

THE SOCIETY OF ANTIQUE MODELERS
The SAM 600 Thermaleer

"Travelling into the future looking in the rear vision mirror"
- Marshall McLuan

VOTA: Victorian R/C Old Timers Association (SAM 600) Inc.



Photo: Peter Bennett

The Next Generation...

***Fred Chigwidden and his Grandson
Owen Chigwidden, age 10 (son of David) prepare for the
SWAMPS sponsored Red Zephyr Fun Fly Day.***

*(A wonderful way to encourage young timers like Owen,
a full report of the Red Zephyr Day in the next issue).*

SAM 600 Website <<http://www.sympac.com.au/jtboundy>>

Download this newsletter <<http://www.ozonline.com.au/~sam600nl>>

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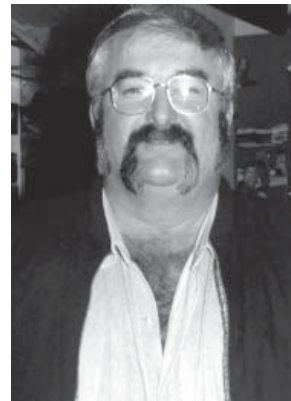


Photo: Trevor Boundy

President's Report

Hi Folks. Once again our Easter Swan Hill event is just around the corner, so at the next meeting we would like to obtain some Contest Directors for those comps at Swan Hill. Also CDs for Cohuna May 1st & 2nd and Queen's Birthday weekend comp to be held at Bendigo.

See you at the meeting.
Happy landings, your President
Chris Lawson.

NEXT MEETING

Meeting #60 will be held on Thursday, 25th March 1999, 7:30pm sharp at Saturn Hobbies, located at 17 Ardena Court, Bentleigh East (Melway 68 J-12) of East Boundary Road (which is opposite the Moorabbin Memorial Swimming Pool) Saturn Hobbies will be open prior to 7:30pm.

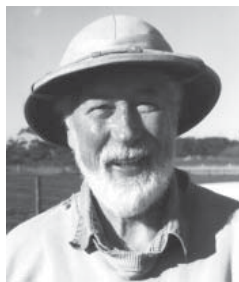
Meeting #61, Thursday 27th May.
Meeting #62, Thursday 22nd July.

The "Hyphen" dihedral ?

Your Editor has become aware of some confusion over the "Hyphen" dihedral measurements. A future article will cover construction in depth. I'm indebted to Don Howie for a copy of Aust. Model Hobbies, March 1950 and I quote: "The dihedral on the wing is eight inches on each side. Four inches on the outer panel and four inches beneath the wing tip. Centre section is flat".

On most Sunday afternoons and Thursdays, Thursday Old Farts Fun Fly (TOFFF's day) there is casual flying at the SWAMPS club on a private property at Lang Lang, (conditions permitting) by courtesy of Fred Chigwidden's son David. Members are welcome, especially those new to flying are welcomed to the SWAMPS field. Model and pilot training sessions are conducted by Peter Donovan and others. Location and local field rules can be obtained from Fred Chigwidden, you can reach him at 03 5997 5675.

Notes from, and Letters to, the Editor:



Recently my wife Jennifer and I had occasion to visit New York, and while there we contacted members of SAM. One of the most interesting people we contacted was Larry Davidson, who recently won the SAM F/F Champ of Champs at Muncie.

Larry and his charming wife Elaine live on Long Island, and they welcomed us for a day visit. Our time spent with the Davidson's was special and was a reminder of the fellowship of the Old Timer movement. Nothing was too much trouble and I was really impressed with the care and attention to detail that was evidenced by everything Larry did. He builds an immaculate model and his ability to reduce weight without reducing the constructional integrity surpasses even that of our very own Trevor Boundy.

I took some photographs of Larry and model and Harley Davidson, all of which he is justifiably proud. Here's what he had to say about the "Stardust Special".

The plane in the photo that you took is a "Stardust Special" designed by a retired Grumman engineer friend of mine named Don Brogini. Don and I go back to the early fifties, when Don was designing free flight flying wings, while going to college. Don lives only a short distance from me and we see each other and talk on the phone for hours at a time. He is, to say the least, very knowledgeable and interesting to talk to. He designed the "Stardust" in 1940 and he still has the original model, which I have had in my hands. Don has "THREE" engineering degrees, as if one was not enough, one being in aerodynamics and we are always talking about trimming, airfoils etc. He is one of a few engineers that I found, does not talk over my head and is easy to understand.

The plane flies incredibly well and would have won or at least placed in the last Champs if I didn't have an overrun on the first flyoff flight.

Mine has an Elfin 2.49 CS Diesel and uses a B-Y&O 9-4 prop. I use Red Max Diesel fuel and the plane is covered in silk and dope.

The motorcycle in the picture is a 1998 Harley Davidson (no relative of mine, unfortunately).



Larry Davidson with "Stardust Special" and Harley

Model: Heritage Softail Classic (FLSTC) weighs about 750 pounds, has an 80 cubic, 1340 cc V-Twin Evo engine. I bought the bike last March. I use it to chase my free flight models (doesn't everyone?). It is a ball to ride and it has 2000 miles on it now.

You asked me to tell you about my winnings, so here is a brief synopsis for my SAM experiences:

1988 was my first SAM Champs at Lawrenceville Illinois. I won first place in 1/2 A Texaco R/C assist with a Playboy Junior. I was the only one to max out. In 1990, I came in second place for the grand championship in R/C assist at the Champs at Chicopee Mass.

1991, I won the Grand Championship at the Champs in Jean Nevada in R/C Assist.

1992 I again won the Grand Champ in R/C assist in Lawrenceville Illinois.

1993 Won the Grand Champ again in R/C assist In Taft California.

1994, I was the R/C contest director for the Champs in Muncie, Indiana and then started to build and fly free flight in Nos Gas, AMA and SAM.

This year, I won Grand Champion in the SAM Champs in Power at Muncie Indiana. (what luck!) My wife, Elaine has supported me in all my endeavors and a lot of credit goes to her for my success's. Thanks again for visiting. The door is always open to you and Ginny.

Thermals, Larry <Samffchamp@aol.com>

Larry runs an excellent Old Time Model Supply operation, he has just about everything you need, everything from Super Cyclone 60 & 65s, Solid State Ignition Units through to Polyspan, call him on (516) 261-1265 or e-mail as above.



Stardust Special with designer Don Brogini - Built & photo by Larry Davidson

On our return to Australia, courtesy of Larry Davidson, I have had a number of contacts with Don Brogini, designer of the "Stardust Special".

"Stardust Special" by Don Brogini

Reprinted by kind permission of "SAM Speaks"

The "Stardust Special was recently approved by SAM as an Old Timer design. It was designed in 1940 in two sizes, to fly with a Bantam 19 or an O&R 23. The airplane features the excellent NACA 6409 airfoil and a high aspect ratio wing. These features give higher lift and lower drag. The plane has a blended fuselage/pylon for low drag, light weight and strength. Also contributing to low drag is the spinner, cowl, one wheel landing gear, and a fuselage with a minimal cross section area.

Several sizes of this plane were developed for class A and B. The plan shows two different wingspans, two different fuselage lengths, and several fin sizes. The wings, fuselages and tails are all interchangeable. The basic wing has a span of 50 inches, with an area of 276 square inches flat and 268 projected. The higher aspect ratio wing, with the same chord, has a span of 55 1/2 and an area of 308 flat, 300 projected. A suitable engine is the Bantam 19 or Ohlsson 23, each of which were used during the Old Timer era, and more recently the Elfin 2.49cc or any similar motor. I had not flown a "Stardust Special" since 1947, and a few years ago Larry Davidson (noted modeler in free flight and 3 time SAM Grand Champion RC) noticed the design and decided to build one. He completed his Elfin powered model in late 1996, and commented at a club meeting that the plane has the most outstanding climb and glide he has seen and that the transition from any altitude could not be better.

*Editor's note: Don Brogini has told me that any SAM 600 members who wish to purchase full size free flight 1/2 A Texaco or RC plans with

instructions, they should contact-

Donald Brogini

1 Idle Day Knoll, Centerport NY 11721

Phone: (516) 261-1165

USD\$15.00 folded or USD\$20.00 rolled in a tube, mailed to Australia. Don is a thorough gentleman, nothing is too much trouble- I'm sure he would be happy to hear from you.



COX .049 ENGINES.

WHY?---- Why won't it start?---
- "#*_@+++ "----Throw it back
in the cupboard.----

When asked to CD the 1/2 A Texaco event at the Ballarat Nationals I was staggered at the winning time [40 plus minutes] and even more staggered by the

"B----y COX Motor" comments. An experienced SAM 1788 member explained that most modellers do not consider the COX as a serious engine and if they did they would enjoy this contest. His advice:-

- [1] Clean the motor INSIDE and out.
- [2] Make sure reed valve is operating properly.
- [3] Make sure all gaskets are in good order especially the one inside the fuel tank.
- [4] Check fuel pick-up tubing is positioned correctly. If doubtful, replace with silicon tubing.
- [5] Use 3 or 4 head gaskets.
- [6] Clean motor inside and out after running.
- [7] Filter fuel into fuel bottle and filter fuel into engine.

Open mixture adjustment 3 1/2 turns, prime as manufacturers recommendation, start engine and after approx. 1/2 hour continuous running with the mixture rich [add fuel while engine is running] gradually lean engine until maximum revs. Then back off needle a 1/2 turn. Mount engine in suitable 1/2A Texaco aircraft and enjoy the thermals as I do.

Fuel:- I use 5% nitro 15% synthetic oil [standard texaco mix] but find the ball/socket joint used to attach the con./rod to the piston wears and requires adjustment with cox tool.

Good advice from one of the founders of SAM , USA , suggests that CASTOR should always be used to eliminate this problem.

The following information has been sourced from Smallnet, USA. Cox Fuel contained 22% and later reduced to 18% all castor oil.

Cox proved this oil content best for their engines. Cox factory spec was .005 inches in the fitting of the ball/socket of the piston. This guaranteed that oil would get in during the break-in process. Using the COX tool it's possible to improve this tolerance. To check if ball/socket is worn, remove piston/ conrod from engine, hold piston and shake. If rattling is heard, adjustment should be made.

Castor oil based blends will run longer than synthetic based blends because the castor oil cooling effect allows the engine to be run leaner. Hope you don't beat me at the next comp. Peter Hosking.

Letter from Bill Britcher, Pt Willunga, S.A.

Reading Jan/Feb Newsletter I came across the Miss Arpiem/Amco diesel story. In the interest of getting the story correct I thought I would drop you a line, plus I hate to be inaccurately quoted.

In the Miss Arpiem I flew at Swan Hill was a CS ED 3.46 Hunter diesel replica, (I still have both model and engine). During the competition, my fellow South Aussie, Ian Promnitz, who was also using a Hunter, broke his gudgeon pin after his first round (too small a prop?). So I quickly flew my rounds and then lent my engine to Ian so he could finish his. Both my CS Hunter and Ian's suffered broken screws (the four that retain the cylinder to the crankcase) fixed by replacing with cap heads. I don't use small props with the replica Hunters (11x4) keeps the RPM to a safe level. Ian was using a 10x4. As to the AMCO, I have never owned one but in the Engines for '38 Antique article in Airbourne No. 160 Feb/March 1998 that Don Howie and I did we were originally going to test 12 engines instead of the 11 that are in the magazine. Don had bought a CS AMCO and that was our twelfth engine but were unable to start it.

Both the CS Elfin 2.46 (Don's) and the ED Hunter (mine) went well but the AMCO refused to even fire (same fuel as the other engines). We eventually ran out of compression screw thread as we kept turning it down to try to get the AMCO to fire.

Conclusion. The AMCO is a waste of time, and the Hunter is a definitely better prospect. (Just replace those bolts and use at least an 11x4). P.S. On page 79 of Airbourne No. 160, engine no. 5 shows the Hunter in the Miss Arpiem.

Cheers ! Bill Britcher.

The VOTA mob - The Baron of Barimore

G'Day Peter and all the OT Dudes this side of the border. How do you tell an OT from the riff raff on a tram, train or bus ? I dunno. That's why I'm askin'. Do we have a VOTA badge or tattoo or somethin' ? After all, you can't look behind everyone's ears for balsa dust. Right ? !



I've enclosed a subscription, I can't rely on ESP to keep in touch with the mob. It worked well when I was with the magazine, bringing me most of the news but leaving some time for building and flying.

Also in the debris is a pic of the Baron of Barimore with a new Coovert Berryloid Winner. Funny shaped wing tips for that elegant tail. Power is a K&B 28 Sportster. Just over ten ounces per square foot and a nice combination. Glide is great and soaring pretty easy.

More debris is the reduced copy of the "Top Hat", a nice Half A model by Reg Truman of Kiwiland. It is 40% of his 1939 RC1 design (see pages 8-9) authenticated of course.

Central Victoria has had a pretty good soaring season so far this summer, with some fantastic clouds on most days. You are welcome to call and sample the air any time. Just ring to say you will be coming.

There is a newish sort of wrinkle on soaring technique coming up in Paul Ferguson's column in the magazine (Airborne) soon. And who has the latest on the picture of thermals? How about sharing whatever you know... or don't know, as the case may be. If anybody knows it all they can be my timekeeper.

Hang 'em high, guys. The Baron

From Basil Healy - SAM 1788

Enclosed herewith is the copy of the SAM 1788 Rules Book (1998 Edition) as requested through Allan Laycock. Throughout the book you will note certain words have been circled, these are typos that have to be corrected if we ever do a reprint of the booklet. There is also a clarifying statement on Rule 1.5 in the next issue of Duration Times. Some of our members pointed out that the rule could infer that mufflers were required of vintage and 2cc motors.

The major differences between this Rules Book and the MAAA 1995 Rules which SAM 600 have adopted are listed below:-

Duration maximum:	MAAA 95 - 7 mins SAM 1788 - 5 mins
1/2 A Texaco number of rounds:	MAAA 95 - 3 (all to count) SAM 1788- 4 (3 to count)
2cc Old Timer Tasks:	MAAA 95 - Duration only SAM 1788 - Duration & Tex.
Nostalgia maximum:	MAAA 95 - 7 mins SAM 1788 - 6 mins
Nost. no. of rounds:	MAAA 95 - 3 (all to count) SAM 1788 - 4 (3 to count)
'38 Antique:	Minor changes to motor groupings. Rule 10.5.1 added to allow for reclassifying of motors. Number of rounds increased to 4 with 3 to count.

As you can see the changes mostly concern contest procedures. A model built to either set of rules would not be ineligible under the other, a state of affairs that does not exist under the MAAA 1998 Rules.

I hope this clarifies the situation a little as far as the rules are concerned. It would appear that SAM 600 and SAM 1788 think along very similar lines where rules are concerned and I think that with a little bit of give

and take on both sides, even if it entailed a ballot being taken of all members of both Chapters, then we could come up with a set of rules acceptable to the MAJORITY of Old Timer flyers in Australia. The combined memberships of the other SAM Chapters in Australia would be lucky to equal 25% of the combined membership of SAM 600 and SAM 1788.

There are two significant moves that, should they succeed, would ensure the Old Timer flyers have more of a say in the formulation of the MAAA Rules.

- 1) The formation of an Old Timer Special Interest Group (SIG) as proposed by Allan Laycock.
- 2) The adoption of a motion to be put to the MAAA Federal Conference in February by RCAS (NSW) proposing a proportional voting system based on the number of registered members in each State. This would replace the present one vote per State system currently in use. This existing system is totally inequitable with Tasmania (150 members) getting an equal vote to Victoria (2,000 members). I will be interested to see the outcome of this vote because, if passed, it could spell the end of certain power bases relating to MAAA matters.

That's enough politics for the moment, it's raining and that is a good excuse not to get out in garden working, so the workshop beckons.

Yours, Basil Healy

Allan Laycock and the Lindberg "Sky Charger"

Although I might be in contact there is sometimes no substitute for snail mail such as this. Enclosed are some things that might be of interest and assistance to a newsletter editor:

I might not have sent you a picture of Allan Laycock's backyard/pool type folly, as distinct from the Rod Doyle's O/T Mk I and II model versions. (Editor's note: a wonderful structure the photograph of which is not published for fear of giving ideas to



"InterState Cadet" 36" span, 11 ozs - model & photo- Allan Laycock

O/T wives and girlfriends). The next photo is of my latest effort for '38 Antique. The model is a Lindberg "Sky Charger" about 72", AMCO 3.5 and weighs about 3.500001 pounds. Bem silk on fus and Airspan on the surfaces. Sporty and low drag or what?!!! I will keep you posted on how it flies.

I visited the Queensland SAM Chapter (#84 The Vintagents) in December. Enclosed is a group photo of the day and one of John and Anthony French with their 1/2 A "Alert". They were all flying an event they have called "1cc" (.06 cu ins) and needless to say that many people flew 1/2 A models.



Lindberg "Sky Charger" model & photo- Allan Laycock

You may care to note that Anthony flew and won the day with the design I suggested - the Witchita 1/2 A "Alert". This same model was also part of the winning team for the world-wide postal challenge for 1/2 A Texaco models.

I bought one of these Czech MP Jet classic .6cc (about .03 cu ins) sideport diesels, like a Mills .75, from Tony Cincotta and it is even more delightful than a good Mills. I ran the motor under Trevor's verandah last May when I was there. I scaled up the "Interstate Cadet" peanut plan out of Model Builder to about 36". The model is 2 channel, is covered in Airspan and weighs about 11 ozs ready to fly. Cute?

Correction to information contained in "The Thermaleer" issue number 59.

Abbreviations used in the naming of OZ SAM chapters. The Editor apologises for omissions.

SAM 84--formed 1984 - called the "Vintagents".

SAM 1788---NSW--started 1988 -

the Bi-Centennial celebration anniversary.

SAM 600---VIC-- Roman for VIC.

SAM 270---WA--- compass heading when flying to WA

SAM 83---ACT--because it's before the Queenslanders.

SAM 1993---South Australia- formed 1993

14th Roy Robertson Trophy - Sat 23th - Sun 24th January, 1999 Held at P&DARCS

'38 Antique - Results

<u>Name</u>	<u>Model</u>	<u>Engine</u>	<u>Score</u>	<u>Chan</u>
Trevor Boundy	Westerner	Cyclone 60 spk	1800	653
Peter Bennett	Flamingo	Atwood 60 spk	1647	605
Ted Hall	Ehling	O&R 60 spk	1081	20
Graham McDonald	Miss America	Cyclone 60 spk	1067	625
Barry Barton	RPM	Amco 3.5 diesel	0	716
Chris Lawson	Power House	O&R 60 spk	0	28

Duration - Results

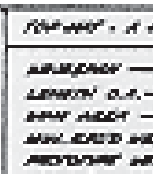
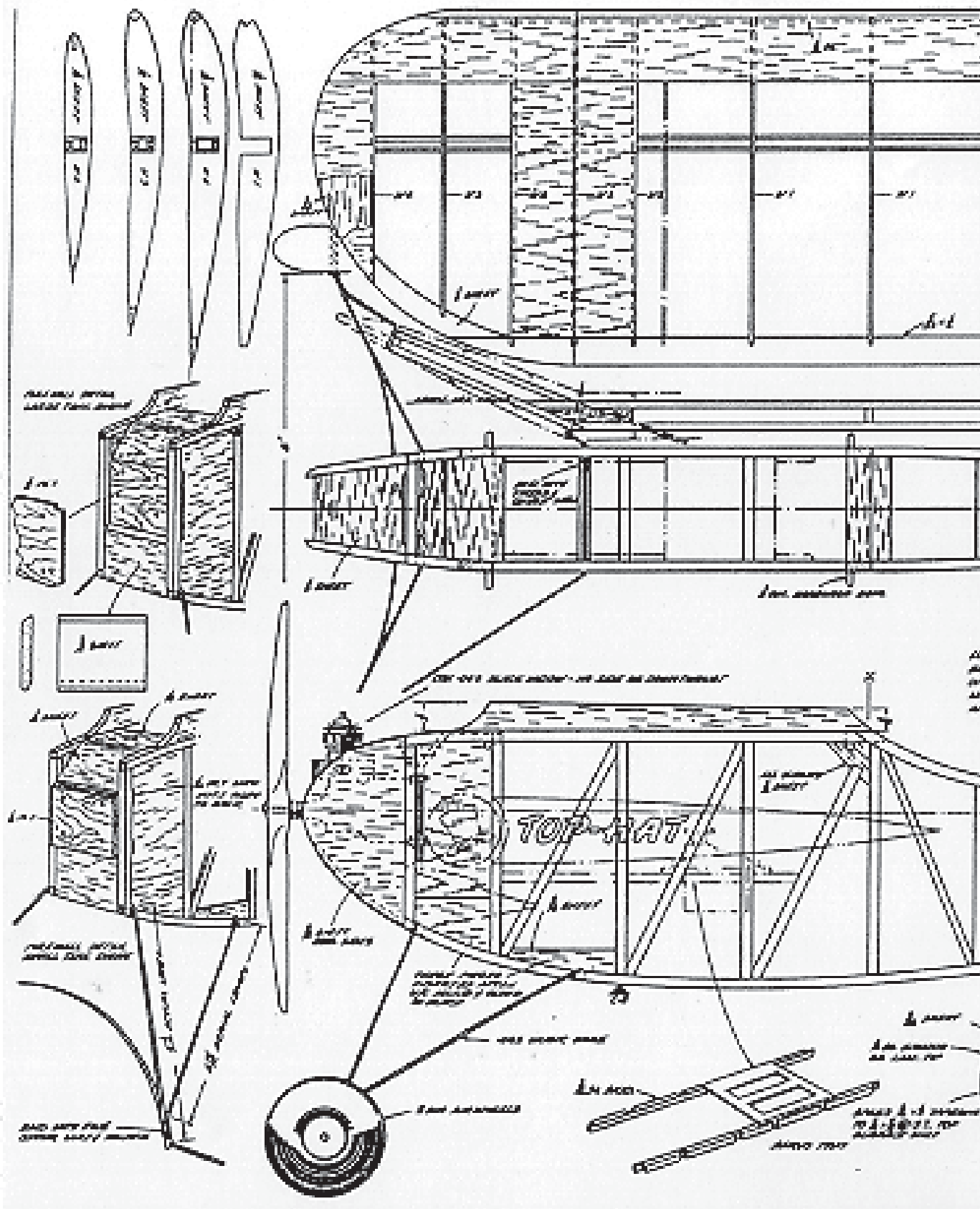
<u>Name</u>	<u>Model</u>	<u>Engine</u>	<u>Score</u>	<u>Chan</u>
Ray Woodhouse	Anderson Pylon	OS 40 2s	2336	601
Chris Lawson	RC 1	McCoy 60 2s	2281	637
Mark Collins	Cumulus	McCoy 60 2s	2145	14
Trevor Boundy	Albatross	Saito 65 4s	2138	653
Kevin Fryer	Playboy	OS 46 2s	2118	631
Peter Bennett	Playboy	Nelson 40 2s	2071	643
Brian Laughton	Playboy	Irvine 36 2s	1984	641
Ted Hall	Playboy	OS 32 2s	1680	643
Ian Robinson	Playboy	Saito 65 4s	670	637
Norm Campbell	Playboy	McCoy 60 2s	419	641
Barry Barton	Playboy	Irvine 36 2s	25	16

1/2 A Texaco - Results

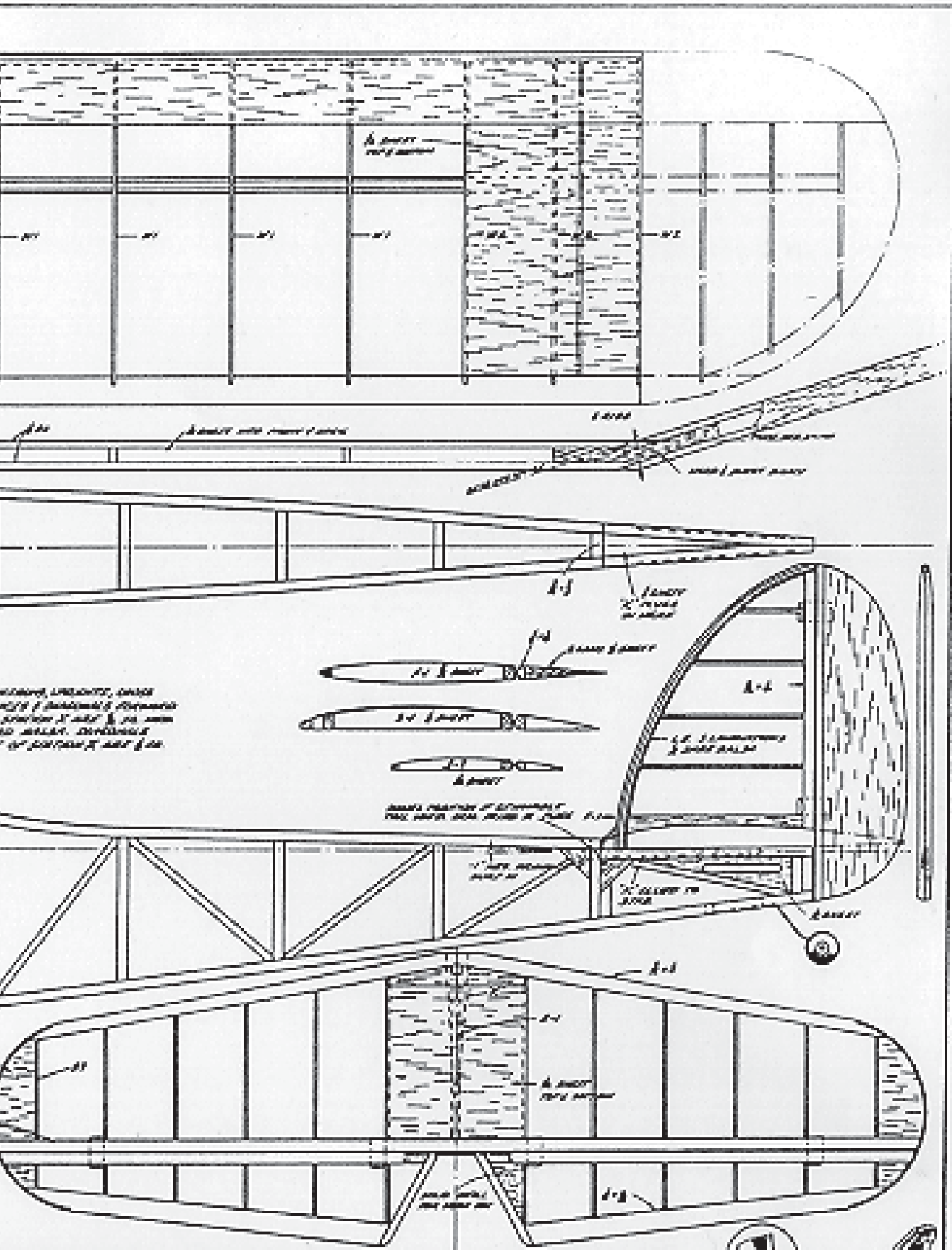
<u>Name</u>	<u>Model</u>	<u>Engine</u>	<u>Score</u>	<u>Chan</u>
Ray Woodhouse	Dallaire	Cox 049 2s	1327	629
Chris Lawson	RC 1	Cox 049 2s	1304	24
Peter Bennett	Anderson Pylon	Cox 049 2s	1245	643
Trevor Boundy	Albatross	Cox 049 2s	1229	653
Keven Fryer	Professor	Cox 049 2s	1166	631
Norm Campbell	Anderson Pylon	Cox 049 2s	1155	641
Steve Cullock	Anderson Pylon	Cox 049 2s	1088	16
Danny Missen	Anderson Pylon	Cox 049 2s	1056	12
Barry Barton	Anderson Pylon	Cox 049 2s	1053	16
Mark Collins	Bomber	Cox 049 2s	1008	620
Graham McDonald	Bomber	Cox 049 2s	980	28
Don Cameron	Flamingo	Cox 049 2s	720	34
Ted Hall	Bomber	Cox 049 2s	513	649

Texaco - Results

<u>Name</u>	<u>Model</u>	<u>Engine</u>	<u>Score</u>	<u>Chan</u>
Kevin Fryer	Cumulus	Irvine 40 diesel	3840	631
Chris Lawson	Record Breaker	OS 60 4s	3526	28
Mark Collins	Bomber	OS 60 4s	3483	14
Peter Bennett	Bomber	Irvine 40 diesel	3204	605
Ray Woodhouse	Cumulus	OS 60 4s	2880	601
Trevor Boundy	Bomber	OS 60 4s	2405	653
Ian Robinson	Bomber	OS 61 4s	2400	643
G Molone	Dallaire 90%	Enya 60 2s	2400	20
Danny Missen	Bomber	Enya 46 4s	2400	635
Brian Laughton	MG 2	OS 40 2s	2400	52
Barry Barton	Record Breaker	OS 40 4s	2181	16
Steve Cullock	Polly	Enya 41 4s	1495	14
Norm Campbell	Record Breaker	Irvine 40 diesel	980	641
Don Cameron	Bomber	OS 61 4s	600	32
Ted Hall	Bomber	OS 60 4s	0	0



- THE EVOLUTION OF "TOP HAT" FROM THE "TOP HAT" TO THE "TOP HAT" -



... ...

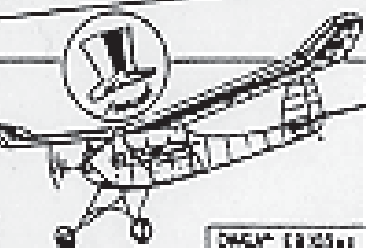
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YOUR

EARLY BIRDS

NEW ZEALAND GAS WOOD SERIES

... ..



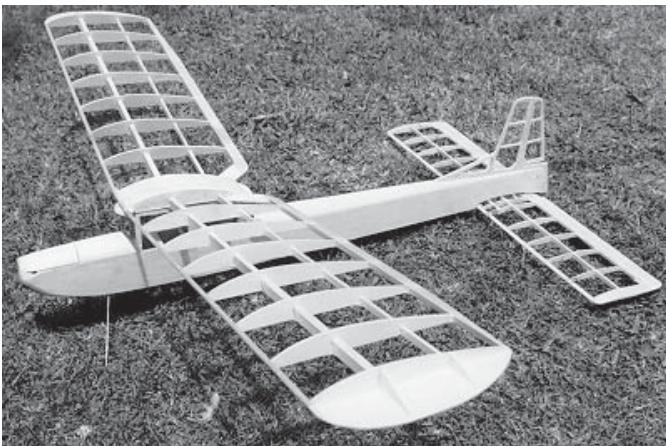
DRAWN BY

Ramblings - by Don Howie. Hearn's Hobbies "Observer".

This model must be of interest to most Victorian O/T modellers. The plan of this 46 inch span F/F model was drawn by John Lamont about 1952, I am told by Allan Laycock. Lightly built, using the small radio gear (Naro servos etc.) now available, a Mills .75 could power it. Allan told me that John French has one flying with a .75.



The idea in South Australia is to use it for 2cc Duration, as the MAAA rules now allow models up to 1956. At the time of writing, I am still covering my model, it is to be fitted with a Taipan 1.5cc plain bearing diesel of about 1961 vintage, for flying at Muswellbrook this year, the basic change is stronger



Observer - photo by Don Howie

wing construction for motors up to 2cc. The wing ribs are cut from 2.5mm balsa, rather than 1.5mm; due to the 3 inch spacing between the ribs. The L.E. is hardwood rather than balsa for longer life. The main wing spar is a laminate, using 1.5mm ply for 60% of the span.

The span of the tailplane is 50% of the wing span, and not easy to build warp free. The elevators are one inch and should make the tail more rigid.

The fuselage, with all round glass vision, is the reason for the name "Observer". The balsa 1/4" uprights on the plan have been replaced with hardwood at the front and back for more strength. The wing incidence was considered excessive and was reduced by 1/4 inch. The original model used an inverted Mills .75 I expect, and it would have flown quite slowly as a free flight model. I decided to mount the engine upright, this is optional on the plan and shows off the Red Head Taipan 1.5 diesel.

I am told we could have as many as 20 "Observers" at Muswellbrook in May. The model is not known in South Australia as Australian model magazines did not exist between 1953 and 1956; perhaps our Editor can provide more information.

Recent developments in South Australia.

In South Australia we fly to the current (1998) MAAA Rules, and I expect Duration is the main topic at present. Our last Duration event before Christmas was won by Rex Brown with a "Folly" and YS53 4 stroke. Ron Adamson took an 85% Bomber with the YS53 to the Nats at Toowoomba, but he had engine problems with the high humidity, low cloud and mud. Bill Britcher has been flying a 73 inch "Spectre" (Brofman design) built to the 170 square inch rule, powered with a McCoy 60. Bill also has a YS53 four stroke and Ron Adamson's next duration model will have a McCoy 60 for power. Ron has the fastest climbing Lanzo "Bomber" with Nelson .40 motor, it is almost O.O.S. with 17 seconds engine run, so it should go well at Swan Hill with 25 secs.

Texaco is the next topic, and ways of increasing engine runs on the four strokes. Our last Texaco event was won by Bob Watson flying a Goldberg "Gas Bird", 1938, with OS 26 four stroke. Engine run can be over 6 minutes with a smaller motor, only mod is lower compression. Bill Britcher also has the same combination flying.

Next event is '38 Antique and under the new rules it is hard to go past the OK Super 60 in Group 4. Expect to see at least 6 flyers using them at the S.A. Champs in March. Kym Stringer has one in a Shereshaw "Cumulus" that goes very well, and I am flying one in a "Miss America". In summer time we use methanol in our antique engines, this is due to the hot, dry conditions in our State.

Next most popular antique motor is the Forster 29BB of 1947 (rear intake). Bill Britcher and Bob Watson are using them in "Trenton Terrors", whilst I have mine in the "Miss Fortune X" They lack the reliability of the OK Super 60 and that is due to the smaller spark plugs and enclosed timer. Before any event, soak the plugs in Cloudy Ammonia for a few days and clean inside the timer assembly. Castor can dry out, covering the points and insulation causing electrical problems. Clean between the points and check electrical connections.

The small spark plugs are a problem. The old V2

plugs are too fragile. Henry Orwick said they only lasted 3 or 4 runs in his hot Orwick 64. The recent Rimfire plugs crack the insulation if the setting is too lean. With this in mind I contacted the NGK agent in our State to see if the 1/4 inch ME8 was still available. I was told yes, they had them in stock at the warehouse in Melbourne. A visit to the retail agent and I was told they cost \$40.00 each, as they are hand made in Japan. At present I have the engine boys working on the project of making spark plugs from old idle bar glow plugs. Don Howie

At Cross Purposes - by The Godson

My training was concerned about matters far in the heavens. I was controlling the Old Timer high in the sky. My instructor, otherwise known as my Godfather, was obviously leaving himself ample opportunity to control the plane when I lost control. I was to concentrate on the rudder and learn to turn the aircraft. Then I should give a little up elevator in the turns. My Godfather explained to me that this was necessary to prevent the nose diving as the plane turned. We would then discuss some elementary aerodynamics so I would understand the situation.

I was reaching a stage when other club members would call me over and ask if I would like to fly their planes in the sky. Experience and instruction then taught me to control the aircraft as it stalled and when it moved into a flight pattern of rise, stall and fall. Then to control a spin. The instructions were to let all controls go, throttle back, up elevator and then move the rudder in the opposite direction to the spin. So now my god father said I was ready to take off. My bomber was in need of some minor repairs. My god father was so confident that he said I should take off his beloved full size bomber. I was not sure if he was confident of his instructing ability or my ability to handle the aircraft. I was a bit reluctant. Was I competent? Probably god fathers at some stages should give their god sons a prod. I suppose one can be too cautious.

Now the instructions for taking off were quite different. In the air I had to concentrate on the rudder. Now, forget the rudder and concentrate on the elevator. When the plane had gained some speed give some up elevator, but if the plane climbed steeply be ready to apply a little down elevator. So there I was. Club members looked on. The first take off. "Was I ready," my god father asked. "No," I answered. I said to myself, "Forget the rudder and concentrate on the elevator." "Yes," I said, "now I was ready."

Off went the bomber. As she increased speed I gave some up elevator, and as my god father said, she lifted

off. However the bomber, his bomber, suddenly veered to the right, towards the pits, towards all the spectators. However it was rising at a height to miss them, but not to miss a line of trees. As instructed I left the rudder alone.

Forget the rudder were my instructions. As the plane speed towards the trees I was fortunate to give some left rudder and more up elevator and the bomber soared in front of and above the trees. There was clapping in the back ground. Then god father seized the controls. When his plane reached some height he handed the controls back to me for further altitude control. We discussed the situation, I said, "You said forget about the rudder. At least I did not panic in the situation." My training had assisted me to avoid a disaster, his disaster. My god father later landed his bomber and said why did I not give left rudder when the aircraft veered right on take off. I said you told me to forget the rudder and concentrate on the elevator. He replied, "I said concentrate on the elevator and be automatic with the rudder."

I replied that, God father said, "I thought you said forget the rudder. And, what do you mean by be automatic with the rudder." "When I said be automatic I meant that you should automatically correct if the plane veered right or left." So we were talking at cross purposes. I later explained that because of my experience in control line flying, many years ago, I expected the plane to roar off the strip in the take off. Because of the power of the motor drawing the plane forward I assumed the aircraft would not be troubled by any side wind.

Thus I could understand why my god father was saying the rudder was not a necessary control to be used in the take off.

The god son. (AKA Rex Patkin).



Norm Campbell and his "Westerner"

(Designed by Elbert J. Weathers of San Diego, photo taken at the 14th Roy Robertson Trophy). Classic '38 Antique model and very competitive. Span 8ft, aspect ratio of wing 9:1, Powered by a Super Cyclone, Weight 6 lbs, covered in ProFilm.

The Ohlsson & Rice Story.

End of a Partnership- End of an Era, by Joe Wagner
(Reprinted originally from the *Engine Collectors' Journal* in the
October 1966 Control Line Aircraft Modellers' Society - CLAMS)

These "Dennymite" engines were sold without any great difficulty, although P.A.C. had not been able to do well with them. It seemed that the magic of the Ohlsson and Rice name was all that was necessary to convince hard-headed hobby wholesalers they should buy.

In the O&R experimental department, a few more "new items" were taking form. One was a large cylindrical die-cast fuel tank, produced for the "19" and "23". This also acted as an engine mount. It was sold as an accessory like the 2-speed timer. Later a larger fuel tank/engine mount was made for the "60".

Next came what appeared to be a real surprise. At last, something really new and different from O&R: A front rotary valve conversion kit was announced. Like the tank mount, this was first made for the "19" and "23" (the same unit fit either engine), and some time later the "60" conversion kits were offered. However, this "NEW" item was not really as novel as it seemed. Back in 1941, a man named Morgan had been doing a thriving business in Los Angeles, converting O&R "23s" to front rotary induction. The only major difference between his "home workshop" rotary valve arrangement and the 1947 O&R factory units was the external appearance. Morgan's reworked engines had machined brass intake tubes installed in altered "stock" O&R front sections, while the Ohlsson and Rice rotary valve front section was a one-piece die casting with a larger venturi throat.

In the fall of 1947, Ohlsson and Rice took an action which literally stunned the entire American Model Industry. Suddenly, without the slightest warning, they dropped the prices of all three of their engines. This price cut was no mere token, either. The "19" price was lowered from \$14.50 to \$9.95 - a cut of \$4.55!. The "23" and "60" both had their prices cut an incredible \$6.55. There were two reasons for this move. One was the fact that O&R could easily afford to lower their prices now. The original prices had been high anyway, and now, with the new facilities and equipment they had added, O&R was able to produce a fantastic volume of engines. At the end of 1947 their production rose to

almost a thousand engines per working day.

The other reason for the Ohlsson and Rice price cut was the more important one: it was intended to knock the props out from under the competition. And that's exactly what it did. From that time on, the "junk engines" like GHQ and Rogers rapidly declined in sales. Even the fairly well made engines such as Pierce and Cannon were driven off the market. They simply couldn't compete with O&R's new low prices.

But, the price cut had an unforeseen result. It made every hobby wholesaler and dealer in the country angry at Ohlsson & Rice. Their price cut had come overnight at the time when most everyone in the hobby business was well stocked with model engines. But when the O&R price cut news came out, instantly it turned most of the engines that the dealers had on hand into "white elephants" that couldn't be sold. The money that was tied up in these engines was as good as lost. Not only that; when the O&R price cut was announced, it was effective immediately. This meant that the O&R engines which the wholesalers and dealers had recently bought, to sell at the "old" price, now had to be sold at a big "discount"; in fact, almost at the dealers original cost!

While all this was happening, a really important development in model aviation occurred, which was destined to have a far greater effect on Ohlsson & Rice than all the furore stirred up by their price cuts.

At the East vs. West U-control Challenge contest held at St. Louis in early September, 1947, a brand new product made its first public appearance: Ray Arden's "Glow Plug". Models equipped with "glow-plugged" Arden .099s took all 3 places in the Class 1 Speed events - and set a new National speed record besides. Just one month later the first advertisements for this device appeared in the model magazine, and a revolution was under way that was to change the entire course of model engine development.

This is not the place to examine the history of the "Glow Plug", nor even to trace its effect on the model Industry as a whole. But let's see how it affected Ohlsson and Rice. Irwin Ohlsson and Harry Rice were definitely not "caught napping" by this new improvement in model engines. They were among the first to sense the tremendous possibilities

of the glow plug. As it happened, a redesign of the O&R line of "sideport" engines into pure "front rotary" types had been begun some time earlier, and was just then being completed. It was an easy matter to make a sheet metal cap to be pressed on over the main bearings of these engines, covering the "timer cam slot" and thus providing O&R with a brand new pair of "Glow Plug Models"; a "19" and a "23". (Experiments with the "60" showed that it did not run well on glow plug ignition, and so a "glow version" of this engine was not offered at this time.)

O&R were among the very first to market "Glow Model" engines. They were even ahead of Ray Arden in this respect. Not only that, Ohlsson and Rice accurately foresaw that the real obstacle to the overwhelming success of "Glow" engines as the availability of fuel. Moving with incredible swiftness, by the spring of 1948, O&R had added a whole new department to their already huge establishment, and begun manufacturing their own brand of fuel, both glow and ignition types.

Ohlsson and Rice sales were at a new high. The company was literally rolling in money, and there was not a pessimist in the place. New projects sprouted up like weeds: a complete line of propellers, an all-metal ready-to-run race car, an expanded line of fuel, a series of O&R glow plugs - and a brand-new engine design !

In order to compete on equal terms with the larger Class B engines, such as Forster, DeLong and K&B, Ohlsson and Rice decided to manufacture a .29 of their own. And so the O&R "29" was born, But it was far from being a totally new engine. It did have an entirely new timer assembly design, but basically it was just a somewhat larger version of the front rotary "23", O&R's "bread and butter" engine. Never the less, when the Ohlsson and Rice "29" appeared on the market, early in 1949, It was a sensation. A new engine from O&R ??? Everyone had to have one ! The demand was terrific. Production skyrocketed, and to take additional advantage of this new surge in sales, the factory immediately began work on another, larger version -the later released O&R "Redhead "33".

At this point, in the summer of 1949 Ohlsson & Rice were at the very pinnacle of success. Their Company was without question the largest and busiest and wealthiest in the hobby industry. How

could anyone have suspected that disaster was just around the corner ?

Nor, O&Rs were not perfect. All through their engine manufacturing career various problems had come up -- like the never-wholly-solved puzzle of how to anchor the venturi tubes in the "sideport" engines so that they wouldn't come loose; or the error in judgment that made the venturi throat of the "front rotary conversion kits" about twice as large as it should have been, thus requiring a "quick-fix" in the shape of an added venturi restrictor.

But, as the volume of production rose, and the number of products increased, so did the severity of the problem. For instance, take the elimination of the integral milled head fins, which had been a standard O&R design feature since 1937. When these head fins were done away with, as a "manufacturing improvement", a separate aluminium part was made which contained the head fins. But this was not a true aluminium head. The cylinder had the same "blind bore" that was a feature on all O&R engines, and the new aluminium "head" was merely a fake for appearance only, it was attached onto the spark plug boss by a "staking" operation, and it conducted away so little heat from the engines head that it was worse than useless. The engine would actually run better without it than with it! The problem was head buildup at the top of the cylinder. Spark ignition engines with gasoline for fuel tend to run hot anyway. In the case of the "fake head" O&Rs, the combustion chamber area accumulated so much heat that it would expand substantially more than the piston. This caused a loss of compression just when compression was most needed. So, when the engine got well "warmed-up", it lost power.

Here again, a "quick fix" was made. Henceforth, the O&R cylinders were "taper honed". slightly smaller at the top than at the bottom, to allow for uneven cylinder expansion. This was reasonably successful - except when the engine was cold, the piston felt very "sticky" at the top of the stroke.

Gone was the snappy feel that was for so long the most popular characteristic of Ohlsson and Rice engines. However, in the summer of 1949, a really bad flaw turned up, Simply stated: The O&R "29" was not strong enough to run on glow.

... to be continued next issue



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Fri 2 April 1999 Sat 3 April Sun 4 April Mon 5 April	7th Annual SAM 600 Easter Fly In, Swan Hill 9:30 am Half A Texaco 4:00pm 2cc 9:30am Texaco 1:00pm Duration 7:30pm to 10:30pm Hanger Rat Indoor 9:30am '38 Antique 1:00pm Standard 40 Dur 6:30 Presentation Dinner, Commercial Hotel 9:30am Nostalgia	SMAC	Ted Hall 03 9762 5627 Chris Lawson 03 5275 8482
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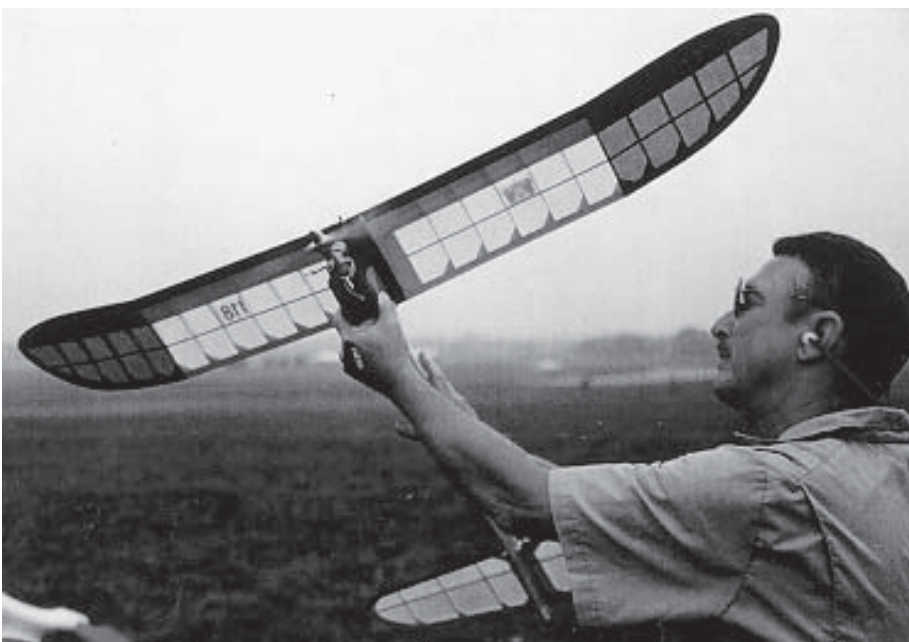
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Larry Davidson, SAM F/F Champ of Champs, getting ready to launch his “Stardust Special”. Story is in this issue of “The Thermaleer”

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