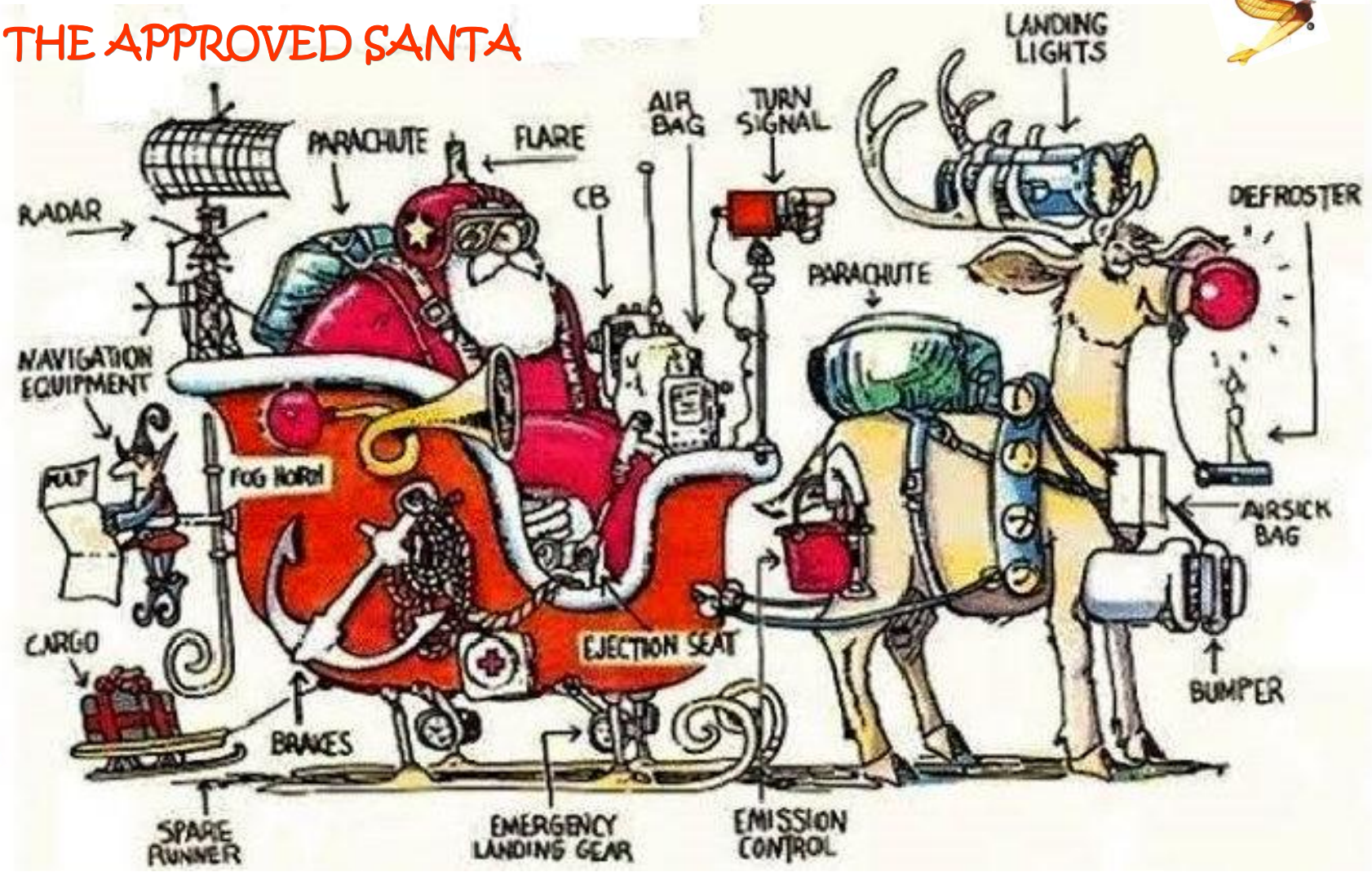
The Australian Thermaleer

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

Issue No.1 October-December, 2019

THE APPROVED SANTA



Yet another "Oldtimer Flyer" suffering at the hands of the Regulators.....

Merry Christmas and a Happy New Year to All

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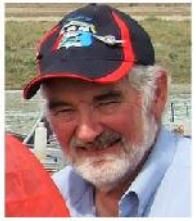

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"The Thermaleer" is the official newsletter of SAM 600 of Australia, Victorian R/C Old Timers Association (SAM600) Inc.

FROM THE PRESIDENT Kevin Fryer.

The year is ending on a sad note with the passing of Norman Campbell on the 28th of November. Norm was a very keen builder and had all his models ready to fly at Cohuna.

I rang him on the Thursday night and said Steve and I were all ready to help as this would be his last comp. Norm was his usual happy self but said he was not feeling the best and probably would not be going. The service was held at St Dominic's in Camberwell. Our condolences go to Shirley and her family.

Many thanks to Mark from CASA who allowed us to run the Cohuna event without height restrictions.

As Saturday was blown out, apart from ½A Electric Texaco, this made for a no-hold bar fight for the Stebbings Memorial Trophy. The winner was Patrick Keely. There is an interesting story of how Pat became an aeromodeller.

Pat was the local Postie and asked one of the members of Cohuna club about becoming a member. It was not long, with the bush telegraph, that everybody knew Pat was to become an aeromodeller. Not bad, from Postie to Stebbings Memorial winner. Good on you Pat!

The calendar for next year is being worked on at present. Each venue will have a risk-assessment done on the site and all CASA requirements. We will request an increased height for all competitions Saturdays and Sundays so we can run standard times and fuel allotments for all comps.

The other thing we will be working on is a tri-states competition at Moira Club in Cobram, Victoria. The Moira members fly big aero-tow models and are working on increased heights to run competitions.

I had a long chat with MAAA Secretary Tyson Dodd and he has agreed to help Joe with getting things moving, so boys, dust off those Old Timer Models for next year. With a bit of luck we will be doing a lot of comps.

You all have a safe Christmas,
Yours,
Kevin Fryer.

SAM 600 COHUNA
Saturday 23rd & Sunday 24th November 2019
Report from Pat Keeley.

We had a small group of dedicated Old Timer modellers gathered together on a very rare occasion for more than a year now. Due to negotiations between the governing bodies of the sport of model flying, and CASA, this was SAM 600's only full day of competition for the year. Our height clearance turned up just in time.

It was great to see our treasurer, Mr Money, Brian Dowie, back on deck making sure we all paid our dues. It's a worry to see such a big smile on a bloke's face when you are handing him your hard-earned cash. (There's a guy who's enjoying his hobby too much.)

The first event on Saturday was electric 1/2A Texaco with 9 entries. This was flown in very windy conditions with fairly high mortality rate including a collision between Brian Dowie's and Steve Gullock's models on launch, both models came away the worse for wear.

The final results were Kevin Fryer 1st with Steve Jenkinson 17 seconds behind in 2nd place and Steve Gullock 3rd.

The rest of the day was called off because of the high wind speed.

Sunday dawned a little better. First event for the day was Electric Duration, with two competitors fronting up for the start. We saw Gavin Dunn take off for his first flight, his model left the ground heading almost vertically in the right direction but sadly, turned its nose towards earth still at full power. It doesn't take much imagination to realise the result. Congratulations to Rod Carrick for his win with two rounds of maximum flights.

Next event was IC duration. The lift was very patchy, as it was all day, which saw only two of the five entrants make the flyoff. This was one of those times, when the final is over in less time than it takes to fly a round, with Pat Keely narrowly winning over Kevin Fryer in less than 6 minutes, and Lyn Clifford coming third.

Then we had Electric Texaco. Max Heap flew 2 perfect rounds to be awarded the win while Kevin Fryer almost flew 2 perfect rounds as well. Unfortunately whilst

attempting to land during his second flight, less than a metre off the ground, Kevin flew into a little whirl wind and watched helplessly as it grabbed his model and dumped it into the turf, tearing off the wing seat and breaking his tail fin.

This left Kevin without a model for the flyoff challenge with Max Heap relegating Kevin to second place. Gavin Dunn had battery problems, which kept him from doing any better than 3rd.

IC Texaco was our last event for the weekend. With that very patchy lift continuing to make it difficult for most of the competitors, Rob Taylor had to also contend with engine trouble as he did in duration. Again only 2 in the flyoff, this one lasting a fair bit longer than in duration final. After more than 15 minutes in the air, both models were dropping out of the sky, Steve Gullock found a small pocket of lift about 50 feet above ground to keep him in the air for an extra minute or so but it wasn't long enough to hold off Pat Keely from the win. Steve came 2nd with Kevin Fryer being the best of the rest, came 3rd.

Part of our awards' ceremony was the presentation of the Stebbing trophy for the Champ of Champs, the most points scored for the year. With the absence of any other competition weekends for the year, the IC points were calculated on the two events flown that day. Pat Keely became the 2019 winner for his two wins in both competitions, with Kevin Fryer as runner up.

The Winner of the Champ of Champs for electric OT was Kevin Fryer for his win in ½A Texaco on Saturday and 2nd place in Texaco on Sunday. Rod Carrick and Max Heap were runners up.

SAM 600 are working very hard to ensure we have a much more active year next year. Let's all make a huge effort to get to all our competitions over the coming year. Hope to see you all there. Pat Keeley.

Above: ½A Electric Texaco winners Steve Gullock 3rd, Kevin Fryer 1st and Steve Jenkinson 2nd.
Below: Texaco winners Steve Gullock 2nd, Pat Keeley 1st and Kevin Fryer 3rd.
Bottom Left: Duration Winners Kevin Fryer 2nd, Pat Keeley 1st and Lyn Clifford 3rd.

COHUNA 23rd-24th November 2019

Results from the Contest Director for IC Engines

DURATION

	Name	Model	Engine	CC/sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Pat Keeley	Bomber	OS 56f/s	32	420	420	420		343	1603
2	Kevin Fryer	Cumulus	OS 46	25	420	420	420		310	1570
3	Lyn Clifford	Cumulus	YS 63	28	231	376	420	420		1216
4	Robert Taylor	Cumulus	YS 63	28	355	420	420	O/R		1195
5	Steve Gullock	Bomber	Enya 40	25	420	257	234	245		1022

TEXACO

	Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Pat Keeley	Airborne	OS 61	15	600	600	600		947	2747
2	Steve Gullock	Bomber	Enya 53	15	600	427	600	600	915	2715
3	Kevin Fryer	Cumulus	Forster 99	24	L/O	454	600	504		1558
4	Lyn Clifford	Rambler	OS 40 Diesel	8	376	507	450	548		1505
5	Robert Taylor	Cumulus	OS 61	18	225					225

COHUNA 23rd-24th November 2019

ELECTRIC 1/2A TEXACO

	Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Kevin Fryer	Cumulus			10	600	600		1131	2331
2	Steve Jenkinson	Stardust			600	600			1114	2314
3	Steve Gullock	Lil Diamond			270	600	600		1028	2228
4	Gavin Dunn	Stardust			600	600			720	1920
5	Lyn Clifford	Stardust			270	440	600			1040
6	Max Heap	Stardust			210	420				530
7	Brian Dowie	Bomber			450	10				460
8	Rod Carrick	Bomber			160	40				200
9	Greg Jenkinson	Stardust			DNF					

ELECTRIC TEXACO

	Name	Model	Engine	CC/sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Max Heap	Bomber			600	600				1200
2	Kevin Fryer	Bomber			600	600			DNF	1200
3	Gavin Dunn	Racer			446	285				731

ELECTRIC DURATION

	Name	Model	Engine	CC/sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Rod Carrick	Bomber			420	420				840
2	Gavin Dunn	Bomber			DNF					

Above: Kevin Fryer presents Pat Keeley with the Stebbings Memorial 2019 Champ of Champ trophy.

Below: Kevin Fryer presents The Monty Tyrell SAM 600 Clubman trophy for 2019 to Trevor Taylor and Lyn Clifford jointly for their work in connection with flying field height limits.

"The Stebbings Memorial" Champ of Champs - 2019

Event	1st Place	2nd Place	3rd Place	Number In Fly Off
ROY ROBERTSON 3rd February, 2019 - CANCELLED.				
ECHUCA 16th-17th March, 2018 - CANCELLED.				
COHUNA VIC/SA State Champs 4th-5th May, 2019. - CANCELLED				
BALLARAT 18th-19th May, 2019. - CANCELLED				
ECHUCA 21st-22nd September, 2019. - CANCELLED				
WANGARATTA 5th-6th October, 2019. - CANCELLED				
COHUNA 23rd-24th November, 2019				
Duration	Pat Keeley	Kevin Fryer	Lyn Clifford	2
Texaco	Pat Keeley	Steve Gullock	Kevin Fryer	2
38 Antique		DNF		
Burford		DNF		
1/2A Texaco		DNF		
Elec ½A Texaco	Kevin Fryer	Steve Jenkinson	Steve Gullock	4
Elec Texaco	Max Heap	Kevin Fryer	Gavin Dunn	2
Elec Duration	Rod Carrick	Gavin Dunn		1
BALLARAT 25th, 2019. - CANCELLED				

PROGRESSIVE POINTS I/C		
Pat Keeley	8	1st
Kevin Fryer	4	2nd
Steve Gullock	3	3rd
Lyn Clifford	1	4th

PROGRESSIVE POINTS ELECTRIC		
Kevin Fryer	7	1st
Max Heap	4	2nd
Rod Carrick	4	2nd
Steve Jenkinson	3	3rd
Gavin Dunn	3	3rd
Steve Gullock	2	4th

Stebbings Memorial Champ of Champ 2019 Pat Keeley being presented the trophy by Kevin Fryer.

FOR OLD TIMER'S SAKE.

By Don Howie.

SPEED 400 FLYING

I read the article in SAM 26 Newsletter No. 342 about Speed 400 motors uses in the U.S.A., where they are run-in under water, timing advanced for more power and they only last for 15 to 20 flights, before the brushes are worn out.

I bought a couple of these motors with 6x3 folding props, made by Graupner in Germany, many years ago. I had intended to fit one to a small electric glider I designed but when I finally finished the model, the brushless outrunners were the only motors to fit.

My old "Atomizer" 1/2A Texaco model was rather fuel soaked after many years of flying. The design by John Tatone (California) in 1941 at 46" wingspan was named after the Super Atom .099 spark engine used in the original model. The Cox .049 engine was removed and the two front bulkheads cut out to take the Speed 400 motor plus Robbe switch, B.E.C., brake, shown in the first photo. A front ply mount was fitted and balsa added to give a streamlined front, that would allow the 6x3 prop to fold back (see photo).

Left: Speed 400 Pack by Graupner includes flux lux ring and 6x3 folding prop. Right: Mabuchi 380 pm motor with Robbe switch, B.E.C., brake fitted. Also parts for 6x3

Test aircraft – ½A ATOMIZER with Speed 400 motor and 6x3 Graupner folding prop.

After covering the front with black silk, then dope and clear enamel, I fitted a 2.4 Ghz receiver and plugged in the 3 leads. The rudder and elevator servos worked, but the motor would not switch on and run.

I thought the switch must be faulty so this was removed and another Speed 400 motor using a RCLine MSC-5 NB Micro Computer Speed Controller at only 2.5 grams was fitted. Connect the three plugs to the receiver, switch on and the servos worked, but the motor would not run.

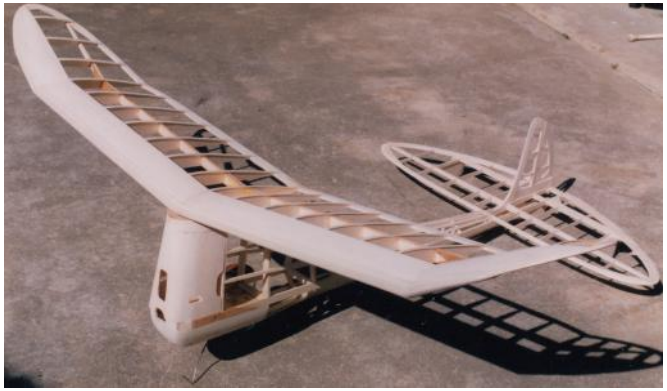
Perhaps these old systems do not work on 2.4 Ghz ? I found a Corona dual conversion receiver on 36 Mhz (Australian frequency) and tuned it in twice to my old JR basic 4 channel radio on 635 frequency. After connecting the 3 plugs, low and behold the speed controller and motor worked perfectly.

The only small lipo battery I had was a Zippy 850 two cell (2S) for the Atomizer, bigger than the Nano-Tech 460 Mah 2S we use in our 1/2A electric comps. Next photo seen is myself at Constellation Club field with the model on a windy day, so I needed lots of down trim to penetrate, so I regarded the first flights as running in the motor.

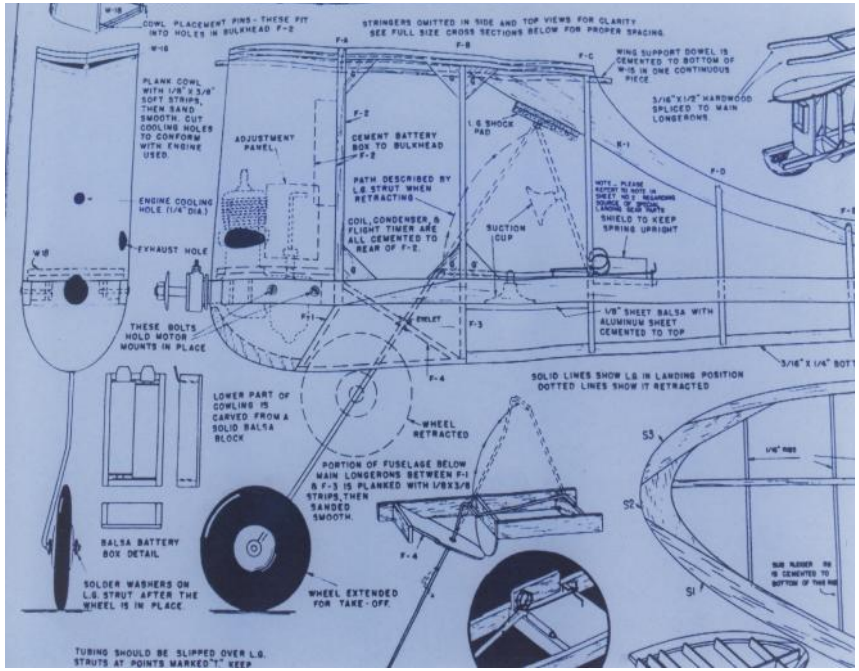
After another two flying days at Willunga Vintage Modellers' field, I am getting 4 good climbs on the 850 Mah 2S lipos and suspect if we allowed 1,000 Mah 2S lipos to be used it would be competitive in 1/2A electric events. The climb is slower with the 6x3 prop and is very easy to fly with the low power. I do not know if current speed controllers for the brushed motors work on 2.4 Ghz, but suspect they do.

Don Howie at Constellation Flying Field with Atomizer ½A Texaco model with speed 400 motor fitted.

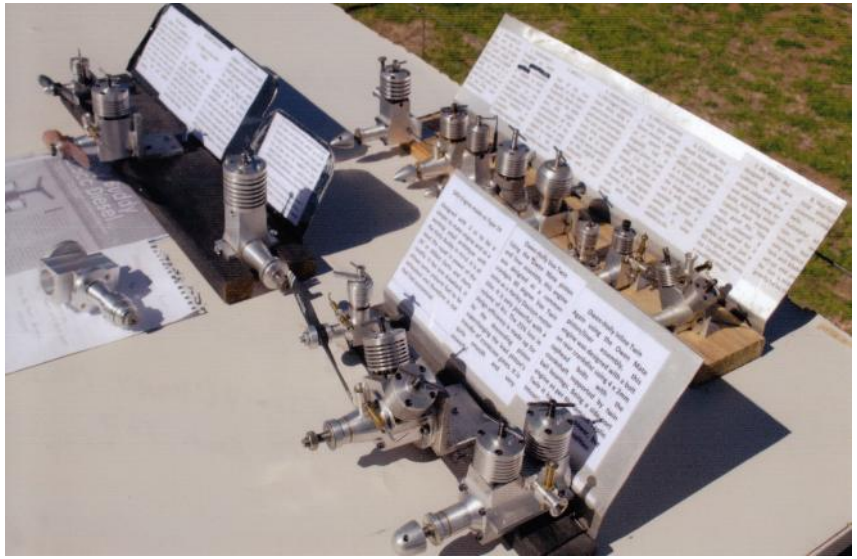
½A Texaco "Red Ripper" converted to electric ½A. Turns Taipan 7x4 prop. Colour matches name of model. 460 mah 2S lipos fitted. Flown by Don Howie.



Framed up "Super Zomby" C Class April, 1942, "Air Trails". Built from Klarich Custom Kit won by Bill Britcher at Swan Hill. Model to use Edco Sky Devil .65 spark ignition engine. Original used retracting single wheel, Bill's version to use fixed single wheel.



Super Zomby A Class model by Leon Shulman. 44" span for Bantam .199 from Megow Models 1941/42. Suction cup retract with coil spring (not very practical)



Oily Hand Event – 2019. Ed Holly (Australia) made engines. Started with a David Owen designed 2cc Mate Diesel. Many of these engines are Owen/Holly designs, plus his Holly Buddy Engines. Smallest is E.D. 46 Baby MkI (3rd from top)

NOT VERY PRACTICAL The first power designs by Carl Goldberg were over coplex, such as the 120 inch "Valkyrie", the wing still not very strong with all the many pieces. His 78" span "Sailplane" for Duration, kitted by Comet Model Airplane and Supply Co. in 1940 had all print wood with different size ribs and would have taken ages to cut out by hand.
Next we come to single wheel retracts, and I have never seen a "Sailplane" built with retracts as shown on the plan.

Next we come to the "Super Zomby" by Leon Shulman, flown in many sizes. The plan shown is the 44" span version with Bantam 19 spark engine fitted. Would a 1/4" diameter hold for cooling at the front work in our summer, I doubt it. The retract system with suction cup may work, if you were quick in releasing the model from the ground.

Bill Britcher made a 72" span "Super Zomby" many years ago with fixed U/C, the framed up model at least had some cooling. The model when finished was a pain to fly and I suspect he sold the "Super Zomby".

The only retract system that worked was the one on the "Super Quaker" designed by Matt Kania in 1941, the model being fairly easy to build with single spar wing.

Carl Goldberg kitted simple to build models at last with the "Falcon" etc. series in the Nineteen Sixties.

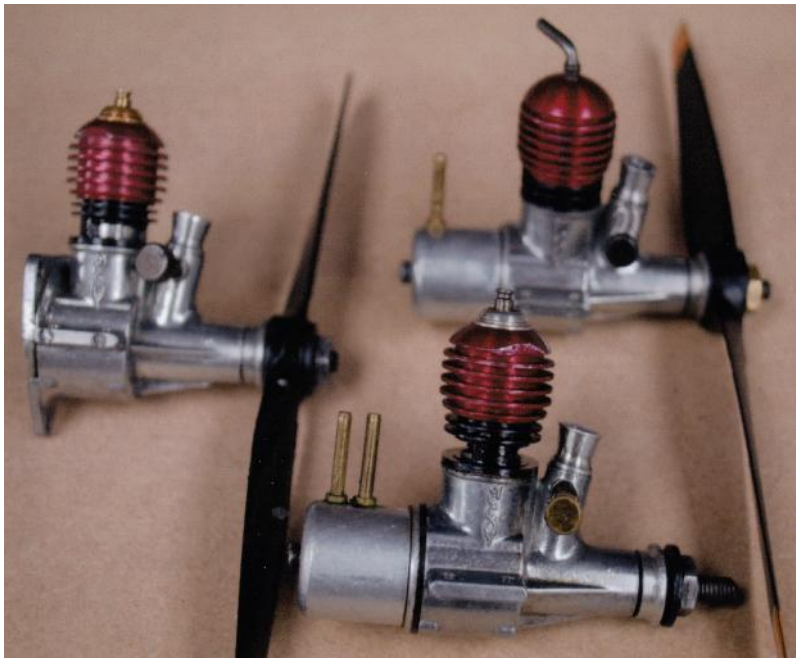
Right: 1948 Gee Bee 2, .325 cu.inches. Based on first Drone Diesel. Made in Adelaide by Gordon Burford and friends.

Below: Engine built by Tony Williams, Mt.Gambier, S.A. K-Dee 15cc boat engine from K-Dee Pty. Ltd., Bathurst St., Sydney, 1940/41. Copy of Atwood Silver Crown Champion 1940.

AUSTRALIAN MADE ENGINES
A great display of Ed Holly engines was seen at the Oily Hand Weekend with details written above his engines, which I found was a great way to display his different diesel models.

The David Owen Mate 2cc diesel came with a part extruded crankcase and I suspect a reasonable number have been constructed over the years. Ed designed his Holly Buddy engines for home construction and diesels require a very good fitting piston and contra piston, if you want a diesel to run well

Peter Lloyd (Victoria) had a GEE BEE 2 engine made by Gordon Burford and friends in 1948 at .325 cubic inch capacity. These engines were made in very small numbers at weekends and I do not think



Left:
Frog Logo (2 colours) for Frog F/F kits 1948 -1960. Photo copy 2 colour copies and you have two cut out logos (paper) and stick to fin plus clear enamel.

Right:
1955 McCoy .049 Glow (no tank) with poppet valve and intake removed.
Spring/valve and valve at left.
Intake and push-in spray bar at right

Left: McCoy Red Head .049 engines. On left is McCoy '5' Glow from 1958. On top right: McCoy .049 Diesel from 1954. On bottom right: McCoy .049 Glow from 1955. All these engines have spring loaded "poppet valve".

they got the piston fits correct in all the engines, or else they have worn out with much use.

I gave this diesel to Maris Dislers but had problems with the prop driver and was unable to run this diesel. Maris also now has a rare GB 2 engine and Geoff Potter has now sorted out the taper in bore so Maris is currently making a new piston and contra piston for his engine.

An interesting engine made from a casting kit from the nineteen forties is the K-DEE 15ccboat engine with two rotary intakes (front and back) running on spark ignition. In a boat it would be started on one intake (front) then after one lap or so, the timer would open the rear intake for more power. This system was first devised by Mel Anderson about 1938. The engine was based on the Atwood Silver crown Champion 15cc boat engine made in 1940. Tony Williams (Mt. Gambier, S.A.) made the engine from the old casting kit. K-DEE Pty. Ltd., Bathurst Street, Sydney, started in the nineteen-thirties and after the war became "Hobbyco".

McCOY .049 GLO "POPPET VALVE'

I did not know that some of the McCoy .049 Red Head engines had a "poppet valve", the engines made from 1954 to 1958. At this time, PAA Load events were popular in the USA and the valve would change the intake timing so you could use a larger diameter prop and also get better economy.

Bill Britcher has many of these engines and if the valve is sticking, due to castor oil in the fuel, then the intake will be closed and the engine will not run. To detect if the valve is working, you will hear quite a "fart" sound when the engine is turned over.

Over the years with lack of use, most will have stuck valves, but the valve and spring (shown in photo) is below the spray bar and needle valve. One has to carefully pull out the push-in spray bar to get to the spring and valve. The parts are shown in the last photo. After it is all cleaned the spring and valve is fitted to the intake then pushed into intake and the spray bar fitted at the correct position.

Bill ran the 1955 glo .049 on a Cox 7x3½ prop, same as a Cox Texaco engine size, and on 5% nitro it turned at 7,700 revs and not very happy. Increasing the fuel to 25% nitro, it ran at 8,100 revs, running cooler and much better. He noted we often set out Cox .049 Texaco engines to run at about these revs (slightly rich). Could this be the first Texaco glo engine?

Lastly, running this engine of a Cox 6x3 grey you only get about 11,000 revs. However if you remove the spring and valve, the revs can go to 14,000 on this prop. Peter Chinn reviewed these engines in the nineteen fifties, stating it is pretty useless on the diesel, shown in the photo of 3 engines.

The pictures of Frog transfers (two colours) are the ones that were attached to the fin on Frog kits 1948-1960.

Downthrust or Elevator to Trim? by Dave Harding

First, all stable airplanes MUST have the CG ahead of the Neutral Point (NP). The NP is kinda like the point at which the wing and tail areas and lift balance. For example, if the wing and tail were identical the neutral point would be exactly between the quarter chord point of wing and tail. With a smaller tail the NP moves forward.

With the CG ahead of the NP trim balance is achieved by a nose up moment from tail, nose down decalage, up elevator, or downthrust. With the big tails of our Old Timers the ideal STABLE CG is often way behind the wing quarter chord, sometimes even behind the TE.

But it is ALWAYS ahead of the NP. So, first thing, when we trim an Old Timer for maximum glide performance the tail is ALWAYS lifting, regardless of its airfoil. Think about the old RC trainer with the Clark Y flat bottom airfoil; it can fly inverted where the wing is lifting downwards with respect to the airfoil. So with the CG ahead of the NP, the decalage, difference between wing and tail incidence or tail with up elevator produces a nose up trim moment to balance the CG being ahead of the NP, such that everything is balanced. This is a stable condition where lift equals weight and there is no pitch up or pitch down tendency.

If we increase speed the lift and trim moments increase, but the CG and weight do not. So the aerodynamic trim force also increases and causes the nose to pitch up. When you pitch your model down and the speed increases, then you remove the input that caused it, and the model pitches up. This is what stable models do.

If it is a sport model and you open the throttle to go faster you must input down elevator to stop it pitching up. Same with an Old Timer when you power it above the cruise speed. Now if you want it to remain in trim with increased throttle or speed you can use downthrust to produce the nose down trim; exactly the same moment as down elevator.

In highly powered stable models you need a whole bunch of nose down trim and this can be accomplished by downthrust. This is particularly necessary on LMR models, not so much on low powered Texaco models, particularly if you have moved the CG aft for maximum performance.

You can save a bunch of time by not adjusting the engine downthrust if the model is a Texaco low powered Texaco ship, by just adding some down elevator trim to the throttle and enjoy it. Or do as I do and have two elevator trim settings on a switch, one for climb and the other for glide. I don't think there is any performance advantage to downthrust vs. elevator trim.

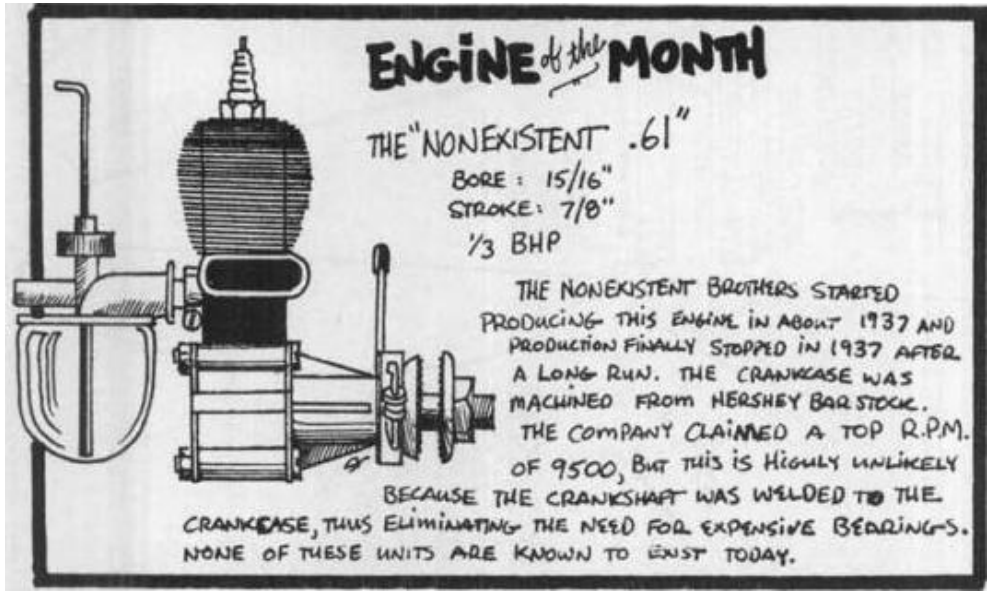
I got to thinking some more and recalled an experience which illustrates the effects of the P Factor on our models. Some years ago, probably the last time I competed at the Euro SAM RC Champs, I observed the extreme case. The Euro folks developed their LMR electric rules without much (any) understanding of electric power. They wanted to make a simple rule so decided the rule was "any two cell LiPo battery"! PERIOD (sound familiar?). Well what this means is UNLIMITED power and I took advantage of it. I powered my 1100 sq inch Stardust Special with the Neu 1506/1Y motor to pull about 120 amps, almost the power of a McCoy 60 but more thrust because I was turning a 17 or 18 inch prop.

So in the climb you need to counteract the massive torque, but with only rudder and elevator controls it was necessary to input massive rudder offset causing a significant yaw attitude (nose right) so the outboard panel yielded the necessary torque. Watching the crabbing climb out was awe inspiring. The sound was impressive too (all from the prop).

Anyway, as I previously explained, P Factor forces arise when the prop is flying non-aligned to the flight direction. In this case the prop was yawed to the right. This produces a significant nose up moment from the prop thrust requiring even more down thrust or elevator to trim.

Of course if you take the time to sort everything out you could balance all this with massive right and down thrust, but it would take a while and the ability to make such changes. Hard to do with my usual nose mount and a spinner on these models.

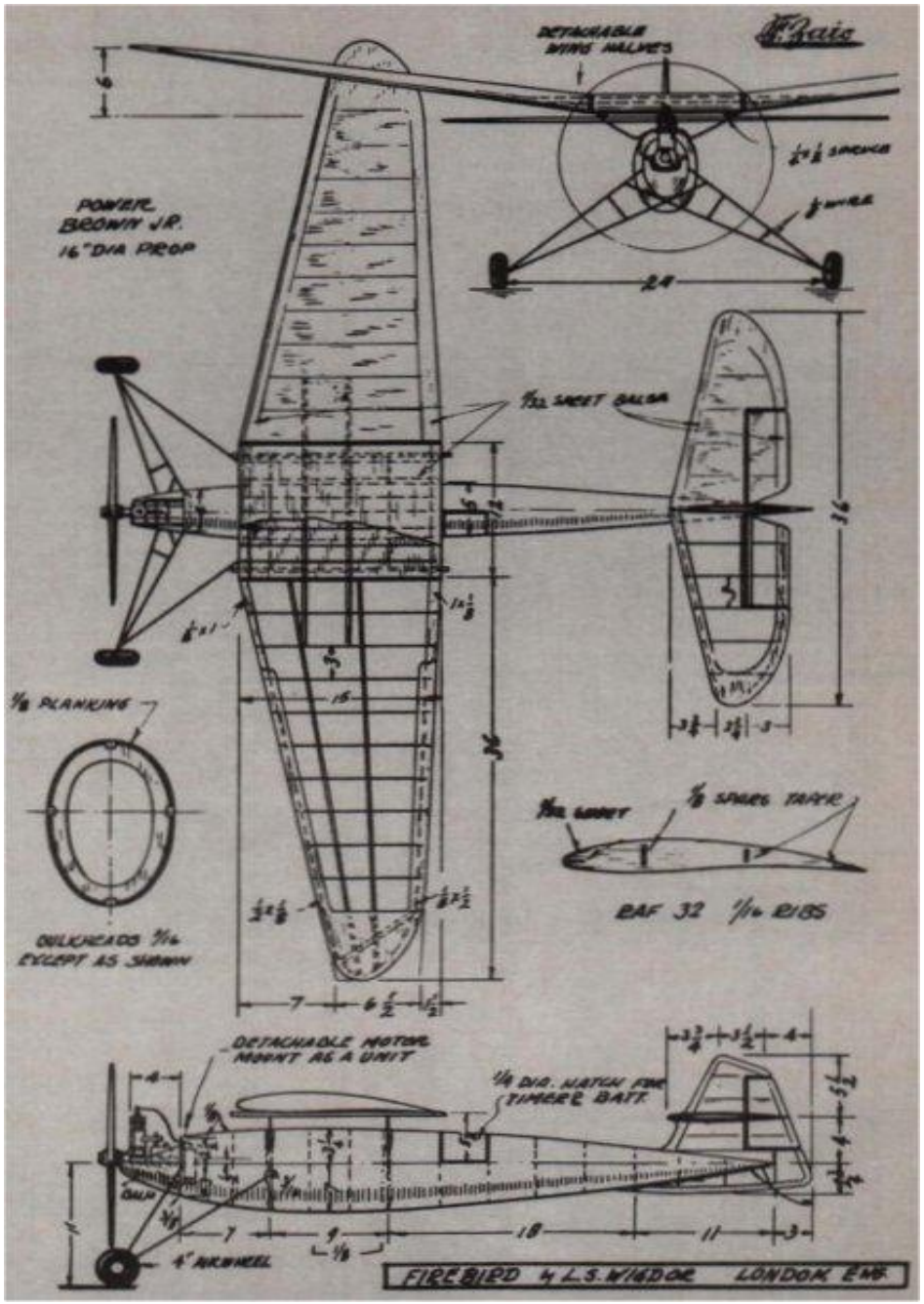
Dave



Sunset on the slope at Mt. Borah, Manilla, NSW. Dave Brown organises a slope soaring event at this site over the weekend following the Oldtimer New England Gas Champs at Tamworth each year. Mt. Borah is a Hang Glider and Paraglider centre with launching sites in all directions. For more information contact Dave Brown daveb@ix.net.au

http://www.flymanilla.com/ManillaEvents,AccomInfo/MtBorahFlyingHistory/tabid/149/Default.aspx

Photo from Karen Paton.



Specs on the Firebird are as follows:
Wingspan: 84 in. Approximate Wing Area: 930 sq. in.
Wing Airfoil: RAF 32 Length: 53in. Power: Brown Jr.

Model of the Month - John Pond (Model Builder August 1996)

Received a nice letter from the designer of the "Firebrand" which appeared in Frank Zaic's 1938 Year Book. Lucien S. Wigdor enclosed two shots of his original model, the first of which appeared n M.A.N., the second photo being that of the model taking off after release by Wigdor. This photo also shows the magnificent field at RAF Station Northolt. Lucien mentions that Colonel C.E. Bowden also used the area for test flying.

At the time of the construction of the Firebird, British-born Wigdor was 18 years old, living in Britain. He later worked in the U.S. numerous times after WWll. Wigdor retired in 1984 in the U.S.

Lucien Wigdor's original 1937 "Firebird" as depicted in Frank Zaic's 1938 Year Book.

Neat shot of the Firebird taking off at Northolt RAF Station sometime in 1937 or 1938.

Doping Dyed Silk Purchased Melbourne 2012 (Real Thai Silk) From Bruce Ramsay.

Recovering the bottom, exposed side of my Sal Taibi 1941 era Pacer C FF model tailplane.

Doped cleaned wood spar and ribs, LE & TE with Pacific Balsa Dope thinned 50% with Randolph butyrate dope thinners. The MSD sheet for Model Engines Dope shows up as Acetone 38% by weight; Xylene 29%; Ethyl Acetate 17% and Butyl Acetate is 16 %, I guess it has to be a Butyrate.

Applied silk wet and doped through to structure while pulling out wrinkles. Initially looked very good & tight. Once I had silk secured, wrinkles removed and generally tight, I brush-coated the fabric with the Pacific Balsa Dope thinned 50%. Most panels came up tight except the most inboard near the lower fuselage/tail skid section. After trying to thin and heat these areas with an Iron the wrinkles persisted. The ribs are 1/8" balsa on this tailplane. It appeared that silk covering had become sectionalised. Maybe I shouldn't have pre doped the ribs & spar)

I have aircraft dopes at my hangar. The Clear Butyrate Randolph 9701 (Taughtening) had separated – Unusable. The Clear Nitrate Randolph C210 (Taughtening) was fine and I had 2 gallons. This stuff is used on aircraft as the first coat on polyester fabrics & cotton coverings. The latter no longer used. It is pretty strong in a tightening sense and can distort.

The Nitrate dope thinner tin was empty (Randolph 286) so I substituted 33 parts each of Toluene and GP Lacquer thinners for the thinner. It required serious mixing at the start but in 33 deg C and similar % humidity it worked Ok. These materials are available at Mitre 10 circa 2019

Subsequently I found a pretty good advisory explanation on the AMA website. As it turns out I could have used the Butyrate Thinner, had plenty, to reduce the Nitrate dope. As they say "You learn something every day".

Extract from AMA website discussion follows. Thanks to Bill Byles in California.

Bruce Ramsay AUS-19742 auscanav@bigpond.com 5-11-2019

AMA Website Discussion

Both nitrate and butyrate dopes are available in tautening and non-tautening types. "Tautening" dopes shrink about 12%-15% linearly, "non-tautening" dopes shrink about 5%-6%. Nitrate shrinks slightly more than butyrate but the dried film has a lower tensile strength than does butyrate. Nitrate is not readily available in colours anymore and hasn't been since the early fifties. Nitrate dope (both the liquid form and the dried film) ignites easily and burns almost explosively; butyrate dopes were developed to provide a finish that burns much more slowly than does nitrate (an important consideration if you are flying along in your Taylorcraft at 5,000 agl and develop an in-flight fire).

Although many modellers use nitrate clear for the first coats on the airframe and to attach the covering (silkspan or silk), I see no reason to do so except for personal preference. I always use butyrate dope as it is much more fuel-resistant than nitrate and gives just as good results. I use the tautening type butyrate for the first coats on the wood, to attach the covering, and for the first three brush coats on the open bay areas to tauten the covering. After that I switch to non-tautening butyrate for the remainder of the finish.

Also, I always use the appropriate dope thinner rather than trying to substitute lacquer thinners for it. While you can get away with using lacquer thinners (as long as it is not the new VOC compliant type) in dope, you really get the best results using dope thinner. Dope thinner contains different drying agents and other solvents that contribute to the slower drying and film-forming qualities that enables you to get a good finish →

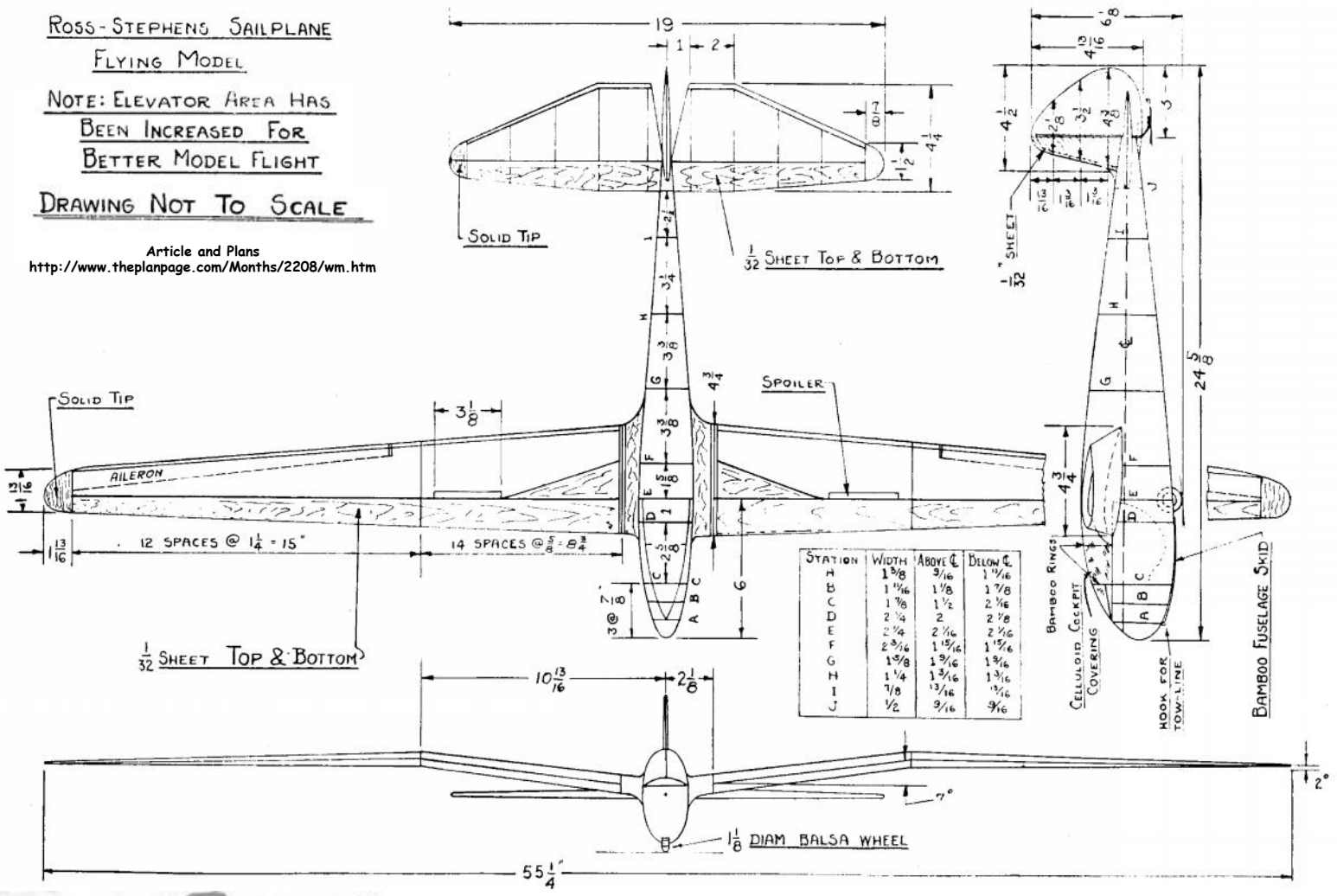
with dope. Butyrate thinner can be used with no problem in nitrate dopes, but nitrate thinner cannot be used in butyrate dope.

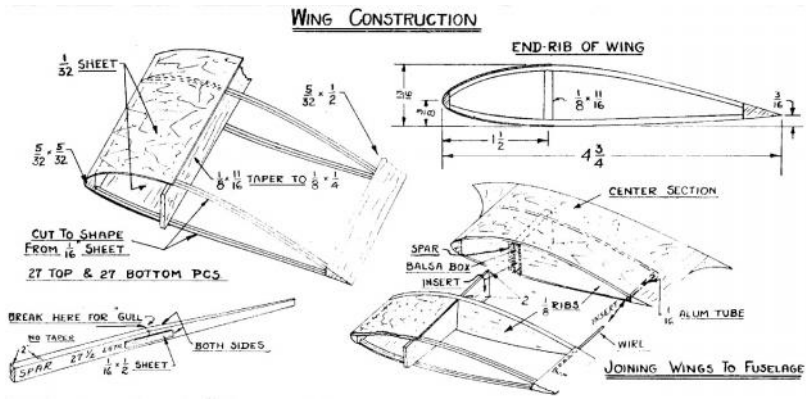
Brands available for dopes include Brodak and Sig in the purely model airplane world, and Certified and Randolph brands in the full-scale airplane world. Personally I use Randolph dopes for the basecoats of clear and most colours, and for the top coats of clear I use Sig Light-coat clear as it is more fuel-resistant than any of the other brands.

Randolph and Certified are available at many full-scale airplane supply houses such as Aircraft Spruce and Specialty. Randolph has a huge selection of colours and is a high-quality product. Certified is also good quality but has a limited range of colours. Randolph is much less expensive than the dopes provided for the model airplane industry. For example, a gallon of Randolph butyrate thinner is listed in the Aircraft Spruce catalog at $25.40, and a quart of Randolph butyrate non-tautening clear is $14.50. The Randolph dopes require quite a bit of thinning and go a long way. I have great results with Randolph products (and am not sponsored by them, just FYI), they are consistently high quality and have great coverage.

There are no truly fuel-proof rattle can paints, despite manufacturer's claims to the contrary. To have a truly fuel-proof paint you have to go to a two-part paint such as an automotive polyurethane or an epoxy such as Klass-Kote (Brett Buck is very knowledgeable about Klass-Kote) that use cross-linking of long-chain polymers to give a highly chemical resistant finish. Two-part means the polyurethane paint plus its isocyanate ester catalyst, and the mix is usually thinned with the appropriate thinner.

Bill Byles
AMA 20913





WIND MASTER

By Roger Hammer
In collaboration with
Gordon S. Light
December 1937
Air Trails

DURATION TIMES

Duration Times is the official Bulletin of SAM 1788
SOCIETY OF ANTIQUE MODELLERS OF AUSTRALIA INCORPORATED

SAM 1788 Executive 2019-2020

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Committee:	Jim Rae 02 6495 3530, Basil Healy 02 6651 6563, Anthony Vicary 0458 723 073			

Email for Australian Thermaleer - waterbee@bigpond.com

38th SAM 1788 Championships

Wednesday 8th to Monday 13th April 2020 at Bogwood, Canowindra.

- A complete program of R/C Old Timer events will be flown to the 2017 MAAA rules. Note that fuel allocation and engine run times may be limited for some events. This will be determined at the pilot's briefing prior to the event as there is a 2000' ceiling.
- Additional events will include Cabin Scramble, Phantom and KK Champ Control Line racing
- Registration Thursday morning. Competitors must be SAM Chapter members.
- Current MAAA membership must be shown by all flyers.
- Models will be scrutineered at Registration so bring your model plans.
- AGM at 8pm on Friday 10th April at the CWA Hall, Blatchford St, Canowindra
- BBQ and Swap Meet at 6:30 pm on Saturday 11th at Bogwood, bring your own chair, meat, food and drinks. Salads and BBQs provided.
- Dinner, Presentations and a Raffle, Sunday 12th at 6:30 pm at the Canowindra Services and Citizens Club, Gaskill Street, Canowindra.
- Dinner tickets to be paid for on the Entry Form.
- On field camping and some accommodation available: Arrange with Paul Farthing on 02 6364 0264 prior to arrival.

ORANGE
MODEL AIRCRAFT CLUB Inc.

INVITES YOU TO ATTEND AND COMPETE FOR THE

Perpetual Memorial Texaco Shield

1st and 2nd February, 2020

ORANGE MAC FIELD, BORENORE

Saturday 1st - Commencing at 10am - Nostalgia, followed at 1.30pm by Old Timer Duration

Sunday 2nd - Commencing at 9.30am - Cabin Scramble followed by ½A Texaco then Texaco

(All events will be flown to 2017 MAAA Rules)

For information contact: Dave Brown
Telephone 02 6355-7298

72nd National Championships
at
West Wyalong 2020

Tuesday 7th July to Wednesday 15th July, 2020

The Nationals will offer all facets of aeromodelling - R/C, C/L and F/F

All nine Old Timer Events will be flown at the Jo and Adrian Bryant Field,

1390 Clear Ridge Road, West Wyalong.

The Old Timer events at the Nationals will be run by SAM1788

Models will be scrutineered so bring your model plans (Rule 5.4.1.3 (f))

There is camping available on the field.

SAM1788 Competition Calendar for 2020

February 1–2 — **Alan Brown Memorial Shield - Orange**
Events:
Saturday: Nostalgia, Duration
Sunday: Cabin Scramble, 1/2A Texaco, Texaco
Contact Person: Dave Brown 02 6355 7298

April 8–13 — **SAM 1788 38th 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 13–14 — **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 7-15 — **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 28-30 — **Cowra Oily Hand 2019 - Cowra**
Events:
Various events plus SAM1788 Cabin Scramble
Contact Person: Andy Luckett 02 63423054

September 4–6 — **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 14–15 — **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

SAM 1788 President's Report

Welcome all SAM members to the first issue of The Australian Thermaleer. This is our new Australia wide newsletter which will go to all Old Timer modellers throughout the country – and perhaps even further afield.

SAM 1788 has had a successful year running a total of four competitions. Our annual 37th Championships at Canowindra at Easter, the New England Gas Championships at Tamworth in June, the Coota Cup in September and the Golden West Old Timer weekend at Nelungaloo in November. The February competition at Orange is run by the Orange club and SAM 1788 ran the Old Timer component of the Nationals at West Wyalong in April. The decision to run four competitions was made at the AGM and appears to have attracted larger fields at each of the competitions. However, it has been a windy year, at least when the competitions were on, and this may have kept the numbers down a little at times.

Our final event for 2019 was at Nelungaloo, location of the Parkes Miniature Aero Club Field. It was well supported in spite of the windy conditions. See the report elsewhere in this newsletter.

We plan to run the same calendar of competitions for the coming year beginning with Orange on the first weekend in February. Planning for the 38th Championships is already underway, and SAM 1788 will again be running the Old Timer component of the Nationals at West Wyalong July 7-15. Nats Co-Ordinator, Terry Bond, has advised that any special interest group interested in attending the nationals should contact him soonest as he will need to make the appropriate field bookings. See the SAM 1788 Contest Calendar for all dates.

Rule changes to 2017 MAAA Rules Book, and of particular interest for us, the Section 5 R/C Old Timer Rules, are due to be sought next year. Give this some thought. Rule changes will need to be considered with respect to the height limit (generally 2000' AGL for those fields which have an Instrument) as well as any other rule changes.

See you all at Orange! In the meantime, have a happy and safe Christmas.

Keep Safe! Peter van de Waterbeemd. President SAM 1788.

COOTA CUP Cootamundra 6th-8th September 2019

Report and Photos from Peter van de Waterbeemd and Karen Paton.

The Coota Cup was run at the Aeromodellers NSW field at Cootamundra over three days. Initial responses for the event indicated that somewhere around eighteen members were intending to attend. However, the weather forecast for the weekend was not good and as a result the numbers were dramatically down.

Paul Farthing attended after his devastating fire, in which all but one of his competition models were destroyed, but came empty handed. Well not quite, he brought a

tin in which he had the molten and charred remains of his McCoy60 (Duration) and an OS40 (Standard Duration). He also showed some of the distressing photos of his shed and the remains of his much loved fishing boat, model trailer, motorbike and various model engines and tools. Commiserations were expressed by all those present. Paul left the weekend with a car full of models, either on loan or as a gift. We expect to see him competing at Parkes in November.

R/C Old Timer Glider was the first event on **Friday** afternoon, but a combination of wind and the threat of rain was somewhat daunting. Basil Healey set up his winch on the cross strip on the southern side of the field, however as our retrieval winch was destroyed in Paul's fire earlier in the week, line retrievals would be by foot. The first and only round saw seven models take the air with various degrees of success. Jim Rae's model, a Plover, lost its wing through structural failure at the top of the fuselage, and in the ensuing spin, the tail feathers were caught up in the line and the fuselage came down with the parachute still attached. All other models recorded a flight time, but the highest time was less than three minutes. Everybody was sacrificing height for forward penetration in order to arrive in the landing area. The wind was so strong that not a lot of line was retrieved on launch and fortunately the parachute generally came down close to the line. Then it started to rain and flying ceased. Placings were Dave Paton First, Alan Suley Second and Peter van de Waterbeemd Third.

A sad start for the Coota Cup.

Saturday morning was both cold and windy. The first event scheduled was the **Gordon Burford Event** and eight models were presented. Flying conditions varied within each round with short periods of little wind to be inevitably followed by strong gusts. Once the model reached some height conditions improved but there was still a battle to keep the model out in front. Four rounds were flown but with only a total of four maxes for the event, there was no fly off. Placings were Grant Manwaring First, Peter Scott Second and Paul Farthing Third. Paul flew a model graciously supplied by Alan Suley.

After lunch, prepared by members of the Cootamundra Model Aircraft Club, **Duration** followed with little improvement in the prevailing conditions. Six models were presented. During the rounds, fly outs were generally made a lot flatter in order to place the model upwind as far as possible. High power was an advantage

Peter Scott launching Grant Manwaring's Old Timer glider.
Note how green the grass was at Cootamundra!

Burford Winners Pater Scott, Grant Manwaring and Paul Farthing.

here. Conditions deteriorated and only two rounds were flown but with no maxes. Placings were Peter van de Waterbeemd First, Grant Manwaring Second and Peter Scott Third.

Sunday morning, against expectations, **Cabin Scramble** was flown. Five models were flown but one was withdrawn after said model nearly executed a complete aerobatic schedule and then attempted to become very friendly with Dave Paton. Times were down as landing close by was very difficult in the wind. Again the winner, as usual, was Peter Condo Smith followed by Peter Scott Second and Jim Rae Third.

1/2A Texaco was flown next and was a challenge in the conditions, especially when initially attempting to gain height in the turbulence from the trees. Long engine runs saw good heights reached but the challenge of keeping the very light models upwind remained. Four rounds were flown, a total of seven maxes but only one model achieved three maxes and there was no flyoff. Placings were Peter van de Waterbeemd First, Alan Suley Second and Peter Scott Third.

After lunch only two persons were prepared to fly in Texaco and as a result it was not flown. Ironically, conditions improved during the afternoon and the event could have been flown.

Grant's trailer decorated with Queensland Maroon flags - Grant supports the Blues

The **Coota Cup** was won by Peter van de Waterbeemd with Peter Scott a close second.

Thanks to the Cootamundra Model Aircraft Club for the provision of breakfast and lunches. Thanks also for the provision of firewood. It was all used. These were very much appreciated in the very cold and windy conditions. The field was also mown with the outer areas of the field also mown.

Peter van de Waterbeemd

SAM 1788 Coota Cup Weekend.

Contest Report and Results from Peter Scott.

The weather forecast was poor and induced many keen fliers not to do the trip. However, for those that attended, it was a good and fun event. It's always good to meet up with old friends and the social side counts for a lot.

The flying, yes, we flew, was also good fun and most people had a go. There were up to seven fliers in some events.

The occasional shower and wind, sometimes very windy, was coped with and very little damage done to models. I think that as we were flying on the lee side of a very large hill, with much turbulence low down, the hill did in fact shelter us somewhat.

First event, Friday was glider with seven starters. Jim Rae found the weakness in his wing mounting in the first round. The 'chute wound itself around the fuselage and gracefully descended with little or no more damage. One wing fell to earth separately. We had been concerned that we no longer owned a retrieval system, it had burned, but the wind was strong enough to blow the 'chute back!

This all came to an end after we had all completed round one. The heavens opened and the wind came in strong. However, we had flown!

Saturday morning, I would have given nothing for our chances of flying having listened to the howling wind and pouring rain all night, but all were keen to give it a go. In between gusts we put in all the rounds of 'Burford'. Grant won this event with his PB Dixielander.

The Cootamundra club catered lunch, with a wide variety of hot food. I had a really good hamburger, with the lot – including egg. Thus fortified we set forth to fly 'Duration'. Six flew the event. The conditions were turbulent but, again we flew all rounds. The winner being Grant, with his 85% Bomber. I managed a third with a Saito in the Stardust – keep it well forward and land in – simple really.

A reasonable turn-up of twelve for the Saturday evening get together at the RSL. The food and company was good, with lots to talk about.

Sunday – the Scramble! Five flew in interesting conditions. Condo seems to have the hang of this event as he won again. Short retrievals and quick starts beat all.

1,463 secs. Is pretty good. I came a poor second with 1,182secs and Jim third with 1,112secs.

It was then on to '½A' with eight people keen to throw their small, light models into the gusting wind. Sonya Grossmith was out with a cracked fuselage, this was Basil's old Megow Chief and I think she's in love with it as she refused an offer of CA glue and another go. There were some very good flights with models getting very high – once above the ground turbulence a good motor ensured a good climb. Peter Van De Waterbeemd won this event with 1,260 secs followed by Alan Suley and Peter Scott.

After another great lunch everyone decided that they had pushed their luck and got away with murder, so we called-off Texaco, with only two willing to fly.

Congratulations to Peter Van De Waterbeemd who took out the Coota Cup and top marks to all who turned-up and had a go.

Peter Scott.

Winner of the Coota Cup
Peter van de Waterbeemd

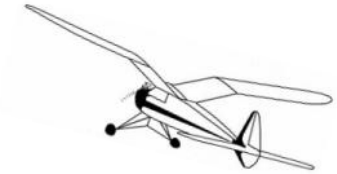
Peter van de Waterbeemd's 1/2A Texaco Stardust Special.

Paul Farthing flicking a reluctant diesel on a very cold morning.

COOTA CUP RESULTS 2019:

GLIDER

Dave Paton	Nibbio	176	**176**
Alan Suley	Archangel	108	**108**
Peter van de Waterbeemd	DG 42	88	**88**
Peter Scott	Dragon	84	**84**
Grant Manwaring	Archangel	54	**54**
Jim Rae	Plover	crashed	**0**
Basil Healy	Balustruccio	piked-out	**0**



GORDON BURFORD

Grant Manwaring	Dixielander	300	300	232	(118)	**832**
Peter Scott	Jaded Maid	(152)	272	260	252	**784**
Paul Farthing	RC1	185	300	(168)	292	**777**
Alan Suley	Bomber	182	268	0	300	**750**
Peter van de Waterbeemd	Ollie	(146)	197	245	271	**713**
Peter 'Condo' Smith	Dream Weaver	184	148	152	(145)	**484**
Dave Paton	Stardust Sp.	138	(112)	152	138	**428**
Jim Rae	Paapacket	piked-out				

DURATION

Peter van de Waterbeemd	92% Bomber	363	354	**717**
Grant Manwaring	85% Bomber	290	188	**478**
Peter Scott	Stardust Sp.	193	223	**416**
Jim Rae	Lion Cub	245	136	**381**
Dave Paton	Plough Boy Sp.	160		**160**
Peter 'Condo' Smith	Profi 40	100	Out	**100**

½A TEXACO

Peter van de Waterbeemd	Stardust Sp.	420	(259)	420	420	**1260**
Alan Suley	Airborne	420	(238)	331	338	**1089**
Peter Scott	Lil Diamond	259	(141)	369	420	**1048**
Dave Paton	Stardust Sp.	420	420	203	(112)	**1043**
Jim Rae	Big Old Pl	353	(261)	276	311	**940**
Vince Hagarty	Stardust Sp.	150	103			**253**
Sonya Grossmith	Megow Chief					**DNF**
Grant Manwaring	Playboy cabin					**DNF**

Above: It was cold in the evening and we are all attempting good cheer around the fire. Participants Alan Suley, Paul Farthing, Dave Paton, Peter van de Waterbeemd Photo by Karen Paton.

Above Left: Cabin Scramble: Peter Scott launching his model with flyers in the background, Peter Condo Smith (sitting) Alan Suley, Anthony Vicary and Peter van de Waterbeemd

Left: Anthony Vicary, Grant Manwaring and Alan Suley with Alan's 1/2A Texaco Airborne.

Below: Burnt remains of Paul Farthing's McCoy 60 Series 20 engine from the devastating shed fire at his farm, mentioned in the report by Peter van de Waterbeemd.

Golden West Old Timer Weekend November 16 and 17

Report, Results and Photos from Peter van de Waterbeemd and Karen Paton.

The weekend was under constant threat of unacceptably high winds which generally indicated winds up to or exceeding 25 kph. The rules indicate that the CD can postpone events if the wind exceeds 7 metres/second (25 kph) on more than two occasions in a 15 minute time frame. It did not look all that hopeful but thirteen brave souls ventured to Nelungaloo in the hope of flying in the last competition of the year. In the wash-up, five of the six advertised events were flown.

First event to be flown on **Saturday** was **2cc Duration**. This was flown just after 9am when the wind was just starting to be felt. However, conditions stayed manageable and a total of seven flyers entered. MVVS and Taipan Tyros were the order of the day. In four rounds only six maxes of five minutes were attained with three of those in the first round and none in the second round. Needless to say, there was no fly off. First with two maxes was Peter Condo Smith. Second was Anthony Vicary and third Peter van de Waterbeemd. Dave Paton deserves an honourable mention with a spate of overruns.

Next up was the **Gordon Burford Event**. Nine entries in improved conditions with maxes in all rounds. Four rounds were flown with three progressed to the fly off. However, proceedings were interrupted by lunch provided by the Parkes Miniature Aero Club. A very good buffet was provided, and all appetites were satisfied. The fly off was flown after lunch in very good conditions with thermals abounding. Unfortunately Brad Turner hooked into one which took his model across the railway tracks but he recovered it in a paddock further to the north and was back in time for the next event. First place to Anthony Vicary and second place to Peter van de Waterbeemd with Brad Turner, who was deemed to have landed out, was third.

The third event for the day was **Duration**. Twelve contestants for four rounds including local member Craig Thornton. Ten Maxes in the first round, three in the second round, one in the third and two in the fourth round. There were fewer thermals as the afternoon progressed. Two in the fly off as Anthony Vicary only managed a 6 min 55 sec in a round and this unfortunately left him five seconds short of the fly off. Good air saw two good flights. First Peter van de Waterbeemd and Brad Turner second.

Sunday's flying started at 8:00 am in an attempt to avoid the predicted stronger afternoon winds. **Cabin Scramble** was the first event. There were five entries but Condo Smith's TX and RX were not in complete agreement and strange things resulted. Four models flew in reasonably calm conditions. Anthony Vicary and Peter van de Waterbeemd matched flights for the first seven rounds but the difference was in the eight flight. Alan Suley is also improving with every event flown. What happened to Peter Scott? All models survived and will no doubt meet again in Orange. First Peter van de Waterbeemd, second Anthony Vicary and third Alan Suley.

Next event, in a freshening wind, was 1/2A Texaco. Ten entries with a good range of designs flying. Four Stardust Specials, two Bombers, an Airborne, a Megow Ranger, a Playboy and a Lil' Diamond. Eleven maxes over four rounds showed that the conditions could be flown as long as the 'ceiling' was breached and better air encountered. Two reached the flyoff with local flyer Craig Thornton just missing the fly off by seven seconds. Winner was Sonya Grossmith who was still at a great height when Garry Whitten came down for second place. There was general approval of Brad Turner's 'teaching' style with Sonya although the style had probably not been seen before. Anyway, congratulations Sonya.

As the wind was picking up there was little appetite for flying the large models in Texaco and the event was cancelled. Our thanks go to the members of the Parkes Miniature Aero Club for the use of their field, their preparation and for the lunches and other treats on both days. The Golden West Old Timer weekend is always worth going to!

Remember that our next competition is at Orange on the first weekend in February, the 1st and 2nd followed by the SAM 1788 38th Championships at Easter 2020.

Results Golden West Old Timer Weekend, 16-17 November,2019.

2cc DURATION	Peter Condo Smith	Apache	MVVS	898	
	Anthony Vicary	Dixielander	MVVS	892	
	Peter van de Waterbeemd	Eliminator	MVVS	744	
	Peter Scott	Jaded Maid	Tyro	721	
	Alan Suley	RC1	Tyro	673	
	Basil Healey	Creep	Tyro	576	
	Dave Paton	RC1	MVVS	96	
GORDON BURFORD EVENT	Anthony Vicary	Dixielander	BB	900	931
	Peter van de Waterbeemd	Ollie	PB	900	845
	Brad Turner	Calypso Major	BB	900	L/O
	Peter Scott	Jaded Maid	PB	870	
	Peter Condo Smith	Dream Weaver	BB	845	
	Dave Paton	RC1	BB	742	
	Gary Whitten	Lil' Diamond	BB	700	
	Alan Suley	Dream Weaver	BB	189	
DURATION	Peter van de Waterbeemd	Bomber	McCoy	1260	920
	Brad Turner	Playboy	OS 37	1260	747
	Anthony Vicary	Bomber	Saito 62	1255	
	Peter Condo Smith	Playboy 106%	Profi 40	1116	
	Alan Suley	Playboy	Saito 62	1112	
	Gary Whitten	Megow Ranger	ASP 32	1074	
	G Potter/D Brown	Playboy	Nelson 45	1061	
	Craig Thornton	Playboy	OS 37	986	
	Dave Paton	Playboy	Saito 62	805	
	Basil Healey	Red Ripper	Saito 56	669	
	Peter Scott	Stardust Spec	Saito 62	420	
1/2A TEXACO	Sonya Grossmith	Megow Ranger		1260	598
	Gary Whitten	Stardust Special		1260	402
	Craig Thornton	Playboy		1253	
	Peter van de Waterbeemd	Stardust Special		1134	
	Alan Suley	Airborne		1024	
	Peter Scott	Stardust Special		838	
	Vince Hagarty	Bomber		623	
	Anthony Vicary	Stardust Special		573	
	Basil Healey	Stardust Special		277	
	Brad Turner	Bomber		169	

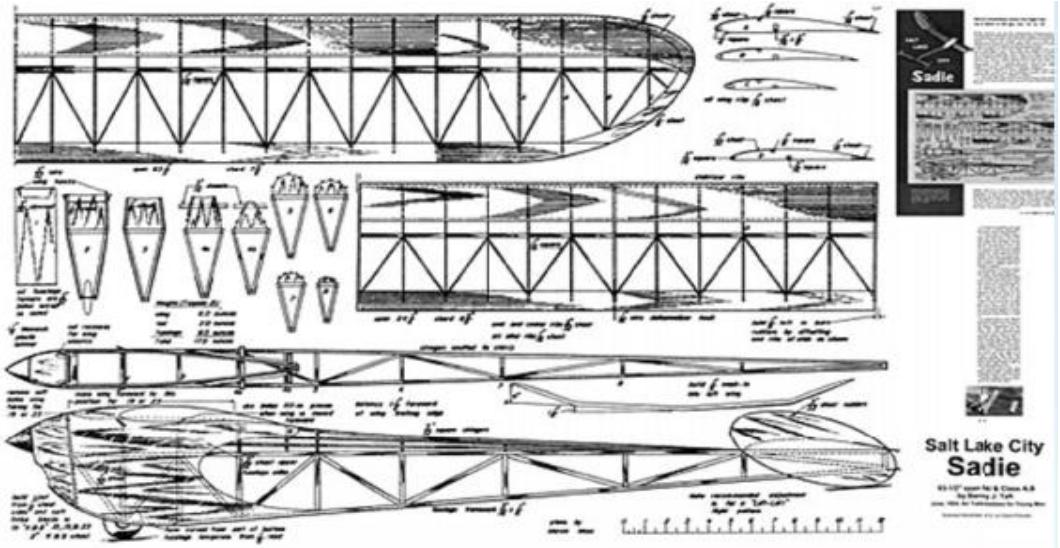
Clockwise from left:

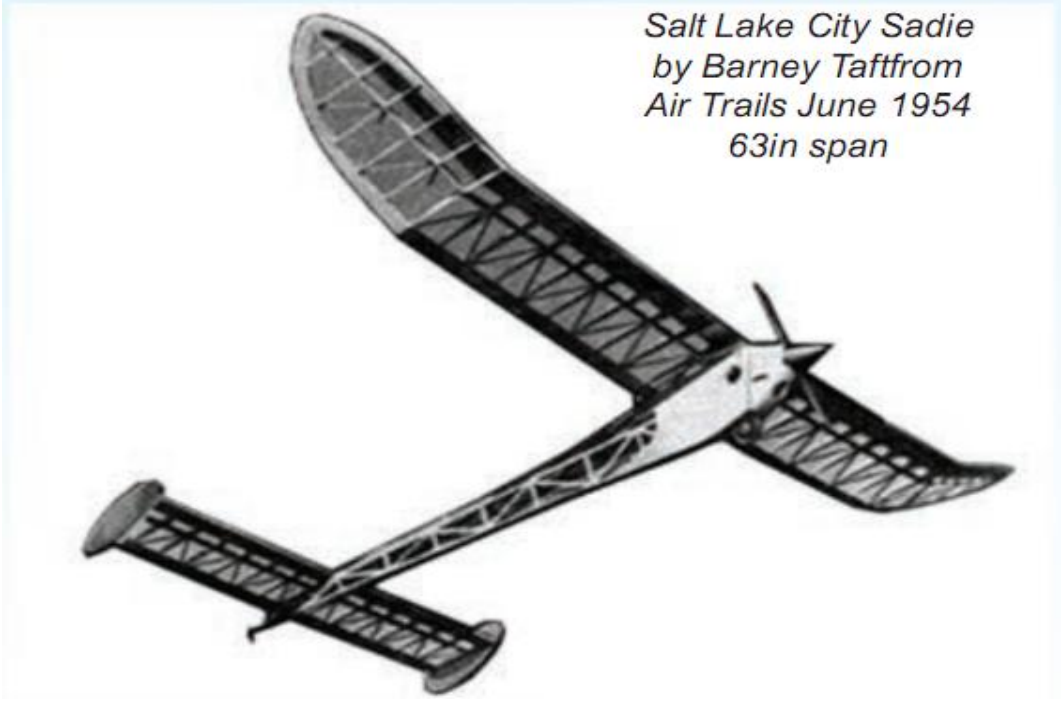
- *1/2A Texaco Winner Sonya Grossmith with assistant Brad Turner. A lovely couple.*
- *Skies to the North of the railway line. An area well known to Brad Turner.*
- *Vince Hagarty strolling to the flight line. - no stress!*
- *2cc Duration: Anthony Vickery 2nd, Peter (Condo) Smith 1st and Peter van de Waterbeemd 3rd.*
- *Burford: Brad Turner 3rd, Anthony Vickery 1st and Peter van de Waterbeemd 2nd.*
- *Messrs Grossmith, Turner, Farthing, Paton. Photo says it all!*
- *½A Texaco: Gary Whitten 2nd, Sonya Grossmith 1st and Craig Thornton 3rd.*

Above: Duration Winners. Brad Turner 2nd, Peter van de Waterbeemd 1st and (missing) Anthony Vickery 3rd.

Left: Gail Scott; the enduring helper!

Below: Pitts at Parkes. A great flying field with super facilities. (Condo photo)





For your calendars: **Oily Hand 2020 is on Friday 28th, Saturday 29th and Sunday 30th August.**

'Models of the Meet' for 2020

We are already getting a few queries about Model of the Meet for 2020.

The C/L models are the Carl Goldberg series of profile stunters:
Shoestring, Cosmic Wind and Buster.

You would remember Dave Bailey had his very nice Shoestring on display and flying at Oily Hand for us this year. These are the 42" profile fuse series based on full size pylon racers.

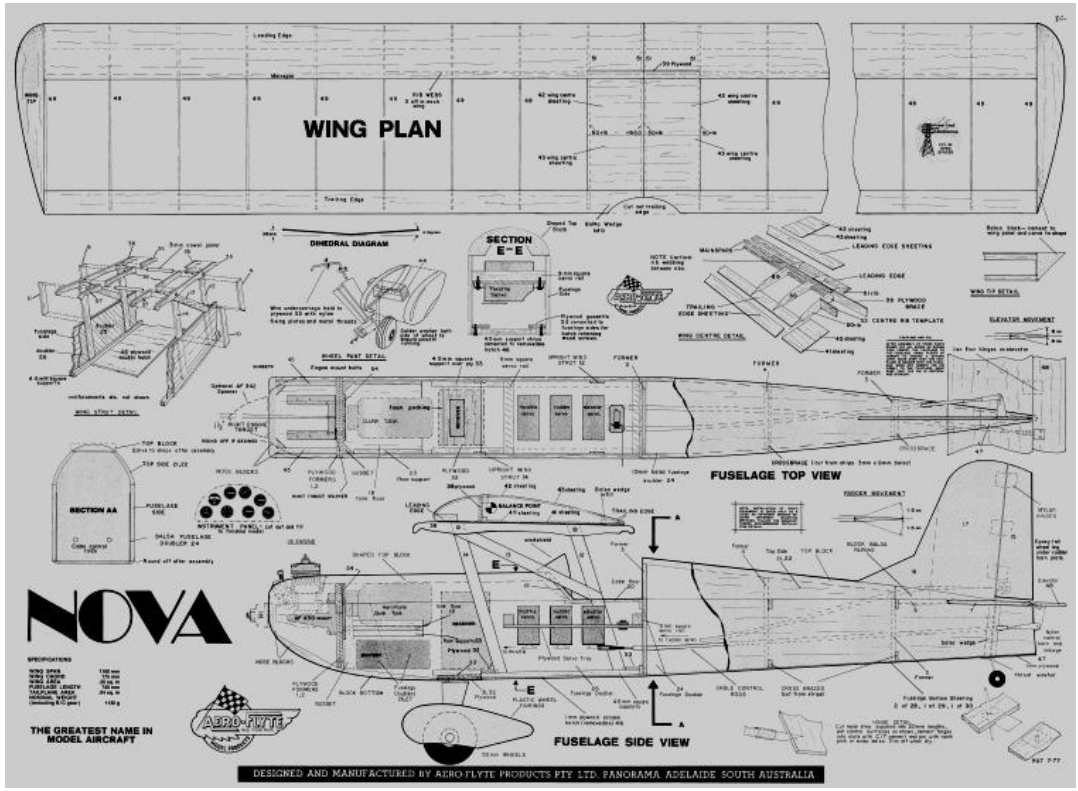
Be careful as there are full fuse and larger versions around and they are not part of model of the meet. Only the ones from the original Goldberg series are valid for this event. Of course you can scale from the original plan to build smaller and larger versions.

The Shoestring plan is available on Outerzone (683). The Cosmic Wind is on Hip Pocket. I haven't seen a plan for the Buster. Brodak does a kit of each complete with decals.

The R/C, F/F model is the Aeroflyte Nova. This is a pretty 46" span parasol wing three channel model. The plan is on Outerzone. A full kit at 52" span is currently in the pipeline. We will let you know more as details come to hand.

So, start digging out the balsa and glue.

Andy. http://www.cowramac.asn.au/main.html



Nova (Outerzone 5582) from Aeroflyte

Goldberg Shoestring

The Geezer

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

270
WESTERN AUSTRALIA

SAM 270 Committee

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SAM 270 report for the new Australian Thermaleer

From Hans van Leeuwen. Aus.6305. hans.vanleeuwen@bigpond.com
November 2019.

Wonderful news that there is once again a forum and newsletter to replace such previous newsletters as the Geezer and the Duration Times to keep Old Timer enthusiasts informed of the happenings in their sphere of interest.

There is not a whole lot to report on the WA front as the Old Timer movement has had a significant set-back for the last couple of years. We lost our regular flying field some 4 years ago and that provided a huge set-back to the movement. We used the generosity of other clubs to do some flying and to fly some contests, and we've been thankful for their generosity and accommodation to our needs.

However, that is always a stop-gap process and does little for morale and fostering of new interest. As well as that, we, like many organisations of our type, have lost members due to old age, death and other reasons.

Around two years ago we managed to secure a field and still have access to that but it has some quite distinct disadvantages, in that it allows us to use it when its regular users are not there, but we've not been able to establish a firm timetable for its use. A further problem is that during the winter it is inaccessible because it is very wet and access to it is boggy. We've flown some events there but it's certainly not ideal.

Last July our now Secretary visited an old friend of his who owns a farm in Beverly, around 100Km East of Perth. This fellow is also a modeller from way back he offered us the use of his farm as a flying site.

We first visited the Fleahy farm on July 28, 2019 for a look see and a fun fly session. This was most successful and David Fleahy was very accommodating. We had some 11 flyers and all had a good time.

At our next meeting it was decided to abandon this year's contest calendar till next year, to reduce the number of contests to one for each category instead of two for each category because the consensus was that we had too many contest events. Each event flown is to count toward the State Championship for that category, as well as toward the Paul Baatz Shield for our Club Members.

The Paul Baartz Shield is our Club award for the most points gained over the year in events entered. We have traditionally conducted two events for each category, one to count towards points for the Paul Baartz Shield and the other as the State event.

We also decided to hold fortnightly flying sessions at the Beverly field starting from September 22, 2019. At the time of writing we have had 4 quite successful flying days at our new field with an average of 9 flyers each time. As a result of this move, we have also gained 3 new members and we hope that the Old Timer movement will have some form of rejuvenation as a result of this.

Regards, Hans

Inaugural flight line at the new Beverly field, July 2019

Author's Playboy at the inaugural flying day.

Secretary Graeme Cooke's trailer and models

Rod McDonald launching F/F model

Our members having a great time

Fred Tower with scramble model.

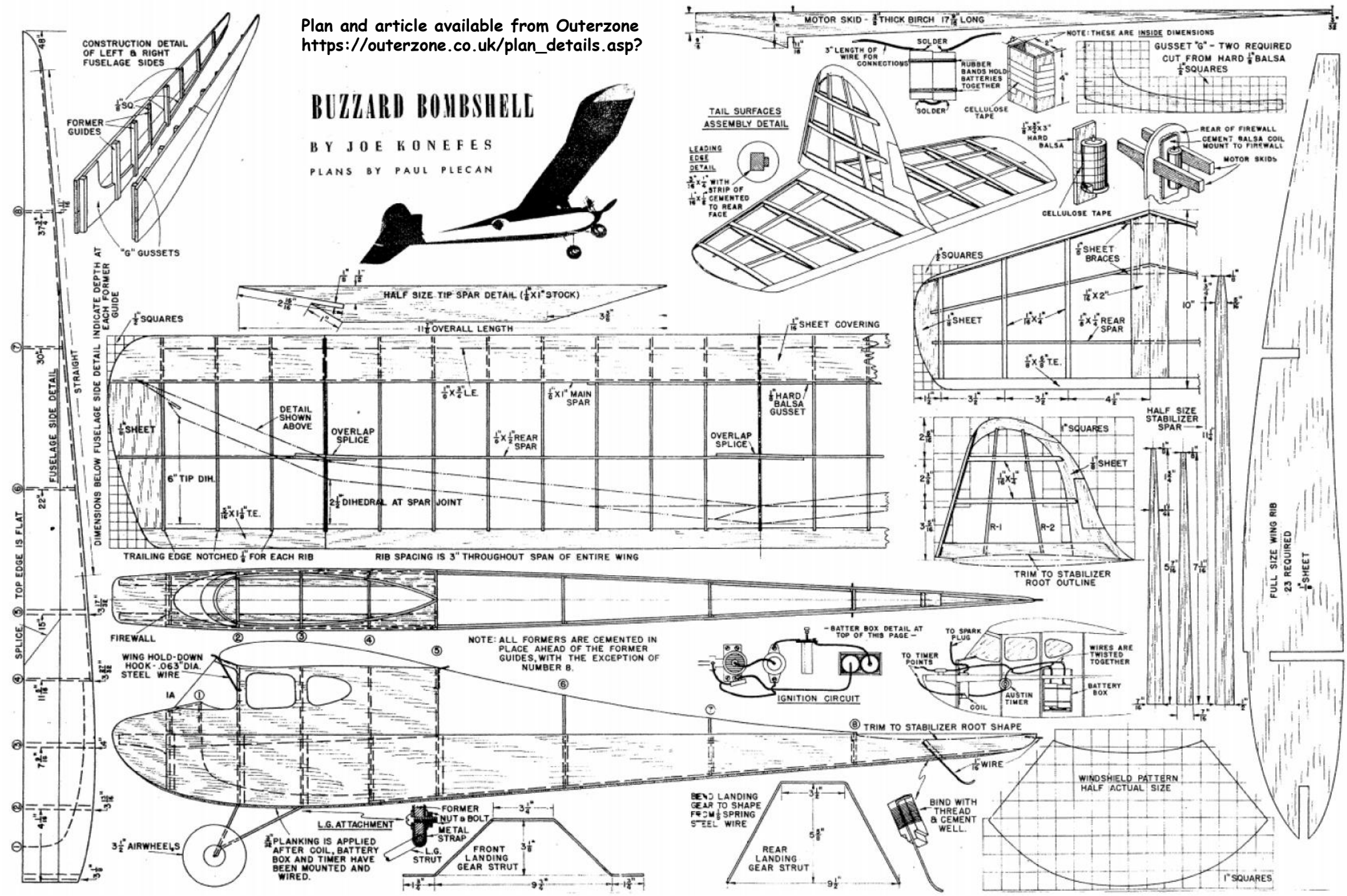
Graeme Cooke's electric Flamingo

Greg McLure and Chris Edwards at work.

Sal Taibi Powerhouse with Saito 65 for Texaco and scramble model.

Gary Eyres packing up while others chat and prepare to fly

Plan and article available from Outerzone
https://outerzone.co.uk/plan_details.asp?

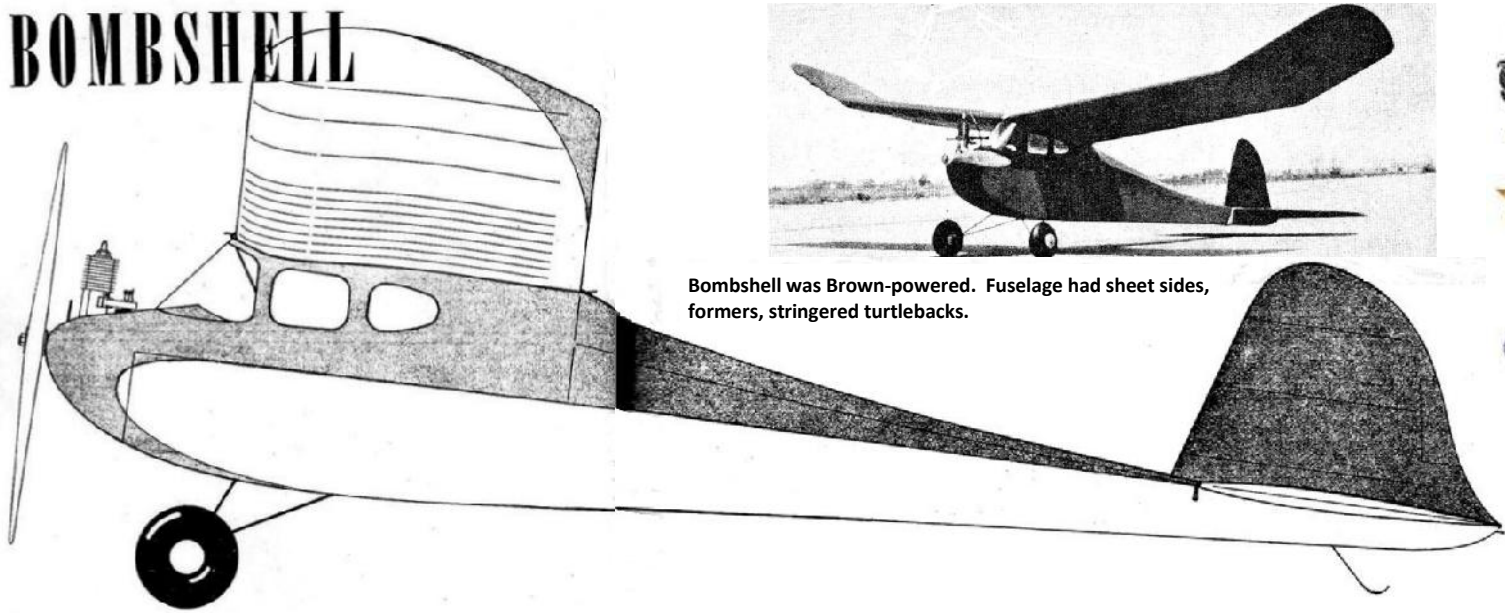


BUZZARD BOMBSHELL

BY JOE KONEFES

PLANS BY PAUL PLECAN

Our nomination for all-American gas job is this Nationals Class C Open record smasher. Single flight 49.40, total 58.00. Simplicity, rugged-ness, consistency, make it a top -flight design. Contact!



Bombshell was Brown-powered. Fuselage had sheet sides, formers, stringered turtlebacks.

Joe Konefes with the record model. Tiphedral prevents looping. Bombshell has a hanging climb. It just won't stall.

Right - The Chicago Buzzards, girls and men both, build them by the dozen. Placed 1st, 2nd, 3rd, C Open at Nationals.

About four years ago when gas models were in their infancy, a number of dreamy-eyed individuals had a mania for building as many gas jobs as possible and a desire to fly them as often as they found time.

Gradually these fellows drifted away from their respective clubs, banded together, and called themselves the "Buzzards". A strange name, perhaps, because our namesake doesn't look like a flier – until he sights his prey. Well, we pray a lot ourselves, but do a great deal more flying than he does.

The Buzzards fly every Sunday regardless of weather and they all agree that some of their best flights have been had in two feet of snow! It is this constant practice that has enabled them to be consistent winners in local contests as well as the National meets – the winner of the Senior event in the 1938 Detroit Nationals also came from this club, as does the winner of Class B Open this year. The constant flying brought with it a desire for a rugged easy-to-construct plane that would add a distinctive appearance to the mass flights and banner towing we have been running at the various contests. Having decided on a design, we all started our planes - and when the first of them took the air, it climbed like a frightened mallard and just didn't want to come down. It was then that we secretly began hoping that our new planes would throw a bombshell into the coming contests and so began a frantic race to finish them for the fast approaching Nationals.

Eight members managed to finish them in time for the Wisconsin State Contest in Milwaukee. Out of these eight, one captured the State Championship and the first-place award in Class C Open, and another placed third and another won a fifth.

The following week in a meet in Madison, Wisconsin, the Milwaukee winner was lost on its first flight after six minutes, and on this single flight won tenth place, another of its flock taking fifth. Before the month was over, other Buzzard models had won another second in Chicago and placed twice at Beloit, Wisconsin.

However, our Milwaukee winner which we were counting on for the Nationals was still lost somewhere north of Madison. The a few days before the Big Event in Chicago, a farmer's cow shied at something in a tree and the lost plane was soon back with the rest of the Buzzard flock - which by this time was rapidly being completed in the last few days before the Fourth of July. On this day, the bunch was out en-masse and after a number of test hops on the new planes, and a short prayer of thanks to that Wisconsin cow, the first Bombshell burst down the runway - and didn't return to earth until the National record had been boosted to over forty-nine minutes by a beautiful flight that remained under a fleecy cumulus cloud. When the cloud finally broke up, the Buzzard model descended to land within the bounds of the field. On the remaining two official flights for this particular model, the engine was throttled down to prevent loss of the model - yet the total time was over fifty-eight minutes. The other club models performed just as satisfactorily and the final results showed a Bombshell holding down first, third

and fifth in the Class C Open.

CONSTRUCTION

The sides and front gussets are cut from 1/8" balsa. Medium balsa is used for the sides, but hard balsa should be used for the "G" gussets. Due to the 4" depth of the sides, two 2" sheets will have to be butt-cemented together. A splice is necessary in the upper portion, as the sides are 48" long. The engine skids should be cut from birch or some similar hardwood. Stringers are 1/8" x 3/8" hard balsa strips.

The front gussets and 1/8" square and 1/4" square strips are cemented to the sides in the proper locations to serve as former guides. A 1/8"square strip is run along the bottom edge to provide a cementing surface for the bottom planking. The sides are joined together with the formers and the engine skids are slipped in place..

Stringers and top planking are now applied. Small sheet metal strips should be bent around the land gear struts to a U shape to retain the landing gear. These strips should be bolted into place on Formers #2 and #3 and should be well coated with cement. Wire the landing gear struts together at the lower extremities and solder together.

Bind coil to a piece of wood with cellulose tape as illustrated and cement the works to the rear of the firewall. The wiring should now be installed, using a *hot* soldering iron to produce neat and small connections. If desired, fahnestock clips can be soldered to the battery box leads instead of twisting the wires together for a connection. The 3/32" planking can now be applied to the bottom of the fuselage. This is best done when the strips are applied across the fuselage, as the small pieces can be slapped into place without having the cement partially dry, as is the case when longitudinal planking is attempted

Bolt mo5o4 in place and use several coats of cement over the nuts, so that they will not loosen later due to engine vibration. After the cement is thoroughly dry, remove the engine and carve a cowling out of moderately soft balsa. Cut out windows and cover with heavy celluloid. Cover entire fuselage with heave bamboo paper.

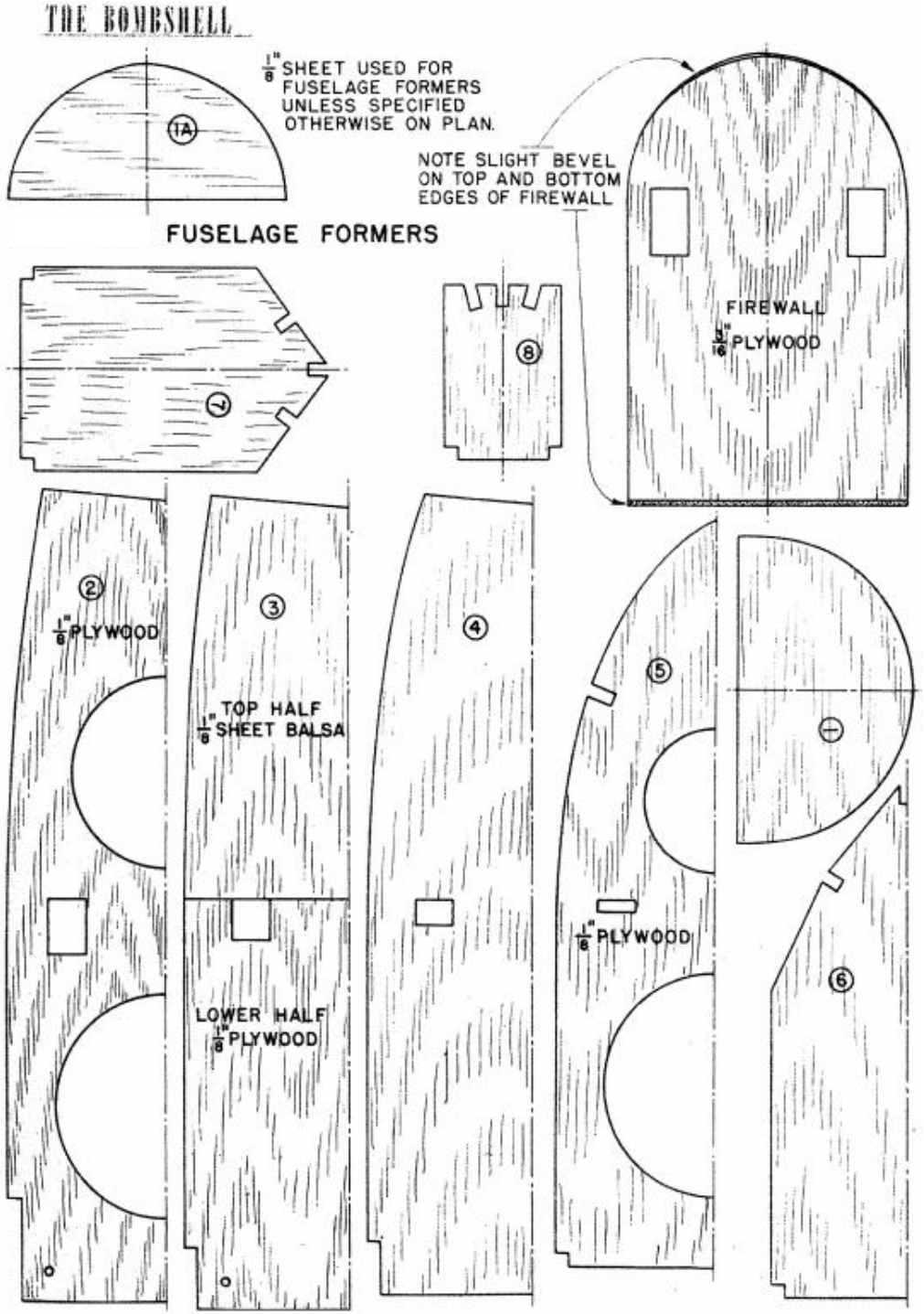
The wing is of standard construction. Main spar is built first over a full-sized plan. Use hard balsa for centre gusset and cement in place carefully. Ribs are now cemented to the spar. Add the notched trailing edge, rear spar, wing tips, and 1/16" sheet leading edge covering. Sand all over and cover the under portion of the centre section of the wing with heavy celluloid. Use bamboo paper for covering the wing.

The tail is light and simple. The outline is constructed first, followed with the application of spars and then ribs. Note the "notched" leading edge which allows a strong cement joint with the 1/16" x 1/4" cap ribs. Finish the entire rudder before trimming the lower part to fit the stabilizer.

FLYING

The first model was test flown carefully to obtain the correct adjustments which were applied to the subsequent planes with practically identical results. First of all, be sure there isn't and warps in any of the surfaces. The plane was balanced at one third of the wing chord from the leading edge and glided several times. On some of the planes a little positive or negative incidence was required in the elevator to obtain a smooth glide. Downthrust to the extent of three washers under the rear of engine lugs was required to prevent mushing in the climb under power. About three degrees left thrust was put in the engine so that the rudder could be turned for a right circle in the glide.

First flights should be made cautiously, revving the engine up only a little at a time until you are sure the plane can take full power. In the winning model, a model B Brown Engine was used swinging a 14" propeller. It was found, however, that quite a variety of engines could be used satisfactorily.



1935-1936-MODEL AERONAUTICS YEAR BOOK-FRANK ZAIC

1935 Texaco Winner	Leo Weiss	Page 3
World Record Gas Model(KG)	Joe Koval	27
Miss Philadelphia IV	Maxwell Bassett	23
8½ ft. Gas Model	Frank Ehling	67

1937-MODEL AERONAUTICS YEAR BOOK-FRANK ZAIC

5 ft. Gas Model	Don Donahue	Page 7
1936 Texaco Winner	Francis Tlush	9
Flying Stick	Frank Ehling	27
Tailless Gas Model	Andrew Borysko	35
Flying Quaker	Paul Karnow-Megow	43
Miss America	Frank Zaic-Scientific	52
Aristocrat-1936 Texaco Entry	Leo Weiss	55
8 ft. Gas Model	Vic Sorensen	77
Experimental Gas Model #2	Frank Zaic	79
Experimental Gas Model	Hecker-Zaic	81
Giant	Vernon Boehle	99
Twin Boom Pusher	Shereshaw-Kinney	109
Cavalier	Shereshaw-Berkeley	111
Buccaneer	Effinger-Berkeley	113
Torpedo II	Leslie M. Adams	115
Flying Boat	M. Lartigue	117
Skeeter	Joe Culver	119
Folly	Rod Doyle	121

1938-MODEL AERONAUTICS YEAR BOOK-FRANK ZAIC

Valkyrie	Carl Goldberg	Page 48
1937 Bowden Winner	Carrol Krupp	49
Firebird	L.S. Wigdor	50
Corsaire	Alfred Van Wymersch	51
Benzinmotor-Flugmodell	Otto Michalicka	52
1937 Berryloid Runner-up	Michael J. Roll	53
The Ethy	Richard Schaumacher	54
Westerner	Elbert J. Weathers	55
The Standby	Bob Jeffery	56
Ole Reliable	Charles T. Marcy	57
Twin Cyclone	J. Tom Laurie	58
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Streamlined Barn Door	Henry Stiglmier	60
Twin Gyro	Frank Ehling	61
Twin Motored Model	Frank Ehling	62
The Bantom	Ted Foti	63
Flying Wing	Tex Rickard	64
Berryloid Winner	Michael J. Roll	65
The Duck	Peter Bowers	66
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Torpedo III	Leslie M. Adams	70
The Buzzard	J.K. Coppage	71
Tambe	Leon Shulman	72
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Morid	Guillemard	144
Streamlined Cyclone	Bob Jeffery	145
1936 French Record	M. Lartigue	145

SAM 1993
SOUTH AUSTRALIA
(Formed 1993)

COMMITTEE

President: Rex Brown 0468 448 375

Secretary: Peter Leaney 8337 2836 pleaney@bigpond.net.au

Treasurer: Don Howie 8271 6678 donhowie9@gmail.com

Meetings held at the home of Rex Brown from time to time

All members of SAM 1993 are members of Willunga Vintage Model Aircraft Club Inc.

Willunga flying field is close to the sea and close to Aldinga Airfield, with beach patrols (summer) and aircraft from Aldinga, so we have a 400ft height limit (not negotiable).

Contests were previously held at Constellation M.F.C. and Monarto M.F.C., where increased height was obtainable, but numbers who attend are so low that contests have been disbanded.

Only event at present is Vintage Glider at Willunga, using 150 metre winch line to turn-around. This gives us a 400ft maximum launch height.

We have had two events this year and results of last one shown below. It is hoped to hold a final event before the end of December this year.

Results Vintage Glider 20th October, 2019.

1st	Bill Britcher	Gamma Gull	993.	4th	Dave Markwell	LuLu Mk. 2	884.
2nd	Don Howie	LuLu Mk. 2	967.	5th	Chris Britcher	Frog Prince	844.
3rd	Peter Leaney	LuLu Mk. 2	925.				

Chris Britcher (left) won the 1st Vintage Glider round in the Annual Vintage Glider Trophy this year on the 14th February with his Frog Prince (not so good in the recent round).

Don Howie is currently leading by just two points so the final round should be quite exciting.

For further information contact Don Howie.

WILLUNGA VINTAGE MODEL AIRCRAFT CLUB
SAM 1993

On Sunday 29th of September we flew gliders at the fying field with Bob Fisher, our Secretary, flying his electric "Bird of Time" model. The design by Dave Thornberg was kitted from the 1980's by Mark's Models in the US as a glider.

The wing design came from full-size German gliders in the 1930's and Frank Zaic used this on his F/F glider designs in the early 1940's, kitted by JASCO in New York. The model has Hobby King iron-on covering on the top and laminating on the bottom surfaces. Adding electric power gives great performance to this very nice fying aircraft.

The Goldberg Models "Gentle Lady" is a great beginners glider introduced in the 1980's, this flown by Chris Britcher on the Sunday. It is expected it will be converted to electric power, but he was getting some great flight times off winch launches.

I bought out my "Alpha H " glider from about 1978, kitted by Multiplex in Germany. I built it at this time and was the all balsa version of the "Alpha" glider, which had a moulded (glass) fuselage. The wing joiners are too small and the wing fexes on the launch, giving much more dihedral. Polyhedral and stronger wing joiners would have made this a better flying model. However, it is still in good condition after 40 years of flying.

Dave Markwell had a small "Playboy Cabin" converted to 2cc flying, now fitted with a P.A.W. 1.49 diesel. The model has Litespan covering on the wings and tail, with orange silk on the fuselage. The two Britchers had "Stardust Specials", the popular ½A model designed by Don Brogini about 1942. These use the COX .049 reed valve engines with the small fuel tank.

Peter Leaney has recently finished his "RF4 Fournier" built from the Mick Reeves kit.


Bob Fisher "Bird of Time"


Dave Markwell "Playboy Cabin"

This 110 inch span model won the World Scale R/C Championship in 1978. The model is an exact scale and Peter has fitted electric power, Tomcat G46 motor, 80 amp speed controller, using a 4 cell, 4000 Mah LiPo battery pack. The model is quite slow fying and needed differential on the ailerons, and now it is all adjusted, it is a great fying scale model.

Ray Bobrige was recently flying his "Crescendo" model, now fitted with a Fox 15 glo engine running on pressure. The model had Hobby King iron-on covering and he has recently been sorting out the engine with Bill Britcher.

The "Crescendo" designed by Ron Draper, won the FAI Free Fight power Championship in 1956 for the UK. The model used the first OS MAX 15 (2.5cc) glo engine and this was the start of sales of OS engines from Japan, that were to become the best known model engine world-wide for high quality.

Don Howie. donhowie9@gmail.com
SAM 1993 South Australia.

Peter Leaney "Fournier RF4"


Chris and Bill Britcher "Stardust Specials"


Ray Bobrige "Crescendo"


Chris Britcher "Gentle Lady"


Don Howie "Alpha H"

ELECTRIC CLEVELAND *VIKING O/T*

By BOB BOUCHER . . . In a double feature, Astro Flight's major domo comes up with a quite rare but also classic looking Old Timer and puts in electric power. You may want to "convert" this one to gas power!!

INTRODUCTION

I had been searching for a different old timer model for my Astro cobalt 05 geared motor. My Playboy flew great, but the pylon was a hassle to build and made installation of all that electricity difficult. I wanted a nice cabin job with a Playboy style wing. My search ended in Rider's Hobby Shop in Ann Arbor, Michigan.

Rider's had a cute little Cleveland Viking hanging from the ceiling. The Viking was designed at a 48-inch span, so I had Bob Sliff and John Lupperger blow up the Cleveland plans to 62 inches.

A few weeks later, the first Viking was finished and just in time for the Reno Nats. For power I used the Astro geared cobalt 05 motor, a seven-cell Sanyo 800 MAH battery, the Astro electronic on-off motor control, and a Rev-Up 11X7 prop. My Monokoted model weighed 36 ounces, complete with Futaba radio.

I balanced the model on the spar and set the elevator throw to 15 degrees and the rudder throw to 30 degrees. The V-dihedral wing has about an 1/8 inch of tip wash-out for good luck.

The Viking flew beautifully right off the board. It is very stable and easy to fly, but still quite responsive to radio command. I was able to average over 10 minutes of glide time from a 1-1/2 minute motor run; more than enough to max. On many flights I got over 20 minutes. I packed up the Viking and headed for Reno.

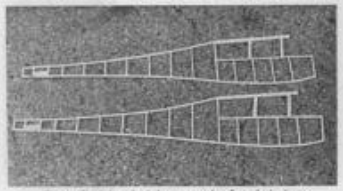
The thin air at Reno was a problem. The prop just did not bite enough air to get a really good climb. I borrowed a 12X8 Top Flite prop, and it worked much better, but still more prop was needed for best results. Bob Sliff had a 16X8 Zinger which he cut to a 12-inch diameter to fit the SAM rules. His Cobalt 05 Playboy beat me by 30 seconds, so I had to be satisfied with second place. Just wait till next year!!!

It's unfortunate that the author of the SAM rules was not concerned with altitude when he formulated the 12-inch prop rule. This rule needs changing.

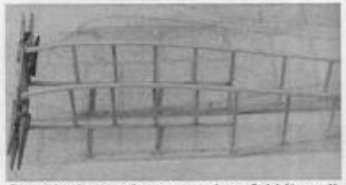
Build sides on plan. Hard sticks for longerons.

Laminate two sticks for cabin posts.

Two sticks form slot for pushrod exits.

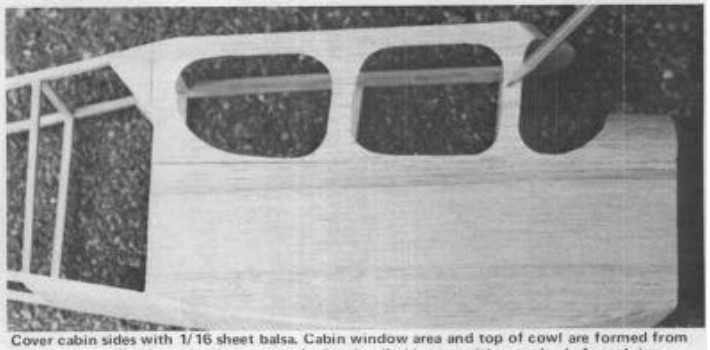


Two finished sides, ready for joining.

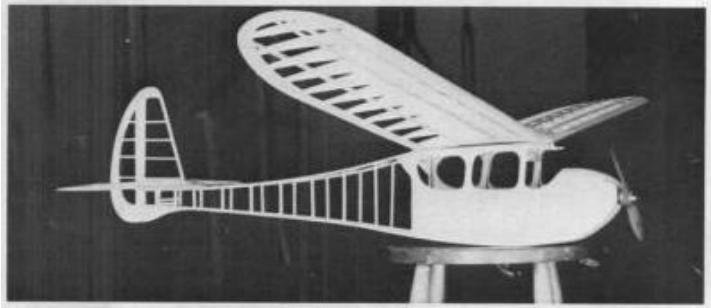


Pin sides inverted over top view. Add firewall.

Sheet fuselage bottom with 1/16 cross grain.



Cover cabin sides with 1/16 sheet balsa. Cabin window area and top of cowl are formed from a single sheet. Cowl portion is water soaked and pulled into position to dry before gluing.

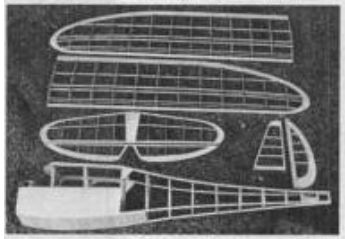


Nice thing about transparent covering, whether it's silk and clear dope or see-thru film, you can still see that pretty framework . . . something you can't get with foam and fiberglass.

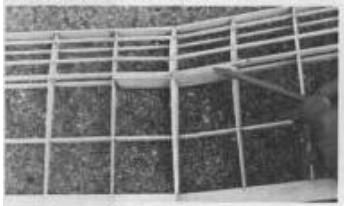
Curved portion of cowl after wet forming.

Wing built directly over plan. Use wax paper.

Stab and rudder also built over plan.



Completed framework, sand well and trim up.



Wing halves joined with ply dihedral brace.

WEIGHT SUMMARY

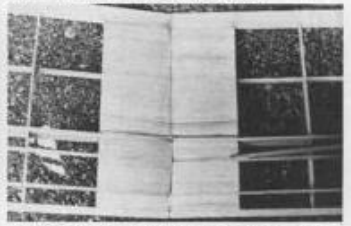
Wing	5.7 oz
Fuselage	4.4 oz
Tail	0.5 oz
Control rods	0.5 oz
Wheels	1.0 oz
Subtotal airframe	12.1 oz
Futaba receiver	1.5 oz
Two S-33 servos	1.3 oz
250 MAH rec. bat.	2.0 oz
Switch harness	0.5 oz
Subtotal radio	5.3 oz
Cobalt 05 motor	6.0 oz
7-cell 800 ma battery	8.6 oz
Switch harness	0.5 oz
Gear box	1.5 oz
11X7 prop	0.5 oz
Astro motor control	1.5 oz
Subtotal Power	18.6 oz
All up weight	36.0 oz

EXPECTED PERFORMANCE

I use a computer program to simulate the climb and glide polars of my models. The program contains a simplified model of the propeller characteristics and calculates the expected climb altitude as a function of lift coefficient. The results of these calculations indicated that the best climb is obtained with a climb angle of 20 degrees. Substituting a direct drive with 8X4 prop indicated that the model benefits from the geared motor but should be able to max even with the direct drive prop.

CONSTRUCTION

The Viking is built from scaled-up Cleveland plans and uses the standard built-up construction used in almost all old timers. This type of construction is light and strong; with the new super-glues it is quite easy to build. The photos show the construction sequence I used and should answer any questions you may have about building this model. ▪

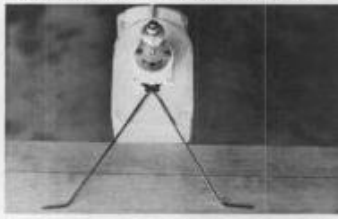


Fill in between spars with sheet covering.

Plenty of room for radio installation.

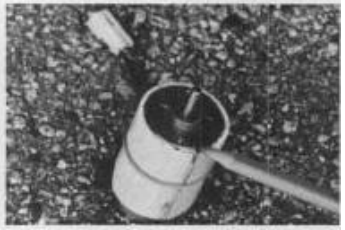
Cowl sanded and blended to fuselage shape.

Cowl rough formed and glued to firewall.

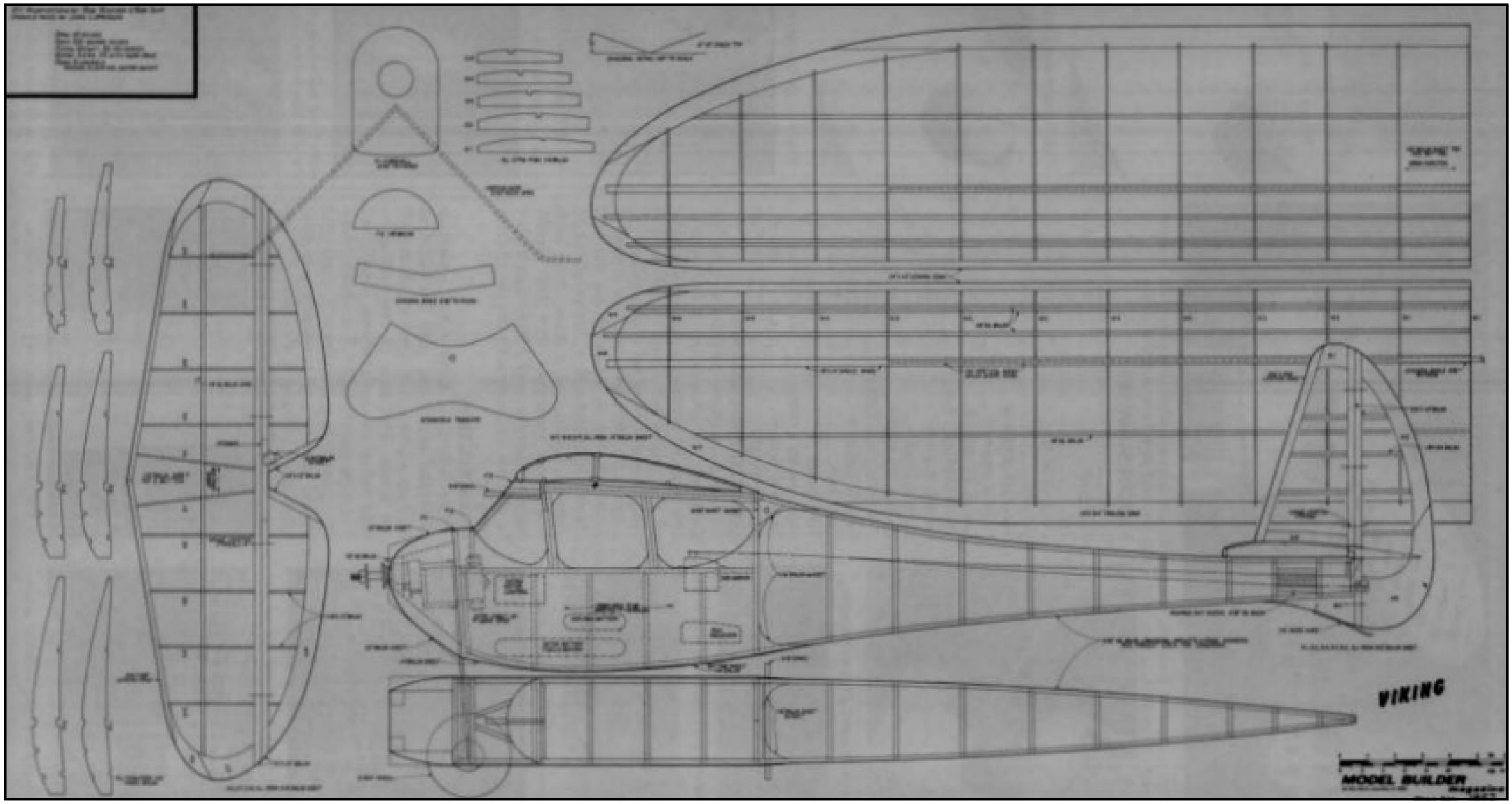


Glue landing gear to firewall, add wire binding

Motor and balsa tube in Astro mount. Add on the gear box for reduction drive version.



Wet mold balsa motor tube over drive motor.



Yesterday I had an appointment to see the urologist for a prostate exam. Of course I was a bit on edge because all my friends have either gone under the knife or had those pellets implanted.

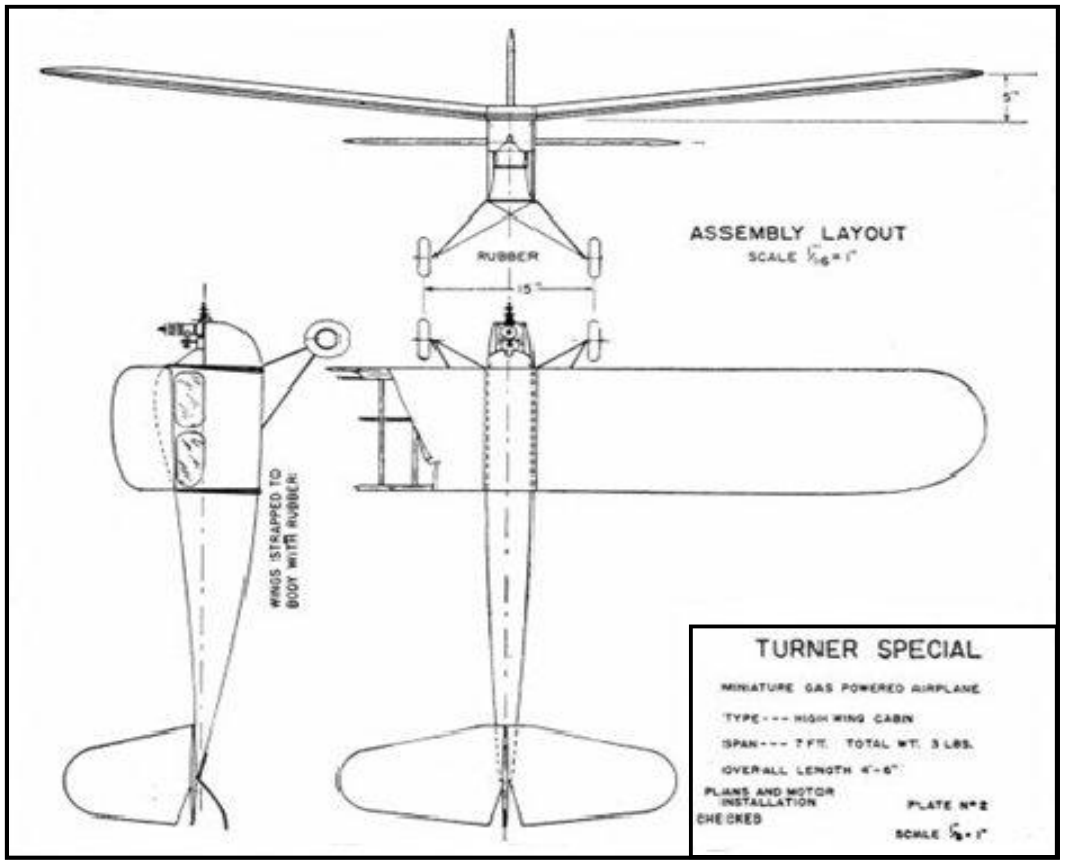
The waiting room was filled with patients. As I approached the receptionist's desk, I noticed that she was a large unfriendly woman who looked more like a Sumo wrestler than a woman. I gave her my name, and in a very loud voice, she said, "Yes, I have your name here. You want to see the doctor about impotence, right?"

All the patients in the waiting room snapped their heads around to look at me, a now very embarrassed man. But I recovered quickly, and in an equally loud voice replied, " No, I've come to inquire about a sex change operation; but I don't want the same doctor that did yours."

The room erupted in applause! Don't mess with us old retired guys.

Cleaning Chemicals

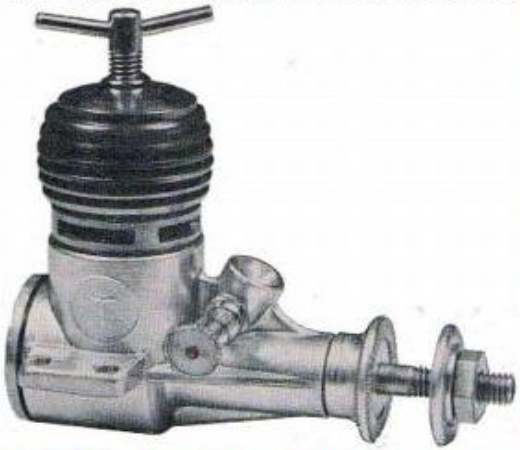
- **Ammonia** Can be mixed with water and applied to wood to make it more pliable when it needs to be bent around curves. Some people make their own cleaners to remove exhaust oil from their models using ammonia, water and dish soap. Alcohol is added sometimes to help cut the grease.
- **Baby Wipes** Keep a few in a freezer bag in you field box. You can use them to clean engine gunk from your hands at the field if your field does not have a hand-washing facility.
- **Bleach-Water Mix** Used for soaking fuel tanks.
- **Citrus Hand Cleaner** Does wonders for getting paint and grease off your hands. Then you have to wash your hands with regular soap to get the hand-cleaner off. Avoid the kind with pumice in it. No point in removing layers of skin just to clean your hands. As an option to or in addition to baby wipes, you can put some hand cleaner in a small squeeze bottle and put it in with your field gear. Squeeze bottles can be found in the personal hygiene section of stores such as K-Mart for less than a dollar.
- **Liquid Dishwashing Soap** Used with plenty of water when wet sanding. Also use it for general cleaning of tools and such. Do not use this type of soap to clean a surface before painting. Many dishwashing soaps contain chemicals to make water sheet off the dishes. This same chemical will cause fish-eyes in your paint. Use a real degreaser such as Tri-Sodium Phosphate instead.
- **Tri-Sodium Phosphate (TSP)** Is an excellent degreaser. Use TSP substitute because it does not contain phosphates and is better for the environment. If you've never used it before then do not be alarmed when it does not suds up. Especially use TSP for cleaning anything you are going to paint.
- **Window Cleaner (Windex)** Usually used to clean your models, but currently experimenting with an alcohol mixture. So far the alcohol mixture is not favoured as it leaves behind a hazy residue.



1936

"No, this isn't the airport. When is the last time you updated your GPS?"

The Taipan 1.5cc January 1959 Model Aircraft test



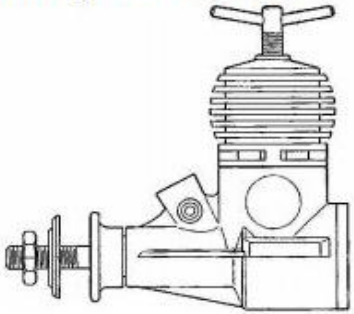
For many years, the quantity production of model i.c. engines in Australia has been in the hands of one manufacturer: Gordon Burford of Grange, South Australia. Both glowplug and diesel engines of numerous different types, under the trade names of " Gee-Bee," " Sabre," "Glo-Chief" and "Taipan," have been produced. The latest model in the diesel range is the 1.5 C.C. Taipan and this unit is the subject of our test report this month.

The Taipan 1.5 is a shaft induction, short-stroke, radially-ported engine of conventional design and construction. Despite a low selling price (£A3 19s 6d. or about £3 Sterling) it is well made and nicely finished. It compares more than favourably on a value-for-money basis, with European engines of similar size and type.

The Taipan 1.5 bears little resemblance to the earlier Burford Sabre 150 which we featured some years ago in this series and, although the latter earned a quite favourable report, we feel that the Taipan is a definite all-round improvement on the earlier model. This is particularly noticeable in its handling characteristics and power output.

The design of the Taipan is, as we have said, orthodox. A very cleanly cast beam mount crankcase unit, with integral bearing adequately webbed for strength, is employed. The cylinder liner has four external type transfer flutes and screws into the casting, being topped by the usual one-piece finned barrel and head. The transfer passages, of which there are four, spaced at 90 deg. intervals, terminate in circular 1/8 in. dia, ports drilled at 45 deg. to the cylinder axis, to improve gas flow, and breaking into the bore between the exhaust ports. Exhaust area is normal (present design trends are away from oversize exhaust ports in favour of larger transfer ports) and the exhaust period is approximately 130 deg.

Induction timing is conservative; the rotary valve opening 75 deg. after BDC and closing 20 deg. After TDC for a total intake period of only 125 deg. It is supplemented by a period of sub-piston air- induction of approximately 20 deg. each side of TDC.



Specification

Type: Single-cylinder, air-cooled, reverse-flow scavenged two-stroke cycle, compression ignition. Shaft type rotary valve induction with sub-piston supplementary air induction. Conical piston crown.

Bore: 0.511 in. Stroke: 0.452 in.

Swept Volume: 0.0927 cu. in. = 1.519 c.c.

Stroke/Bore Ratio : 0.885 : 1

Weight: 3.2 oz.

General Structural Data

Diecast L.33 aluminium alloy crankcase and main bearing with integral air intake. Machined alloy screw-in rear cover. Disc-web. non-counterbalanced crankshaft of 3 per cent. nickel steel, hardened. Cylinder liner of hardened mild steel, flanged at exhaust port level and screwing into main casting. Meehanite piston with pressed-in gudgeon-pin and machined duralumin connecting-rod. Meehanite contra-piston. Cylinder barrel machined from aluminium alloy bar, anodised red and screwed over cylinder liner. Brass spraybar assembly. Beam mounting lugs.

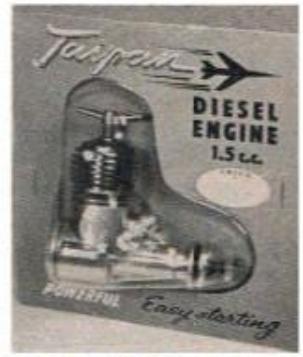
Test Engine Data

Running time prior to tests: 2 hr.

Fuel used: Mercury Super-6.

Performance

Following the American trend in model engine "merchandising," the Taipan is sold in a neat "bubble pak" consisting of a transparent moulding clipped in a card folder with instructions printed on the back.

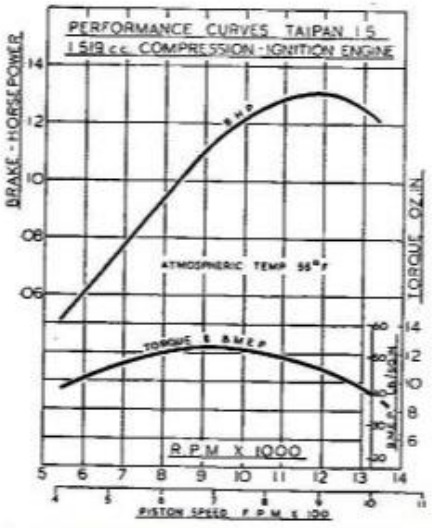


The engine is intended for beginners as well as experienced modellers and, to simulate a "beginner approach," we followed the makers starting instructions closely.

Recommended procedure is to choke the intake, while turning the prop, until fuel reaches the jet and to then give three more turns, followed by an exhaust prime. Using this basic procedure, we had the engine running within 30secs.. Once the engine has been run and any internal stiffness due to residual oil, removed, the Taipan starts very easily and, when warm, a couple of choked flicks is the only preliminary required.

When starting the engine from cold, it is helpful to open up the needle-valve a turn or so beyond the normal setting, but when using largish props (e.g., 9/4-9/6), the engine will re-start hot on the running settings of both needle- valve and compression. With the smaller props (8/4, 7/6, etc.) used to achieve r.p.m. nearer to the peak output, however, it is desirable to slacken off the compression lever a quarter turn to obtain a re-start. These characteristics are, of course, normal.

On our test engine, the contra-piston tended to stick in the bore under certain conditions. That is to say, when the engine was thoroughly warmed up, it would not return to a lower setting when the compression lever was released. This is not uncommon in current diesels, but with the Taipan, it occurred over a narrow range of compression settings only-i.e., when loaded with a certain size of prop. It was found that, by changing the fuel blend to one requiring a higher or lower compression-ratio for a given speed, this critical period could be moved up or down the r.p.m. scale. It would appear likely that this was a peculiarity of the test sample only and is not characteristic of the Taipan generally.



Torque tests of the Taipan revealed slightly unusually shaped torque and b.m.e.p. curves. taximum torque was delivered at around 9,000-9,500 r.p.m. and declined quite appreciably at speeds below this figure. Since maximum torque exceeded 12 ozs. in., however, the power output was particularly good on useful size props (e.g., 8/4) and over, 0.12 b.h.p. was realised at 10,000 r.p.m., with a maximum of 0.131 b.h.p. delivered at the peak speed of 12,000 r.p.m.

In general, running qualities were good. There was an appreciable power loss with warming up on the heavier loads, but this diminished as prop size was reduced and was negligible when running on the recommended Australian-made "Strato" 8/4 airscrew. 'This latter, incidentally, seems to Suit the engine very well. Its blades are thinned and tapered at the tips and with it, revs should approach to within a few hundred r.p.m. of the peak in the air.

To summarisc, this new Australian diesel is a pleasing motor, well made, nicely finished and easy handling. It is not the most powerful of 1.5 C.C. engines, but its performance is well up to present-day standards and is better than some other contemporary 1.5's. It, like the other current Burford engines, undoubtedly represents very good value.

Power / Weight Ratio (as tested): 0.67 b.h.p./lb.

Specific Oulpul (as tested): 86 b.h.p.'litre.

Who's afraid of Alzheimer's ?

In the following analysis the French Professor Bruno Dubois Director of the Institute of Memory and Alzheimer's Disease (IMMA) at La Pitié-Salpêtrière - Paris Hospitals/addresses the subject in a rather reassuring way:

"For some time now, I have been stuck and I do not know what we were talking about … Before, I was afraid it was the beginning of Alzheimer's ... but today, after reading this article, I am reassured." "If anyone is aware of his memory problems, he does not have Alzheimer's."

1.I forget the names of families …

2.I do not remember where I put some things …

It often happens in people 60 years and older that they complain that they lack memory.

"The information is always in the brain, it is the "processor" that is lacking."

<u>This is "Anosognosia" or temporary forgetfulness</u>.

Half of people 60 and older have some symptoms that are due to age rather than disease. The most common cases are:

- forgetting the name of a person,
- going to a room in the house and not remembering why we were going there …
- a blank memory for a movie title or actor, an actress,
- a waste of time searching where we left our glasses or keys …

After 60 years most people have such a difficulty, which indicates that it is not a disease but rather a characteristic due to the passage of years …

Many people are concerned about these oversights hence the importance of the following statement:

"Those who are conscious of being forgetful have no serious problem of memory.

"Those who suffer from a memory illness or Alzheimer's, are not aware of what is happening."

Professor Bruno Dubois, Director of IMMA, reassures the majority of people concerned about their oversights:

"The more we complain about memory loss, the less likely we are to suffer. from memory sickness..

So, share this with your over-60 friends, it can reassure.

Old Timer's Hospital Stay

I am a sick old man. I was sick and in the hospital. There was one nurse, Joyce, that just drove me crazy. Every time she came in, she would talk to me like I was a little child. She would say in a patronizing tone of voice, "And how are we doing this morning?" Or "Are we ready for a bath?, Or "Are we hungry?"

I had had enough of this particular nurse. One day, at breakfast, I took the apple juice off the tray and put it in my bed side stand. Later, I was given a urine bottle to fill for testing. So you know where the juice went !

The Joyce came in a little later, picked up the urine bottle and looked at it. "My, it seems we are a little cloudy today."

At this, I snatched the bottle out of her hand, popped off the top, and drank it down, saying, 'Well, I'll run it through again. Maybe I can filter it better this time." The nurse fainted..... I just smiled. jajaja !!!!!

Bran Flakes

The couple were 85 years old and had been married for sixty years. Though they were far from rich, they managed to get by because they watched their pennies. Though not young, they were both in very good health, largely due to the wife's insistence on healthy foods and exercise for the last decade. One day, their good health didn't help when they went on a rare vacation and their plane crashed, sending them off to Heaven.

They reached the pearly gates, and St.. Peter escorted them inside. He took them to a beautiful mansion, furnished in gold and fine silks, with a fully stocked kitchen and a waterfall in the master bath. A maid could be seen hanging their favourite clothes in the closet. They gasped in astonishment when he said, 'Welcome to Heaven. This will be your home now.' The old man asked Peter how much all this was going to cost. 'Why, nothing,' Peter replied, 'Remember, this is your reward in Heaven.' The old man looked out the window and right there he saw a championship golf course, finer and more beautiful than any ever built on Earth. 'What are the greens fees?,' grumbled the old man. 'This is heaven,' St. Peter replied. 'You can play for free, every day.'

Next they went to the clubhouse and saw the lavish buffet lunch, with every imaginable cuisine laid out before them, from seafood to steaks to exotic deserts, free flowing beverages. 'Don't even ask,' said St. Peter to the man. This is Heaven, it is all free for you to enjoy.' The old man looked around and glanced nervously at his wife. 'Well, where are the low fat and low cholesterol foods and the decaffeinated tea?,' he asked. 'That's the best part,' St. Peter replied, 'You can eat and drink as much as you like of whatever you like and you will never get fat or sick. This is Heaven!' The old man pushed, 'No gym to work out at?' 'Not unless you want to,' was the answer. No testing my sugar or blood pressure or...' 'Never again. All you do here is enjoy yourself.'

The old man glared at his wife and said, 'If it wasn't for you and your jolly Bran Flakes we could have been here ten years ago!'

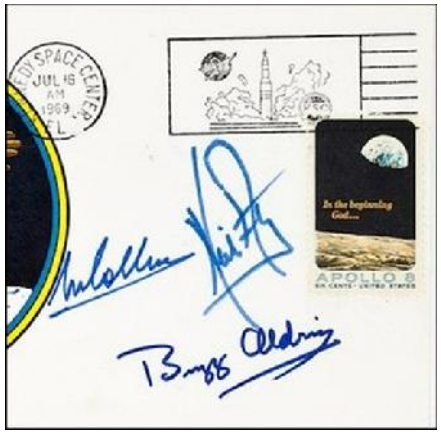
TRIVIA

Apollo 11 Astronauts Used Their Signatures As What?

Zero Gravity Motor Skill Tests	International Goodwill Tokens
Life Insurance	Security Authenticators

Answer →

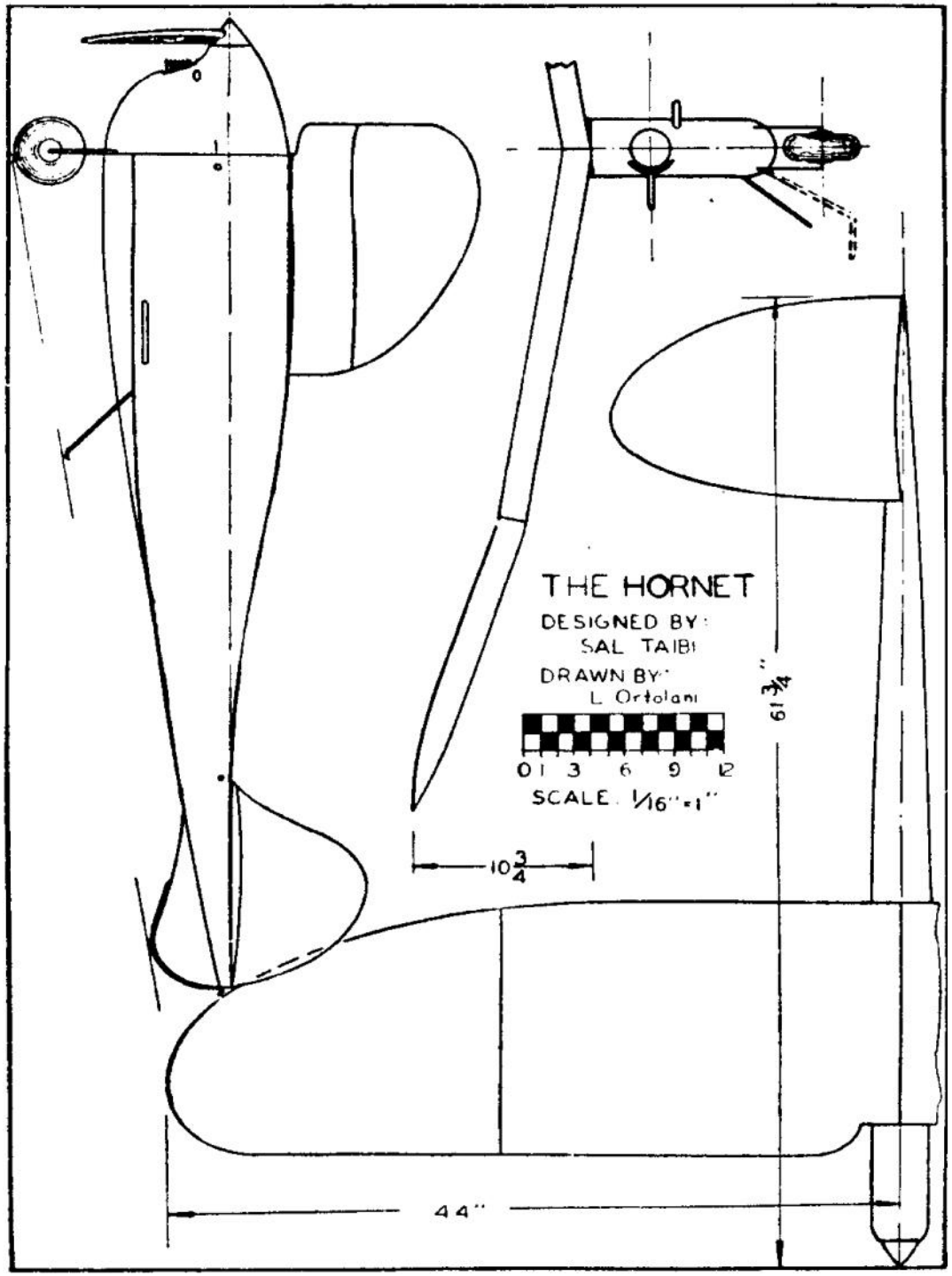
Answer: Life Insurance



You can purchase insurance for just about anything under the sky if you've got enough money to burn - insurance for your vintage book collection, insurance for your famous radio voice, and so on. But what about when it comes to getting insurance for more out-of-this-world endeavours? When it came time to get life insurance to protect their families in the event of their unfortunate demise, Apollo 11 astronauts found that any insurance package they could find was astronomically expensive given the enormous risks they were undertaking traveling in Earth orbit and to the Moon.

In lieu of proper life insurance, the Apollo 11 crew banked on their fame to offer financial security to their families. Before the launch of the Apollo 11 mission, they signed hundreds of envelopes adorned with Apollo postage stamps and other Apollo mission iconography. The envelopes were all post-marked the day of the launch and divided among the families to sell off in the event the men didn't return home. Thankfully, all of the Apollo astronauts returned safely to Earth and the autographed envelopes lived on not as a life insurance payout, but as highly collectible space race memorabilia.

Dave Markwell of Willunga Vintage Model Aircraft Club, S.A. with his Leprechaun Vintage Glider by Dick Homey. 102 inch wingspan with Solartex covering. Weighs 9.7 lbs.



Ivory Gull II. Free flight towline glider. Jan 1943.

Quote: "The Ivory Gull II, by RFL Gosling. January 1943.

A particularly attractive glider model, designed and built by a well-known aeromodeller of many years' standing.

THIS glider is a development of the Ivory Gull from which it only differs in minor details, which have been incorporated as the result of a great deal of flying with the original and which culminated in a flight of 5 min 21 sec out of sight in the ME Cup Competition in 1939, when it was lost. Automatic rudder control was used on this flight and was found to be very effective when tow-launching. The original model was also flown HL with considerable success when slope soaring, in this case with the auto rudder control out of action and the rudder set central.

Fuselage: The two sides are built in the usual way on the side elevation of the full-size plans. The longerons are first steamed to the correct shape before the uprights are cemented into position. This is specially necessary if hardwood is used. The two sides are then placed upside down on the plan and the cross pieces cemented into position, starting at the centre. When these have set, triangular pieces of 1/16 sheet are cut and cemented on to these cross pieces, except where formers F.1, F.4 and F.6 are due to be inserted.

The fuselage is now lifted from the plan and the above-mentioned formers, which can be either cut from 1/16 hard sheet or 1/16 3-ply, are now inserted and cemented into position. The other formers and nose block are then added. The keel, which is cut from 1/8 sheet, is now cemented into position after the cross pieces have been cut away at the centre in the second and third bays. The remaining stringers are now added as can be seen from the drawings. The fuselage is now ready for covering, but before doing this the combined towing hook and auto rudder control are made, and bound and cemented into position. The wire connecting this to the rudder is also put into position.

The covering of the fuselage is done with 1/16 sheet, the sides being cemented on first, then the bottom and top, the cabin being covered with sheet celluloid. A small piece of the upper deck between the nose block and former F.1 is cut out afterwards so that weight can be added in this bay in the form of plasticise and /or lead shot. Two small lengths of aluminium tube are cemented to the fuselage in front of the tail position to engage the pegs of the tail plane, also a paper tube to take the dowel to hold the rudder in position. Two 1/16 round lengths of bamboo to act as pegs are then cemented into position under the wing mount and strengthened by 1/8 in gussets; these are for the rubber bands which hold the main plane in position.

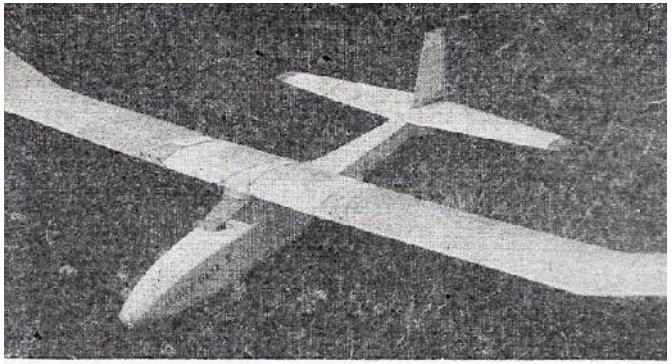
The fuselage is now carefully sanded, the corners being slightly rounded off. When smooth it is given two coats of banana oil with a light sanding between each coat, then the whole fuselage is finished with a coat of cream enamel.

Wing: The construction of this is quite straightforward and should present no difficulties. There are two breaks for dihedral in each panel and these are well gusseted. There are two spars one above the other and it will be noted that these spars are lighter in the outer panel than in the rest of the wing. The two halves of the wing are joined in the usual way by two loose birch dowels fitted into paper tubes with plugged ends, so that the dowels can be replaced if they should be broken.

Tail: This again is quite orthodox and should not present any difficulties. The two bamboo pegs for holding the leading-edge on to the fuselage should be left till last and when cementing into position see that the tail is in true alignment with the main plane when the latter is in position on the wing mount.

Rudder: This is built as usual, the trimming tab being built separately and fitted with wire prongs to engage the aluminium tubes which are let into the rudder. See that it is an easy fit and there is no friction when turning the tab. A piece of wire, bent as shown on the drawing, is cemented on to the lower rib of the rudder tab. When in position on the fuselage this will engage the wire from the towing hook, the opposite side having a small rubber band hooked over it and thence to a small hook on the side of the fuselage. The tension on this should only be sufficient to just bring the tab over to the right. A stop of balsa is cemented to the rudder on this side and will have to be adjusted by trial and error to find the correct amount of rudder required to give a circle of 200/300 ft. A stop on the opposite side prevents the tab from going past the central position while the glider is going up on the tow line.

Covering: The wings and tail are covered with light bamboo paper, red on the lower surface and white on top, the rudder being all white. After spraying with water and shrinking they are given two coats of dope. See that the wings are perfectly true while the -dope is drying. It is best to leave the wing in some sort of jig for 24 hours afterwards to prevent any warping.



"IVORY GULL IIB," as flown in the Pilcher Cup Competition, 1943.

Weight: Weight is now added to the nose after the model is assembled until the CG is approximately 50 percent along the wing chord.

Flying: First test the model by hand-launching on level ground on a day when there is just a very gentle breeze, launching into wind and throwing the model downwards in its natural gliding angle and judging the power of the throw so that it is just airborne when leaving the hand. The rudder tab is of course disconnected and left in the neutral position. Weight is now added or taken from the nose bay until the best gliding angle is found, and the model makes a steady glide with no tendency to stall and lands gently on its skid."

This was not published as a full sized plan. This was a 1/3 scale drawing, with full-size ribs and formers, as printed in the magazine in 1943.

Update 20/07/2016: additional 'modifications' article (April 1944) added, thanks to RFJ.

Quote: "As the model has undergone various modifications during the season, it was thought that some notes on these would interest readers, especially those who have built this model from the Aeromodeller plan ...the original wing has a tendency to flex a little under load, especially while tow-launching. I advise builders to plate with 1/16 sheet between the spars... "

IVORY GULL II.

DESIGNED BY
R.F.L. GOSLING.

Design by
Nexus Plans Service, Nexus House, Boundary Way,
Hemel Hempstead, Herts, HP2 7ST

HOLDER OF BRITISH RECORD
CLASS 'A' F.A.I. SAILPLANE
5 MINS 33·8 SECS. M.L.

MATERIALS LIST

Sticks

7	lengths	24". x 1/8" x 1/8" Spruce.
4	"	24". x 1/8" x 1/8" Balsa.
1	"	24". x 1/8" x 5/16" Balsa.
2	"	24". x 1/8" x 1/16" Balsa.
1	"	24". x 1/8" x 5/8" Balsa.
2	"	24". x 1/16" x 5/8" Balsa.

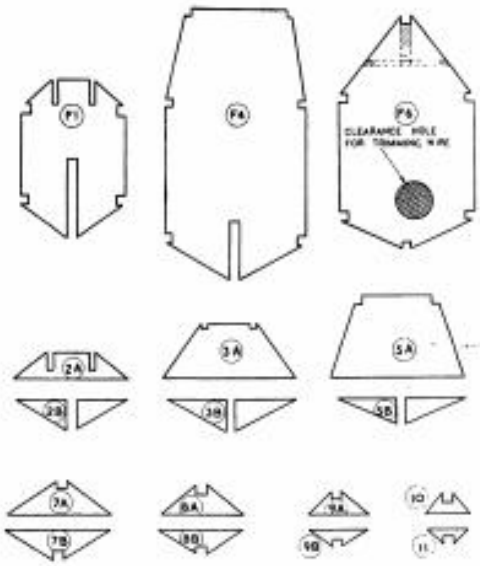
Sheet

8	sheets	24". x 1/16" x 3" Balsa.
1	"	24". x 1/32" x 3" Balsa.
1	"	24". x 1/8" x 3" Balsa.
1	"	12". x 1/8" x 3" 2 ply.
		6in. x 6in. 22 1/2lb" 2 ply.
1	block	12in. x 1½" x 3/4" Balsawood.

Miscellaneous

2	lengths	12". x 1/32" Dowel.
1	"	6in. x 1/8" Birch dowel.
1	"	12". x 3/32" Birch dowel.
1	"	33in. x 18 g. diameter Tube.
1	"	33in. x 18 g. diameter Tube.
1	length	18 swg. Piano wire.
1	"	20 swg. Piano wire.
1	"	22 swg. Piano wire.
1	"	28 swg. Piano wire.
1	piece	6" x 4" Celluloid sheet.

Cement, tissue, dope, rubber bands etc. etc.



F1, F4 & F5 CUT FROM 1/8 PLY
REMAINDER FROM 1/16 SHEET BALSA.

BUILDING INSTRUCTIONS

FUSELAGE

Glue the four main longerons to shape and build two sides in the usual manner. The completed sides are then aligned upside down over the plan view, and cross pieces glued in place.

Formers 1 - 11 and the crosspiece are next assembled and glued in position. Dowel 8.1 in place, having first cut away portions of the cross pieces at 4.2 and 4.3 to allow for insertion. Add 8.2 and 8.3, upper and lower stringers, and build up cabin and under fin.

Assemble and fix in place the combined tow hook and auto rudder control, including the connecting wire.

Cement in position the fin fixing tubes also tailplane fillets with holes inserted for receipt of tailplane leading edge pegs.

Commencing with the sides, cover the whole fuselage with 1/16" sheet, following with top and bottom sections. Cabin is sheeted in with thin celluloid.

Use glue for final exit of control wire and ensure that the sliding tow hook has a fully free action. Also remove top section between nose and F.1 to allow for the addition of trimming weights. (This piece is replaced when correct trim is obtained.)

Carefully sand down fuselage, slightly rounding off corners. Cover two ends of balsa sill, tapering sending between cords. Insert bamboo wing locating pegs.

WING

Build whole wing panels flat, noting that outer ribs are slotted for 1/32" white spars only. Do not insert spanwise until the dihedral angles have been set up.

The wing halves are joined by brass dowels, thus enabling easy replacement of the dowels are broken. Tubes are constructed by rolling gummed paper strip around a mandrel down. Until a thickness of approximately 1/32" is built up. Roll over pin. Cement.

TAILPLANE

Pin spar and trailing edge to board, cement ribs in position, following with leading edge and tips. Build up the top of spar at centre as shown, insert tubes for fin fixing, and cover entire centre section with 1/16" sheet on bottom, and 1/32" sheet on top.

Do not glue the bamboo pegs at leading edge until the whole model can be assembled, thus ensuring correct alignment of tail with the wing.

FIN & RUDDER

The trim tab is built separately, and is fitted with wire prongs to engage in tubes let into the fin. These should be an easy fit, and no friction should be felt when turning the tab. The operating horn wire is connected to the lowest tab rib, one side engaging the control wire, and a rubber band (engaged with hook shown) taking up the tension on the opposite side.

Balsa stops are cemented in position to limit the amount of travel of the tab. The port stop should hold the tab at a central position when the tow hook is under tension, while the starboard stop must be adjusted by trial and error to give a flight circle of 200/300 Ft.

COVERING & FINISHING

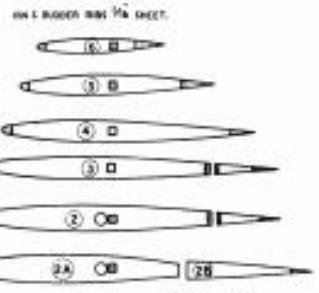
Cover all flying surfaces with light bamboo paper, using dilute dope and give two coats of dope. Fuselage is finished with a gloss enamel or coloured dope.

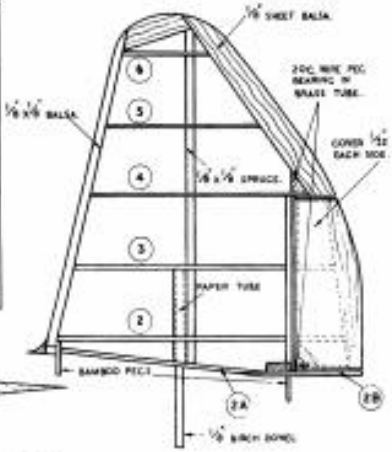
The original "Ivory Gull" had a cream enamelled fuselage, with wing and tail covered with red blazon underneath and white on top, fin all white.

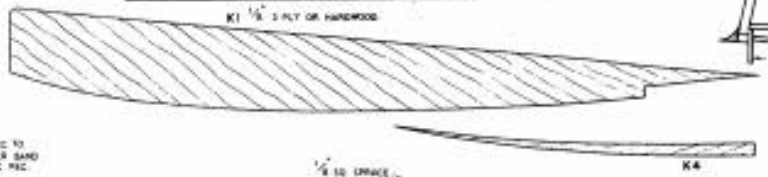
TRIMMING FOR FLIGHT

Add weight (plasticine is a handy material) to the nose until the model makes a steady glide with no tendency to stall.

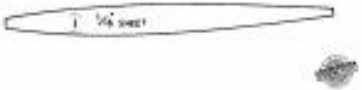
NOTE: For F.A.I. contest requirements, model must total 7½ ozs.

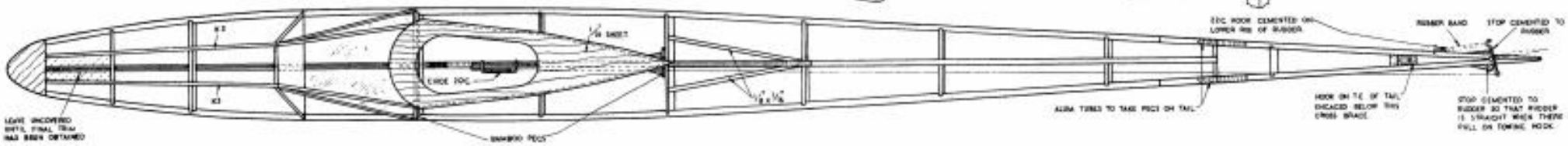


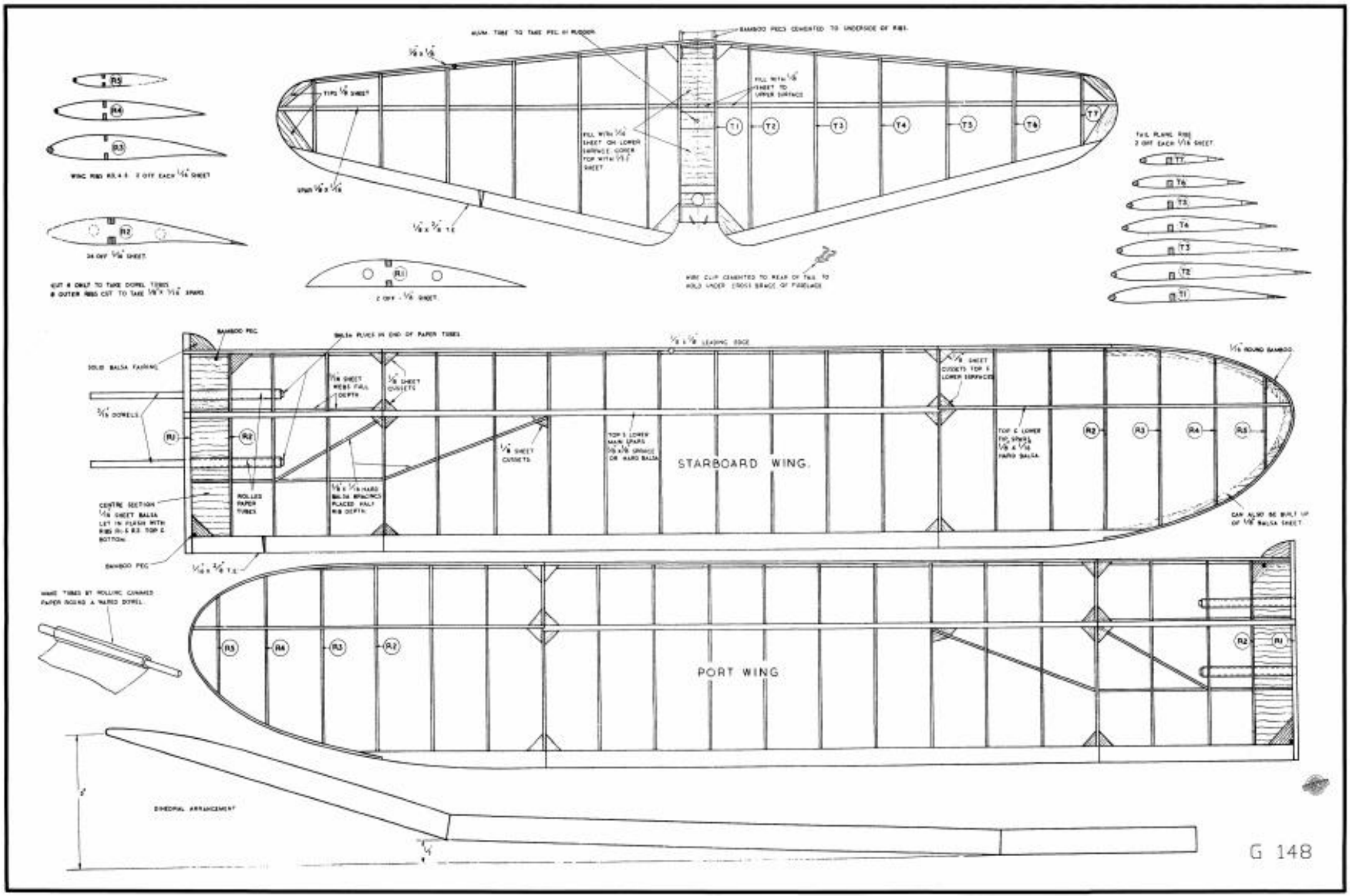




FUSELAGE COVERED WITH 1/16 SHEET BALSA.






R5
R4
R3
WING RIB R3,4 & 5 2 OFF EACH 1/16 SHEET
R2
24 OFF 1/16 SHEET
CUT R ONLY TO TAKE DOWEL TUBES
R OUTER RIBS CUT TO TAKE 1/8 x 1/16 SPARS
R1
2 OFF - 1/8 SHEET
BAMBOO PEGS CEMENTED TO UNDERSIDE OF RIBS
TIPS 1/8 SHEET
FILL WITH 1/16 SHEET TO UPPER SURFACE
FILL WITH 1/16 SHEET ON LOWER SURFACE. COVER TOP WITH 1/16 SHEET
T1
T2
T3
T4
T5
T6
T7
WIRE CLIP CEMENTED TO REAR OF T&S TO HOLD UNDER CROSS BRACE OF FUSELAGE
T&S PLANE RIBS
2 OFF EACH 1/16 SHEET
BAMBOO PEG
SOLID BALSA FAIRING
3/16 DOWELS
ROLLED PAPER TUBES
CENTRE SECTION 1/16 SHEET BALSA LET IN FLUSH WITH RIBS R1 & R2 TOP & BOTTOM
1/16 SHEET WEBS FULL DEPTH
1/8 SHEET GUSSETS
1/16 x 1/16 HARD BALSA BRACINGS PLACED HALF RIB DEPTH
TOP & LOWER MAIN SPARS 3/16 x 3/8 SPRUCE OR HARD BALSA
1/8 x 3/8 LEADING EDGE
1/16 SHEET GUSSETS TOP & LOWER SURFACES
TOP & LOWER REAR SPARS 1/8 x 1/16 HARD BALSA
1/16 ROUND BAMBOO
CAN ALSO BE BUILT UP OF 1/16 BALSA SHEET
STARBOARD WING.
PORT WING
DIHEDRAL ARRANGEMENT
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