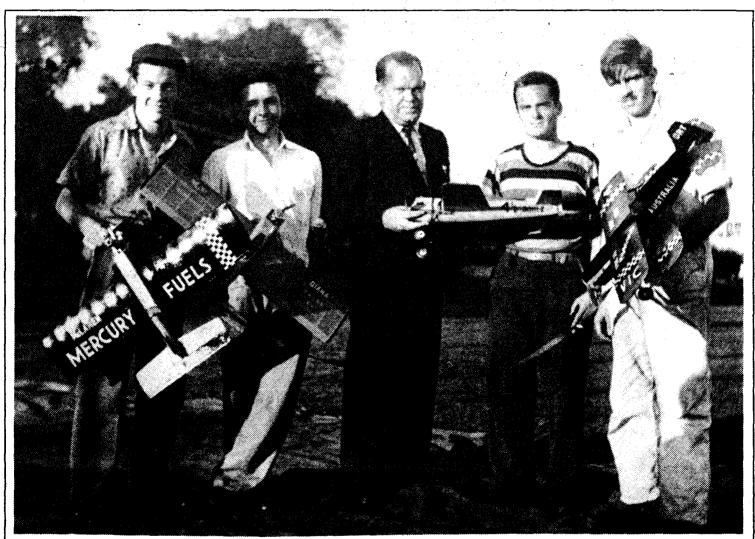


SAME 600

VICTORIAN R/C OLD TIMER ASSOCIATION



Monty Tyrrell's Flying Circus, Battersea Park, London, 1953 L to R Don McLaren, Derry Brown, Alf Shields (Rowley Park Speadway Promoter SA), **Monty Tyrrell and Adrian Briant**



CLUB AUCTION THIS MEETING



NEXT MEETING



Is on Thursday, at 7:30 PM at the Royal Victorian Aero Club rooms Moorabbin Airport. (bar closes at 8:00 PM Club rooms close at 9:00PM) (Melway 87 G4).

COMING EVENTS

NSAC= National Sports & Aviation Centre Wangaratta. RR=Roy Robertson Memorial Trophy.

Nov 23 38 Antique & Half A Haddon MAI Nov 24 **Duration & Texaco** Haddon MAI (11:0AM Sat, 9:00 AM Sun. Contact Paul Neville 053 357 621)

or Chris Foley 053 424 285

Nov. 27 Fly Day mid week Lang Lang

Nov.28 Annual Auction night Meeting #46

Fly Day mid week Dec. 11 Lang Lang

Dec. 15 OT Fly Day Warragul LVMAC

Jan. 9 1997 Fly Day mid week Lang Lang

Jan.18 1997 OT Fly Day Warragul LVMAC

Jan. 23 1997 Fly Day mid week Lang Lang

Jan. 24 1997 All day, general flying **NSAC**

Jan. 25 1997 RR and Nostalgia **NSAC**

(11:00 RR Duration, 2:00 Nostalgia)

Jan.26 1997 RR and 38 Antique **NSAC**

(10:00 RR Texaco, 12:00 38 Antique)

Jan 30 1997 Meeting	47
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Feb. 6 1997 Fly Day mid week Lang Lang

Feb.9 1997 Monty Tyrrell Scale Rally P&DARCS

Glider Fun Fly Feb.9 1997 **GMAA**

Feb.18-23-1997 Avalon Air Show

18Feb.1997 OT Fly Day Warragul LVMAC

Feb. 20 1997 Fly Day mid week Lang Lang

Mar.2 1997 **KDMAS** Fun Scale (Keilor)

Mar.6 1997 Fly Day mid week Lang Lang

Mar.15-16-1997Vic.State Champs tab

Mar.20 1997 Fly Day mid week Lang Lang

Mar.23	Open Fun Fly	P&DARCS
	as Meet before S/fill	
Mar.28-31 1997	Swan Hill OT	SHMAC
Apr.4 1997	Fly Day mid week	Lang Lang
Apr.18 1997	Fly Day mid week	Lang Lang
Apr.27-1997	Vic. State Champs Glider (Leaks Rd. Mel.225 H2.)	VARMS
May 4-1997	O/T Geelong	GMAA
May 11 1997	Mother's Day	e e e e e e e e e e e e e e e e e e e
May 17-18-1997	Mammoth & Scale F/In	SHMAC
May 25-1997	Model Engines 4/sFlyIn	MARCS
		Medine Ra
Jul.5-12-1997	OZ. Nats	Darwin
Weather for the d 056 287 688.	lay at Warragul, contact Tr	evor Boundy on
	©	
On most Sunday	afternoons there is casual f	lying on a
private property a	et Lang Lang, (conditions p	ermitting) by
courtesy of Fred (Chigwidden's son David.	
Members especia	lly those new to flying are	welcomed to this

COPY DEADLINE FOR THE NEXT ISSUE

field. Model and pilot training sessions are conducted by

Peter Donovan and others. Location and local field rules

can be obtained from Fred Chigwidden at home on 03

The deadline for contributions to the next newsletter (#47) is Jan 2 1997, and should be sent to the editor at the address shown on the last page.

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Pictures please. 🖃 🕿

59975 675.

NSAC WANGARATTA CONTACT

Claude Gillard Manager 03 57223 220 (ring Claude about camping canteen and general facilities)

PRESIDENT'S REPORT



Hi there, Wangaratta has come and gone, it only rained once on Saturday from 8am to 6 pm. But Sunday was great with light winds and clear skies and lots of flying.

There were 2 fly-aways - out-landings, one I know of was recovered OK, the other plane, the one that headed towards

the flooded river, nothing more heard.

There were 2 over-flies by full size aircraft, separation was maintained so no problems, just keeping us on our toes. Responsibility is with us as they probably did not see our planes.

Next comp will be at Ballarat - more details in this newsletter.

In January 1997 we VOTA will hold a comp at Wangaratta. This is the 1997 Roy Robertson Memorial Old Time Comp. The field has been booked for 24, 25 and 26 January dawn to dusk. The Friday is for practice as this was mentioned at Wangaratta last comp. More details in newsletter. Facilities at Wangaratta are excellent with a restaurant, caravan park, aircraft museum and tourist towns nearby. Fly safe and long.

President Peter Donovan.

INTERNET ADDRESES

Model Aeronautical Association of Australia. http://www.ozemail.com.au/~maaa

FAI statutes, by laws, competition calendar http://www.fai.org/~fai/

SAM USA Home page, world listing of chapters etc. http://www.napanet.net/~nedn/

Radio Control Soaring. (UK based) http://biomednet.com/rc-soar/index.htm

1996 Word C/L Championships http://www.plasma.kth.se/~olsson/wc96.html

Winfoil by Malcolm Hardy http://www.ozemail.com.au/~malhardy

New South Wales FFS http://www.ozemail.com.au/~barrylee

The NASMA (National Air and Space Museum of Australia)

http://www.nasma.com

Australian Weather Information http://www.aopa.com.au/weather/wthr.html

South Australia Gliding History Trust http://wraith.internode.com.au/soaring/absaght.htm

SAM 27 The Society of Antique Modeler's Northern California Chapter.

http://www.napanet.net/~nedn/sam27home.html

Tower Hobbies Illinois USA http://www.towerhobbies.com

Academy of Model Aeronautics USA. http://www.modelaircraft.org/

Bolly Props including price list. http://www2.hunterlink.net.au/~ddtd/models/bolly.html

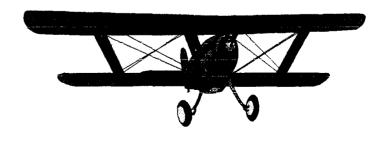
RC Modeler Magazine.

http://www.mag-web.com/rc-modeler/index.html

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EASTERN STATES GAS CHAMPS WANGARATTA

by Derry Brown

Well the experiment has worked! The idea of holding an Old Timer event some where around half way between NSW and Victoria - actually with a distinct bias towards Victoria - has certainly proved to be worth while. Last year the number of Victorians was down to single figures. This year after pleas and entreaties from our out going president Don Cameron the Victorians out numbered the people from NSW.

What a great venue is the airport at Wangaratta! Unfortunately the recent rain made it impossible to mow much of the grass area we normally use. We had to use the taxi-way of the full size airport and could not use the grass strip which is the usual area. Never mind! The facilities made life extremely bearable!

Saturday was a total washout as far as the weather was concerned - no flying! But with an excellent large meeting/eating area with plentiful tea, coffee and food everybody stayed around and talked and told the usual lies. Great fellowship and that is a large part of what makes a meeting of our hobby / sport so enjoyable.

Actually I had a very good tour of all the facilities at the request of David Axton and Claude Gillard who officiate there. There is everything needed to run an event over several days. The kitchen, meeting and eating areas, toilets, camping and caravan area - particularly the ablution block - are all first class. We were even granted a space in the hangar to process the Texaco models on Sunday. Normally the East West grass strip is mowed and gives us a perfect area from which to fly and on which to land.

In fact this is a venue which we should use regularly. So should other model aircraft groups. We own it and if we use it the facilities will stay and will improve. If we do not use it others outside the model aircraft fraternity may.

I strongly support the move afoot to fly next years Roy Robertson Memorial event there and I feel the Victorian State Championships for Old Timers should be there also. It is a perfect place to have these major events and gives no club any "home ground" advantage so to speak. P&DARCS have been most hospitable for years allowing us to run the event there but it does not belong to them - never did! The Southern Region of SAM put the event together and, because most of their members were also members of P&DARCS - as was Roy himself - the event started there.

Of recent time P&DARCS have made it very plain indeed that they do not really want to run the event or to have us there for two days. I personally had on one occasion to argue strongly at a P&DARCS club meeting to stop them from scrubbing the event from their calendar. So, since they feel that way and since the event has been cut back to one day, let us reclaim the event and have it at Wangaratta over two days

as it used to be. This would give us the chance to have extra events on the same weekend too. We need to get moving on this right away if we are to have it there for 1997.

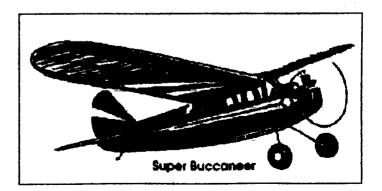
The State Championships for Old Timers could go there too. It would give us the chance to invite people from other States - particularly from NSW which could improve our events as such participation from Victoria has in the SA Champs.

Results of the various events are shown elsewhere in this newsletter but they do not tell of the delightful day we all had on the Sunday. Antique, Duration and Texaco were all flown on the one day and finished in good time to travel home. The weather was most kind and the sight of a large gathering of models parked in front of the hangar reminded me of the old days when much of our model flying was done at Airports like Camden and elsewhere. Also pictures of American contests from days gone by show similar collections of models in similar positions. The tarmac hardstanding and the protection from the hangar made a perfect pit area leaving only the bare essentials to be taken out to the flight line.

Rules applying were the MAAA rules for Old Timer events and seemed a little strange to the Victorians who had moved away from those in recent times. There was no use of the landing circle however.

Texaco produced over twenty in the fly off which also had to have two waves because of frequency clashes and lack of helpers - they were all in the fly off! The second wave had very little lift in the cooler air and fading light. However the whole contest was very well run - full marks to Dave Brown and Joe McGuffin. I looked around the faces of all the contestants at the end of flying and saw smiles all round. That signifies to me a good days flying.

Let us talk up Wangaratta at our next meeting and get started on our plans to use it.



EDITORIAL REPORT



The general consensus of opinion at the ESGC's was that this site would be perfect for the Roy Robertson Memorial Trophy (Just to hand the site has been booked by Peter with the day before booked for general flying). I can't help thinking / hoping that the NSAC venue at Wangaratta may end up being the site for

a common Easter competition. I can't speak to highly of the facilities provided at the NSAC why not try for yourself.

Paul Neville tells me that he has organised the following prizes for the Haddon fly days:-a Hyphen kit from Old Fashioned Hobbies, a replica ED diesel, a Cox 049 and a Pricerite Engineering Kit. Also had a call from Chris Foley from Ballarat telling me that they have an early entry scheme:- by telephoning Paul or Chris with your intention to enter it will entitle you to ½ price on balsa + dubro small fittings + flight box kits + Futuba 2 channel radios (ie \$65). Also call Chris or Paul for permission to camp Saturday night at the field.

A small group has been flying regularly on alternate Thursdays, we seem to have settled into a routine of a ring around on the morning re conditions, if OK meeting about 10:30 to 11:00 at Lang Lang for casual flying, you are welcome to join, I've included the dates in the "Coming Events" if your are interested ring Messers Brown, Boundy or Chigwidden.

Have a look at the Email from Don Bekins, especially with regard to their memories of Col Borthwick, he certainly was a good ambassador for OZ modellers.

Victorian country telephone numbers are currently changing to the new area coding system, I have tried to include the new numbers where possible.

Trevor Boundy. 🖍

SAM 600's ON THE INTERNET.

http://www.sympac.com.au/jtboundy

If you are able to get onto the Internet at home, work or at a friends place you will find SAM 600 promoted in style, courtesy of Peter Bennett and many hours of hard work, there is a brief description of what we are on about, all the O/T rules, a Calendar Of Events 1996-97, photographs of committee members and their models with descriptions, and links to other related organisations such as SAM USA, SAM 27, the MAAA, the FAI and the American AMA.

FROM DON BEKINS

Email from the past president of SAM USA Trevor.

I just returned home from the SAM Champs in Florida with a side trip to Suriname in South America to visit old friends who are there with the World Wildlife Fund.

Now I have had a chance to look at the SAM 600 web page. Terrific! Thanks for linking us to your page and for linking SAM 27 as well. I hope it starts a trend.

I have now retired as SAM president and hope to do some more model building and surfing the net to help SAM make and obtain better links to the world of modeling. SAM finally succeeded in linking with our Academy of Model Aeronautics, which was a long and cumbersome process. But it's done now and I'm hopeful it will bring us some new members.

SAM's newsletter editor, Bruce Augustus, has just gone online. You can reach him by email at:-augustus@micron.net

I needled him for so long that he finally gave in. Now you can provide copy and graphics to him via email for publication in SAM Speaks. I hope this is a beginning of a fine relationship between SAM 600 Australia and SAM in America.

His modem is a 14.4 MHz, so files of pictures should probably be sent at night when things are slow. But, we both now have that capability, and will improve communication and bring in members for both SAM Australia and America.

The Champs in Florida were terrific. Had a huge turnout. Perfect flying weather for all five days of the contest, with a couple of days of the finest thermal activity I have ever seen. I had the longest Texaco fuel allotment flight of my modeling career — and perhaps a SAM record for the longest official old timer flight: one hour and forty six minutes. The model was a full size Lanzo Bomber powered by an Ohlsson 60 sparker.

Our final banquet was held in the National Naval Aviation Museum in a huge room with 4 full size Blue Angel jets hanging from the ceiling. The entertainment was the President's National Marine Marching Band --- quite an event! We all thought of Colin Borthwick and had a moment of silence in his memory. Eut Tileston's Spirit of SAM electric old timer event was quite successful -- dedicated to the memory of Colin -- awarded a huge trophy of a four foot tall polished aircraft propeller blade sporting logos of all the Australian SAM chapters on it.

Best regards to all down under. Say high to Bruce Abell if and when you see him from all the boys at SAM 27.

Don Bekins, now RETIRED SAM president

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+

OLD-TIMER FLYING IN S.A.

by Leo O'Reily

We have just experienced the worst flying weather for many years.

The only contest held was a Duration Contest won by Ron Adamson, flying a full-size "BOMBER" with a DUBB-JETT.40. Very impressive climb. Ron is now building an 85% BOMBER for the same motor.

Stan Gurr has been flying an 85% BOMBER fitted with an ENYA 41.4C in Texaco. Stan has turned up a venturi of 2 mm. bore and turns a 14" x 8" propeller at 4,500 RPM for 5 minutes 10 seconds - can fly O.O.S. on the motor run. This model is going to be hard to beat in TEXACO.

I have just finished a .40 size STOMPER- for NOSTALGIA, which looks ugly but simple. Flight tests as soon as we get some good weather.

Ian McLeay is steadily sorting out his loop-scavenged .60 KERSWAP. He is now achieving 7 minute flights regularly. The glide is particularly good.

There is now a "HYPHEN" kit available for Nostalgia from Old-Fashioned Hobbies. This is the standard .40 size and will be very competitive with the right motor. An 85% "BOMBER" kit will be available in about 6 weeks' time. There are many new Old-Timers being built. There will be a big increase in O.T. activity once the weather improves.

2ND EASTERN STATES GAS CHAMPS

by ED....at the National Sports & Aviation Centre Wangaratta.

Well Saturday was a no fly day due to drizzling rain, which provided us with plenty of time to explore the aircraft museum, the excellent eating and dining facilities hosted by David Axon, or even a trip to Beachworth to brows the second hand shops (PD).

The following day was brilliant, CD Dave Brown ran a good tight, three contest day to the MAAA rules.

With 14 contestants in 38 Antique, 22 for Duration and 26 for Texaco. It was a great contest and I see a big future for this site considering the facilities offered. We were actually asked if 7:00AM was early enough for breakfast on Sunday and a meal could be purchased at any time during the day.

MANAGE MANAGEMENT (SEE

38 Allingun (ili ili ili ili ili ili	A XXXX	**************************************	<u> </u>
Peter White	Cloud Cruiser	OK Super 60 spk	1759
Trevor Boundy	Vee Tailed Swallow	Super Cyclone 60 2s	1600
Peter Donovan	Miss Delaware	Drone diesel	1057
Dick Shoebridge	Flying Aces Stick	ED 3.46 diesel	956
Joe McGuffen	Cloud Queen ????	Madewell 49 2s	947
Brian Payne	Quaker Flash	ED 3.46 diesel	755
Chris Lawson	T D Coupe	Amco 3.5 diesel	704
Don Southwell	PB 2	O&R 602s spk	661
Harrold Stenenson	Cloud Cruiser	Marden 60 2s spk	600
Dave Brown	Power House	Super Cyclone 60 2s	554
	Flamingo	\$ x x x x x x x x x x x x x x x x x x x	435
Norm Campbell Peter Condo Smith	Garage and the second and the second	Anderson Spit. 65 2s	
TO SECURE TO A METALOGRAPHICAL METALOGRAPHICAL PROCESSION OF THE SECURE AND A SECUR	Flamingo	O&R 602s spk	360
lan Avery	Buccaneer C	O&R 60 2s spk	232
Alan Wooding	R/C Stick	OK Super 60 spk	0
Duration (1882)			
Brian Payne	Playboy Senior	Nelson 40 2s	1570
Don Southwell	Bomber	Dubjet 40 2s	1562
Brett Shoebridge	Playboy Senior	K&B 40 2s	1382
Peter Condo Smith	Buzzard Bombsheli	McCoy 60 2s	1324
Robert Shoebridge	Playboy Senior	Nelson 40 2s	1319
Trevor Boundy	Albatross	Saito 65 4s	1292
Harold Stevenson	Sailplane	Rossi 40 2s	1265
Peter White	Playboy Senior	McCoy 29 2s	1253
Dick Shoebridge	Kerswap	Enya 60 4s	1153
Kevin Fryer	Playboy Senior	McCoy 60 2s	818
lan Avery	East States Gas	OS 32 2s	804
Peter Donovan	Miss Delaware	Rossi 40 2s	755
Grant Manwarring	Playboy Senior	OS 40 2s	752
Chris Lawson	RC 1	McCoy 60 2s	735
Geoff Potter	\$	ASP 65 4s	733 719
**********	Bomber		
Joe McGuffen	Bomber	McCoy 60 2s	664
Steve White	Hayseed	Enya 60 4s	478
Peter Bennett	Flamingo	Enya 53 4s	445
Allan Laycock	Bomber	OS 40 H 2s	422
Norm Campbell	Playboy Senior	McCoy 60 2s	0
Alan Wooding	RC Stick	McCoy 60 2s spk	0
Ray Woodhouse	Cumulus	OS 40 2s	0
			<u> </u>
Robert Shoebridge	Bomber	OS 60 4s	2186
Derry Brown	Dallaire 75%	OS 48 4s	2055
Joe McGuffen	Racer	O\$ 60 4s	1902
Harold Stevenson	Nimbus	OS 61 4s	1876
Peter White	Flamingo	OS 60 4s	1859
Geoff Malone	Dallaire Sportster	Enya 60 4s	1857
Trevor Boundy	Bomber	OS 60 4s	1855
Brian Payne	Bomber	OS 60 4s	1847
Peter Condo Smith	Bomber	Smith ?? 4s	1845
Chris Lawson	Record Breaker	Saito 65 4s	1808
·*····································	<u> </u>	(
Peter Donovan	Miss Delaware	Enya 60 4s	1784
Peter Hosking	Record Breaker	OS 61 4s	1744
lan Avery	Trenton Terror	Enya 60 4s	1596
Allan Laycock	Bomber	OS 26 4s	1562
Kevin Fryer	Red Zephyr	OS 40 46	1446
Alex Berkuta	Dallaire 75%	OS 20 4s	1330
Steve White	Bomber	OS 61 4s	1268
Don Cameron	Bomber	OS 61 4s	1243
Peter Bennett	Flamingo	Enya 53 46	1205
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Bomber	OS 60 4s	1200

Don Southwell	Bomber	Enya 41 46	1200
Geoff Potter	Bomber	OS 61 4s	1200
Norm Campbell	Record Breaker	OS 60 4s	1140
Dave Brown	Contest Gas Model	OS 60 4s	444
Ray Woodhouse	Cumulus	OS 60 4s	0
Grant Manwarring	Dallaire	OS 48 4s	0

#### **SAM 600 FEES DUE FOR 1996/97**

As you know club fees were due at the AGM on July 25 1996.

So this will, be the last newsletter for unfinancial members. If you are not sure about your financial status see your mailing label on this newsletter. a (u) after your name indicates our records show you are unfinancial.

The fees are \$15 (\$5 pensioner/junior) to the Sec/Treas. Fred Chigwidden [phone home (059) 975 675].

We value your membership and support for this Special Interest Group.



Take off to Rogers for a great selection of modelling gear

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FLAMINGO - JUNIOR AERONAUTICAL SUPPLY CO.



from MB March 1980

We had no sooner decided to feature the Jasco Flamingo as the Old Timer of the month, when here comes an issue of the SCIFS newsletter, the "Flightplug" and therein was a copy of the original

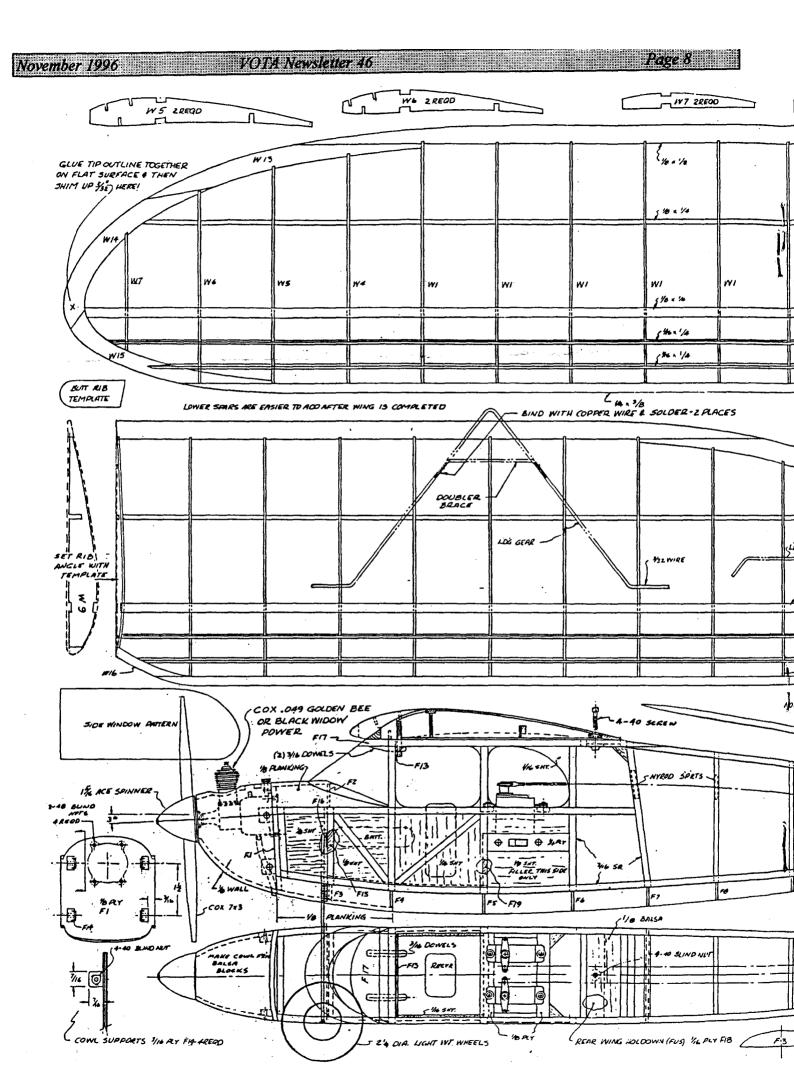
Flamingo mini drawing by Frank Zaic that first (and only) appeared in the 1938 Jasco catalog. It was originally designed by Roger Hammer in September 1937 and has remained virtually unknown to most O.T: enthusiasts ever since .... at least up until about four years ago, when John Pond showed up at a contest with one. It was the first time I had seen one of these rare birds, and while I thought it was a neat looking airplane it also struck me as having a "different" look about something hard to put into words. You'd have to see one in person to know what I mean.

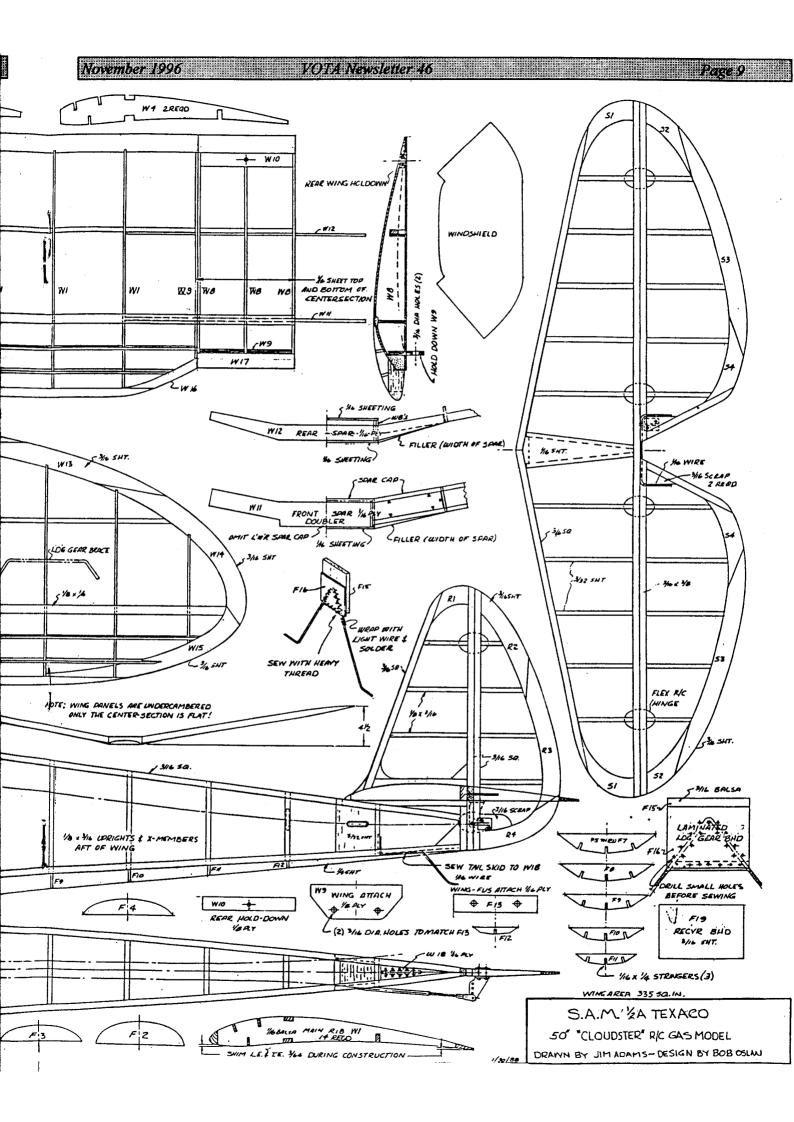
This airplane is an excellent performer both as a free flight and as an R/C model. The original drawing includes these notes: Has excellent spiral stability. Flight characteristics: tight circle, very steep climb, tight circling glide and ballooning tendencies. That pretty much tells it like it is. More than once I've seen John (Pond) flying his Flamingo . . . it's R/C ... in his usual manner, i.e. stretched out in a lawn chair, beer in hand, transmitter sitting on the ground and the model way up there, methodically going round and round all by itself for several minutes at a time. No doubt about it, the Flamingo flies darn well as a free flight.

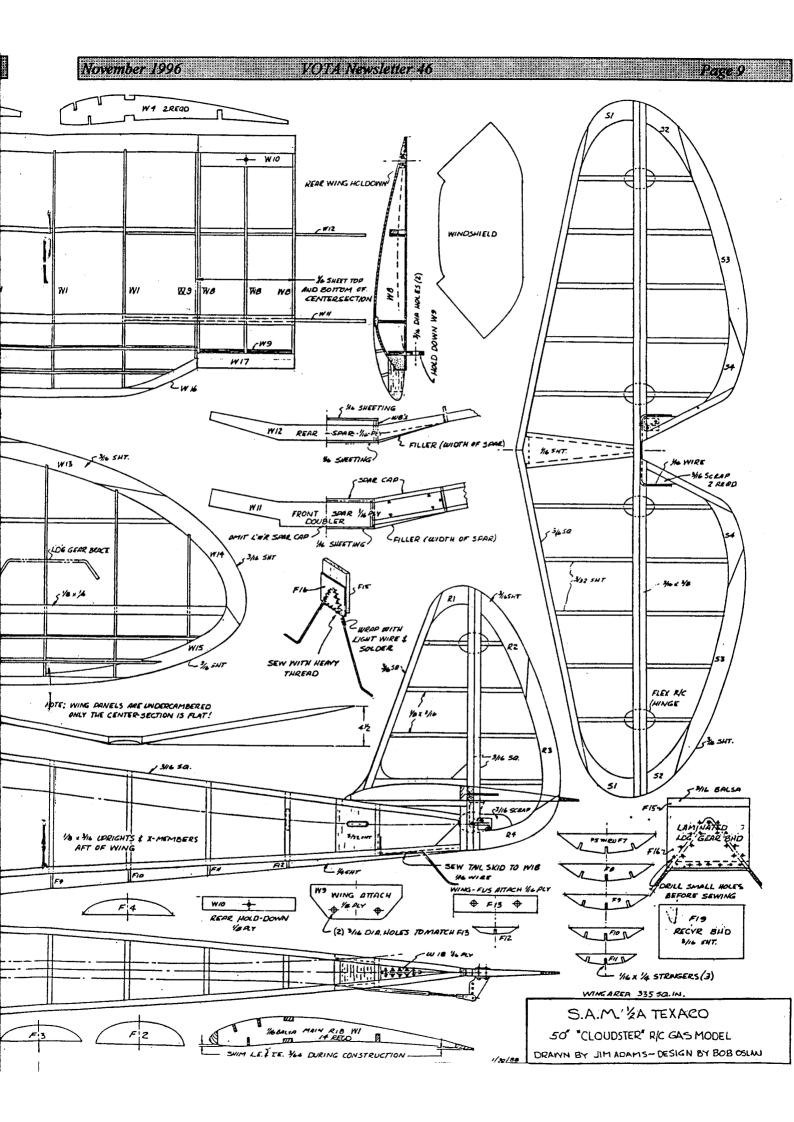
Let's take a close look at this airplane. The wingspans 89 inches and has approx. 1122 sq. in. (maximum size glow or converted ignition engine under present SAM R/C rules is a .49). Other than the whopping 15-inch root chord, the only unusual feature is the 3/8x2-inch wide solid balsa trailing edge. Choose this board carefully to avoid excess weight. For an R/C version, spruce spars, at least on the inboard panels, would be something to consider.

The tail surfaces are conventional except that they make use of cap strips bent over a spar in lieu of regular sheet balsa ribs. Also, the plans call for a 1/4" sq. stab leading edge, but that tight curve makes laminating this piece a necessity.

The fuselage is a curvaceous structure that has hardly a straight line anywhere. Construction is very light, and there are only a few formers to make. The Flamingo fuselage is notorious for being quite weak in the nose, and builders should see that this area receives some extra







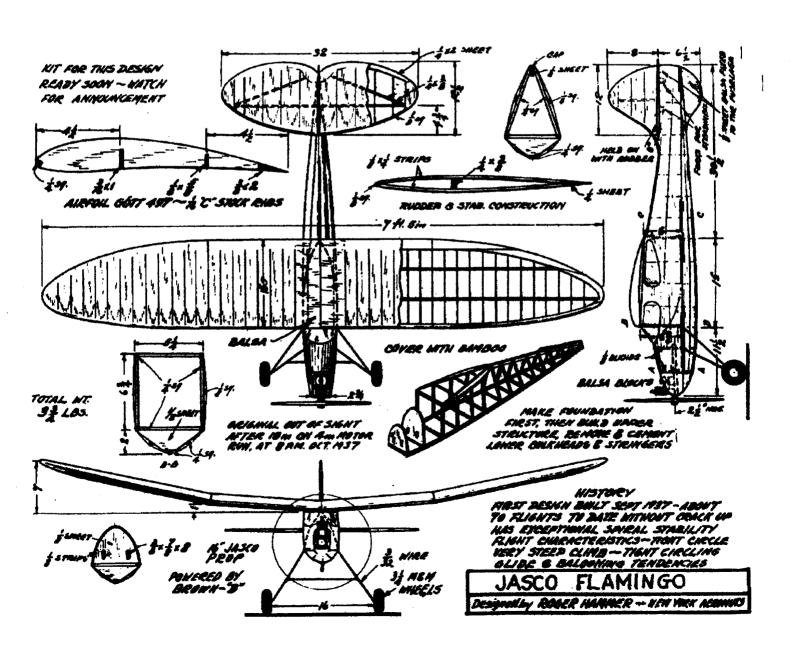
beefing up. A reinforced crutch would help, but what is really needed is some diagonal bracing or plywood carry through members to absorb the loads properly. This is especially important if you are building the model for free flight and plan on using a pop-up tail DT.

Up at the top left-hand corner of the original Frank Zaic drawing was this note: Kit for this design ready soon—watch for announcement. Hmmm, let's see ... that was only 42 years ago. Shouldn't be long now!

ED JASCO FLAMINGO 89 inch span, 1122 sq. inch, Airfoil GOTT 497, Designed Roger Hammer, Published September 1937.

Out of a total of 1,900 contest events flown since 1988, the Flamingo is 7th in the most flown model stakes, see table

Playboy Senior	223
Bomber	151
Red Zephyr	72
Super Quaker	67
Dallaire Sportster	59
Miss America	58
Flaminoc	53
Powerhouse	49
Trenton Terror	36
MG 2	34
Record Breaker	33
Kerswap	29
Contest Gas Model	27
Anderson Pylon	27
Record Breaker (*1938)	26
Buzzard Bombshell	21
Playboy Senior Cabin	<b>21</b>



#### **OHLSSON & RICE SPARKERS**



By Charlie Bruce Sam Speaks #129

Ohlsson & Rice, "The Standard of the Model World" proclaimed their ads and so it was for many years. The combination of Irwin Ohlsson modeller, engine designer and astute business man with Harry Rice machinist and die casting wizard, produced

many of the best model engines and accessories available from the late 30's to the early 50's. Starting in 1937 with the side port Ohlsson Miniature they marketed nearly 80 different engine designs. I suspect that there are few if any gas modellers 2 who haven't owned at least one O&R. The design is a marvel of simplicity and ease of manufacture. The round timer will fit all engines. Many internal parts are interchangeable though they may have been changed in shape and style thru the years. The 19 is a 23 with a shorter stroke, the 29 is a 23 with a large bore and the 33 is a 29 with a longer stroke. Quite ingenious. My first O&R was a heavily used 19 side port acquired in 1943 when new engines were virtually non-obtainable. It was not pretty but it ran great and served me well for many years. This analysis will cover the more common and flyable O&R spark engines but most comments will apply to the full line. Engines included here:

Side Port Induction	FRV Induction
Custom 60	60
60 Special	33
23	29
19	23
	19

There have been a number of "O&R Tuning Tips" published in SAM Speaks by Bob Angel with contributions by Bill Schmidt and others. I've tried to structure this analysis to avoid duplication of Bob's excellent articles. I highly recommend those articles for information on making your O&R more reliable.

Disassembly: Let's start off by stating that the O&R cylinder is retained in the crankcase by two small steel slugs spot welded to the cylinder. An aluminium plug seals the holes and hides the slugs front and back on most engines. The cylinder cannot be removed by ordinary means. See the end of the analysis for the name of a craftsman who does this and puts 'em back.

Fuel Tank and Needle Valve Assembly: The Custom 60 tank is retained from below by a single long screw with special 3-pronged steel washer. Other side port engines have the tank assembly hung from the intake tube by the needle valve body. The tank itself is retained by a single screw. Some FRV engines have a bullet shaped plated steel tank retained by nuts on the 3 crankcase screws, but most do not have tanks. There was an aluminium die cast barrel shaped tank sold as an accessory. It mounted on bearers or could be used as a radial mount on either side port or FRV engines.

All standard needle valve bodies are retained by a tiny (3/16") aluminium hex nut with 5-40 threads. Note that on FR engines the needle valve body passes thru a folded sheet metal restrictor in the venturi. This must be in place or the engine will not draw fuel. On the Custom 60 the needle valve body holds the venturi/tank top onto the engine. Timer: The classic O&R round timer is retained by two 4-40 screws, one longer than the other. The longer screw limits retard and advance movement in most side ports by contacting a rib in the front case. With screws removed the timer can be rotated sufficiently to lift the tail of the moving point out of the bearing slot then slipped off forward. Point gap adjustment is made by varying the thickness of washers under the fixed point. Do not attempt to bend the moving point There is a dual point, two speed version of the round timer which was sold as an accessory.

Point gap is given as .005"-.010" O&R instructions; plug gap is .020".

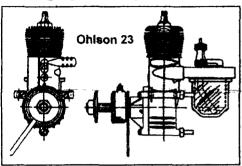
The Adjusto-Matic timer has an oddly shaped die cast case and features a lock screw at the lower side. Loosening this screw allows the case to pivot eccentrically about an extension of the moving point pivot post, thus varying the point gap. Much easier than the cut and try system on the round timer. The Adjusto-Matic uses a unique moving point with the contact point itself being a short piece of round wire. A ratchet plate is fitted to the back which moves against a spring loaded ball detent in the lower part of the front case. It's a quite complex improvement (?) on the classic round timer. Removal is the same as the round timer. Removal of Internals: Remove the three long 4-40 screws with nuts which retain the front case. There is a thin paper ring gasket at the joint. Hold the engine over a pan and pull the front cover off, attempting to keep the crankshaft in the front case. The reason for this procedure is that small parts may be lost.

- 1. Custom 60 has 21 small roller bearings loose in front of the ball thrust bearing.
- 2. Many small FR engines have 9 short fat rollers loose in a brass cage. The FR 60's have 11 rollers also in a brass cage. Occasionally you will find an FR 60 which has a relatively large ball bearing in place of the roller bearing. This crankshaft is not interchangeable with the one using roller bearings. The 60 Special, side port 19 and 23 do not have loose bearings. Some of the very early 19's and 23's have the lower bearing of the con rod pinned to the crank pin. On these engines, generally recognisable by the aluminium main bearing (not bronze), you have to remove the front case from the crank (watch out for the 3-piece ball thrust bearing), then rotate the crank to bottom dead center, swing it sideways and drop the piston down out of the crankcase. On all other engines, twist the con rod/piston assembly 90 degrees and pull it down and out of the case. Back to the crankshaft-If you managed to get the assembly out without dropping anything, hold it over a pan and ease the crank back to see how it all comes apart, so you can replace it properly. The con rod is kept in the piston in all O&R engines by two tiny wire snap rings which fit in the grooves in the wrist pin on either side of the con rod inside the piston. I recommend these not be removed. If you must

remove them you'll need a special tool. I use a tweezers with the points ground to a slight cup to push the clip off the wrist pin. Take note of the location of the internal spacer on the wrist pin (if there is one) so that you can replace it properly.

That's it. The easiest model engine there is to field strip for cleaning. You don't even have to remove the timer or tank if you don't want to.

Reassembly: They go back together easily if you master the loose bearings. On the Custom 60 use a bit of Vaseline or other light grease and pack the 21 rollers into their race in



the front cover. Install the 3 piece ball thrust bearing on the crank: first steel washer, cup out; then brass cage holding the balls; then second steel washer, cup in.

Now insert this whole assembly into the front case and hold the crank full forward until the assembly is installed in the case.

On FR engines with rollers, put the brass cage on the crank and install the rollers one at a time. Insert the crank as above, except there is no ball thrust bearing in FRV's with caged rollers.



Harry Rice, Irwin Ohlsson and Dick Tichenor at Miles Square Park in California, August 1978. The meeting between Irwin and Harry was arranged by Dick without their knowledge. It was the first time they spoke to each other for more than 40 years. It is believed they never spoke again. Harry died in 1991, and Irwin died on April 20, 1996 at age 83.

One problem which exists in some but not all FR engines is that O.D. of the crank may be relieved (smaller diameter) in the rotor valve port area. This allows crankcase compression to leak back into the venturi. Engines may be difficult to needle; some will not take a lean setting at all, insisting on a burbling 4 cycle run with no power. Here is a solution to the problem which you can do. Remove the crankshaft and determine that it does have the reduced diameter around the rotor port. Remove all oil and varnish, etc. with solvent or

strong detergent. Clean up the reduced area with #320 emery cloth until it's bright and shiny. Obtain a large soldering iron and aggressive flux. I use Burnley Brand paste. Hold the crank in blocks of wood in a vise and proceed to fill in the low part with plain old soft solder. You don't need a smooth job but be sure the solder adheres well and fill the recess a bit larger than the O. D. of the finished portion of the crank. Let it cool then remove the flux with hot water and a stiff brush. Dry the crank. Now take a new wide mill file and remove the excess solder. It will try to clog the teeth of the file so make one pass and clean the file. one pass and clean and so on. Don't worry about scratching the crank, it's harder than the file. File the solder smooth and flush with the Fished portion of the crank, clean up the chips and try in the front bearing. Cut and try until you have a smooth running fit. Now clean it all up and oil thoroughly. The flux is very corrosive and will rust the crank if any is allowed to remain. Reassemble your engine and test run. Expect to see a marked difference in ease of setting the needle.

Replacing the Front Cover: Most side ports have a piston clearance cut molded into the front case. This must be placed vertically or the piston will interfere and the engine will be locked up. On side ports without the clearance cut, install the front cover so that the timer point tail slot in the main bearing is on the left hand side as you face the engine. FR engines have two clearance cuts, one in line with the venturi and a second one 120° to the right, the second is for use with a special inverted crankshaft, but I've never seen one. Some standard cranks are stamped "up" or "u" for upright, some are not marked.

Take a quick peek in the exhaust port and be sure the piston is installed with the wide side of the baffle toward the exhaust, before you snug up the screws.

Engines, Parts, and Service: With the hundreds of thousands of O&R engines made, many survive and are found at RC Swap Meets and MECA Collectos.

Vic Didelot specialises in O&R parts. He has many originals and very good repros.

Vic Didelot, 4410 Lorna Lane, Erie, PA 16506-1422, phone (814) 838-3263. Send him a SASE for his list.

George Tallent, phone (520) 466-7655 Pichaco, AZ, can remove and replace your O&R cylinder. He also does chrome work to restore lost compression. Better call him as George doesn't write many letters.

Also Woody Bartelt is building up a good inventory of old and repro parts (including Ohlsson):-

Aero Electric

3706 N 33rd Street

Galesberg, MI

Phone or Fax (616) 665 9693

Test Runs: - All on 3/1 gas & oil

Charlie Bruce Rt. 1, Box 766, Milano, TX 76556. (512)

455-9543 Fax (512) 455 3921.

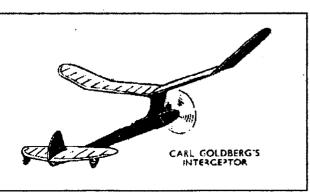
Custom 60 SN-2253	14/6 RevUp	6000 rpm
(tired old engine)		•
60 Special SN-6912	14/6 RevUp	6500 rpm
(small ports)		
60 Special SN-UNK	14/6 RevUp	7100 rpm
(large ports)		
60 Special SN-039496	14/6 RevUp	7600 rpm
(sm. port FRV)		
	13/6 RevUp	8700 rpm
23 Side Port SN-48660	10/4 TF	9700 rpm
19 Side Port SN-UNK	10/4 RevUp	7400 rpm
33 FRV SN-037757	10/6 TF pp	9300 rpm
29 FRV SN-UNK	10/6 TF pp	8000 rpm
23 FRV SN-492158	10/6TF pp	8000 rpm
Note: This 23 would		
not run on spark		
ignition until shaft		
recess was filled as		
described above.		
19 FRV SN-41035	10/4 RevUp	9000 rpm



#### PRESIDENT IS MOST FREQUENT FLYER

name	CountO
Peter Donovan	118
Graeme Sinclair	88
Mark Collins	68
Trevor Boundy	62
Don Cameron	61
Chris Lawson	53
Peter Hosking	51
Len Mostert	46
Warwick Bromby	42
John Whittaker	38
Norm Campbell	37
Andrew Kennedy	37
Ted Hall	36
Derry Brown	34
Lyal Ford	34
Bret Achterdenbosch	31
Frank Achterdenbosch	31
Warwick Bates	30

ED. According to our records since 1988. Peter Donovan tops the list of the most frequent contest flyer (out of 1900 person contests).



#### PROFILE - LEN MOSTERT

Leendert Antonius Mostert (Len)

2nd July 1947 DOB Refrigeration Air **OCCUPATION** 

Conditioning Technician

MODELLING AMBITIONS Just to have a good time

and build good models.

YEARS FLYING RADIO 27 years.

OS 60 4s open rocker. FAVOURITE MOTOR **Amateur Radio** 

OTHER HOBBIES

(Unrestricted License) **FAVOURITE FOOD** Chinese.

**Roy Robertson Memorial FAVOURITE CONTEST** 

Trophy.

FAVOURITE FLYING FIELD P&DARCS. FAVOURITE FLYING MODEL Bomber by Lanzo. WHAT MAKES A GOOD AERO MODELLER

Sportsmanship, helping others.

WHAT DO YOU HATE MOST IN FLYING

Rules and regulations.

WHAT DO YOU LIKE MOST IN FLYING

Camaraderie amongst modellers.

WHAT SAM MODEL DESIGNER DO YOU ADMIRE

THE MOST

HOW DID YOU BECOME INVOLVED IN AERO

MODELLING

Technical School.

Chester Lanzo.

YOUR FIRST CLUB NAME AND DATE

Phillip Island MAC,

Foundation Member.

MODELLING HIGHLIGHTS Winning two State

Championships in 1995.

Ed according to my records Len has flown in 46 contests since 1988.

#### **SOLARKOTE**

from RCMW May 1995

Iron-on Polyester Covering Film

Often when a modeller hears of SOLARKOTE he asks "Why another covering film - to add to Solarfilm and Solarspan". Our reply is "Being a polyester, it is different". Then we have to explain the differences and point out the best features of each type of film—as below. Then he can select the best film for his next model.

#### **SOLARKOTE**

- 1. Resists diesel fuel and petrol as well as glow Fuel.
- 2. A harder, more rigid film which increases the stiffness of open frames e.g. wings made from ribs and spars.
- 3. More heat resistant no melting holes in the film with the iron. Also doesn't slacken off as much in hot weather.
- 4. Has less shrinkage so has to be very neat and wrinkle free before being shrunk.
- 5. Not as good 'hot-stretch' so more difficult to contour round wing tips etc.
- 6. Can be painted with Solarlac and other paints. Also trimmed with Solartrim.

Not as easy to apply but this has to be accepted if you want extra advantages.

The range of SOLARKOTE colours is available in 2 metre and 10 metre rolls

White Pastel Blue Metal Blue
LightYellow Lux Blue Metal Red
Dark Yellow Flag Blue Aluminium
Light Orange Light Blue Clear
Light Red Dark Blue Neon Yellow

Light Red Dark Blue Neon Yellow Red Heather Neon Orange Dark Red Violet Neon Red Light Green (F.) Black Neon Pink

Pastel Green

#### **SOLARFILM**

- 1. May be swollen and wrinkled by diesel and petrol. Resists glow fuel very well.
- 2. Softer more pliable film. Does not stiffen open framed parts as well as a polyester. Very good on sheet balsa and veneer.
- 3. Needs more care with iron temperatures to avoid melting into holes.
- 4. Has very good shrinkage so very easy to use. Tightens very well, even when not very neatly applied.
- 5. Very good 'hot stretch', so can be contoured round wing tips etc. very easily.
- 6. Paints do not adhere well to Solarfilm so trimming is usually done with Solartrim.

Easiest to apply of all iron-on films. Not recommended for diesel or petrol power.

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#### DON HOWIE ON SMALL MOTORS

Dear Trevor

I read Paul Baartz comments on COX .049 motors in Newsletter 45, with some interest.

Over the years I have designed and flown many small models with motors of less than 1 cc, that are handy to have in the boot of the car and require little preparation or equipment, if they are diesel powered.

Many people have suggested an alternative to the Cox .049 reed valve motors in 1/2A Texaco and the following experience I have may be of interest. I have two Irvine Mills .75 powered models; a Quiver (Quaker Flash) and my Snappy Mills. Both have only moderate performance and would not return flights of 6 minutes on the normal Mills tank. Each Irvine motor has suffered a broken crankshaft over the years (fixed by Tony Ong) and are still running well. Best model to date is my Snappy Too powered with a PAW .55. This motor is amazing, being single ballrace and would give good Texaco performance with an A.P.C. 7" x 3" prop. It does not have a standard tank attached, so we would have to measure very small amounts of fuel accurately. This motor is ultra reliable, it starts very easily; but is not cheap and easily obtainable.

In Airborne No. 147 is a picture of an O.K. Cub .049A model that I flew recently. The OK Cub started the craze for .049 models in the fifties in the USA. The motor shown in the photo has the same mounting dimensions as the Cox .049 reed motors, so it was easy to mount in my P.T. Baby, that previously used a COX Texaco.

The major designers in the USA all had a go at .049 motors in the early fifties. Attwood, Anderson, McCoy, Holland, Ohlsson etc all made these small engines. Recently obtained a book compiled by Ron Moulton, "The Engine Encyclopedia" printed in 1958. In the book, Ted Martin (AMCO designer) who lived in the USA, tested all of the .049 motors, giving prop figures and comparisons. The Cox Thermal Hopper (Space Hopper) red valve motor was far superior to the other motors, at least 2000 revs better than say the Holland Hornet. It killed most of the other motors and when Cox introduced the TEE DEE series in the early sixties, it killed the largest manufacturer, O.K. Engines.

Cox .049 reed motors need clean fuel, at least 20% Nitro in the winter, drain the tank at the end of flying, clean and oil the motor. I cannot guarantee 100% reliability, but 90% should be possible. Clean out the needle before each competition and double filter fuel into the tank. My main problem has been the motor running backwards; perhaps it is best to use a spring starter or electric starter made from a 550 Mabuchi Motor.

People like Bill Britcher have won 1/2A competitions with a second hard Cox .049 bought at auction for 5 dollars. The motors are cheap and easy to obtain. Compared to the other .049 Glow motors of yesteryear, they are the best that came out of the USA. I think the latest British diesels PAW .55 and PAW .8 cc are the best of the small motors today, but are not easy to obtain and do not have fixed tanks.

Regards Don Howie

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#### FROM BARRY DENT SAM 84

Somewhen in October 96

- 1. I got a response to my tantrums in the previous "Vintagency", two actually. John French generously wrote praise for the management of SAM 84 and they are justifiably embarrassed in return. Keep it up John you will encourage them to ever greater heights. The other was from our most retiring member and I will allow Trevor to speak for himself later.
- 2. There is traffic from the MAAA Special Interest Group for OT's concerning Allan Laycock's questionnaire on Model Strength, the McCoy 60, 42, and all that. I will have the outcome at the next meeting but the following pieces may help.

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VICE PRESIDENT Len Mostert (H) (03) 56581 523

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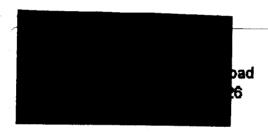
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### **SAM 600 Newsletter**

Number 46



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DROUIN WEST 3818

In SA, the Waikerie Gliding Club was the main exception. Their two instructors were in reserved occupations, and dozens of young men 'soloed' with Waikerie prior to entry into the armed forces, with the hope that this would give them an 'edge' in RAAF pilot training.

After the war new gliding clubs began to spring up. In 1950, Edmund Schneider, well known German glider designer (Grunau Baby etc) and manufacturer, was invited to come to Australia and set up a factory. He accepted and arrived with his family in 1951. They moved to S.A. in early1952 and set up a factory/workshop, eventually being located at Parafield Airport.

Many sailplanes were designed and built by Edmund Schneider and his son Harry. Among these is the venerable Kookaburra, which was the backbone of two-seater training in Australia from themid-1950's to the end of the 60's. Several clubs still use Kookaburras for training today. Another was the single seat Boomerang. The ES60 Boomerang first flew in November 1964, and immediately proved to be superior to imported sailplanes, until the advent of glass-fibre construction. Kookaburras and Boomerangs were exported to several countries.

Today many Boomerangs can still be found competing and doing well in Sports Class competition. (In 1994, during a sports class contest, one pilot averaged 113 km/h over the course in his Boomerang against a 15m fibre glass machine's 120 km/h.)

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