over. The FAC types caught in a mass launch where motor changes are verboten can use this to repair and keep going. The photos below, crude as they are, show the steps.

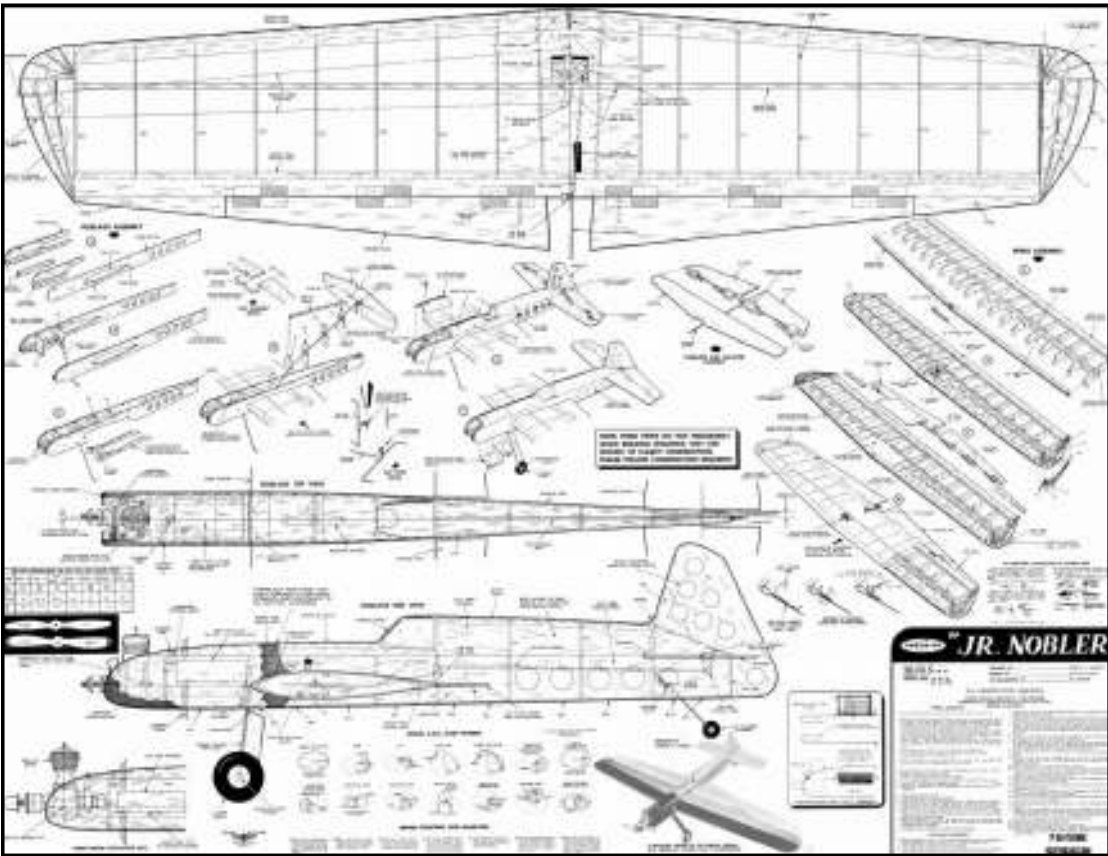
Step 1. Take the two broken ends and fold them back over each other, holding the broken ends between the fingers of the right hand and leave a loop into which you place two fingers.

Step 2. After making sure you have at least a short length of the broken ends loose, twist the loop three times.

Step 3. While keeping your two fingers spreading the loop, reach your thumb through the loop and grab both ends of the broken strand, keeping the rest of the motor in your right hand. Pull the broken strands of the broken motor through the loop.

Step 4. Pull the broken strands through the loop and with the right hand pull the rest of the motor. Pull the knot very tight using the main motor strands only - do not pull the tag ends separately, it will untie the knot. Incidentally, you will not be able to pull it very tight unless the motor is indeed lubricated. Once the knot is pulled really tight, you will not be able to get the knot to come undone again, no matter how slick you've made the motor. Put it back in the model and start your winds. You've just salvaged a motor.





Plans and Patterns https://outerzone.co.uk/plan_details.asp?



Efficient because of excellent streamlining



The finished plane is extremely realistic

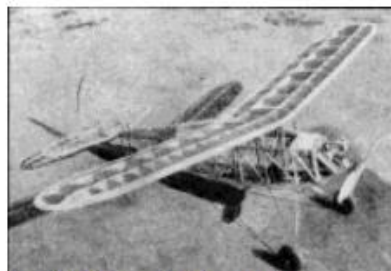
Building the T-D Coupe

A Sleek Gas Job That Is Simple To Build and Noted for Consistent Flights

By THEODORE DYKZEUL



The structure is simple but strong



The uncovered frame showing the mounting of the Baby Cyclone motor with which it is powered

PDF Plan from Model Builder: https://outerzone.co.uk/plan_details.asp?ID=5367

UNDOUBTEDLY many of you have been looking for drawings of a gas model that will fly beautifully, is easily built, call be carried to and from the airport conveniently, and last but not least, does not cost a fortune to build.

As for performance, this model flies at a fair rate of speed, climbs at about a 30° angle and has a glide of about 15 to 1. It is also built easily enough so that an experienced builder of rubber-powered models will have no trouble with the construction. The wing is removable, so that the model can be carried in the back seat of a sedan. Since Airwheels and silk were used, the cost was about \$7.00, less motor. Using wood wheels and bamboo paper, the price can be cut in half.

The model has a wingspan of 64 inches and an overall length of 47 inches. Ready to fly, its weight without cowling is exactly three pounds. The original model has now made 82

flights with absolutely no repairs outside of a few broken propellers and patches on the silk. It is practically crashproof having hit an office at an airport, a windbreak of trees, a concrete watering trough and a barbed wire fence. The pictures of the completed model were taken after the 46th flight.

General Instructions

Before beginning construction, study the drawings carefully and read the entire article.

The wing, tail, and fuselage will have to be drawn out full scale. Use either a pair of dividers or follow the dimensions on the drawing. If a more accurate pattern of the wing tips and curved sections of the tail is desired, lay out 1/4" squares on the drawings and 1" squares on your full-scale drawings.

This plane is designed for and was flown by a Baby Cyclone. This motor is perfectly satisfactory, although other motors may be used with a change of the motor mount.

Take your time and be sure every piece is perfect before proceeding to the next. Be especially careful that the wing and tail surfaces do not become warped.

Use plenty of cement. Go over every joint at least once or twice until you are sure of a perfect cement joint. All balsa used should be of a hard grade unless otherwise stated. Use only spruce where specified on the fuselage unless you wish to pick up pieces if the first test flights do not prove entirely successful or if a solid object looms up.

Last, but not least, use only high-grade materials. Poor or cheap material never has and never will make a championship model.

Tail Surfaces

Begin by building the stabilizer. The material for the ribs is 3/32" x 3/8" strip balsa. Cut the pieces to correct lengths and then punch out each with a 1/4" hole and assemble on the dowel. This is now placed over the drawing. It will be necessary to elevate the leading edge 1/16" and the trailing edge 3/32". Put these in place as well as the center rib which is made of 1/4" x 3/8" balsa. Pin or weight down the entire assembly and cement. Fill in the center section with 1/16" sheet balsa as shown and add the piece, streamlining the top of the fuselage into the tail assembly. The tips can be added now or after the cement has dried and the stabilizer taken from the drawing.

The rudder is built in the same manner as the stabilizer with the exception that 3/16" doweling is used instead of 1/4". Cut the curved outline before beginning assembly.

Leave the rudder and stabilizer dry over night. Now trim both to a streamline shape with a razor blade and finish them with a sandpaper block 00 fine sandpaper.

Make the wire fittings as shown in the detail. Cement one on each half of the top side of the stabilizer and one on each side of the rudder. Be sure to bind with thread. Drill a 1/8" hole in the leading edge of the rudder and Mount a 4-40 nut firmly on each side. This will be used for adjustment.

Wing

Make the entire set of wing ribs. The sizes and number of each are noted on the drawing. Begin by building one half of the wing, laying the bottom front spar, the bottom rear spar, and the trailing edge in place. Now cement the ribs in place. The top front spar, top rear spar, false ribs and leading edge are now cemented in place. The spars are brought straight out and are not curved on the ends. No special rib pattern is given for the second wing rib from the end as the entire wing tip will be shaped later. Cement 3/64", sheet balsa on the back of the front spar and on the front of the rear spar as shown on the drawing, thus making a single spar of each. Fill in the remaining space on the front, spar near the tip with 1/4" sheet balsa, and on the rear spar with 3/16" sheet balsa. Do not forget the 1/8" sheet balsa fillets at the trailing edge.

After the wing panel is entirely dry, take the wing off the drawing and assemble the wing tip. Cement the wing tip in

its proper place. Fill in the remaining portion directly above and below the leading edge with g 3/16" or 1/4" medium balsa. Also build up the wing tip using the same size wood so that it might be shaped easily.

The leading and trailing edges are now roughly shaped as far in as the center rib. Also shape the wing tip, and then with the aid of a sandpaper block, finish the entire portion.

Build the other half of the wing in the same manner. The center section details for joining the two halves are shown on the drawing. Cement 1/16" sheet balsa on the back of the front spar joint and wrapped with thread. Sheet balsa is also cemented on the front of the rear spar joint and wrapped. Fill in the bottom of the center section with 3/32" sheet balsa. Wrap a piece of 32 gauge aluminum, 3/8" x 3-1/4", around the trailing edge to prevent damage.

The dihedral should prove enough, although more can be used if desired.

Landing Gear

Bend both pieces of the landing gear of 1/8" piano wire as shown in detail No. 2. Wrap the joint of the two pieces with small copper wire and solder firmly.

Next make the fittings, noticing that allowance must be made for the curve in each. Drill out 1/16" and then solder them to the landing gear.

The wheels should be about 3-1/4" in diameter, preferably Airwheels.

Fuselage

Unless otherwise noted, all the longerons, vertical and horizontal pieces, wing rest (or top of cabin) and the cross bracing forward of former No. 4, are 3/16" square spruce. The remaining cross bracing is 3/16" square balsa. Do NOT use balsa where spruce is mentioned, as strength is considered more important than weight. Since 1/2" wire nails are used to hold the spruce in addition to the cement joint, it will be necessary to drill each longeron with a drill made of a piece of No. 12 piano wire to prevent splitting.

The two sides are made in the conventional manner. After they are dry, add all the horizontal pieces, this giving a box-like fuselage. Note that the 3/16" x 1/2" pieces at the very front are set back 1/16" to form a mount for the motor plate. Before going further, it will be necessary to attach the landing gear and the rudder attachment plate. These are held in place with 3/8" No. 0 wood screws and cement.

Make the top of the cabin, nailing each joint. Now cement and nail spruce formers to T, 3T and 4T, in place. Cement and nail the top of cabin to this. Cut and cement the remaining formers in place and cement on the stringers. Fill in between formers 1T and W. The vee brace at the windshield is made of 1/8" square spruce. The outline of the rear window is made of 1/8" sheet soft balsa. Fill in between the bottom longeron and the first stringer for better appearance, if desired. Cement and bind with thread, a 1/4" dia. x 2-1/4" aluminum tubing at the rear of the fuselage as a rudder mount. Cement a small block at former 8T to hold down the leading edge of the

stabilizer. Fill in the section past BB with sheet balsa and spruce as shown.

See Detail No. 4 for the tail wheel. Note that the entire fork is one piece of piano wire and is bound on the bottom of the fuselage. It will be necessary to slit the aluminum tubing part way so that the wire may be bent back. The fork is in no way attached to the tubing. Loop the ends of the wire fork to form a hole for the axle.

The wheel is 1-1/4" in diameter and can be made from a sponge rubber ball.

The battery and coil mount is shown in detail No. 3. This is only suggested and may be altered to suit your own particular desire. It is made entirely of 3/16" medium hard balsa. Since the batteries are held in place by rubber bands, cement three hooks made of No. 12 piano wire in each side of the box. Two hooks will be needed for the coil (one will be on the spruce brace on the bottom of the fuselage). Cement all hooks firmly and wrap with thread. Now cement the box in the bottom of the fuselage.

Cowling

Since your motor is air-cooled, the cowling should be used for scale purposes and not for flying. The cowling can be made either of aluminum or balsa wood. The spark plug and needle valve will protrude and the exhaust manifold should be removed. The cowling can be held in place by using dress-snaps.

Motor Mount

The motor mount for the Baby Cyclone is shown in detail No. 1. Although not entirely necessary, it should be made so that the motor will pull 1/2 degree down and to the right. The rear plate is made of 1/16" aluminum and can be reinforced by bolting angle aluminum on the back. DO NOT use heavier aluminum for the mount itself. It is much easier to straighten or replace a few aluminum pieces than it is to repair a fuselage or buy new parts for the motor. Bend and drill all pieces as shown. It will be necessary to file the horizontal pieces in order to fit the crankcase of the motor. Use 4-40 brass bolts and lockwashers to assemble the motor mount. Note the position of the tank and condenser. The mount for these should be cut from the wood mount the motor was on when it reached you. Attach the motor mount to the horizontal spruce pieces by using 3/8" No. 0 wood screws.

Using either clips or soldered joints, put in your medium-sized batteries, coil, external switch, external booster

connections, and wire your entire job. Keep the spark wire away from the motor mount. An automatic timer can be used to open your switch if desired. You may have a little trouble at first reaching or replacing the batteries and coil when your model is covered, but this should not prove difficult.

Covering

See that the wings and tail are perfectly true and not warped in the slightest. If they are, either straighten or rebuild. Using a good grade of silk with thinned out cement as an adhesive, cover the tail first, then the wings and then the fuselage. Tighten the silk by spraying with water and then hold near a fire to dry.

Dope the entire model with two coats of clear dope, and finish up with two or more coats of colored dope or lacquer. Although the color scheme on the original model was metallic (half silver and black) and yellow, any suitable color scheme may be used.

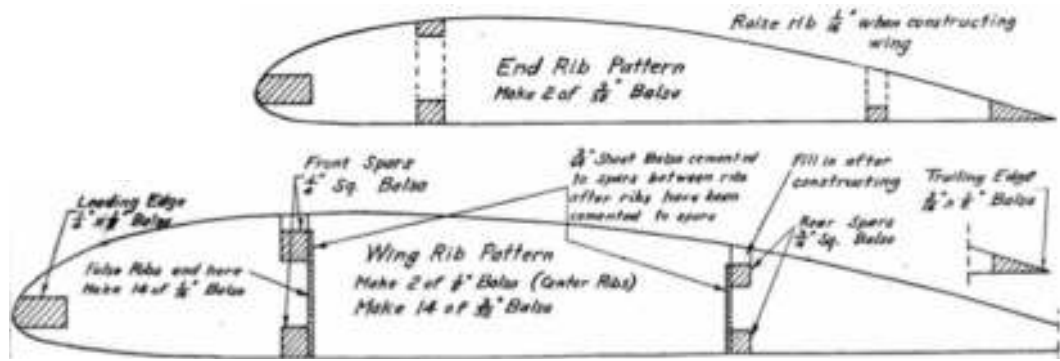
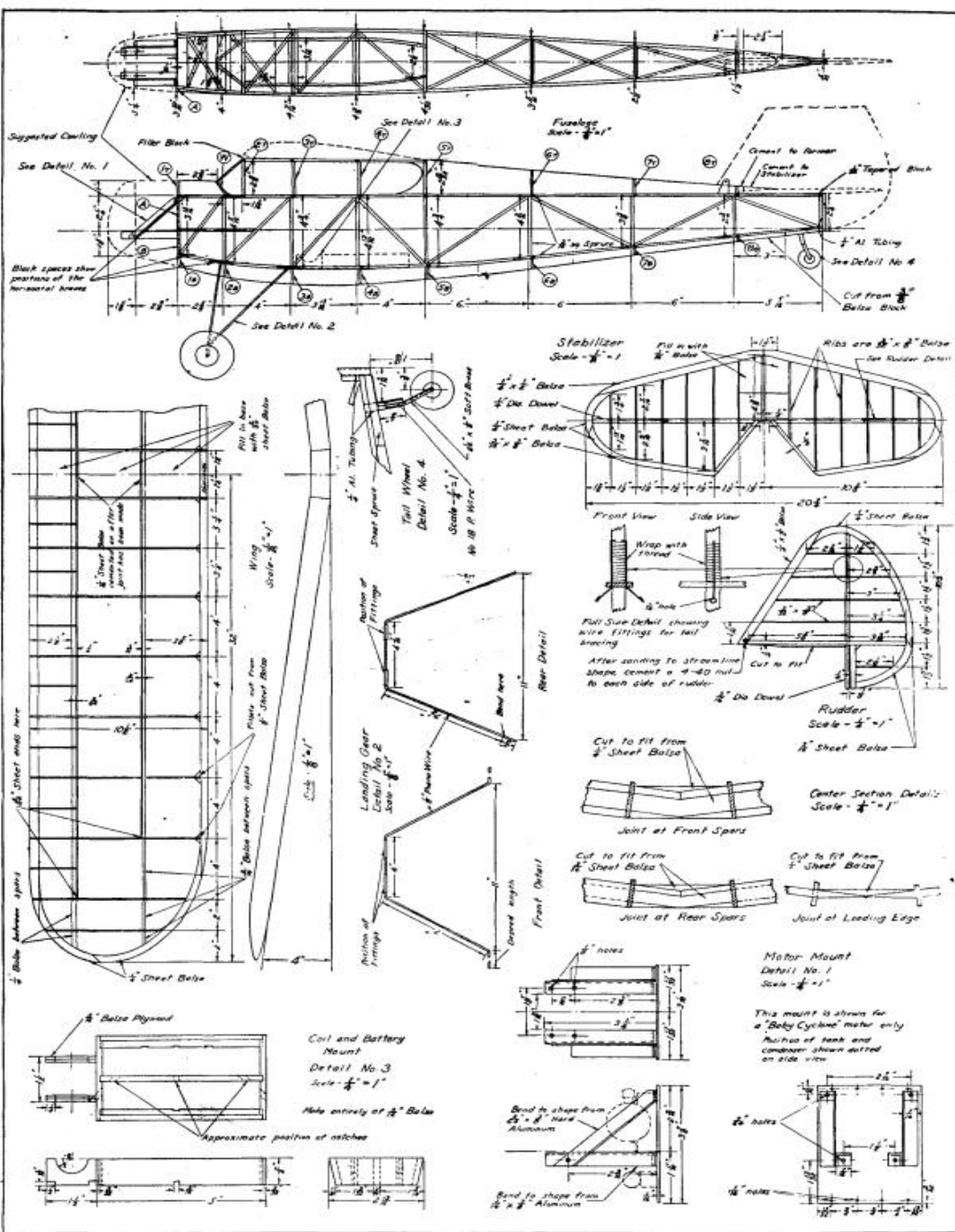
Assembly

Place the stabilizer on the rear of the fuselage and slide the rudder into the tubing. Attach the front of the rudder to the adjustment plate with a long 4-40 bolt. Use a nut and a lockwasher for adjustment. Use a few drops of cement on the tail assembly to prevent vibration. The tail braces are made of 3/16" aluminum tubing and are held in place with cover keys of aluminum wire. The wing is held in place with a 10 foot piece of 1/8" FRESH rubber. Use a pine or spruce propeller with a diameter of about 13-1/4" and a pitch of 8-1/2".

Test Flying

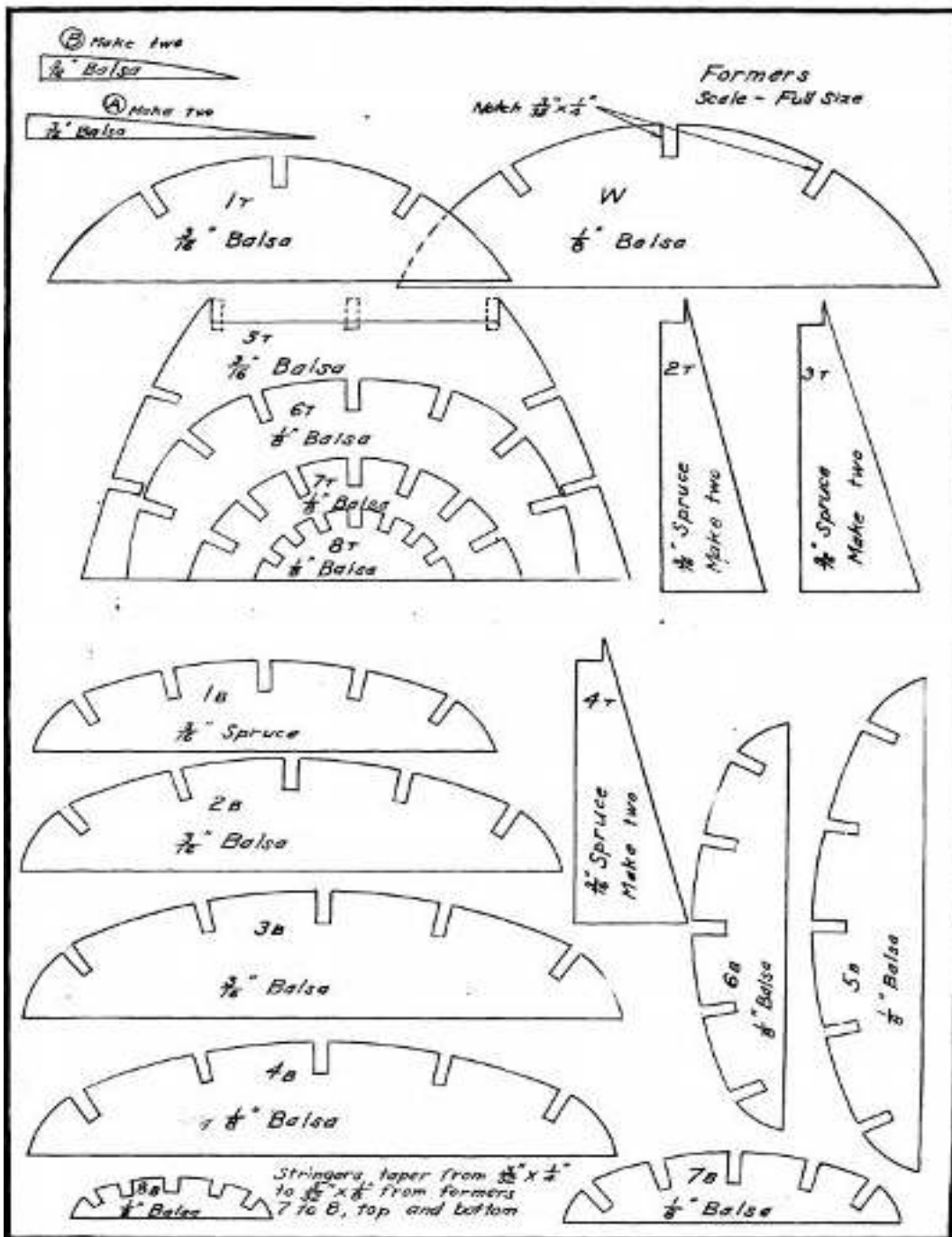
Balance the model at a point slightly behind the front spar of the wing. Set the rudder in neutral position. Take it out to the nearest airport and put between 1 and 2 eyedroppers of gasoline in the tank. Start the motor, adjust, and let the model take off into the wind, if any. Notice every action the model makes.

A few test flights should suffice in finding the correct balance. If the directions and plans have been carefully followed, You will be rewarded by not only a nice-looking model, but a beautiful, fast flier.



OCTOBER

MODEL AIRPLANE NEWS



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SALE**

Ignition coil assemblies with transistor.

Ready to go.

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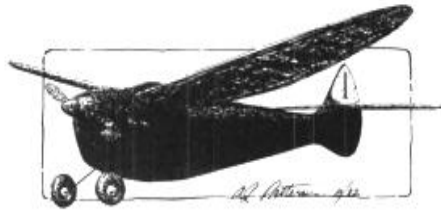
qualmag@optusnet.com.au

**FOR
SALE**

Thermaleer

OLD TIMER MODEL OF THE MONTH

Designed by: Dan Veronica
 Drawn by: Al Paterson
 Text by: Bill Northrop



It seems that no matter what era of modelling you may examine, there have always been, at any one time, the high-strung, super-climb, mediocre-glide "Hot Shots"....and the low pressure, non-tricky, gradual-climbing, float-on-anything "Cruisers". Thermaleer is one of the latter.

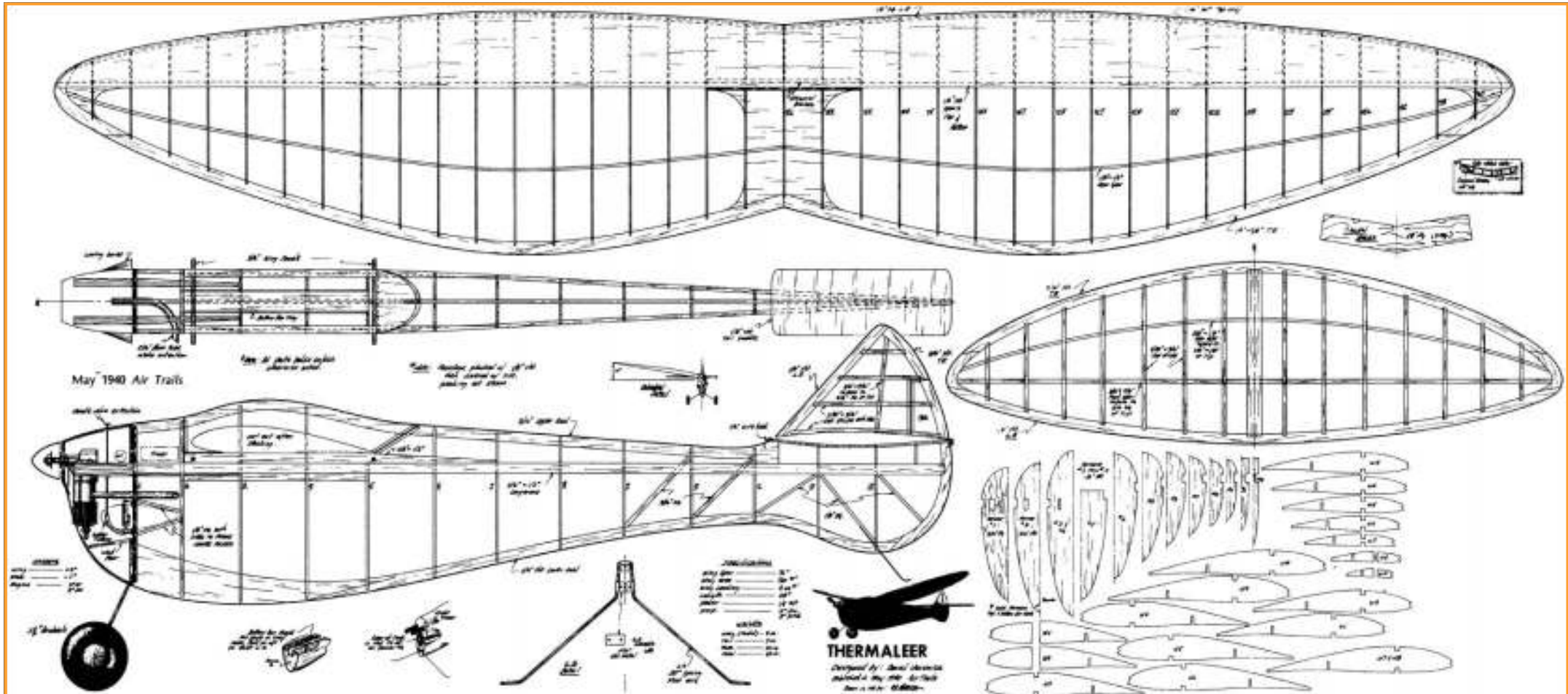
As a contest, the "Hot Shots" invariably outnumber the "Cruisers" about ten-to-one. Of course, this is logical, as the hot shots are usually available in kits, and at ten-to-one odds, they simply over-run the cruisers in the competition.

But the cruisers are sneaky. They calmly, and gracefully ease up to a reasonable altitude, lose nothing in the smooth transition from power-to glide, and then proceed to float around on any slight excuse for rising air. About the only tense moment may occur if the cruiser seems to be picking out an uncomfortable spot on which to land!

Because of their relaxing flight manners, which usually result in a longer useful life expectancy, cruiser designer/builders tend to pay a little more attention to aesthetics; beauty of form and lines, in their creations. "Thermaleer", designed and built by Dan Veronica, was a prime example of this philosophy. And it paid off. According to the article in the May 1940 *AirTrails* which accompanied the plans, Thermaleer, at the time of publication, had won three trophies, it recorded a three-flight average of 17½ minutes, and its longest single flight was 45½ minutes. Not bad for a cruiser!

Unfortunately, but par for the course, the only reference to a balance point on the drawings (nothing in the article), was a suggestion that the battery box should "move backwards or forwards to trim for CofG". Noting that the wing is a two degrees positive and the stab at one degree negative, and that the stab is fully symmetrical, we'd suggest making first test glides with the model balanced at the front wing spar, and go from there.

R/C can be a little tricky with this one. The possible rudder area is cut almost exactly in half by the stabilizer, so you might have to split the rudder into two parts. However, this is a cruiser, and maybe just the top half will provide enough rudder control for relaxed manoeuvringafter all, you don't roll and loop a cruiser..... PDF Plan etc: https://outerzone.co.uk/plan_details.asp?ID=203





JAPAN'S WOODEN SATELLITES WON'T SOLVE SPACE JUNK, BUT THEY'RE STILL INTERESTING

Josh Hendrickson@canterrain
January 2, 2021, 9:00am EDT

Photo from SUMITOMO FORESTRY

A Japanese company and Kyoto University are working on a novel concept—wooden satellites. On the inside, they'll look much like the satellites we have now, but the early concepts show a wood-box exterior. Early reporting suggested that converting to wood could help with the growing space junk problem, but that's likely not accurate. Instead, wood satellites could have other benefits.



Believe it or not, wood isn't an outlandish idea for a satellite housing. Wood is plentiful, easy to work with, and plenty hard for the purposes of space travel. And treated correctly, that durability and strength only increases. From a "get it up there affordably" point of view, wood may be an attractive alternative to the metals we usually use.

It also has an advantage over metal: transparency. Now, obviously, wood isn't transparent to our eyes, but for the purposes of the wavelengths that satellites communicate, it might as well be. A metal satellite means building an external antennae that needs to unfurl in space. More parts means more points of failure. A wooden satellite could internalize that same antennae and avoid the chance of failure.

Despite reporting from the BBC and others, one thing a wooden satellite won't help with much is space junk. As Ars Technica pointed out, most space junk isn't satellites in the first place. It's primarily comprised of boosters and other hardware that lifted the satellites to orbit. But even accounting for that, most satellite space junk is just that: defunct satellites orbiting the Earth without end.

If a wooden satellite dies, it too will continue to orbit. Solving the space junk problem means deorbiting the junk. That's another process entirely. Even when that happens, there are certain considerations. Wood would burn up in the atmosphere more cleanly than metals, so score one for wooden satellites. But the internals will still be comprised of the same atmosphere polluting metals. So it's not a total win, at least not yet.

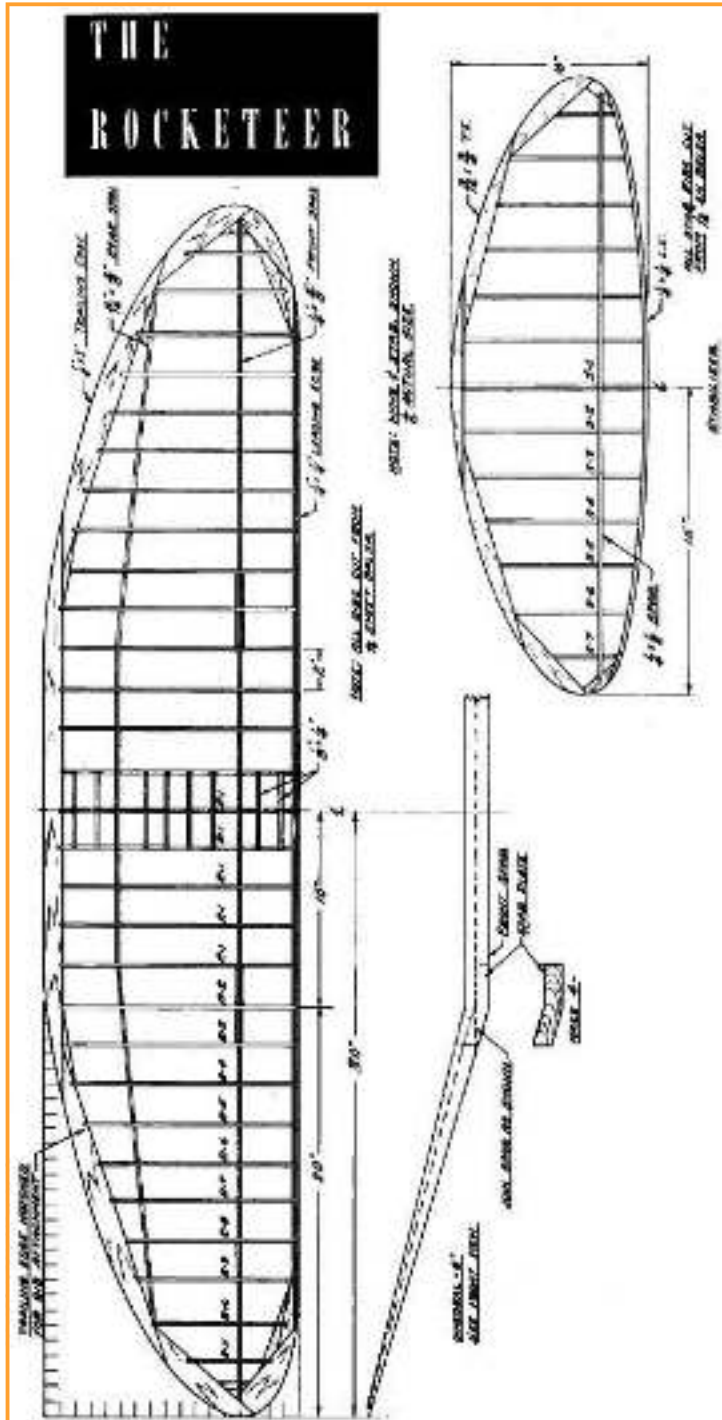
But just because it isn't a complete solution today doesn't mean that it won't be part of the complete solution tomorrow. It'll be interesting to see how wooden satellites pan out. One thing is for certain: Space isn't easy, and there will be plenty of problems to solve before we see the fruit of Japan's labours. via BBC

Did You Know?

Over 14,000 miles (22,842 kilometres) of the United States' 88,633 miles (142,641 kilometres) worth of tidal shore-line is fortified with concrete.

My mate's missus left him last Thursday. She said she was going out for a pint of milk & never came back !! I asked him how he was coping and he said, "Not bad. I've been using that powdered stuff."



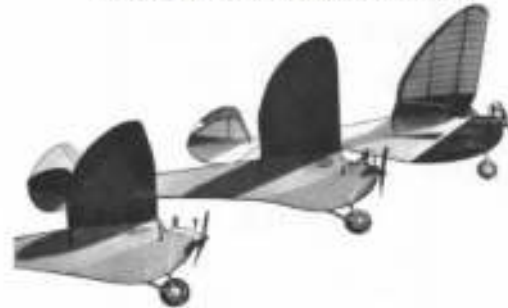


THE ROCKETEER

BY MAURICE SCHOENBRUN

Out-of-sight flights are regular with this ship. They should be. Checked climb is 2,000 ft. per min.

WARNING: Don't build the Rocketeer unless you are strong of leg and long of wind. We've grown darn tired of chasing this ship on "average" hops, and even more weary of shagging anywhere from ten to thirty-five miles after the critter in response to cards, letters, and telegrams telling us that the plane has been found.



The three Rocketeers. The one in rear is Schoenbrun's, the others are Jerry Stoloff's. Construction is simple and rugged. Wings and tail are quickly detachable. Power plant is a Brown.

But the Rocketeer stayed up. Fifteen minutes later it was still over the field, according to unofficial timers. Gradually the higher currents took the ship and it drifted east and disappeared in the haze of the afternoon. Somebody else won the contest. We were heartbroken.

Two days later we received a card: "Dear Mr. Schoenbrun," it read. "Your ship landed here at five o'clock Sunday afternoon. Please come and get it." The address was a point some thirty-five miles from the starting place. It had landed about three hours after being launched.

By May 6th we were ready to enter the Rocketeer in the second annual meet of the Stratosphere Club of Passaic, N.J. Howie Beitclunann, also of the Sky-Scrapers, had built a similar plane, a duplicate to the last ounce. All morning we tinkered with the original ship, but our old motor began to act up and spoiled our chances. After three "stinky" short flights she

THE Rocketeer represents an evolution in design from a perfectly rotten experimental job into an ultimate in medium-size Class C contest ships. After watching "jalopies" take home the bacon in innumerable contests and analysing their faults and their good points, the first of the Rocketeer designs was formulated.

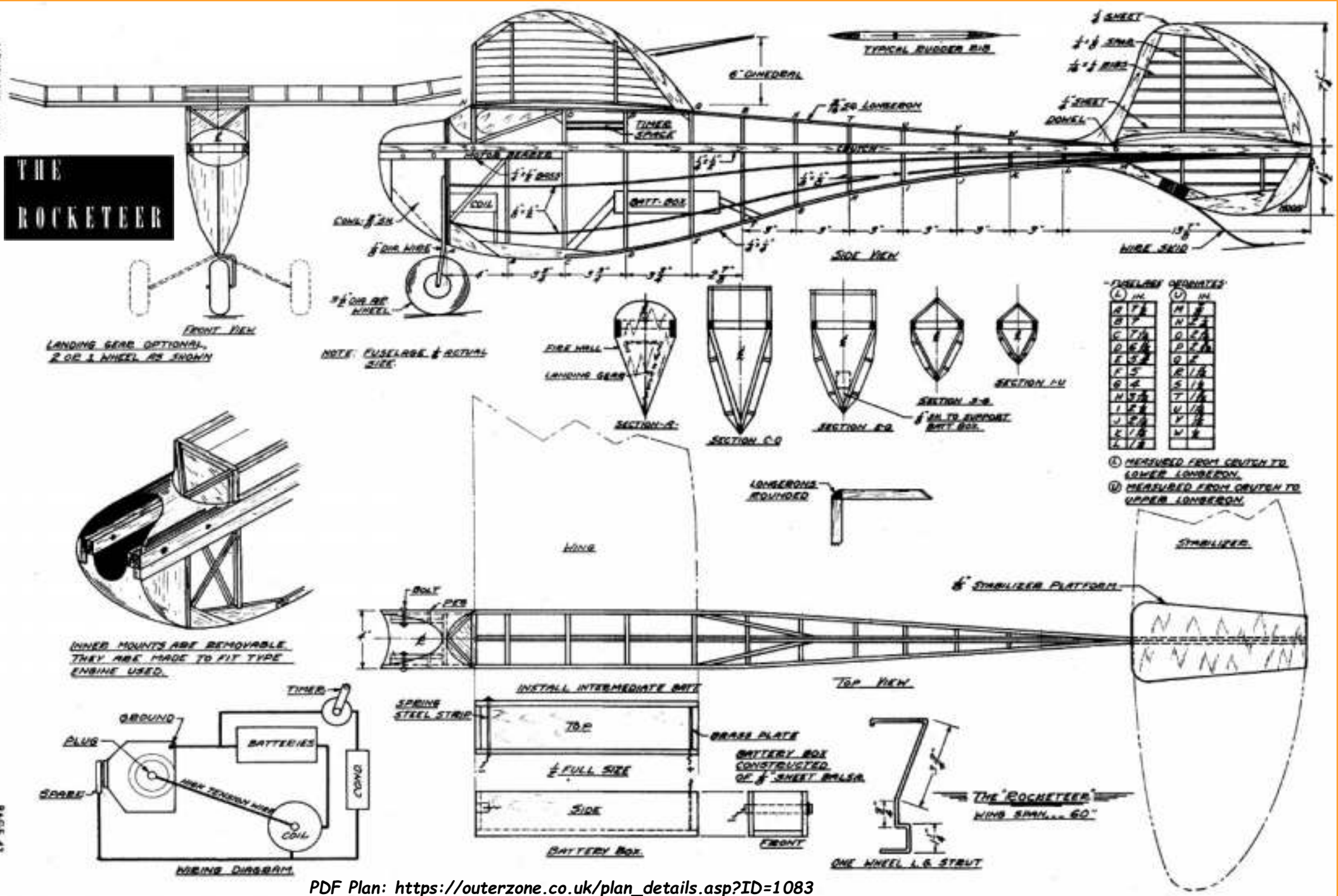
Originally we planned a ship that would have a low centre of lateral area, a rather long moment arm, a low centre of gravity, high thrust line, and a real pendulum effect to increase directional stability. The first of the ships had the customary wing - with dihedral in a V form. After mediocre results this was modified until the present form of tip dihedral was evolved. The first ship had a tail moment arm that was too short, and which was subsequently lengthened. It was hard to adjust, a matter which was remedied by enlarging the "belly," giving a better placement of lateral area.

The final design was built into the present ship, which was completed in the dim, dark hours of the morning of April 19th. We had entered the contest held that day at Creedmore, L.I., and everything was ready for a stellar performance, except for one small item - the timer had not been checked. It was an old timer, erratic and undependable, and after the first test flights we knew we'd have trouble with it. But as all fliers will, on occasion, we took a chance. We paid our entry fee and the plane was sent up on an "official."

The ship climbed beautifully - almost straight up. A steep "hang type" of climb that took the spectators by storm. We had the contest sewed up, and were just about to celebrate when our timer turned aside, shook his head and muttered, "Sorry, fellows. Twenty-four-second motor run. Unofficial flight."

NOVEMBER, 1939

THE ROCKETEER



LANDING GEAR OPTIONAL, 2 OR 3 WHEEL AS SHOWN

NOTE: FUSELAGE 1/2 ACTUAL SIZE

INNER MOUNTS ARE REMOVABLE. THEY ARE MADE TO FIT TYPE ENGINE USED.

WIRING DIAGRAM

BATTERY BOX

ONE WHEEL L.G. STRUT

FUSELAGE DIAMETERS

DIAM.	DIAM.
A 7/8	N 3/4
B 1	N 1/2
C 1 1/8	O 1/2
D 1 1/4	P 1/2
E 1 1/2	Q 1/2
F 1 3/4	R 1/2
G 2	S 1/2
H 2 1/8	T 1/2
I 2 1/4	U 1/2
J 2 1/2	V 1/2
K 2 3/4	W 1/2
L 3	X 1/2

- ① MEASURED FROM CENTER TO LOWER LONGERON.
- ② MEASURED FROM CENTER TO UPPER LONGERON.

PAGE 45

placed only eleventh. Then we turned to Howie's ship, which boasted a new Brown.

The first flight wasn't sensational-some two minutes and fifty-seven seconds, with the motor at half throttle. Herb Friedlander of our club was ahead of us, and we needed a super flight to beat him for the first-prize trophy. As a result, we made our adjustments very carefully. Howie nodded at the timer, started his motor, and opened it wide.

We didn't wonder at the gasp from the spectators. We were astonished, too, for the Rocketeer literally lived up to her name. It hung on the prop and bored a hole in the afternoon sky. Later we heard that a mathematician in the crowd had (by aid of a range finder) estimated that the ship reached an altitude of some seven hundred feet on the motor run. At nineteen seconds the motor cut, then that glide, slow and shallow as the flight of a soaring bird. A thermal bounced the ship higher, and it circled slowly to the right. At the end of ten minutes and twenty seconds the Rocketeer disappeared to the south in a bank of clouds, appreciably higher than it had been on the motor run. The timer clicked his watch, handed in his time; the ship had definitely clinched the meet for us and for the Sky-Scrapers.

There is a sequel, of course. Four days later we received a letter from the Bronx. Howie's ship had landed at Fieldstone, N.Y., after crossing the Hudson River. The point was some twenty-five miles away to the northeast. As we say, we're getting tired of chasing this ship.

Now a brief word of description. The airfoil in the wing may be attributed to Gordon Murray, of the Sky-Scrapers, who affectionately calls it the Murray GM-1, although he admits he conceived it by the "zip-zip" method. (You know - a zip for the top and a zip for the bottom.) The motor mount is an old club feature - the one-wheel landing gear used originally by Leon Shulman of the Sky-Scrapers. The body, design and wing are by Schoenbrun, with the ramifications mentioned above by the same culprit.

FUSELAGE

The fuselage of the Rocketeer is simple to build, yet represents the ultimate in highly efficient construction. The main longeron, or "crutch," is $1/2 \times 1/4$ " hard balsa. The first step is the construction of the top view of the fuselage. Scale up the plans and begin by placing the two crutch pieces small side down on a flat surface. Build the top view as though it was the side of a fuselage. The cross pieces, also of $1/2 \times 1/4$ ", are placed in their proper places and cemented thoroughly. Note that the fuselage pieces are pulled together at Station M and cemented so that the two crutch pieces are continued to the tip of the fuselage.

The next step is to cement the motor bearer (of $1/2 \times 1/4$ " bass) to the crutches in the position shown. Build the V's of the fuselage according to the ordinates given in the plan. First cement the bottom V's in proper positions. The keel of the fuselage from the tip to Station C is $1/4$ " sheet balsa. Splice quarter sheet balsa from Station C to the fire wall, which is of $1/8$ " plywood, cut as shown on the plan. (Section A.)

Build two cabin side walls, from Station N to Station Q, following the plans for measurements. You will note that there is $1/4$ " "built-in" incidence accounting for the fact that the cabin is higher in the front than in the rear. Also note the slot built on the left side for mounting the lightweight flight timer. Place the completed cabin on the crutch section already built, cut cross pieces, and cement thoroughly.

The stringers on the fuselage are $1/2 \times 1/8$ " soft balsa, and *must be added* to bring the ship up to a point where it meets the N.A.A. cross-section requirements. Note measurements at the various fuselage stations, which show where the stringers must be placed, and the measurements at the various stations.

From Station C to Station A, the stringers should be sanded down until at Station A they are flush with the side of the fire wall. The stringers also taper from Station C to Station M,

merging with the longerons at the latter point.

At the top cross brace at the rear of the cabin at Station Q, cement a piece of $3/16$ " square balsa which is continued in a straight line back to Station M, where it joins the crutch longerons. From behind the cabin, $1/8$ " square pieces form the construction which extends in a triangular form from this top longeron down to the two crutch longerons, at Stations R, S, T, U, V and W. The cabin, as will be noted, tapers into this construction. (See top view.)

One or two-wheel landing gear may be used, depending upon the desires of the builder. If a one-wheel design is used, follow the diagram given for forming the strut on which the wheel is mounted. Small sixteenth-inch holes should be drilled in the fire wall, as shown on plan. Linen thread should be used to tie the gear into place and the entire assembly should be heavily cemented and set aside to dry. Note the slight amount of forward projection on the strut. The two-wheel gear may be formed according to the plan, and mounted in a similar manner. The triangle of the two-wheel gear against the fire wall is formed by assuming that the top bracket of the single-strut gear (on the plans) was to continue down from the left-hand edge of the diagram.

Quarter-inch dowels, which extend through the fuselage, are used to secure the wing. This construction is more efficient, lighter, and safer than the wire-hook method.

The motor mounts used will depend upon the motor chosen. For a Brown the mounts are made of $1/2 \times 1$ " gumwood, with the half-inch side against the motor bearer. Bolts secure the mount at the front, while wooden pegs (taken from match sticks) are placed through the rear holes. In case of crash, the wood sticks break, thus saving the motor.

The sub-rudder is shown on the side view of the ship. The outline is of quarter-sheet, very hard balsa. Interior construction is of $1/4 \times 1/8$ " medium balsa. The sub-rudder should be formed apart from the fuselage, and when dry should be cemented to the fuselage in the proper place. The skid is of $1/16$ " wire, and is bound to the outline with linen thread. The hook for fastening the rudder should be securely bound between the crutch and the top of the sub-rudder, and is of $1/16$ " wire.

The nose is of soft $3/8$ " sheet. It is formed to the outlines shown, and the construction is simple if the contours are followed closely. Looking at the isometric view of the plane it will be noted that the nose tapers to a V form. Begin construction by forming the sides which are cemented to the fire wall and motor bearer. Cut these side pieces to the curve extending from the nose of the ship to the bottom of the fire wall. Note that these pieces meet at the bottom of the fire wall. Cut to shape the next piece of sheet balsa, which is the lower piece on the lateral view. Cut to the angle shown and place the frontal piece between the sides of the cowl. Your construction will then need to dry, and after drying must be sanded to a



Maurice Schoenbrun holding Rocketeer.

smooth contour, according to the isometric view.

Section E-Q illustrates the battery-box mountings. The coil is mounted in the same manner as the battery box. Wiring may be installed after these pieces are in place, the hook-up wires coming through holes in the fire wall. It is suggested that one of the new type light-weight stop-watch timers be used. However, this is optional according to the builder and the materials at hand.



A take-off shot of a Rocketeer at the Eastern States Contest.

The distinctive fuselage cross-section and mono-wheel are shown clearly.

follows approximately the section shown on Plate 2. Camber does not decrease but is the same to S-6, and it tapers from there down to the tip.

The rudder is flat as shown on plan and has no airfoil. Ribs are of 1/16 x 1/4" sheet, and are cut at tips to fit within the outline. The bottom of the rudder is of heavy quarter sheet, and is cemented to the elevator at S-1. Of course all leading and trailing edges on both rudder and elevator are sanded to an airfoil section.

THE WING

Perhaps we should pause for breath at this point, for the wing really requires some thought. An entirely new system of computation for tapered sections had to be devised to make it easy to build.

Cut a total of thirty-one ribs from 1/16" sheet, making all of them exactly the same as R-1. Leave nine of them untouched for centre section. The rest of the ribs are cut, from the trailing edge, to proper size. This will leave the rear rib tips of uneven depth. Measure up one-quarter inch from the bottom on each of these ribs to be formed at the trailing edge, and lay the template of R-1 upon these ribs, making sure that the V notch at the leading edge coincides in both ribs. A better method is to insert a pin about a quarter of an inch back on the template of R-1 and through the rib to be cut. Then move the R-1 template down until the top surface line meets the quarter-inch mark, and with a pencil draw the resulting curve on the rib to be formed. This will accurately form the top surface of the rib you are

forming.

Make the ribs in pairs; for example, if you form R-6 by this manner, make another rib exactly the same. In this manner you may form the entire set of ribs. As for that trailing spar, note the measurement of R-10 in the wing diagram. Once the ribs are in proper position, bring the trailing spar to the point where it meets R-10 and mark the place where it crosses each rib. Make a notch in each rib at this point, and you have the proper mounting position.

You have probably observed in the plan that the trailing edge, trailing spar, main spar, and leading edge are cracked at the point where the dihedral begins. This assembly should be glued after the proper angle is obtained, and the spar plates inserted, pinned and thoroughly cemented. The trailing edge and other sections are to be sanded carefully, to make a smooth contour. The main spar, as will be noted, tapers from full thickness at R-2 to one-eighth at the tip. This taper is from the top down. The trailing spar tapers from the bottom up, giving negative angle at the tips, preventing stalling.

Covering is up to the builder, entirely. We prefer the new ultra-thin bamboo paper, but the heavier paper will make very little difference in flying, and will be decidedly stronger. Cover carefully, and give the ship several coats of dope. Color scheme is at the discretion of the builder, although dark colours should be used for contest flying, to give greater visibility.

Any one-fifth- or one-third-horsepower motor can be used in the Rocketeer. A Brown B was used in Beitchman's ship, while the original model used an old Brown D. Dennymites and O. K.'s have also been used with good results. With one-fifth-horsepower motor, fourteen-inch props with eight-inch pitch are satisfactory.

ADJUSTMENTS

Despite its brilliant performance, the Rocketeer is easy to adjust. Completely fitted, the ship should balance at about halfway back of the leading edge of the wing, this tail-heavy effect making for a steep climb and shallow glide. When this point has been established (it may be adjusted by moving the wing forward or backward), hand-glide the ship, preferably in an area where it will land in tall grass. As a quarter-inch incidence is built in the fuselage, it will not be necessary to add positive to the wing; however, if the plane stalls in the glide, add positive in the stabilizer. If it dives, add negative in the stabilizer. Regardless of the performance, make adjustments in the tail and *never* in the wing.

Give the motor *left* thrust about two degrees. Slight wing warp with torque may also be used, about three-sixteenths of an inch wash-in on the right wing. Enough right rudder to give a tight right circle on the glide should also be given the ship.

The first flight should be made at half throttle of the motor. If left spiral tendency is shown, take out a bit of the left thrust, or if it flies straight under power, take out some of the right rudder. The same adjustments apply to similar reactions in other directions.

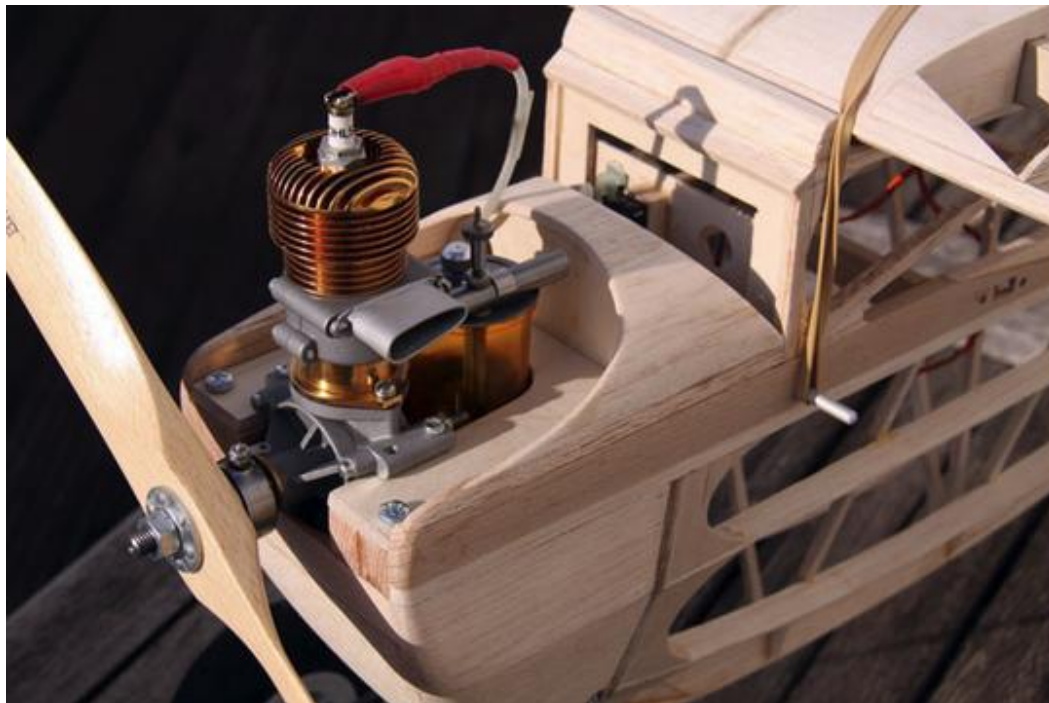
Properly adjusted, the Rocketeer will point its nose to the zenith and go *straight up*, twisting slightly to the left (with torque). This turning is very slight, some four or five turns for a complete climb of several hundred feet.

IN CLOSING

The Rocketeer is an advanced contest ship, and thus differs from conventional ships. It is not a beauty, resembles no plane under the sun, large or small, but it performs in a manner that is really sensational. Contest ships are in a class by themselves; they look like a Martian nightmare, and it has been said that they inspire many a man to mayhem and even more dire straits, such as building solid scales from ten-cent kits. They're tricky, but when built properly they'll make your hair stand on end. If you've any hair, or an ambition to take contests in a big way, build the Rocketeer!



The Rocketeer



ENGINE OF THE MONTH. By John Pond.

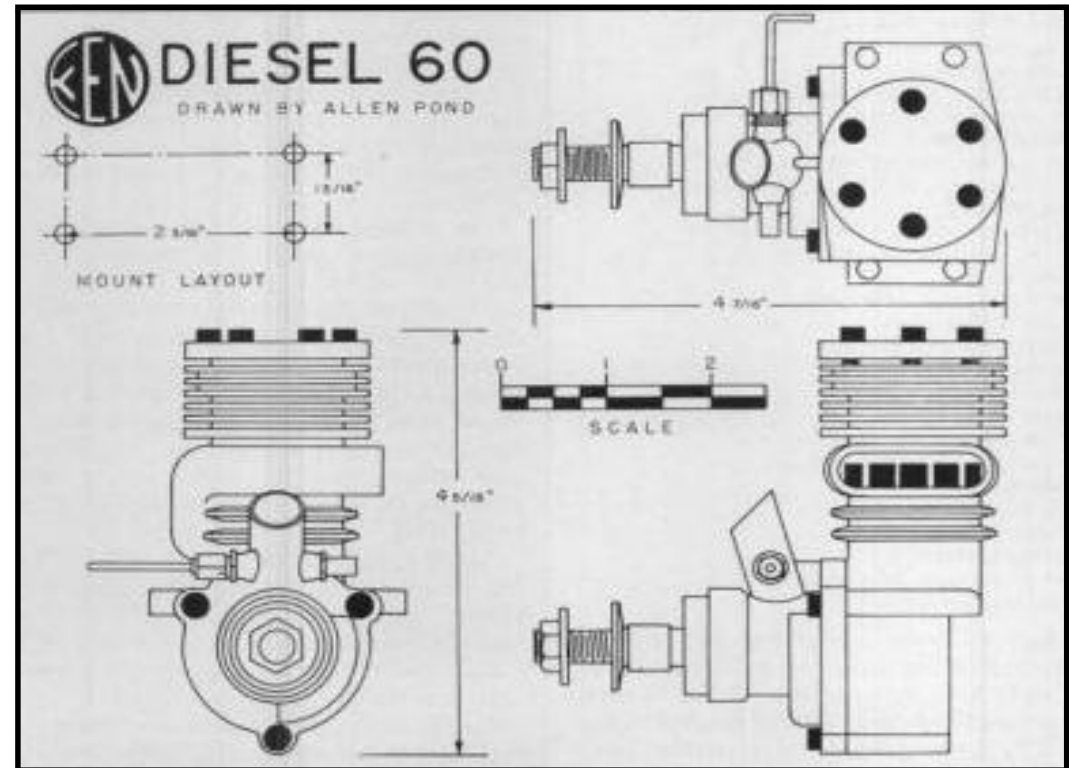
From Model Builder - March 1984.

This month we are indebted to Gordon Coddling, 3724 John L Avenue, Kingman, AZ86401, for use of a little-known engine by Kencraft Co., originally located at 225 N. Seventh St., Garden Grove, California. The engine is the 1947 Ken .60 racing engine converted to diesel.

This rather rare engine lasted only a short time. The engine was produced as an attempt to take advantage of the growing interest in diesel engines that had been generated by the English engines, Leon Shulman, and others.

As can be seen by the drawing, when comparing it to the Ken .60 article appearing in the March 1981 issue of Model Builder, very few changes were made. As a matter of fact, the engine exterior is practically identical as is the inside, i.e. bore, stroke, displacement, etc. The head was replaced by a flat plate with all timer appurtenances removed. This did make for a slightly lighter engine by a half ounce, giving a total weight of 15 ounces. Of course, there was the saving of the ignition system which was again between four and five ounces.

No performance figures are available on this engine. Even Gordon has to admit the engine has not been run in 25 years as it has been in the Smithsonian Museum all this time and just recently returned. This was the last gasp by the Kencraft Co.,



Clipper

THE COMET



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CARL GOLDBERG

HOW TO ADJUST AND FLY THE NEW CLIPPER

By Carl Goldberg

It will pay you to adjust your Clipper with care. You've invested a considerable amount of time and money in your ship, and the flights should give you enjoyment.

There are four stages in adjustment. First, you check each part after it is built by comparing it with the plan. Second, all parts should be aligned perfectly when assembled. Third, the motor must be checked to see that the thrust is set at zero—zero—that is, no offset. And fourth, minor adjustments are made as indicated by test glides and flights.

The greatest amount of good comes from careful checking of each part as and after it is built. Because cement has a tendency to warp things as it dries, take precautions against this by using weights and pins to prevent any change in position until the cement is thoroughly dry. This must be done not with just some parts, but with every single part you make. Several hours after it has been removed from the plan, check each part against the plan to see if warp has developed. If it has, correct by warping in the opposite direction. The same should be done after each part is covered and doped. If the shrinking action of the dope has warped some part hold it warped in the opposite direction over a stove or hot radiator. A

gas range may be used if the flame is turned down very low to prevent the part catching fire.

Correcting warp by use of heat is effective, but not entirely permanent if the warp is excessive; that is, in time a certain amount of the original deflection will return. It's best, therefore to have as little distortion as possible to start with.

The next point is to assemble parts properly. From the top view one wing tip or elevator tip must not slant forward. This is especially true of the wing. See (fig. 1). Also, the wing and elevator should be lined

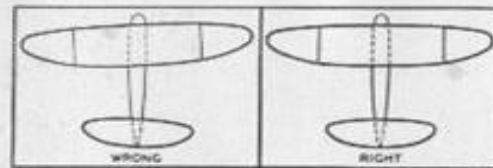


Fig. 1

up in the front view. (fig. 2). Method of checking this is shown in (fig. 3). Small



Fig. 2

strips may be glued in place on the edge of the wing platform to make corrections. The rudder must be closely examined to see that it is perfectly true. See that the rudder tab is quite straight. Next, check the incidence of the wing and stabilizer.

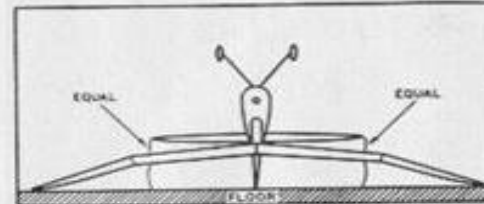


Fig. 3

To check the motor for side thrust, stick a pin in the base of the leading edge of the rudder, and setting the propeller horizontal, measure from the pin to the tips of the blades. Both tips should be equidistant from the pin. (fig. 4).

Next, set the propeller in vertical position, and prop up the tail until the stabilizer is horizontal.

Stand about 8 or 10 feet directly away to the side and examine by eye to see if

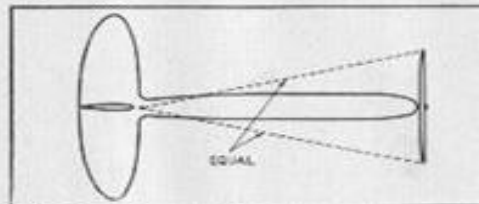


Fig. 4

the propeller is leaning a trifle forward or backward. Make changes as necessary until the propeller stands perfectly straight. If you wish to be more exact, hold a straightedge to one side of a right angle triangle and measure the distance to each propeller tip. (fig. 5).

Finally, balance the ship for flight by shifting the inside parts until the balancing point is exactly as in (fig. 6). DON'T PICK UP THE PLANE BY THE WING TIPS to determine this, as such a method is misleading. Balance the ship on your forefinger, or between your thumb and forefinger, (fig. 6) until you have found the

point at which the ship hesitates equally between falling forward or backward. Measure to see that this point is about 1/3 back from leading edge of wing.

After putting your Clipper through a thorough course of checking as described, a few test glides are all that are neces-

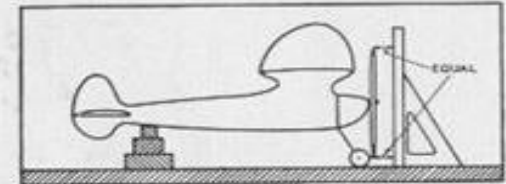


Fig. 5

sary before flying it. Make several experimental runs into the wind until you can feel at just what speed the model will barely lift itself from your hand. On the next run, let go at that speed, with a very gentle additional shove, making sure that **AT THE MOMENT OF RELEASE** the wing

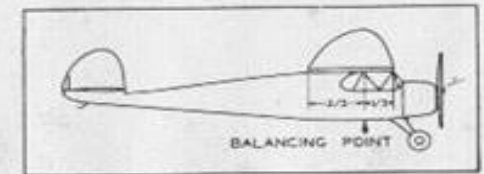


Fig. 6

tips are level and the nose is pointed downward at a spot on the ground 50 to 100 feet in front of you. The model will probably glide well. However, it is possible that some small change in your ship may cause it to glide steeply, or to stall and drop sharply to the ground. If the glide is steep (fig. 7) move the inside ignition box back a bit at a time until the tests

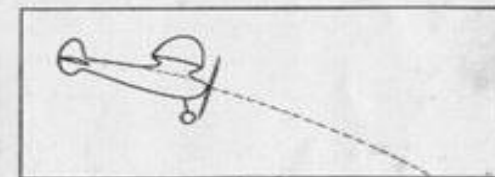


Fig. 7

show a flat glide. If you have a stall, (fig. 8) move the parts forward until it disappears.

Because of the stability of the Clipper, (fig.9) it is unlikely that you will be troubled with a bank during the glide. If this should occur, the cause undoubtedly is serious

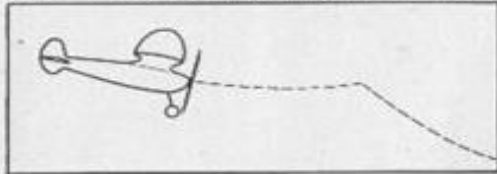


Fig. 8

and must be removed before power flight is attempted. Check back on the following: (1) One stabilizer tip higher than the other, relative to the wing tips; (2) one wing tip slanted forward in the top view; (3) rudder twisted or bent a bit; (4) warp in the stabilizer or one of the wing panels; (5) one wing-half much heavier than the other. The main thing is to obtain a

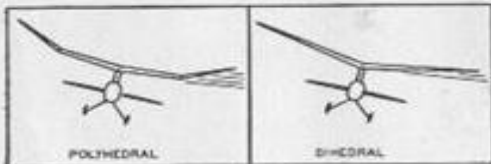


Fig. 9

straight, steady, fairly slow glide. A VERY small tendency to circle to the right is safe. Check the effect of each adjustment by several glides.

Now for some power flights. Your helper should be on the right side (looking from the rear of the ship), and the booster batteries under the right wing. He should hold the ship firmly with both hands, one under the front, the other over the rear of the fuselage. Connect up the boosters with the positive terminal going to the booster eyebolt if the inside positive is connected to the timer as shown on the plan. (This is worth getting right, as it will save your small inside batteries from burning out rapidly). Start up the motor and get it running smoothly. The needle valve should be in slightly rich position, at about the point where the motor first starts to "two-cycle". The reason for this is that as the model gains altitude a "leaning out" effect is obtained, so that if the engine were fully

leaned out on the ground this extra effect would cause it to stop prematurely when in flight. Run your engine a little less than half open; that is, don't use very much power on the first flights. When the engine is running to your satisfaction, cross to the left side of the ship, and pull the timer string (your automatic timer having been set previously for 20 seconds) (fig 10) Hold

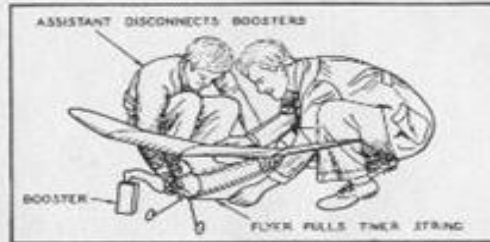


Fig 10

onto the string and the ship while your helper disconnects the boosters. Then release the string, pick up the model (holding it in the gliding position), and run and launch it, exactly as you did in the glide tests, (fig 11) **DON'T POINT THE SHIP UP!** In further trials, open up the engine only a little more for each flight. For rise-off-ground (R. O. G.) flights, when your helper has disconnected the boosters he should hold the plane once more while you release the string and grasp the wing tip with both hands (later on, you can use one hand). Guide the model into

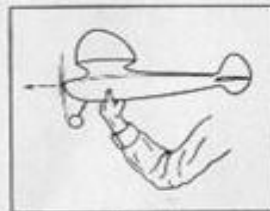


Fig. 11



Fig. 12

Carl Goldberg launching a model

the air, running with it until flying speed is attained, (fig. 12). The wind should be on the inside of the ship's power circle at the take-off. (fig 13)

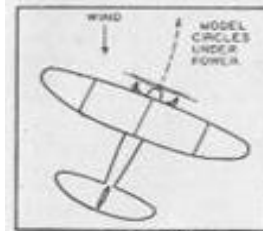


Fig. 13

A few last words of caution. Occasionally, your ship will hit a rut or otherwise make a rough landing which will strain your motor lock springs. Any time you suspect such a strain, pull out the lock springs and check their tension. In the unstretched position, the end of each lock spring should be at least 1/4" from the motor mount hole. If it is less, enlarge the circle with pliers. It is very important to maintain proper tension, else the thrust may pull the whole front end forward at an angle and cause a crash. Also, always check to see that the wing and tail are in their proper positions. You can save a great deal of trouble by operating your motor at home the day before you go out to fly. Start on the boosters and switch over to the little batteries exactly as though you were going to launch the model. A pair of fresh cells will last for at least forty flights, so don't blame them the moment you get into trouble. It means much to have plenty of pressure from the battery spring, and to have good connections with high quality ignition wire. Sometimes your motor will not work on the inside

batteries, altho it does on the boosters, because the plug is partly fouled or the breaker points somewhat pitted. Always have a spare NEW plug on hand. Be careful of the tension of the rubber bands holding on the wing and tail. The right amount is sufficient to keep the wing or tail from wobbling in flight, but not enough to keep them from being jarred off by collisions. The moral of the whole story is this: Be thoroughly sure of your ship BEFORE you leave home to fly. Use your common sense and you'll have plenty of Happy Landings.

Carl Goldberg

REPLACEMENT PARTS LIST
NEW CLIPPER

Dural Motor Mounts	pair	\$.35
Motor Locks & Holders complete set		.20
Wheel Bushings	set of 4	.05
Brass Battery Springs	each	.05
Wire Landing Gear		.20
Box of Fittings		1.00
Decal Transfer		.10
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Complete Set of all Printed Wood Sheets (Not sold separately)		.95
Complete set of all Tapered Spars (Not sold separately)		.45

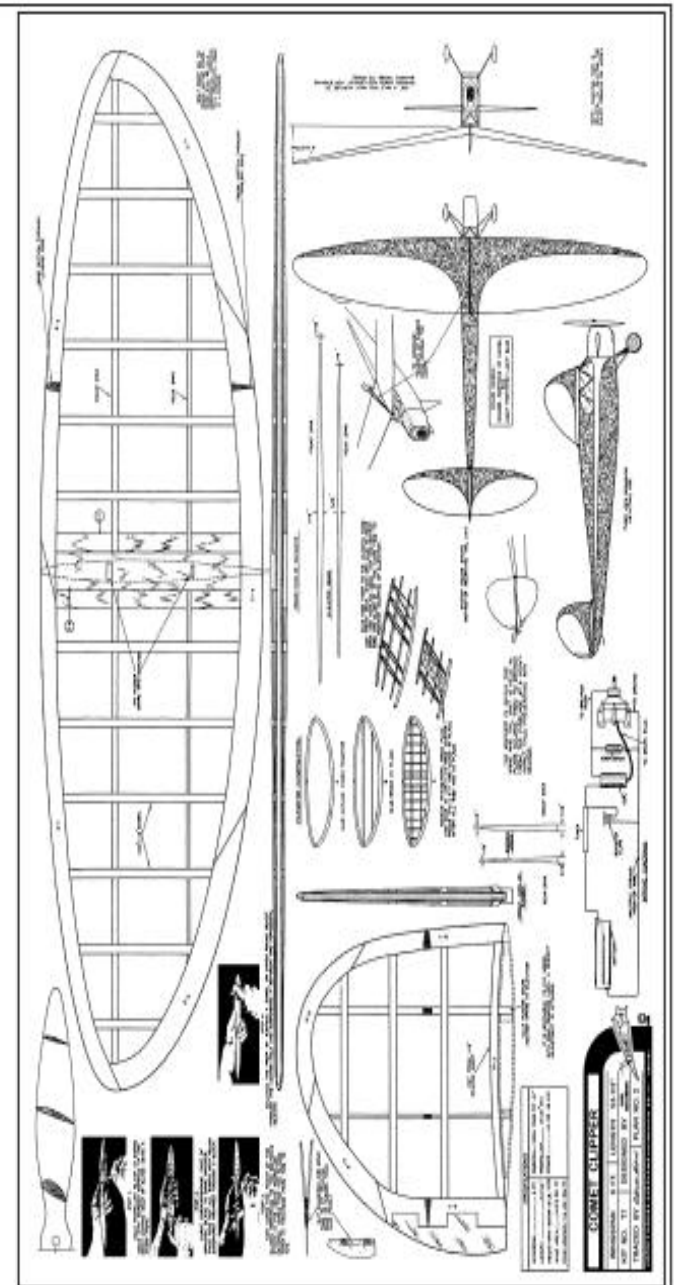
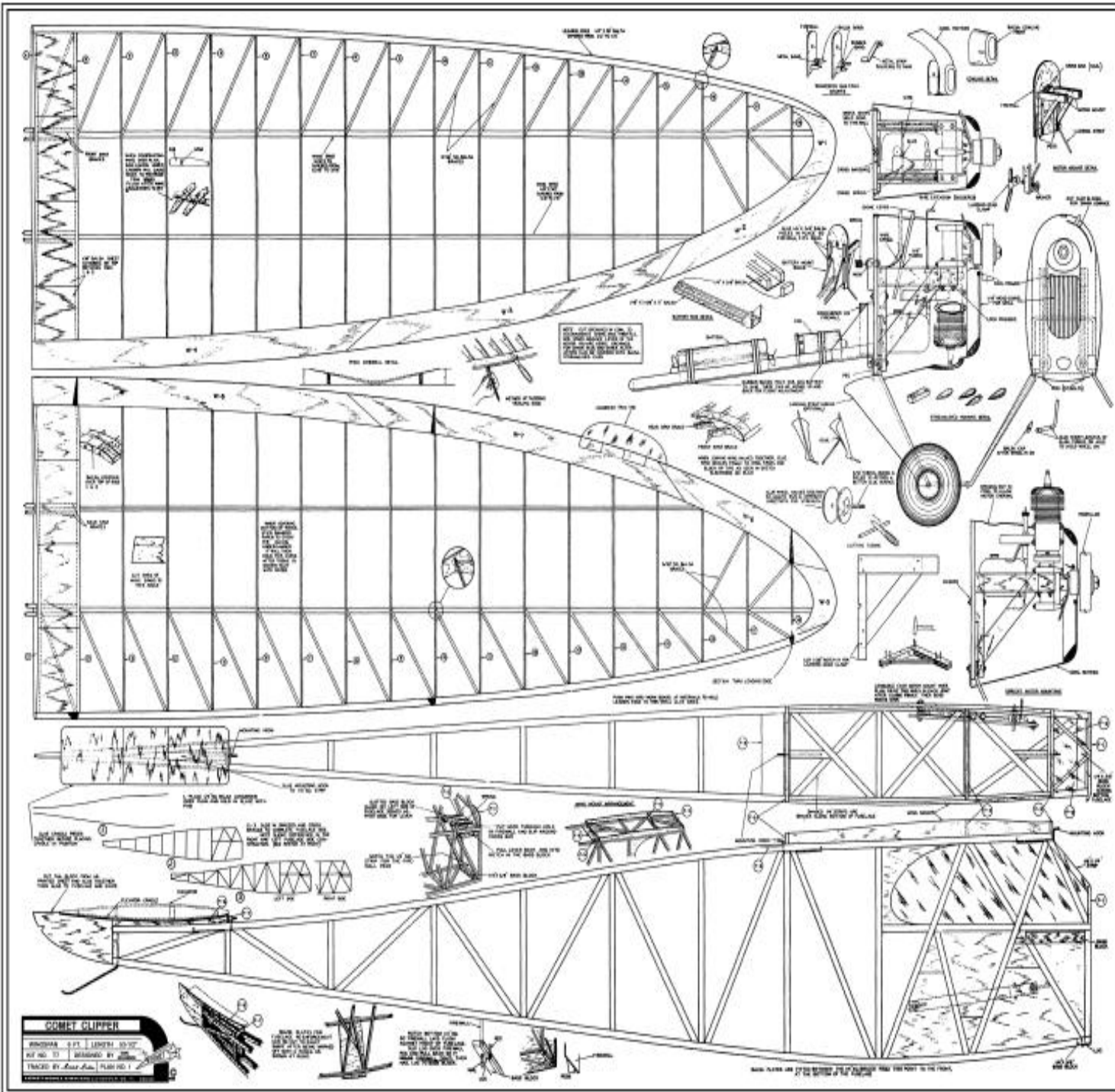
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NEW YORK

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Outerzone PDF Plan:

https://outerzone.co.uk/plan_details.asp?ID=922

Note: The ribs and the formers are for the Mk 2



Carl Goldberg (Left) with his original Clipper at the Mississippi Valley Model Airplane Contest, Parks Air College Airport, East St. Louis, Illinois, 1938. Photo by Dick Tichenor.



ENGINE OF THE MONTH. By John Pond.

From Model Builder - April 1984.

There is no question that when it comes to motor designs and the manufacture thereof, William E "Bill" Atwood was the most prolific of all. At the time of the inception of this engine, Atwood had no less than five aircraft engines on the market with a whole flock of car and boat racing engines on the back burner.

Quite a bit of confusion arose over the various Atwood engines being produced back then. The first "Hi-Speed" engine (later known as the Bullet) was advertised with an address of 800 East Gage Street, Los Angeles. The Atwood Phantom was also advertised at this address. When the Hi-Speed "Torpedo" came out, the mailing address was given as 6408 McKinley Avenue, Los Angeles.

A quick look at the old Los Angeles maps show these building(s) to be the same with entrances fronting each street, just another case of one hand washing the other! Regardless, Atwood's engines commanded immediate respect. These rotary valve engines were low cost, light, and ran well. This writer considers the Torpedo the foremost Class B engine produced by Atwood. Even today's famous Torpedo can trace its ancestry to this good running engine.

Of course, by making the engine light (they were made of Dow metal) the magnesium cases broke rather easily in a crash. One of the big faults was the way the engine mounting lugs, when torn loose, would reveal an open crankcase. Too bad we didn't have epoxy glues then! Even the cyanacrolates would help tremendously!

Coming out in the July, 1939, issue of Model Airplane News, Torpedo enjoyed an immediate success. The enclosed timer was a real boon as it did keep dirt and grease out. However, on the negative side, timer springs would break easier under continual use. According to the manufacturer, the timer had been checked to 20,000 rpm.

In an effort to keep weight down, Atwood employed Dow metal (which is claimed to be 2/3 the weight of aluminium) in all die cast parts. The gas tank was made of transparent bakelite advertised as both a heat and alcohol resisting material. The crankshaft was "hogged" out of one piece of steel with a hollow crankpin, all operating on a bronze main bearing.

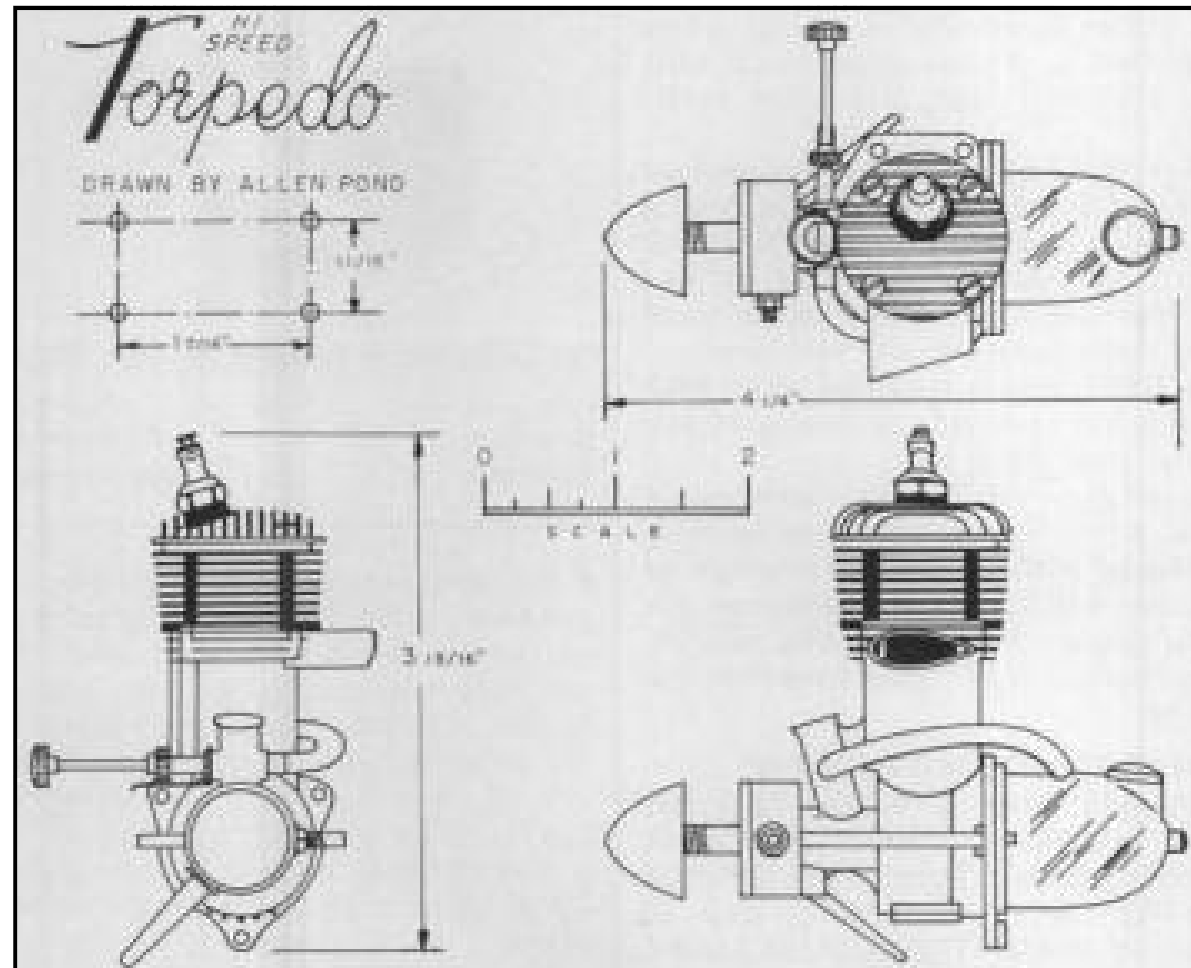
A steel piston was lapped to a cast iron cylinder. To round out the materials used, the connecting rod was die cast Dow metal while the wrist pin was machined from brass.

Figures differ on the displacement as the opening advertisements give the Torpedo as a .27 cu.in. engine. However, with a bore of .75 inch, and a stroke of .343 inch, this figures to be .304 cu.in. Later, with slight changes in the bore (.725 inch), figures were announced giving a displacement of .289. That's about as close as you can come to .30 and still be a Class B engine!

Other figures on the Torpedo give the base weight as 4.5 ounces, and the power output as 1/5 hp (original specifications gave 1/7 hp using a 13x7 propeller ranging as high as 800 rpm).

One of the interesting items interesting items in the running of the engine is the recommended mixture of 2.5 parts gas to one part of oil. At this time, many modelers were using ratios of four and five to one; hence, this mixture seems to be a throwback to the early three to one combinations. This also helps close up the piston clearance as Bill Atwood had machined his engines for quick break-in and immediate use. This feature was later used by Brodbeck in the post-war Torpedo engines making the engine extremely popular to free flihters.

Wrapping the subject up, the engine was originally priced at \$16.50 with coil and condenser. When the "merger" of Hi-Speed and Phantom to place, the Phantom Torpedo was priced at \$10.95 a real buy!





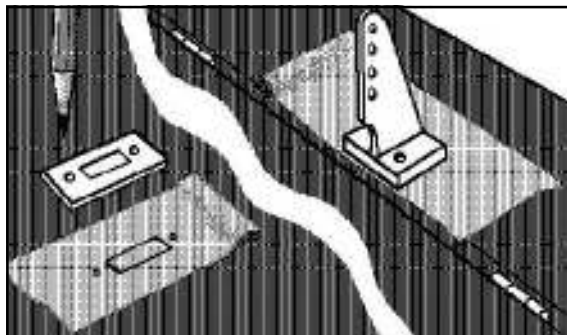
Eltie Crisler Segar started the Popeye cartoon series in 1929. Ol Charlie clipped several old Popeye comics, assembled them around his hand drawn glider and came up with this.



Just before the funeral services, the undertaker came up to the very elderly widow and asked, "How old was your husband?" "98," she replied.... "Two years older than me." "So you're 96," the undertaker commented. She responded, "Hardly worth going home, is it?"

MARKING DARK MONOCOTE COVERING

Putting any kind of decent marks on monocote is really tough, especially if the monocote is a dark color. This becomes a hassle for you when trying to accurately place control horns or mount a switch to a surface that's already covered.



Try putting down a piece of masking tape in the approximate location. Then line up the horn or switch plate and make your marks on the tape! The marks are quite visible, and you can cut or drill right through the tape. Then you can pull off the tape easily by pulling it sideways over itself; i.e. don't pull straight up or you may lift the covering material.

Bending an end of the tape back on itself before applying will give you a nice "handle" to grab to peel the tape off.



TRIVIA

The First Spy Satellite Images Were Retrieved By?

- Airplanes »
- Rockets »
- Encrypted Radio Waves »
- Submarines »

Answer: Airplanes

You've got a spy camera in space, orbiting the globe, and it uses honest-to-goodness film.

You need to get that film back to Earth without damaging it, so it can be developed by your intelligence agencies and examined. What do you do?

If it's the 1960s, you're the United States Air Force, and you're flush with cash, Cold War bravado, and skilled pilots, then you snatch it right out of the air as it re-enters the Earth's atmosphere.

We're not being remotely hyperbolic with that statement either. The earliest U.S. spy satellites would jettison their film payloads, secured in very well insulated tiny re-entry vehicles called "film buckets". The film buckets would deploy a parachute to drift lazily through the air for a few moments before being expertly intercepted by U.S. Air Force pilots soaring along dragging a tail hook capture device behind their planes.

In the rare instances the Air Force failed to retrieve the film buckets, the Navy was called in to pluck them out of the ocean using radio transmitters to locate them. As a final safeguard, should the Navy fail in retrieving them, a salt plug in the bottom of the device would dissolve when exposed to water for two days and sink the film to the bottom of the ocean.

**FANS CRACKED NASA'S PERSEVERANCE ROVER PARACHUTE CODE HOURS AFTER DEPLOYMENT**

Andrew Heinzman
Feb 24, 2021.
From Review Geek.

NASA's perseverance rover touched down on the surface of Mars last week, giving us the first audio recording of the mysterious red planet. But who cares about the sound of Mars when there's a mystery to solve? Hours after the Mars rover land-



ed, internet detectives discovered and decoded a secret message hidden in the device's oddly-patterned parachute.

The Mars rover parachute sports a few red and white columns separated by concentric rings. After establishing that the red and white columns represent the 1s and 0s of binary code, Twitter user @FrenchTech..paf organized the numbers into groups of ten, creating a 10-bit code that's easy to translate into alphabetical letters. From there, @FrenchTech_paf quickly uncovered the parachute's message - "Dare Mighty Things."

"Dare Mighty Things" is the motto used by the Perseverance team at NASA's Jet Propulsion Laboratory. But it isn't the only message hidden in the parachute! Its outer rings, read as binary, translate to the coordinates for NASA's Jet Propulsion Laboratory - that's 34°11'58" N 118°10'31" W for anyone curious.

Shortly after the code was cracked Perseverance Chief Engineer Adam Stelzner went to Twitter to confirm its existence. It's possible that there are still secret messages hidden in the parachute, or even in the humble Perseverance Rover. The space agency is known for its use of symbolism, and NASA's Curiosity rover, which landed on Mars in 2012, actually had the Morse code for JPL (Jet Propulsion Laboratory) cut into its wheels as a sort of footprint.

**So you know how NASA sent a secret message to Mars?
[@FrenchTech_paf](#) figured it out.**

**Dare mighty things pic.twitter.com/HIO2BUVjNd
— Emily Calandrelli (@TheSpaceGal) [February 23, 2021](#)**



'WAR BABY'

Designed for modellers
hampered by wartime
shortages,
this gassie still competes
with the best

By

FRANK V. B. EHLING

*Scanned From June 1945
Model Airplane News*

IT IS becoming more and more difficult for the civilian to suppress his optimism about an early end to the war. We seem to be getting nearer and nearer to it all the time. The

end of the war will mean motors, coils, condensers and other gas engine supplies plus plenty of balsa, tissue, cement, rubber wheels, metal fittings, etc. It may seem to most that since the war situation is constantly improving, so, too, is the model supply situation. However, that just isn't so as many modellers in small towns and outlying districts have found.

To meet this shortage of critical materials, the *War Baby* was designed almost entirely of "non-strategic" items. The structure is entirely of bass and the beauty of this project is that the plane has been designed expressly for this purpose. Cut everything to the shape shown using the exact sizes noted. This eliminates the bother of "adding 25% more thickness" and other vague instructions for substitutes on balsa drawings.

I spent some time trying to figure out a way of building a gas model without a gas engine but I finally gave up; that's one very small strategic situation you'll have to solve yourself. I have specified brass for the landing gear tie-down supports, but any metal, even "tin can metal," may be used.

Another "strategic" item left out of *War Baby* is the usual series of graceful curves. Beginners and lazy builders will love this omission but, surprisingly enough, the plane will still look plenty good floating around up in the blue.

CONSTRUCTION - If possible, try to obtain a selection of clear-grained bass. Any bass (or other hardwood) can be used and performance will suffer little, but if you have any choice in the matter choose the best of the lot because straight, clear grain is very important in the hardwoods since the sizes are so small the pieces must carry a greater proportion of the load.

WING - Start the wing construction by cutting out the ribs. All the ribs may be made alike (except for chord length) as shown, or an aerodynamic "twist" may be incorporated. The purpose of this twist is to improve the stalling characteristics of the wing. By "twisting" the wings, they may be so constructed that a part of them will stall before the remainder. As soon as a portion of the wing loses lift the plane will begin to "settle," thereby increasing the angle of attack and restoring lift to the whole wing. Either the tips or the roots of the wing may be made to stall first. By lining up the ribs so their upper surfaces are in a line, a "wash-in" is created thereby causing the roots to stall first. By lining up the bottoms of the ribs, a "washout" effect is created causing the tips to stall first. Both effects are now in use in several large airplanes and there seems to be little to choose between them. From a construction point of view the first case is more simple to build: make the required number of ribs, all exactly alike. Sand them in a group so their curvatures are identical. Make the tip ribs by cutting off the bottoms of the ribs as shown by the dotted line on the rib drawing. When assembled on the spar, the ribs will have a "wash in" effect. Try this as an experiment and we'll bet *War Baby* won't stall, even if you try!

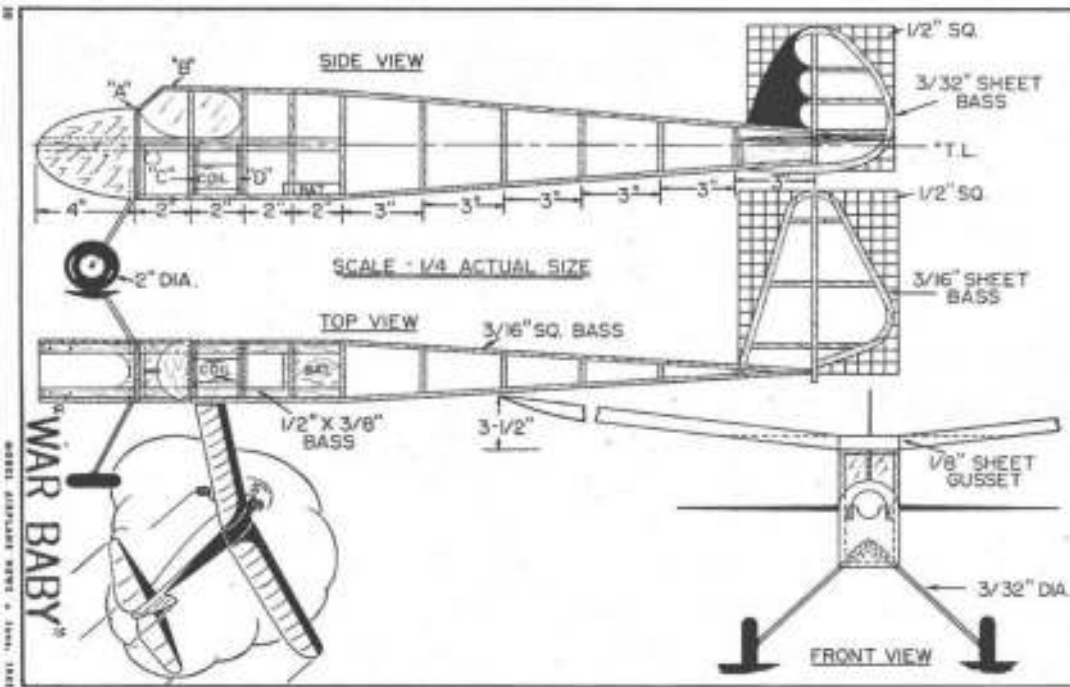
During assembly, use plenty of cement as hardwood doesn't absorb it as well as balsa and you'll need good, strong joints to bring out the full value of the stronger wood.

After the two wing halves have been completed, assemble them with the wing gusset shown by the dotted lines in the small front view.

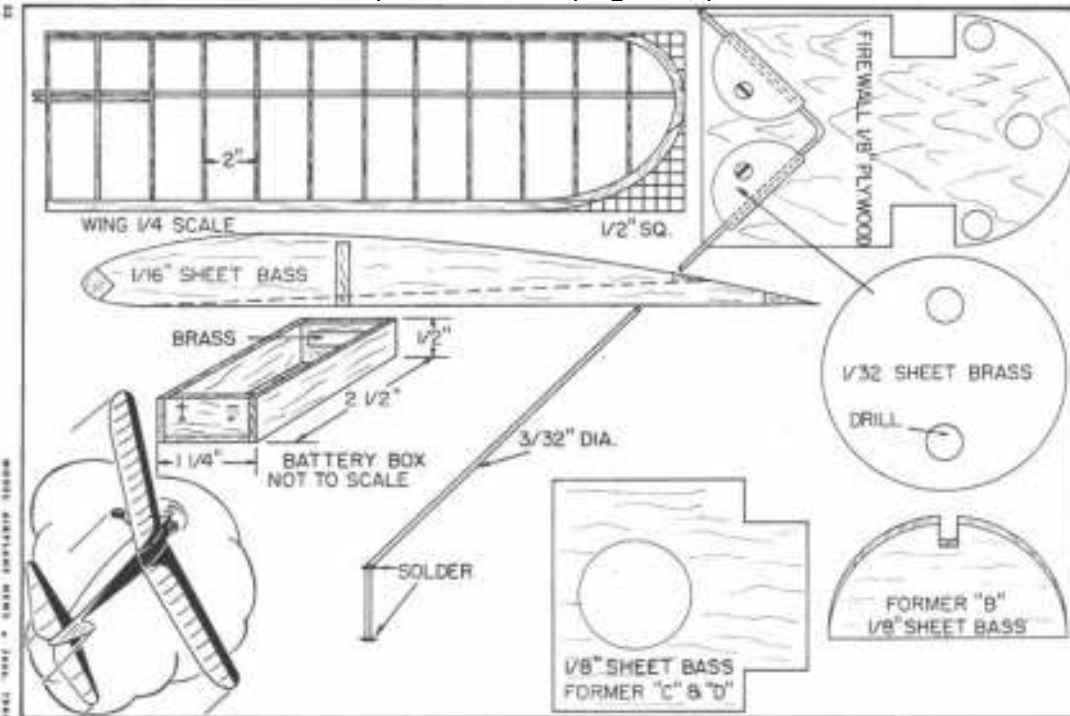
FUSELAGE - Tack down the plan and assemble the various parts. Place cement between the joints and hold them in place by pins on both sides of the pieces. After the side frame has dried, lay down another set of pieces directly on top of the first and assemble. After this second frame has dried thoroughly, remove the pins and cut the two frames apart with a thin razor blade. In this manner the two sides will be identical. Join the two side frames into a fuselage by cementing the cross-pieces in place. These are best held together during drying by driving pins directly through the frame wood into the cross-brace lengthwise. After drying, remove the pins and the fuselage is complete. Bolt the landing gear in place as shown on the drawing. Cut the engine bearers to the required length and cement in place. Use plenty of cement on these as they must withstand the vibration of the engine.

TAIL SURFACES - The stabilizer is of simple construction and should be thoroughly dried before removing as a warped stabilizer will play hob with a flying model. The rudder is made next by assembling the various pieces shown. Cover and assemble.

COVERING AND FINISH - Cover the wings and fuselage using only tiny "dabs" of cement or dope on the structure members to hold the covering in place. After covering, water dope throughout letting each coat dry thoroughly before applying the next. Inspect the model closely to prevent the covering from shrinking and warping the model out of line. After the covering is thoroughly dry, apply the first coat of dope. Use as many coats as necessary because dope will greatly increase the



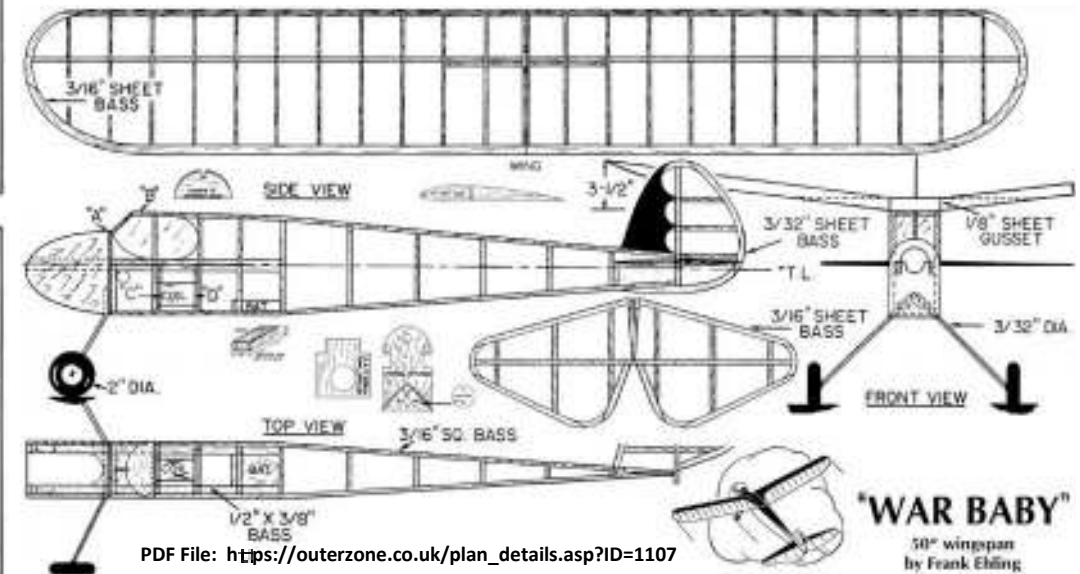
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the model out of line. After the covering is thoroughly dry, apply the first coat of dope. Use as many coats as necessary because dope will greatly increase the strength of the covering.

FLYING - Try to subdue your enthusiasm to fly *War Baby* long enough to give her a few preliminary gliding trials. Toss the plane from about waist height first to ascertain if she floats. If she dives over on her nose, add a little weight to the tail, move the wing forward or move the battery box to the rear. Try it from shoulder height and if the plane swoops up into a quick stall, do the reverse of the above. After a number of these glide tests, and not until you are absolutely certain of the correct balance, start up the engine, retard it down to about one-third power and let her go! *War Baby* should climb to the right under power and circle to the left without power. If she doesn't, adjust the rudder until she does!

After a smooth flight is obtained, give 'er the gun and watch *War Baby* cut a figure eight in the blue!



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Attention: July 7th-14th West Wyalong 2021
West Wyalong National Championships
PUT THIS IN YOUR DIARY
 All MAAA Section 5 Old Timer Events will be run
 plus Cabin Scramble.
Any enquiries: Peter Scott (02) 96241262.

OLD TIMER Model of the Month

CLOUD CRUISER

Designed by: Harry Edward Moyer
 Drawn by: Al Novotnik
 Text by: Bill Northrop



The Cloud Cruiser is a pretty parasol gas model that could easily pass for a semi-scale replica of a homebuilt. It was featured in the July 1937 issue of Model Airplane News, and it was designed by Harry Edward Moyer. The scale-like arrangement of the tail surfaces makes it a natural for three-channel radio control.

The model has one drawback, construction is a mixture of modern and old-time techniques that, if followed explicitly, would make it somewhat difficult to build. In accordance with our usual practice, we have not taken it upon ourselves to modify the plans to show how we might simplify construction. Better to show you the way it was and allow you to make your own changes. However, a few suggestions...

FUSELAGE

Make a series of partial saw cuts on the top side of the bottom longerons, between stations A and B to facilitate making the sharp bend. Fill the cuts with CA (cyanoacrylate glue) while it's pinned down to build a side.

Install well-gusseted brass tubing in the lower fuselage to plug in the landing gear wires. Forget shock travel.

Substitute 1/4 inch ply for bulkhead "A" if you plan to use a modern engine mount instead of the beam arrangement.

Lots of luck with the compound curves in the outside top and bottom fuselage sheeting between stations "A" and "B". More than likely the profile lines will be straight but this should not detract from the appearance.

TAIL SURFACES

We're happy with the aluminium tubing outline used on our quarter-scale Aeronca C-3 project, but if you prefer laminated basswood strips or reed will do this job nicely.

Just use two 1/4"x1/2" spars for the horizontal tail surface, instead of one, and as with the fin and rudder, make the stab spar of spruce and the elevator spars of balsa. Insert 1/8" ply gussets to provide mounting areas for the control horns.

Use a stock R/C steerable tail wheel bracket for positive ground handling during taxi.

WINGS(s)

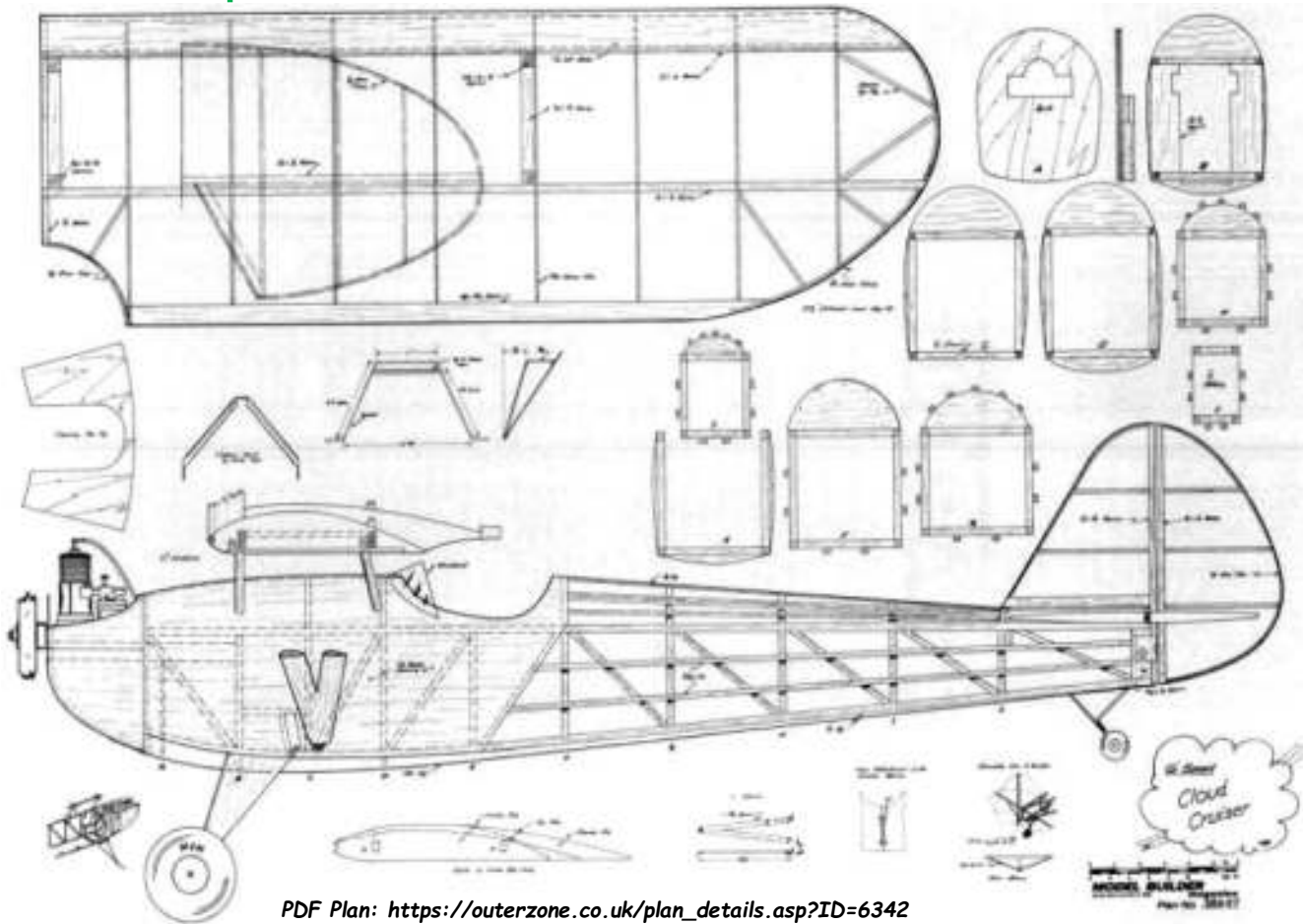
The (s) is to imply that a one-piece wing may prove more practical, unless your model transport can't handle a six foot wing.

Top and bottom 1/4" square with 1/16" webbing would greatly improve wing strength without adding much weight.

FLYING

Balance is mentioned.... move the battery box back and forth to balance.... but nothing is specified. With symmetrical tail surfaces, one-third of the wing chord back from the leading edge, is a good place to start.... and remain.

Dihedral is specified at 3-1/2 inches per panel with a Baby Cyclone, and 4-1/2 inches for a Brown. With R/C, three inches per panel should do fine. If you're going to mess it up with ailerons (like strip-style a la Heath Parasol; drop the dihedral to a cosmetic one inch, but don't tell me about it!



THE BACK PAGE



Ready set go.. Texaco fly-off at the 2014 Queensland Oldtimer State Champs

Photo by Karen Paton