



270  
WESTERN AUSTRALIA



SAM 1993



SAM 84 Queensland

# The Australian Thermaleer

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

Issue No.10

January - March 2022.



**SAM 600 Australia - Victorian Old Timers Association Inc.**

 President <b>Steve Gullock</b> Mobile: 0428 464 506 Email: fryerkd@gmail.com	 Vice President <b>Lyn Clifford</b> Home: 03 5456 2541 Mobile: 0429 165 669 Email: lyncclifford@exemail.com.au	
 Secretary/Treasurer Public Officer <b>Don Grant</b> Home: 03 9706 2074 Mobile: 0402 918 916 Email: dgrant@dcsi.net.au	 Contest Director <b>Kevin Fryer</b> Home: 03 9842 4361 Mobile: 0438 561 440 Email: fryerkd@gmail.com	
Committee Member <b>Ted Amup</b> mtamup@bigpond.com	Newsletter Co-Ordinator <b>Brian Laughton</b> brianlaughton1957@hotmail.com	Safety Officer <b>Steve Gullock</b> coodgiebear@hotmail.com

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

**SAM 600 PRESIDENT'S REPORT.**  
From Steven Gullock



Hi, hope you are flying well. SAM600 has had one competition, the Roy Robertson, this year at the P&DARCS field that went well with the few flyers we had there. Hopefully more entries at Echuca on 19-20 March, might be forthcoming.

Regarding the Electric O/T Rules, the MAAA Rules states that I/C comes under Category 5 because it is supported by all states in Australia but Electric O/T comes under Category 10 which is given to the AEFA because they have electric flying in all States whereas Electric O/T is only flown competitively in Victoria so we don't have the voting power of the AEFA, although they only fly one oldtimer competition a year during their Easter Rally at Cootamundra whereas in Victoria we fly six competitions per year, weather and Covid permitting.

I think we need to make some moves to have the rules changed to Category 5 so things can be changed as required eg. 1300 Texaco made official and Texaco and Duration both brought to 1942 cut-off date so as the same model can be used for both events with change of battery and prop, thus encouraging more people to fly because they only need one model for both competitions. But, until we fly Electric Oldtimer in all States to convince the MAAA this is needed, the Categories will stay unchanged.

Cheers, Steven.



**SAM 600 CONTEST DIRECTOR'S REPORT.**  
From Kevin Fryer

It has been three years since we have been able to have the Roy Rob Trophy and it was great to fly at P & DARCS again. Our thanks go out to Peter Harris, a Committee Member of P & DARCS for many years, for his help to run this great competition, and for his talk on the history of Roy Robertson in whose memory this trophy was created. Roy was a great modeller.

Steven Gullock elected to run I/C and Electric Events together in open rounds. I found this a bit stressful so in the future I will fly in one or the other classes but not in both. Pat Keely, the only member from the far north to attend, cleaned up the field winning both Roy Rob events making him this year's Roy Rob Champion.

Our latest competition was at Echuca on the 19<sup>th</sup>-20<sup>th</sup> March. The weather forecast was good and so it turned out for a change. Results are in this TAT. The next scheduled SAM 600 event is at Ballarat on the 21<sup>st</sup>-22<sup>nd</sup> May so I hope to see you all there. That is followed by Cohuna 18<sup>th</sup>-19<sup>th</sup> June. Vic/SA/NSW State Champs

In the meantime there is the 40<sup>th</sup> SAM 1788 Championships over Easter for those interested at the AB Flying Field, West Wyalong.

Safe Oldtimer Flying, Kevin Fryer.

**"The Stebbings Trophy" Champ of Champs**  
Progressive Results 2022

EVENT	1 <sup>st</sup> Place	2 <sup>nd</sup> Place	3 <sup>rd</sup> Place	No. in Flyoff	POINTS I/C
<b>ROY ROBERTSON TROPHY 27<sup>th</sup> Feb</b>					Pat Keely 14
Duration	Pat Keely	Steve Gullock	Col Colyer	2	Kevin Fryer 14
Texaco	Pat Keely	Col Colyer	Kevin Fryer	4	Steve Gullock 9
Duration Electric	Kevin Fryer	Steve Gullock		2	Col Colyer 4
Texaco Electric	Kevin Fryer	Steve Gullock	Don Grant	1	Don Grant 3
<b>ECHUCA 19<sup>th</sup>-20<sup>th</sup> March</b>					
1/2A Electric Texaco	Steve Gullock	Pat Keely	Kevin Fryer	3	<b>POINTS ELECTRIC</b>
Burford	Steve Gullock	Kevin Fryer	Pat Keely	2	
Duration	Pat Keely	Kevin Fryer	Robert Taylor	2	Kevin Fryer 9
Texaco	Kevin Fryer	Don Grant	Pat Keely	2	Steve Gullock 8
'38 Antique	Kevin Fryer	Steve Gullock		1	Don Grant 1
<b>BALLARAT 21<sup>st</sup>-22<sup>nd</sup> May</b>					Pat Keely 1
<b>COHUNA 18<sup>th</sup>-19<sup>th</sup> June VIC/SA/NSW Champs</b>					
<b>Please Note: Only paid up members of SAM 600 qualify for points in this trophy</b>					

Contest calendar  
2022



SAM 600 Australia  
Victorian Old Timers Association, Inc  
1 / 33 Manikato drive  
Drouin Vic 3818

Contests commence at 9 am, unless otherwise stated.  
The 2017 MAAA Rules apply

The CD for all SAM600 events will be nominated on the day of the event  
General Meeting Sept Cohuna comp

1/2A Texaco, Duration & Texaco events will have the electric equivalent (except State Champs & Nats)

April 13 <sup>th</sup> - 18 <sup>th</sup>	SAM 1788 40 <sup>th</sup> SAM CHAMPIONSHIPS Adrian Bryant Field, West Wyalong. NSW. SAM 1788 Competition
May 21 <sup>st</sup> - 22 <sup>nd</sup>	BALLARAT Saturday: 1/2A Texaco, Burford, Duration Sunday: Texaco, '38 Antique
June 18 <sup>th</sup> - 19 <sup>th</sup>	COHUNA VIC / SA / NSW CHAMPS Saturday: 1/2A Texaco, Duration, Burford Sunday: Texaco, '38 Antique
July 8 <sup>th</sup> - 9 <sup>th</sup> - 10 <sup>th</sup>	OLDTIMER at AB FIELD WEST WYALONG NSW SAM 1788 Competition
September 10 <sup>th</sup> - 11 <sup>th</sup>	COHUNA Saturday: 1/2A Texaco, Duration, Burford Sunday: 8.30am Annual General Meet then Texaco, '38 Antique
October	ECHUCA TRI-STATE CHAMPS (SAM 600 Competition) (Yet to be decided)
November 20 <sup>th</sup>	BALLARAT 1/2A Texaco, Texaco, Duration

BILL ATWOOD'S  
CALIFORNIA CHAMP

— 1935 STATE CHAMPIONSHIP —

WING:

- 1/16 SH.T. RIBS @ 2 1/4" CTRS.
- 5/16" SQ. L.E.
- 3/8 x 1/4 FRONT SPAR
- 1/2 x 1/4 REAR SPAR
- 3/32 Ø AL. WIRE TIPS

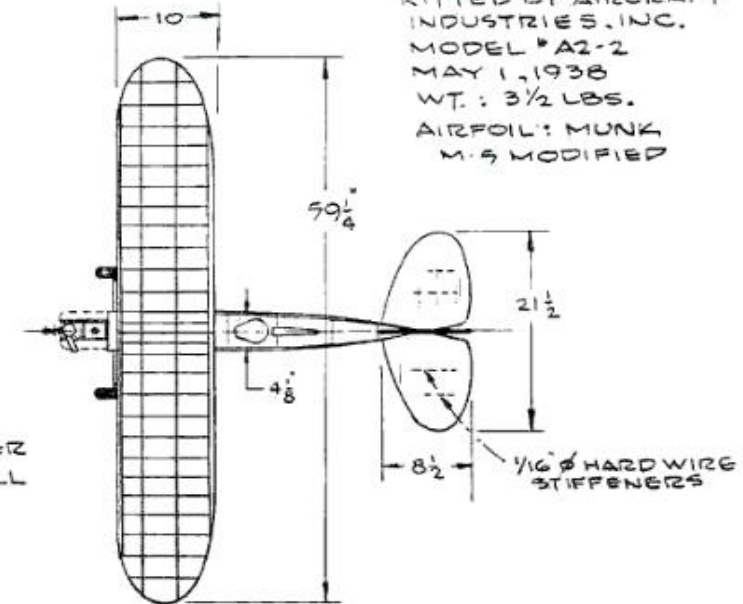
TAILS:

- 1/4 SH.T SANDED TO AIRFOIL SHAPE

FUSELAGE:

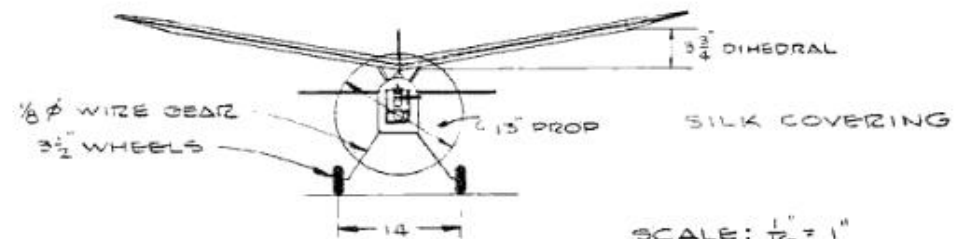
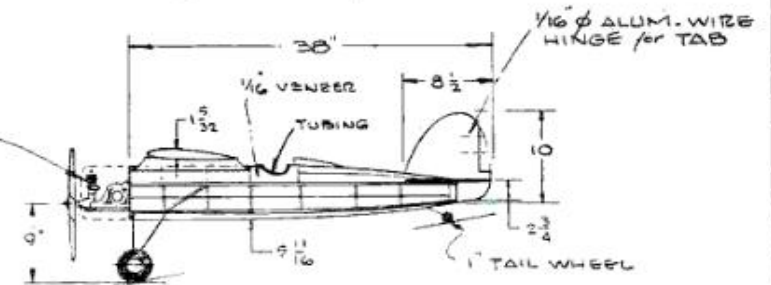
- 7/16" SQ LONGERONS
- 1/8 x 1/4 STRINGERS
- 1/4 SQ CROSS PCS.
- 3/8 x 12 WING REST
- 1/8 x 3/8 BOTT. STRINGER
- 1/8 PLYWD. FIREWALL
- FORMED AL. COWL

KITTED BY AIRCRAFT INDUSTRIES, INC.  
MODEL #A2-2  
MAY 1, 1938  
WT.: 3 1/2 LBS.  
AIRFOIL: MUNK M-5 MODIFIED



POWER:

- BABY CYCLONE
- ALUM. MT. AS MANUFACTURED



SCALE: 1/16" = 1"  
DRAWN: JOHN POND



**ROY ROB TROPHY**  
held at  
**P&DARCS FIELD**  
27<sup>th</sup> February, 2022.

Report by Kevin Fryer  
Photos by RjBarclay  
and Peter Harris



We had the Rob Roy trophy held for the first time in three years due to things like the COVID virus and bad weather causing cancellations.

We arrived at the field to find perfect weather and it continued all day. Unfortunately the entries were down with only three members from the country turning up where we normally have about eight but we pressed on regardless.

First event was Texaco, both I/C and Electric, both flown together. In I/C it was a close fought battle between four flyers with five seconds separating the first two places after nearly 19 minutes in the air with Pat Keely the only member from Cohuna coming 1<sup>st</sup>, with Col Colyer coming 2<sup>nd</sup>, myself coming 3<sup>rd</sup> and 4<sup>th</sup> place went to Stewart Sinclair, son of the late and great Graeme Sinclair 'Sincas', flying Dad's MG2. 'Sincas' would be so proud of him.

Electric Texaco had three entries and we had a close tussle between Steve Gullock and myself and I was the lucky one.

Next event was Duration. Again both I/C and Electric flown at the same time and as it was getting hot the members agreed to fly two out of three rounds. Again I/C was taken out by Pat Keely, the ever reliable member from Cohuna, with Steven Gullock placing 2<sup>nd</sup> and the P & DARCS member that has always turned up for the Roy Rob, Ian Robinson coming in 3<sup>rd</sup>.

Electric Duration again had three flyers and again I was the lucky one with Cliff McIvor coming 2<sup>nd</sup> and Steve Gullock 3<sup>rd</sup>.

So was the end of a great day with everybody having a great time and all taking their models home in one piece with no crashes.

On behalf of SAM600 I would like to thank P&DARCS for their hospitality and a fine lunch and most of all their warm friendship and for putting this event on for us.

Kevin Fryer.  
Contest Director.



RjBarclay

Kevin Fryer's Cumulus/Forster 99 Spark power for Texaco

**Roy Rob Trophy Feb 27<sup>th</sup> 2022**  
RESULTS - IC EVENTS

DURATION									
Name	Model	Engine	Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	Total
1	Pat Keely	Bomber	OS56 45	26	360	360			387 1117
2	Steve Gullock	Bomber	Enya 30	20	360	360			235 955
3	Ian Robinson	Playboy	Saito 65	26	311	360			671
4	Stewart Sinclair	Playboy	ASP 40	20	240	241			481
5	Col Colyer	Playboy	OS 40	20	306	O/RUN			306
6	Kevin Fryer	DNF							

TEXACO									
Name	Model	Engine	CC	Rd 1	Rd 2	Rd 3	Rd 4	F/O	Total
1	Pat Keely	Airborne	OS60 45	12cc	480	480	480		1134 2574
2	Col Colyer	Bomber	OS40 D	10cc	480	480	480		1129 2569
3	Kevin Fryer	Cumulus	Forster 99	20cc	416	480	480	480	1020 2460
4	Stewart Sinclair	MG2	OS60 45	14cc	437	480	480	480	722 2162
5	Ian Robinson	Bomber	OS60 45	18cc	210	194			404
6	Steve Gullock	Bomber	Irvine 40D	8cc	228				228

**Roy Rob Trophy Feb 27<sup>th</sup> 2022**  
RESULTS - ELECTRIC EVENTS

ELECTRIC DURATION								
Name	Model	Motor	Rd 1	Rd 2	Rd 3	Rd 4	F/O	Total
1	Kevin Fryer	Cumulus	420	265	420		399	1239
2	Cliff McIvor	Playboy	420	420			265	1105
3	Steve Gullock	Bomber	DNF					

ELECTRIC TEXACO								
Name	Model	Motor	Rd 1	Rd 2	Rd 3	Rd 4	F/O	Total
1	Kevin Fryer	Cumulus	600	600	600			1800
2	Steve Gullock	Bomber	600	600	542			1742
3	Don Grant	Playboy	600	600				1200

Ignition coil assemblies with transistor.  
Ready to go.  
**\$70**  
Peter Scott  
(02) 9624 1262.  
qualmag@optusnet.com.au

FOR SALE



Left: Stewart Sinclair flying "Sinca's" M62/OS60 4S.  
Above: Pat Keely's Airborne/OS60 4S on it's way to a win.  
Below Left: Pat Keely's Airborne/OS60 4S returning for a win.  
Below: Kevin Fryer's Cumulus/Forster 99 Spark climbing out.





Above Left: Col Colyer's Lanzo Bomber/OS40 Diesel for Texaco.  
Above: The delightful slim lines of Stewart Sinclair's MG2/OS60 4S fuselage for Texaco.  
Below Left: Stewart Sinclair's Playboy/ASP40 for Duration.  
Below: Preparations underway on the Texaco Flight line.





RJBarclay



RJBarclay

Above Left: Stewart Sinclair prepares his M62 for Texaco. Below Left: Pat Keely prepares his Airborne for Texaco. Above: A round of Texaco in progress.. very relaxed flying. Below Right: Texaco Winners Kevin Fryer 3rd, Pat Keely 1st and Col Colyer 2nd.



RJBarclay



RJBarclay

Photos from Peter Harris



Top Left: Cliff McIvor with his electric Playboy.  
Above: Ian Robinson with his Playboy/Saito 654S for Duration assisted by Chris Calcutt.  
Left: Ian Robinson with his Lanzo Bomber/OS60 4S for Texaco assisted by Chris Calcutt.



Top: Stewart Sinclair flying "Sinca's" MG2/OS60 4S for power climbing away in another round of Texaco.

Above: Col Colyer prepares his Lanzo Bomber/OS40 converted to diesel power for Texaco with Don Grant assisting.

Left: Don Grant monitors the OS40 diesel warming up in Col Colyer's Lanzo Bomber and also checking the engine run time on the allotted fuel allowance for the event.





Photos from Peter Harris



*Clockwise from top left:*  
*Still the Texaco engine of choice by many, the OS60 45 open rocker engine in Ian Robinson's Lanzo Bomber.*  
*Ian Robinson receiving his 3rd place trophy in Duration from SAM 600 President Steve Gullock with Contest Director Kevin Fryer assisting.*  
*Kevin Fryer's Cumulus/Forster 99 on spark arriving back after another successful flight. Kevin placed 3rd in Texaco.*  
*SAM 600 President presents the 1st Place trophy to Pat Keely for his win in the Duration event.*  
*Host Club P & DARCS Treasurer/Club Captain Peter Harris presenting Pat Keely with the Roy Robertson Trophy for 2022 for his win in R/C Oldtimer Duration and R/C Oldtimer Texaco. Congratulations Pat for a top result.*





**Roy Robertson Old Timer Event**  
**Sunday 27<sup>th</sup> February 2022**  
**Report from Peter Harris**



At last, after many years of disappointment, the event has been successfully run. The date on the Trophies have been updated three times as a result of high winds, fire danger day and covid. Would you believe it was a super day of sunshine and moderate winds resulting in a great day for the event.

To comply with our 1,500 ft ceiling there were reduced fuel allotments and engine runs that proved very successful in reducing heights. Some of the models were also fitted with altimeters to provide the ability of determining height if this had been questionable.

The event was run in the northern area of the East Runway leaving the remainder of the area free for general flying.

Not masses of entrants but as usual the competition was fierce and all had a very enjoyable time and very happy with the Roy Rob being back on the calendar.

As usual the quality of models at the event was stunning and it was great to see a couple of our club members Ian Robinson and Cliff McIver not just participating but also gaining places in their respective events. There was also a lot of interest from spectators. so don't be surprised if there are some additional representatives from our members next year.



**Kevin Fryer 3rd**  
**Cumulus**

**Pat Keely 1st**  
**Airborne**

**Col Colyer 2nd**  
**Lanzo Bomber**

**HISTORY OF ROY ROBERTSON & SAM SOUTHERN REGION**

In June 1984 enthusiasm in Victoria for Old Timer flying was in its infancy. A small hard working group of aeromodellers ( Roy Robertson, Dennis Parker, Dave Reynolds, Monty Tyrell and Norm Garrett ) organised a meeting of 16 Victorian members of S.A.M. and formed the Southern Region.

Roy, Dennis and Dave travelled considerably throughout Victoria so as to obtain a suitable site for the first meet.

This travelling was followed by a few newsletters to the interested modellers and culminated in the first Old Timer fly-in at the Laverton Air Force Base in November 1984.

Roy was the solitary person to organise the fly-in. He was not only the instigator; he liaised with the R.A.A.F. Model club and provided the trophies and small medals for every contestant, out of his own pocket.

This fly-in proved to be very successful with some 20 models exhibited, so much so that Roy arranged with the P.D.A.R.C.S. club to hold a S.A.M. Seminar at their field to show off the Old Timers to all modellers.

Sadly, shortly before Christmas 1984, Roy suffered a fatal heart attack.

The S.A.M. Seminar went ahead on January 27 1985, with 30 models displayed and flown for over 150 spectators. The Concours d'Elegance was won by David Reynolds "Powerhouse". Two small competitions were held so that the people could see how simple the competition was. Duration was won by Graham McDonald with a Fox Eagle powered "Miss America" and Precision Antique taken out by David Reynolds with his Enya 60 F/S "Powerhouse".

As a tribute to Selwyn Roy Robertson the members of the S.A.M. Southern Region and the P.D.A.R.C.S. decided that future Seminars would be called the "Roy Robertson Memorial Trophy".

At each "Trophy" day Roy's last model, a Red Zephyr with Ohlsson Gold Seal spark ign, is flown in honour at the start of the competition. It is now owned and maintained by his good friend Les Dole.

The competition, as decided by the members of the Southern Region, was to be split between the two main aspects of the Old Timer classes. These being Duration and Texaco, the scores obtained by the contestants for each class were to be added together and the winner decided by the highest total points. This allowed the contestants name to be added to the Memorial Shield. The rules used were as per S.A.M. Australian Rules book and to be eligible for the shield the contestant had to be a member of S.A.M.

The Hobby Hangar donated a Buzzard Bombshell kit to raise funds for the trophy shield and the inaugural trophies and since have sponsored the Concours D'Elegance trophy at all Roy Robertson Memorial Trophy days.

Therefore the first named Roy Robertson Memorial Trophy was held in January 1986 and the results were as follows:

<u>R. R. MEM. 1986</u>			
Concours d'Elegance	Ted Hall	Ehling 37	Enya 46 F/S
Texaco	Ted Hall		
Duration	Les Dole	Goon	H.P. 49 F/S
OVERALL TROPHY	Ted Hall		
No. of Contestants	15 + 17 respectively.		

<u>R. R. MEM. 1987</u>			
Due to inclement weather of the second day this event was split.			
Texaco Jan. 27th and Duration July 12th. The results were:			
Concours d'Elegance	Graham Sinclair	Flying Quaker	Enya 46 F/S
Texaco	John Quigley	Miss Model Craftsman	McCoy
Duration	Andrew Kennedy	M.G.	Frog 500
Overall	John Quigley		
No. of contestants	28 + 23 respectively.		

**ECHUCA OLDTIMER WEEKEND**  
**19<sup>th</sup>-20<sup>th</sup> March 2022**  
 Report from Kevin Fryer  
 Photos from Don Grant

Once again it has been three long years since we have been able to have a competition at Echuca, and their President, Fred West, was happy to see SAM 600 having another competition there.

In those three years a lot has changed at the Echuca Club. There have been a lot of improvements made, including the toilet block and showers and the construction of twelve shade areas where you can back your car up, unload your models and sit in the shade. It was decided not to hold 1/2A IC Texaco, Electric Duration or Electric Texaco due to lack of numbers. The weather was very good from the start and got even better as the weekend progressed. It was a little bit hot but still very pleasant.

First event on Saturday was the popular Electric 1/2A Texaco. This event was won by Steven Gullock flying a Stardust Special. This design was introduced to Australia by a member of SAM 600, the late Barry Barton. I must say that I think Steve snuck in by devious means to win this event.

Next was the Burford Event. I was flying a Spacer and Steven Gullock was flying a Swiss Miss. The challenge for us is that the air in every venue is very different, and the thermals at Echuca were very strong and narrow. Steven read them better than me and he came out the winner.

We had eight guys in Duration and there were some problems with models that had not been flown for three years. Rob Taylor, who makes the very best props, had a new generation prop on his many years old Cumulus. The Cumulus had difficulty handling the extra thrust of the new prop and decided to part company with its tailplane. Luckily, Rob managed to get the Cumulus back on the ground with not much damage. At the completion the ever reliable Pat Keely, flying his Bomber, came in first. Pat followed me like a ghost throughout my flight because he thinks I am a shifty old bugger. He followed me almost to the ground. I turned right whereas he turned left and won.

Sunday dawned and the weather was still very good. The first event was Texaco. Pat Keely and Steven Gullock were both having engine troubles and ended up only putting in one flight each. This then left the other three entrants to fill the placings. The last event of the weekend was '38 Antique with four entries. Unfortunately, two competitors could not get their engines started which left Steve and me to fight it out and for a change I won.

All in all a great weekend and our sincere thanks go out to the Echuca Club, and particularly Fred West, for their fantastic hospitality and once again a big thank you from all SAM 600 members.

Kevin Fryer.  
 Contest Director.

**ECHUCA OLDTIMER WEEKEND**  
**19<sup>th</sup>-20<sup>th</sup> March 2022**  
**Results for I/C Engines & Electric Motors**

**1/2A TEXACO ELECTRIC**

Name	Model	Engine	CC/sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1 Steven Gullock	Stardust	Electric		600	600	600		965	2765
2 Pat Keely	Stardust	"		194	600	600	600	885	2685
3 Kevin Fryer	Cumulus	"		600	600	600		745	2545
4 Don Grant	Bomber	"		549					549
5 Geoff Potter	Lil Diamond	"		265					265

**BURFORD I/C**

Name	Model	Engine	CC/Sec	Rd1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1 Steven Gullock	Swiss Miss	B/R	30	240	240			474	954
2 Kevin Fryer	Spacer	P/B	32	240	L/O	240		431	911
3 Geoff Potter	Spacer	P/B	32	240	193	175			433
4 Pat Keely	Dixielander	P/B	32	32	169	240			409

**DURATION I/C**

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1 Pat Keely	Bomber	O/S 56 4/S	26	360	360	360		632	1712
2 Kevin Fryer	Cumulus	Mc Coy 60 spark	32	360	360	360		564	1644
3 Brendon Taylor	Cumulus	Y S 63	23	360	360	360		392	1472
4 Tony Greiger	Playboy	O S 56 4/S	26	247	360	360	213		967
5 Robert Taylor	Cumulus	Y S 63	23	360					360
6 Steven Gullock	Bomber	Enya 30	20	316					316
7 Geoff Potter	Playboy	Potter 21	DNF						
8 Don Grant	Playboy	Y S 63	DNF						

**TEXACO I/C**

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1 Kevin Fryer	Cumulus	Foster 99	19 cc	187	480	480	480	590	2030
2 Don Grant	Bomber	Anderson Spitfire	19 cc	480	480	480		512	1952
3 Geoff Potter	Bomber	Enya 60 4/s	14.50 cc	398	480	480	285		1358
4 Pat Keely	Airborne	O S 60 4/s	12 cc	480					480
5 Steven Gullock	Bomber	Irvine Diesel	8 cc		111				111

**'38 ANTIQUE I/C**

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1 Kevin Fryer	Cumulus	Foster 99	154	480	442	480			1402
2 Steven Gullock	Stick	D C Wildcat	193	424	456	341			1221
3 Geoff Potter	Californian Chief	D C Wildcat		DNF					
3 Pat Keely				DNF					



ECHUCA



Top Left: 1/2A Electric Texaco winners Kevin Fryer 3rd, Steven Gullock 1st, Pat Keely 2nd.  
Bottom Left: Burford winners Geoff Potter 3rd, Steven Gullock 1st, Kevin Fryer 2nd.  
Above: Duration winners Kevin Fryer 2nd, Pat Keely 1st, Brendon Taylor 3rd.  
Below: Texaco winners Don Grant 2nd, Kevin Fryer 1st, Geoff Potter 3rd (missing)



Hello From a Long Time Aeromodeller and Oldtimer Flier  
John French.

Hi, it's John French here. I have seen the occasional Thermaleer in the past but The Australian Thermaleer #8, was very good. Admittedly there are some of my photos published of Peter van de Waterbeemd's R/C electric Keil Kraft Senator, but apart from that, my wife and I enjoyed it very much.

Thank you for adding me to the mailing list for various newsletters. The current issue of the Sticks and Tissue newsletter is so full of interesting stuff, I do have a couple of earlier issues, but it's certainly improved since then.

You've not seen me at any oldtimer meetings for such a long time because of a medical problem mid-1996, just as we moved into our new Yatala house in Queensland.

Apart from going to Muswellbrook Veteran's Gathering my wife and I have been pretty much stationed at home. In fact almost 8 years ago we purchased a brand new Hyundai i30 hatchback and we have now done just over 10,000 Kms in it. We must get out more!

Now that we live in Eden, NSW, Peter van de Waterbeemd has been very kind in taking me to the Frog's Hollow Club field at Bega as a visitor, and a very friendly bunch they are. It's the first time I've actually flown for about twenty years, and it was just like riding a bike, I fell off! Just kidding, I thoroughly enjoyed the day.

I still receive some great e-mails from other aeromodellers all over the world, well, not all over but from Britain and the States, as well as from Aussie too of course.

At our age, reminiscing seems to be a mandatory subject to discuss, and I must be one of the worst at it! My memory is really very good on some items, but non-existent at others. Always been the same. Typical musician so I've been told! So I'm not the most reliable of librarians.

I do miss flying Old Timer models in competitions. The best days of my life were spent mainly with The Vintagents in Queensland searching for thermals and creating havoc in the shed with my terrible sense of humour, but I was never kicked out and there was always lots of laughter. The camaraderie has to be almost as great as the actual flying.

Anyway, now that Peter is taking me to the Frog's Hollow field whenever it's open, convenient or good enough weather, I feel like it's all coming back. I've just almost completed a 30" span Lancer for my tiny RedFin Mills diesel called The SAM 35;



John and Kath French at the 2005 Vetrans' Gathering, Muswellbrook.

now, that was a tight fit!

Because I've not flown for many years, not sure how many, but long ago, I have no batteries apart from the ones in my Spektrum 6 channel Tx, so I'm waiting to ask Peter, next time we go to Frog's Hollow, his expert opinion on which LiPo pack would be the best. He is very knowledgeable on this subject. I have the micro servos but as you know, this size model will be very delicate where balance is concerned so I can't quite finish it off until I have all the kit.

I'm also just finishing a full size, Aeromodeller plans, Vic Smeed Mam'selle for an original Mills .75, and similar radio requirements.

Also on the go are several scale models, about 30 altogether would you believe, but this is because of my illness. When I first got sick in June 1996 I hardly went flying but I love building so that's just what I did. However, because of the lack of hardware such as electric motors, rubber (too costly to buy and watch it rot) and radio gear, I always came up short of installation so now there are all these balsa structures packed up in boxes, cupboards and in my hobbies room. I am gradually finishing off those that I can, but I'm not as fast as I used to be!

About 30 years ago I built, from the delightful West Wings kit, the Hawker Hart. My wife loved that model so much I let her have it, so she presented it in our lounge room in Yatala, Qld.

So it was on show when Richard Badenoch, a modeller, saw it and wanted it. After a bit of baloney with my wife he managed to talk her into letting him have it, and from that exchange I earned an OS 91 with pump, new in box, about \$700's worth at the time. Not a bad swap for a \$39 kit!



John's recently completed Vic Smeed Mam'selle



Some miscellaneous parts.

Anyway, part of the deal was that I made my wife another one! Because of my illness I couldn't always do things straight away, so some 30 years later I have finally started on my wife's second Hawker Hart, but she wanted this one bigger! We elected to make it 1:10 scale at about 48" span. Most of the structure is more or less completed but I've added full cockpit detail, all scratch built,

not one ready-made item in the whole plane! No wonder I've been putting the damn thing off!

I've attached a few photos to show you what I've been on about, and I think this might be enough for now on this subject. I have also sent some photos I took this afternoon of my Mam'selle, now ready for covering.

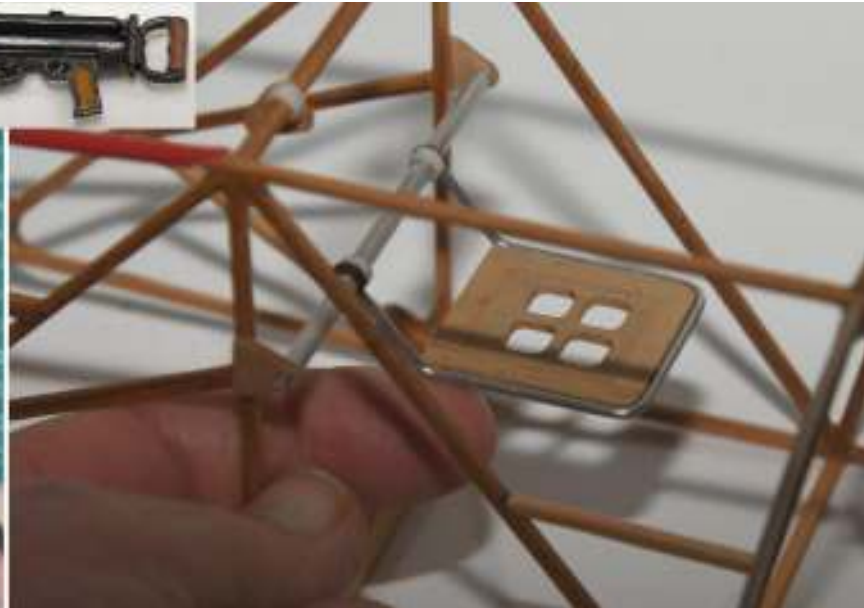
Today I again went to Frog's Hollow flying field with Peter, and despite not feeling 100%, I thoroughly enjoyed myself. I even launched Peter's Ringmaster Control line stunter for him. That's not me in the picture, I took the photos.



*More miscellaneous parts for the Hart.*



*Some photos of the various parts of John's 1:10 scale Hawker Hart currently being built for his wife Kath.*





## FIRST WEST WYALONG NATIONALS

West Wyalong, NSW

28<sup>th</sup> December 2021 to 4<sup>th</sup> January 2022

Report and Photos from Gail Scott.

The weather was mainly hot with some windy sessions. We stayed with George Bishop at his home in West Wyalong. We made a detour in our trip from the south coast, where we had spent Christmas, to pick-up Don Southwell from Crookwell. Also staying with George were Jim Rae and Basil Healy. A hectic, fun and riotous week.

The first day was spent checking that everything was ready for the 'Nats' and processing any models that needed it and practising.

The camp ground filled-up fast. Mainly control line fliers. This was down to be the friendly Nats, and it was. Fliers we had never met before soon became new friends with most waving to our Iveco van as it drove past the camp area each day.

We have a much-improved shade area for our field. Deep and long, it was a godsend. The new shed is yet to be built but the concrete base has been laid.

Our first oldtimer event was 2cc OT duration.

Jim Rae made 2mins 59sec in the first round but lost his Zero in round two. He eventually found a very broken model.

Geoff Potter performed aerobatics at take-off. The Crescendo landed heavily in the camping area and smashed.

Phil Eagles and Kevin Fryer had problems resulting in many attempts and an out-landing. However, Kevin recorded enough seconds to take third place.

Peter Scott, after the only max of round one, lost sight of the Eureka after minor aerobatics in round two and landed, heavily, 'out' near the trees. His next two rounds were not good but enough to win the contest.



George Bishop had engine problems but persevered and improved, to manage second place.

The wind had increased and changed direction but was perfectly flyable all morning.

The second event that day was Standard Duration. The air was superb.

Jim Rae, after maxing in round three, landed out. This left him scoreless due to two minor scores and out-landings.

Kevin Fryer, after a mediocre round one and an out-landing in round two, managed a max in round three and won the event.

Geoff Potter with just one score, in round two, made second place.

George Bishop landed the Bomber in the wrong place, in rounds one and three but managed a third place with just one flight of 192 seconds.

Peter Scott managed to put his finger in the propeller of Phil Angle's model while testing the model's engine revs.

In round one someone bent the crank of Peter Scott's OS 40 while trying to start it for him.

Our trusty scorekeeper, Don Southwell's quote for the day was "Utter Shambles".

Day two of competition began with the Sport/Cabin scramble.

Five fliers, air was good but wind did get up a bit.

Only one retirement, Warren Leadbeater flew so high that he needed to spiral his model down and the wings broke. The model plummeted to the ground.

Most competitors had plenty of reasonable flights.

The morning's quote from Don "compared to yesterday, it was more organised in that the fliers seemed to know what they were doing".

In the afternoon we had Old Timer Glider.

The weather was windy and hot. The only shade provided by the Scott's van awning due to the fact that everyone had to set-up quite a way from the shelter.

The contest was well supported but we had a couple of crashes due to human error.

Several fliers are now competent at using the winch and/or retrieval system. Phil Eagles, from Victoria, worked constantly, launching models and helping run the retrieval system. Thanks Phil.

Scorekeeper's comment: "a learning experience".

As this was New Year's Eve, there was the celebration at the house in the evening. A delicious meal of slow cooked pork and lamb with potato bake and/or baked



Winners of Cabin Scramble L-R Kevin Fryer 3rd, Peter Scott 1st and Jim Rae 2nd.



potatoes, pumpkin, vegetable au gratin, bread rolls and salad. Plenty for all.

Gail Scott did her normal trick of running around selling raffle tickets. Peter Scott and Basil Healy donated a Flying Triangle, built by

Basil with a comp special motor, donated by Peter. Peter Jackson, a Free Flyer, donated a small cabin model with a Cox Peewee up front. Len Surtees was delighted to win the Flying Triangle. We raised over \$280 towards the Nats and future development of the West Wyalong facility.

Day three had 1/2A Texaco from 9am to 1pm.

The weather became very hot and windy. Models flew as well as could be expected in such conditions.

Due to the wind, it was decided that the landing area was any where in NSW beyond the cones. Don Southwell stipulated, "But not the trees."

Only one person took advantage of this, Kevin Fryer

landed in the next property. Phil Eagles drove his ute down to the fence line, backed it up and jumped over to retrieve the Cumulus.

The only fly-off of the week was in 1/2A Texaco, between Jim Rae and Craig Thornton.

Duration was held in the afternoon. The weather was very hot and windy. The wind seemed to be in layers and turbulent.

Some good flying but due to 'downs' rather than thermals, the results were not decided until round four.

With three flyers having two maxes, after round three, Kevin Fryer, after a 'brain fade' and landing in the take-off area in round three, managed a third max in the fourth round which he needed.



Winners of 1/2 Texaco L-R Basil Healy 3rd, Craig Thornton 1st and Jim Rae 2nd.

Note the expanded shelter.

Michael Towell flew Peter Scott's Stardust Special into a tree after finding good lift.

That evening was the swap-meet and indoor flying at the stadium. It was very warm and humid. Plenty to buy and quite a few fliers, but it ended fairly early due to heat.

January 2<sup>nd</sup> began with the Gordon Burford event.

It was hot, windy and dry. Some good flights but Jim Rae was the only entrant to manage three maxes after, once again, needing round four to decide the winner.

Due to the wind, a large landing area was allowed. Even so, Peter Scott and Kevin Fryer managed to land out.

There was good lift during round three and four.

Our scorekeeper, Don Southwell's quote for the day, "It sorted out the fliers from the triers".

The afternoon's contest was Old Timer Texaco.

There was no lift in the first two rounds. Round three had plenty of lift but that was due to a looming weather change. Some rain could be seen in distant areas.

Round four was needed to decide the contest. Just as the fliers were readying themselves out in the paddock, people back under the shelter noticed a wall of rain approaching. A mad rush ensued to get everything, including models and chairs, back to the shelter. Half-way across the paddock the first heavy drops hit. As we arrived at the shade area, which has been significantly deepened, the wall of water and wind hit.

Models, chairs and tables all piled in the centre but the rain was so heavy, the wind so strong and horizontal that nowhere was out of trouble. We were soaked. It didn't last very long but as it stopped a second heavy squall came in from the opposite direction. It was de-



New Year's Eve at the farm house





The Gordon Burford Event winners L-R Peter Scott 3rd, Jim Rae 1st and Basil Healy 2nd



Winners of Nostalgia L-R Kevin Fryer 2nd, Jim Rae 1st and Peter Scott 3rd.

decided to call it quits - two out of three.

In round three, Phil Eagles had a battery or servo malfunction. The model circled out of control upon launch and was headed for those of us at the other end of the flight line. Not knowing what was to happen it was hard to take evasive action. Jim Rae threw himself to the ground. The circle widened after missing everyone twice and headed for a certain

Iveco van. It missed but headed round the back of the shelter straight towards our trusty scorekeeper, Don Southwell. It missed but skimmed the roof of George Bishop's Landcruiser which tore off the wings. The fuselage became a speeding missile and it speared into the side of Kevin Fryer's Holden. Made a bit of a mess of the driver's door but no one was hurt.

Please, please remember to check controls after starting the motor, before releasing models.

The only Sam event for 3<sup>rd</sup> January was Nostalgia in the afternoon, allowing anyone to join the Free Flyers for Vintage Power. Peter Scott entered and managed a third place, out of five entries.



'38 Antique winners L-R Basil Healy 2nd, Peter Scott 1st and Jim Rae 3rd.

He flew his Swiss Miss powered by an ETA 29.

Nostalgia was not particularly exciting. Some good flying in mediocre air.

Jim Rae, Peter Scott and Kevin Fryer were the only fliers.

Don Southwell said that Jim Rae was seen to be 'rain-bagging'. Waiting until after the rain in round four put him in 1<sup>st</sup> Place. The storm was not as violent as the previous day.

On the last day the only contest was '38 Antique, allowing the afternoon free for any cancelled event.

The weather was very warm but ideal.

Kevin Fryer had headed for home early, as we were arriving at the farm.

Geoff Potter couldn't get to the farm due to a 'dead' car.

George Bishop put in a good first flight with his Cumulus but lost control and crashed on landing approach which put him out of the landing area.



Basil Healy's model climbed very quickly, being very light and powered by an OK 60 which ran really well.

Peter Scott had undercarriage problems resulting in two attempts in round three. This was fixed with elastic bands enabling him to fly round four.

In summing up, it was a great week. Having so much happening at the facility, enabled us to watch a little control line and free flight. The new tarmac circle and grass circles were much admired, and used by the control line fliers.

The SAM Oldtimer numbers were down. I know that Bob Marshall was stuck at home due to a covid scare. Some didn't want to risk crossing borders in case they were shut on a whim.

Peter (Condo) Smith had to go to Queensland.

Col Collyer was present but couldn't fly due to cracked ribs - an accident in bed.

Basil Healy flew most of his events even though he had a bad back due to an accident on the way from Coffs Harbour.

Those who stayed in the camping area had a good time, in spite of the mozzies.

We were so lucky with the weather. Each day was flyable but the day after it was all over, West Wyalong area was hit by a huge storm and the power was cut. It has been wet and wild since we left.

Gail Scott.

**RESULTS - FIRST WEST WYALONG NATIONALS**

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>2cc Old Timer Duration</u>								
1. Peter Scott	Eureka	Jenner 2cc	30	300	0	190	282	772
2. George Bishop	Crescendo	Tyro	30	117	160	182	162	504
3. Kevin Fryer	Cumulus	Cox 09	30	90	0	300	0	390
4. Phil Eagles	Professor	Cox 09	30	0	0	170	154	324
5. Jim Rae	Zero	Tyro	30	259	0	-	-	259
6. Geoff Potter	Crescendo	Tyro	30	0	-	-	-	0

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>Standard Duration</u>								
1. Kevin Fryer	Cumulus	OS40	25	236	0	360	-	596
2. Geoff Potter	Playboy	OS40H	25	0	237	-	-	237
3. George Bishop	Bomber	OS40	25	0	192	L/O	-	192
4. Peter Scott	Stardust Spec	OS40	25	-	-	-	-	-
5. Jim Rae	Lion Cub	OS40H	25	L/O	0	0	-	0

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>Cabin Scramble</u>								
1. Peter Scott				1258				
2. Jim Rae				1209				
3. Kevin Fryer				1105				
4. Warren Leadbeater				633				
5. George Bishop				591				

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>R/C Old Timer Glider</u>								
1. Basil Healy	Petrucchio			300	162	210	-	672
2. George Bishop	Thermal Sniffer			176	94	191	-	461
3. Kevin Fryer	Kane			279	-	-	-	279
4. Peter Scott	Thunder King			61	-	-	-	61
5. Geoff Potter	Nord 3			19	-	-	-	19

Name	Model	Engine	Sec	R1	R2	R3	R4	F/Off	Total
<u>1/2A Texaco</u>									
1. Craig Thornton	Playboy			420	420	420	-	630	1893
2. Jim Rae	Big Old Plane			420	420	420	-	540	1804
3. Basil Healy	Stardust Spec			405	300	420	420	-	1245
4. Kevin Fryer	Challenger			320	344	418	420	-	1182
5. Peter Scott	Baby Bird			322	L/O	420	336	-	1075
6. Geoff Potter	Effy			63	-	-	-	-	63
7. George Bishop	Atomiser			L/O	-	-	-	-	0
8. Michael Towell	Baby Bird			0	-	-	-	-	0

Name	Model	Engine	Sec/CC	R1	R2	R3	R4	Total
<u>Duration</u>								
1. Kevin Fryer	Cumulus	McCoy 60	40	420	0	420	420	1260
2. Jim Rae	Lion Cub	Saito 56	32	420	420	397	198	1237
3. Peter Scott	Playboy	McCoy 60 spk	40	420	285	420	0	1125
4. Phil Eagles	Cumulus	McCoy 60 spk	40	420	420	199	260	1100
5. Craig Thornton	Playboy	OS 37	25	373	274	420	274	1067
6. George Bishop	Playboy	Saito 62	32	420	339	251	195	1010
7. Geoff Potter	105% Playboy	Nelson 40	25	420	250	-	-	670
8. Michael Towell	Stardust Spec	Saito 62	32	148	202	-	-	350

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>Gordon Burford Event</u>								
1. Jim Rae	Amazoom	Taipan BB	38	300	300	185	300	900
2. Basil Healy	Zoot Suit	Taipan PB	40	201	237	297	300	834
3. Peter Scott	Dream Weaver	Taipan BB	38	216	241	300	L/O	757
4. Kevin Fryer	Spacer	Taipan PB	40	215	300	L/O	174	689
5. Geoff Potter	Spacer	Taipan PB	40	187	135	219	215	621
6. Phil Eagles	Atomiser	Taipan BB	38	139	122	247	156	542
7. George Bishop	Dixielander	Taipan PB	40	0	-	-	-	0

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>Oldtimer Texaco</u>								
1. Kevin Fryer	Cumulus 6lb	Forster 99	24	466	354	574	-	1040
2. Jim Rae	Airborn 6lb	OS 61 FS	18	416	384	600	-	1016
3. Geoff Potter	Lanzo Bomber 5lb	Enya 60 FS	18	338	179	600	-	938
4. Craig Thornton	Standby 5lb	Madewell 49	20	223	268	600	-	868
5. Peter Scott	Lanzo Bomber 7lb	Forster 99	28	363	373	390	-	763
6. Phil Eagles	Dallaire Spt'ster 8lb	OS 60 FS	24	245	153	L/O	-	398

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>Nostalgia</u>								
1. Jim Rae	Teal	K&B 40 FI		420	L/O	420	379	1219
2. Kevin Fryer	Spacer	OS 40H		420	292	265	420	1132
3. Peter Scott	Dream Weaver	K&B 40		237	154	129	329	710
4. Geoff Potter	Swayback	Merco 61		-	-	-	-	0

Name	Model	Engine	Sec	R1	R2	R3	R4	Total
<u>'38 Antique</u>								
1. Peter Scott	Flamingo	Atwood	159	499	539	0	365	1403
2. Basil Healy	EHQ	OK Super 60	96	425	283	353	462	1240
3. Jim Rae	Ebenezer	ED Hunter D	80	448	269	312	212	1029
4. George Bishop	Cumulus	Orwick 64	96	L/O	-	-	-	0

**First WW Nats Notes:**  
From Jim Rae.

West Wyalong was very hot, some say too hot, and dry, very low humidity. Sorry, I did not take any photos, too busy sweating.

I don't know what anyone else is reporting but I had an enjoyable but very damaging event.

Early on in 2cc, my first flight had a short engine over-run. Everyone was talking about attempt etc., and I looked away from the model (my Zero, a very nice model) and when I looked back it was gone.

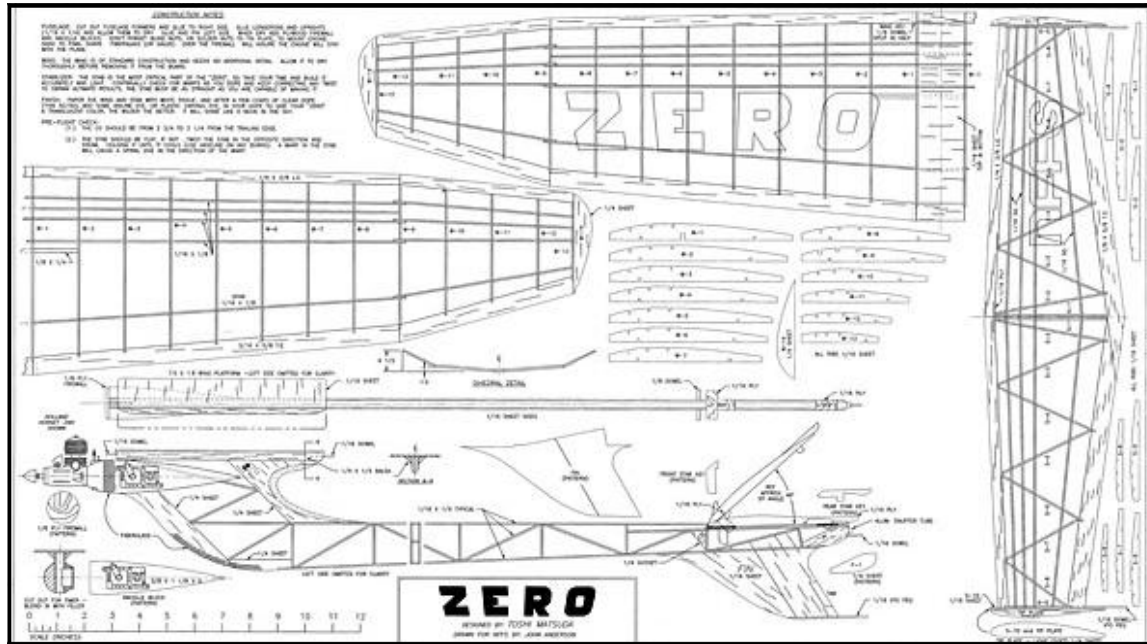
No-one could see it so put it in a spin, didn't see it come down, then Don Southwell, who was sitting under the shelter, said that he saw a model come down and described where exactly. It was my Zero in many pieces.

In oldtimer glider, flying my Airborne, first launch the tail hit the head of the launcher and broke off. The winch stopped but the stretch in the line pulled the model into the ground with considerable nose damage..

At the end of the Texaco event the rain was coming. We cleared the flight line but before we could get to the shelter it started to rain very big drops so we got a bit wet. Then the wind came. I reckon it was blowing over 40 knots. I have sailed in 40 knots winds so I know what they are like. Try holding a nine foot Airborne in that! The wind tore the tail off.... Oh well.

All told I have some repairs to do.

Regards,  
Jim Rae.





**DURATION  
TIMES**

Duration Times is the official Bulletin of SAM 1788  
**SOCIETY of ANTIQUE MODELLERS of AUSTRALIA Inc.**  
 SAM 1788 EXECUTIVE 2021-2022

President: Peter Scott 44 Ravel Street, Seven Hills, NSW 2348. 02 9624 1262.  
 Vice President: George Bishop 13 Main Street, West Wyalong, NSW 2671. 0419 196 492.  
 Secretary: Peter Smith P.O. Box 895, Parkes, NSW 2870. 0423 452 879.  
 Treasurer: Gail Scott 44 Ravel Street, Seven Hills, NSW 2348. 02 9624 1252.

**COMMITTEE**  
 Jim Roe 02 6495 3530. Basil Healy 02 6651 6563. Peter van de Waterbosm 02 6496 4769  
 Email for The Australian Thermaleer - peter\_condo@yahoo.com.au



**SAM 1788 PRESIDENT'S REPORT.**  
 From Peter Scott.

The SAMs Champs are all organised. All we can hope for is decent weather and plenty of entries.

Models needing processing will be looked over at the new shed, next to the shade area on the field.

The door prize for the AGM is to be discontinued as the BBQ on the night, at George Bishop's manor in West

Wyalong with food supplied (BYO drinks) should be incentive enough to attend. Also, the chance to scratch around in George's huge shed should not be missed.

Tickets for the raffle on Sunday night will only be available on the night, with the draw made later in the evening, after the meal. The prize is a new Redfin SAM 35 motor worth over \$220. The raffle will be called and only persons present with a ticket can collect. If there is no answer to the number called, the ticket will be redrawn. So, be on your toes!

If you wish to camp or caravan on the field, please call Roy Summersby 0427640264. This is important as the camp sites will be in demand.

Peter Scott. President.

**THE NEW ENGLAND GAS CHAMPS - TAMWORTH**  
 T.A.R.M.A.C. FLYING FIELD, OXLEY HIGHWAY, SOMERTON  
 18<sup>th</sup> and 19<sup>th</sup> JUNE 2022

Saturday 18<sup>th</sup> 9am Gordon Burford Event 3/4  
 then '38 Antique 2/3 followed by R/C Duration 3/4

Sunday 19<sup>th</sup> 9am 1/2A Texaco 3/4 then R/C Texaco 3/4  
 followed by 30min Cabin Scramble

**Get together in Tamworth on Saturday Night.**  
**On field accommodation. Toilets but no showers**

Information: Garry Whitten 0428 620 358 or Neil Jewel 02 6760 6257  
 Peter (Condo) Smith 0423 452 879



**SAM 1788 SECRETARY'S REPORT.**  
 From Peter (Condo) Smith.

G'day, Not a lot happening on the Secretarial front. Entries have started coming in for the SAM 1788 Champs at Easter. In a couple weeks Scotty and I will go and do a quick tidy up and any mowing of the field that is required.

Entries close on 4<sup>th</sup> April. I will empty the Mail Box on 8<sup>th</sup> April. Any entries arriving at Parkes after that will not be collected as I am scheduled for an operation on the 11<sup>th</sup> April.

This will be the first 1788 SAM Champs I will miss since my first one in 1986.

Our first competition of 2022, was held at The Orange Model Club field at Bore-nore on the weekend of the 12<sup>th</sup> and 13<sup>th</sup> of February. Hopefully you have received a report and pictures by now.

Due to other events in Orange on that weekend, the Orange Club have agreed to move the 2023 competition to 4<sup>th</sup> and 5<sup>th</sup> of February. Events to be flown at that contest will remain the same as 2022.

The next Old Timer Competition after the SAM 1788 Champs will be the New England Gas Champs on 18<sup>th</sup> & 19<sup>th</sup> of June hosted by the Tamworth Area Model Aircraft Club. See add elsewhere on this page.

I hope everyone enjoys the new venue, the Adrian Bryant Field at West Wyalong for the 40<sup>th</sup> Anniversary of the SAM 1788 Championships.

Finally, anyone who has perpetual trophies please bring them to West Wyalong.

Cheers, Condo.





**NSWFFS  
ADRIAN & JO BRYANT FLYING FIELD,  
WEST WYALONG**

The field is on Clear Ridge Road 13.9kms from the main road on the right hand side. Ten minutes drive from town.

There is an all weather road to the amenities block with plenty of parking.

The field is a total of 700 acres, 1.9km X 1.4km, with radio control strip, shade and small tea room near shade.

There is camping facilities for tents, vans, and motor homes. Electricity, water hook up and waste dump is available, as well as a camp kitchen, table, chairs, separate toilets and showers (hot) for both male and female.

Cost for staying on the field is \$10 per person per night.

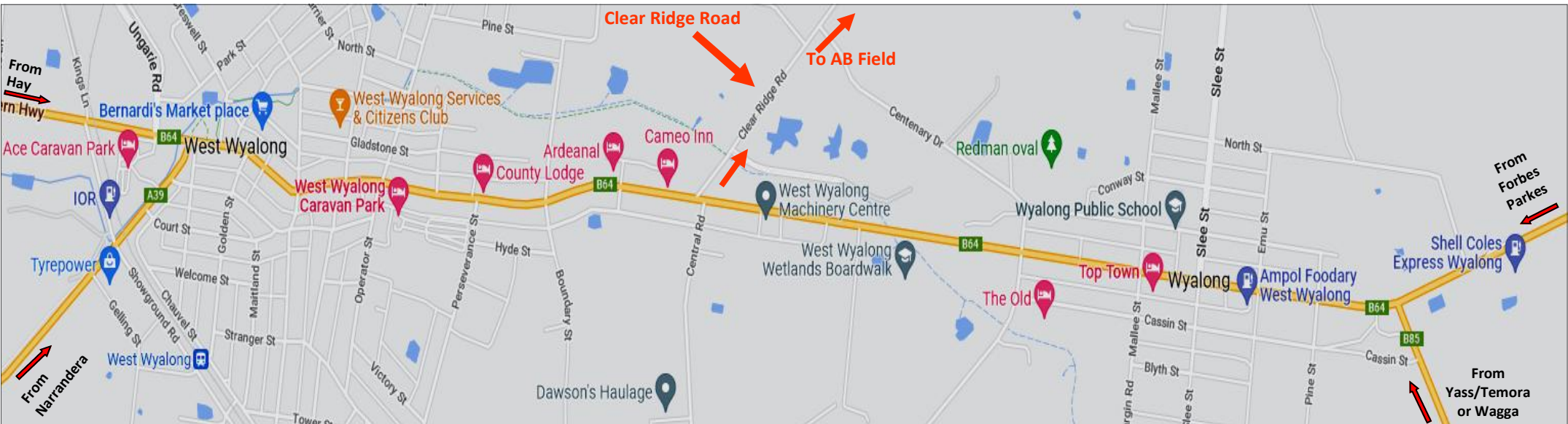
Please take your rubbish with you when you leave.

If staying on the field is not your scene, there are plenty of motels in West Wyalong at very reasonable rates, from \$80 double.

Field directions to West Wyalong

At the southern end of Wyalong or the northern end of West Wyalong find the road called Clear Ridge Rd. Driving in from the north it is opposite a Landmark store, the store is on the left, Clear Ridge Rd is on the right. If you see the Country Roads motel or the Cameo Motel you missed the road, go back about 200 meters.

Once on Clear Ridge Rd drive 13.90kms, about 10 minutes. The gate is on the right hand side. There is a sign on the gate. Close the gate after entering as there are sheep on the property. Follow the road to the club house and amenities block; these are not visible from Clear Ridge Road.





# SCRAMBLE

## BRYANT FIELD WEST WYALONG

SATURDAY 16<sup>TH</sup> APRIL 2022

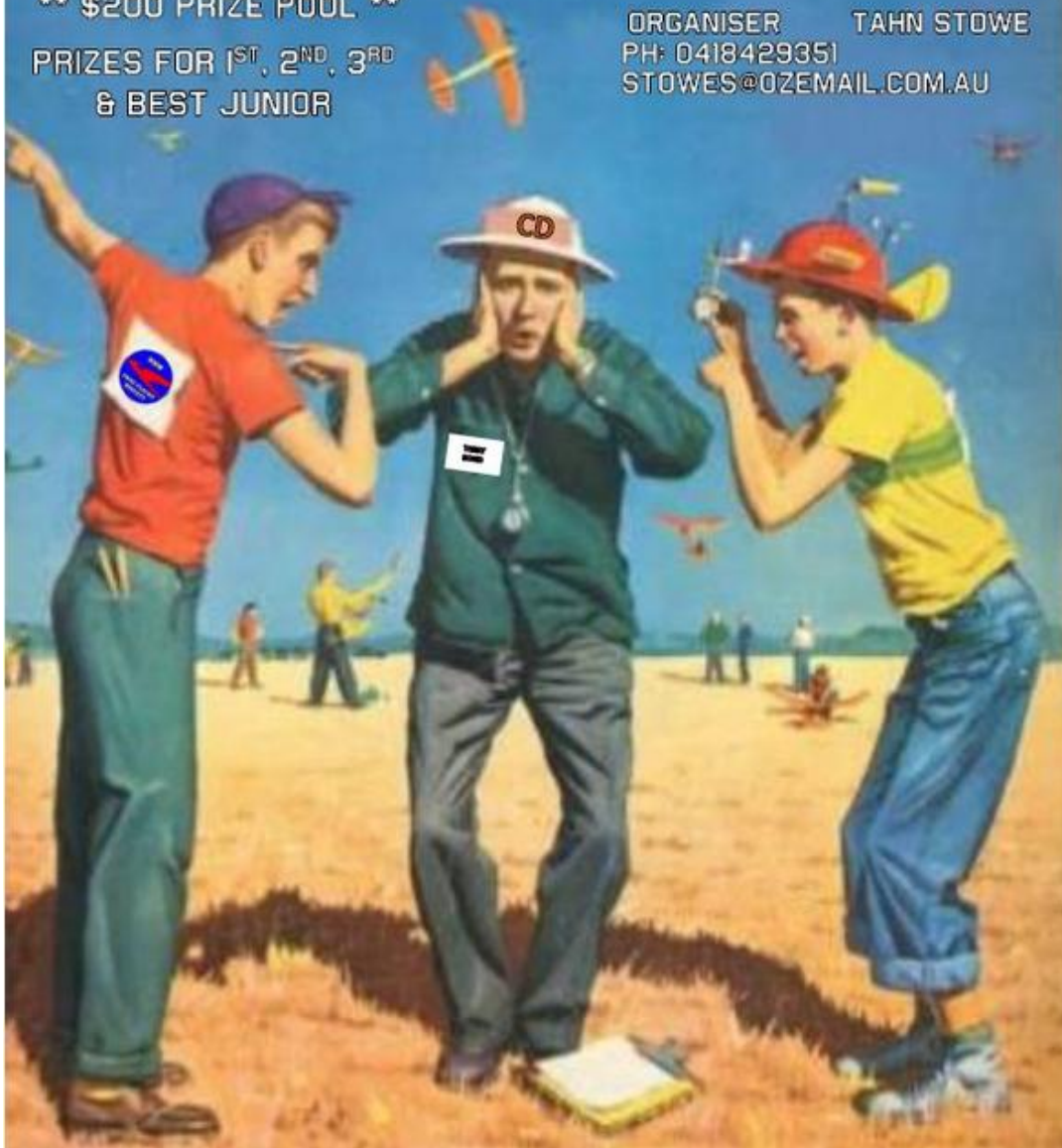
START TIME 16:00  
1 HOUR RUN TIME

ENTRY  
\$5

\*\* \$200 PRIZE POOL \*\*

PRIZES FOR 1<sup>ST</sup>, 2<sup>ND</sup>, 3<sup>RD</sup>  
& BEST JUNIOR

ORGANISER TAHN STOWE  
PH: 0418429351  
STOWES@OZEMAIL.COM.AU



### SAM1788 Competition Calendar for 2022

- April 2-3** Cowra Oily Hand (2021 re-run) - Cowra  
**Events:**  
Various events plus SAM1788 Cabin Scramble  
Contact Person: Andy Luckett 02 63423054
- April 13-18** SAM 1788 40<sup>th</sup> Champs - Adrian Bryant Field, West Wyalong.  
**Events:**  
All 9 MAAA Old Timer Events  
plus Cabin Scramble and Control Line.  
Contact Person: Peter (Condo) Smith 0423 452 879  
See Official Program for details
- June 18-19** New England Gas Championships - Tamworth  
**Events:**  
Saturday: Gordon Burford 3/4, '38 Antique 2/3, Duration 3/4  
Sunday: 1/2A Texaco 3/4, Texaco 3/4, 30min Cabin Scramble.  
Contact Persons: Gary Whitten 0428 620 358  
Peter (Condo) Smith 0423 452 879
- July 8-10** West Wyalong Oldtimer - West Wyalong  
**Events:**  
Friday: 1.30pm Oldtimer Glider  
Saturday: Burford, Duration  
Sunday: 1/2A Texaco, Texaco, 30min Cabin Scramble  
Contact Person: Peter Scott 02 9624 1262  
Peter (Condo) Smith 0432 452 879
- Sept 2-4** Coota Cup Old Timer Weekend - Cootamundra  
**Events:**  
Friday: 1.30pm Oldtimer Glider  
Saturday: Burford 3/4, Nostalgia 2/3, Duration 3/4  
Sunday: 1/2A Texaco 3/4, Texaco 3/4, 30min Cabin Scramble.  
Contact Person: Peter van de Waterbeemd 02 6496 1252  
Peter (Condo) Smith 0423 452 879  
(Note: Nostalgia does not count towards Top Gun Trophy)
- October 21-23** Alternative Dates for West Wyalong Old Timer.
- Nov 12-13** Golden West Old Timer Weekend - Parkes  
**Events:**  
Saturday: 2cc Duration 2/3, Burford 3/4, Duration 3/4  
Sunday: 1/2A Texaco 3/4, Texaco 3/4, 30min Cabin Scramble.  
Contact Person: Peter (Condo) Smith 0423 452 879



Invitation by the Society of Antique Modellers of Australia  
SAM CHAPTER 1788 to the

**40th SAM 1788 Old Timer Championships**

At the Adrian Bryant Field  
1390 Clear Ridge Road, West Wyalong

**EASTER 2022**

13<sup>th</sup> April to 18<sup>th</sup> April, 2022

**PROGRAM - 2022**

**Wednesday 13 April**

Setup Day, Control line, Sport Flying and RC Trimming, ----- AB Field

**Thursday 14 April**

9.30am to 11.30am SAM Champs Model Scrutineering at the RC Old Timer Field ----- AB Field  
9am - 12 Noon Control Line Phantom and Champ Racing on hard C/L circle ----- AB Field  
1pm R/C Old Timer Glider. ----- AB Field

**Friday 15 April**

8.30am to 10.30am Late Model Scrutineering ----- AB Field  
(Otherwise by appointment with a Committee Member)  
9am R/C Cabin/Sports Model (designed before 1960) Scramble ----- AB Field  
10.30am 1/2A Texaco ----- AB Field  
1pm Nostalgia ----- AB Field

**Saturday 16 April**

9am Gordon Burford Event. ----- AB Field  
12 Noon Lunch. ----- AB Field  
1pm O. T. Texaco. ----- AB Field  
5:45pm BBQ, Buy, Sell & Swap Meet and AGM commencing 8.00 pm ----- AB Field  
BYO Chair and Refreshment  
At G Bishop residence, 13 Main Street, ----- West Wyalong

**Sunday 17 April**

9am R/C '38 Antique. ----- AB Field  
12 Noon Lunch ----- AB Field  
1pm Duration. ----- AB Field  
6.30pm for 7pm Presentation Dinner, Spit Roast and Raffle, ----- AB Field Club House  
BYO Table, Chair and Refreshments

**Monday 18 April**

9am 2cc Old Timer Duration ----- AB Field  
12 Noon Lunch ----- AB Field  
12.30pm Standard Duration ----- AB Field

**NOTE:**

\*\*\* Previous years' arrangements of no on field catering for lunch applies. Flyers and assistants will need to provide their own lunches on all days. Bottled water supplied free. The Saturday evening BBQ will be catered. Please bring your own Refreshments.

\*\*\* The Registration fee of \$25 includes a donation of \$5 to the AB Field. The presentation Dinner ticket is \$30 for the Spit Roast and includes \$5 for the BBQ on Saturday evening.

\*\*\* The 40<sup>th</sup> Championship shirts have been separately organised and paid for. Contact Peter van de Waterbeemd with payment before 25 February 2022.

\*\*\* Note that on field accommodation is \$10 per person per night. This must be booked through Roy Summersby on 0413 588 720.

\*\*\* **Important:** For the Presentation Dinner: if you have any special dietary requirements could you please let Peter know in advance so he can inform the caterer. Please email Peter at: peter\_condo@yahoo.com.au or telephone: ph 0423 452 879



**40th SAM 1788 Old Timer Championships**

At the Adrian Bryant Field  
1390 Clear Ridge Road, West Wyalong  
13<sup>th</sup> April to 18<sup>th</sup> April, 2022

**Competitor Details and Entry Form**

Name: ..... SAM No: ..... MAAA No: .....

Address: ..... Postcode: .....

Phone No: ..... (home) ..... (work) ..... (mobile) .....

Email Address: .....

**FUN EVENTS**

(Please tick events - No entry fees)

..... C/L Phantom/Champ Racing

..... R/C Cabin Scramble

Frequency: .....

**R/C OLD TIMER EVENT Frequency**

(Please tick Events and supply Frequency)

..... R/C Old Timer Glider -----

..... 1/2A Texaco -----

..... Nostalgia -----

..... Gordon Burford Event -----

..... O. T. Texaco -----

..... R/C '38 Antique -----

..... Duration -----

..... Standard Duration -----

..... 2cc Old Timer Duration -----

**COMPETITOR'S OFFICIAL STATEMENT OF AGREEMENT:**

I agree to abide by the R/C Oldtimer Rules as set out in the MAAA Inc. Official Rules, 2017, and any local rules or requirements laid down by SAM 1788. I agree to compete in a sportsman-like manner and to accept the Contest Director's decision in any matter arising out of the conduct of this Championship. I am a fully paid up member of an MAAA Inc. club and also a financial member of a SAM Chapter. If you are not a member of a SAM Chapter you can join SAM1788 for \$20 along with your Registration

**YOUR CURRENT MAAA MEMBERSHIP CARD MUST BE PRODUCED AT REGISTRATION.**

SIGNED: ..... SAM CHAPTER: .....

**ENTRY FEES and DINNER TICKETS**

\*\*\* Presentation Dinner Tickets

must be pre-paid for catering purposes

Registration Fee \$ 25.00

Presentation Dinner Tickets and BBQ\*\*\*  
..... @ \$30 each ----- \$

**EVENT ENTRY FEES:**  
(Maximum Event Fees \$50 - Juniors are Free)  
No. of Events ..... @ \$10 ----- \$

**TOTAL FEES** ..... \$

Direct Deposit to BSB: 032 527 Account: 14 4170  
Use your MAAA number as the deposit reference.  
Must send proof of deposit with entry Form.

**Models will be Scrutineered at the RC Field Registration. Please bring your models and their related plans.**

**Late entries accepted only in exceptional circumstances. A late entry fee of \$40 will be charged.**

**CLOSING DATE FOR ENTRIES Friday 4 April, 2022**

Send Entries with payments to: Peter Smith  
Entries Coordinator  
PO Box 898  
PARKES NSW 2870  
All Enquiries to Peter Smith - Telephone Mobile: 0423 452 879



# INDOOR NIGHT



GOOD FRIDAY 15<sup>TH</sup> April 2022

1600 to 2100



WEST WYALONG STADIUM, 5 Sharp St West Wyalong

In partnership with AFFS, NSWFFS is hosting an indoor modelling extravaganza!

Competing this year we have:

- Hangar Rat
- F1N Hand Launched Gliders
- Catapult Gliders

Competitor  
Entry Fee for Any Event  
(Includes Stadium entry).



OR

Spectators  
Only  
Donation



OR



**Sellers Fee**  
(Includes Events  
and Stadium entry).



This year Carboot sales will be on the sidelines during the night,

So, if you are making space in your modelling area and have a few items that you would like to part with, sell it here as we have the people to buy it!



Len Surtees is our major sponsor for the Indoor event and will have lots of goodies to sell on the night.

Check out Len's products  
[www.stingmk2gliders.com](http://www.stingmk2gliders.com)

\*\*\*\*\*BYO CHAIRS, TABLES, FOOD & DRINKS \*\*\*\*\*





*From Condo: In these times of rain and floods here are some pictures of flood water on and around the family farm (my then home about 8 klms from Condobolin) and my model shed in early 2000s. Thankfully floor level was the top of the ramp. Dad knew how to build sheds. Never had water enter the shed. Also some more recent shots of the interior. Even if water did enter the shed it would never reach my models.*



*Main railway line to Broken Hill and on to WA*



**Orange Old Timers**

Report from Peter Scott.

Photos from: Karen Paton, Peter (Condo) Smith, Garry Hildebrand.

We arrived at the OMAC field on Saturday morning. The wind blowing hard and definitely not flyable. So, we did the next best thing – had a cup of tea and held a committee meeting. This was to be after flying but why waste time? This turned out well, and everything is in place for SAMs Champs.

I put up a tentative flight at 11am as it seemed a little calmer. Model went okay and soon everyone else was on the flight line raring to go. The first event was Nostalgia. I flew my Burford Jaded Maid with an OS 25 up front, easy to use if not the most competitive model. It was a good contest. Peter van de Waterbeemd won with Condo second, both with Lanzo Swaybacks and I managed third with the Maid.

The second contest for the day was Burford with ten entries. Jim Rae won this event with his Amazoom. This model climbs really high. My Dream Weaver was second – great glide but a bit top heavy. Dave Paton managed third with his Stardust Special.

Duration was next up, and the last event of the day. The weather was very reasonable by then. Nine fliers. Peter van de Waterbeemd seems unbeatable with his fast climbing 92% Bomber, with a McCoy up front. So, it was again I managed second place with my McCoy powered Playboy. Craig Thornton came third with another Playboy. The top three places were very close, but so far, no fly-offs. Lift was patchy, if you found it, you made it, otherwise it was all down.

We then had a good BBQ on the field – or should I say in the club house. The Hagarty family catered and it was a good social gathering. Dave Paton was giving away a lot of red wine and we had plenty of side dishes. A great evening. Probably the way to go again next year.

Sunday's weather was similar to Saturday. Very windy to start. We finally got the scramble going. Jim Rae won this by 90 seconds from me, in second place. I will have to learn to land a little closer. Third place went to Peter van de Waterbeemd, not far behind me. Some of the scramble models were going to great heights. I had an interesting moment when I noticed my model inverted and in a dive. Trick was not to jam in full elevator or the wings may not have stood the strain! Blustery wind with lots of ups and downs. Certainly kept the fliers on their toes.

Next up was 1/2A Texaco. The weather was gradually improving, but hard to find lift unless a long way up. My Baby Burd just would not climb through the ground effect, though running fine. I changed the 8 X 4 Cox prop to a 7 X 3 F1C glass prop. Lost a minute on engine run but it then climbed to a good height in 3 ½ mins. Vince Hagarty won this event, Dave Paton was second, with a Stardust, and Jim Rae came third with his Big Old Plane, which is very light. I came in fourth – should have changed the propeller earlier.

The major event of the weekend, The Alan Brown Perpetual Memorial Texaco Shield. Eight flew and the conditions were good but you needed to fly further afield to catch the lift, and be pretty high as well. All models were Bombers, apart from my Flamingo, which needed sorting out. Again, no fly-offs but the top four places were very close. Geoff Potter 1st, Condo 2nd, Dave Paton 3rd. Alan Suly was 4th just one second behind Dave Paton. Geoff Potter was very chuffed to come out on top. He spent a lot of time in the stratosphere! How he kept it in sight I don't know. Nothing wrong with his eyesight!

Next year this event is scheduled for a week earlier. It was a great weekend; the field was in superb condition (plenty of prior rain); the catering was good and the company excellent. A big thank you to our hosts, Orange Model Aircraft Club. Peter Scott.



*Top: Preparing for Nostalgia event, Dave Paton, Peter van de Waterbeemd and Mudite van de Waterbeemd ready with stop watch and transmitter.*

*Middle: Paul Farthing assisting Alan Suley starting his Swayback and Vince Hagarty ready to time.*

*Left: Paul Farthing launches Alan Suley's Swayback in Nostalgia event.*

RESULTS - ORANGE OLDTIMER WEEKEND  
ALAN BROWN PERPETUAL MEMORIAL TEXACO SHIELD  
12th-13th FEBRUARY, 2022

CONTESTANT	MODEL	CC/SEC	ENGINE	R1	R2	R3	R4	S/TOT	F/O	TOTAL	PLACE
<b>TEXACO</b>											
Geoff Potter	Lanzo Bomber	18	Enya 60	600	573	600		1773		1773	1st
Peter (Condo) Smith	Lanzo Bomber	18	OS 61FS	492	516	600	600	1716		1716	2nd
Dave Paton	Lanzo Bomber	18	OS 61FS	490	492	600	600	1692		1692	3rd
Alan Suley	Lanzo Bomber	18	OS60FS OR	353	491	600	600	1691		1691	4th
Peter van de Waterbeemd	Lanzo Bomber	18	Saito 65	353	440	393	600	1433		1433	5th
Peter Scott	Flamingo	24	Atwood Spk	155	381	395	531	1307		1307	6th
Garry Whitten	Lanzo Bomber	18	OS 62FS	270	590	359		1219		1219	7th
Vince Hagarty	Lanzo Bomber	18	Enya 53	505	472			977		977	8th
<b>1/2A TEXACO 2/3</b>											
Vince Hagarty	Lanzo Bomber			420	420			840	482	1322	1st
Dave Paton	Stardust Spl			420	420			840	322	1162	2nd
Jim Rae	Big Old Plane			420	420			840	306	1146	3rd
Peter Scott	Bayb Burd			314	318	346		664	978	978	4th
Alan Suley	Inreceptor			420	420			840	112	952	5th
Garry Whitten	Stardust spl			196	420	407		827		827	6th
Peter van de Waterbeemd	Stardust Spl			384	257	392		776	776	776	7th
Paul Farthing	RC1			196	265	420		685		685	8th
<b>NOSTALGIA 2/3</b>											
Peter van de Waterbeemd	Swayback		KB 40RR	298	391	420				811	1st
Peter (Condo) Smith	Swayback 110%		ST 40RR	319	281	420				739	2nd
Peter Scott	Jaded Maid		OS 25	142	244	302				546	3rd
Jim Rae	Teal		KB 40FI	253	168	262				515	4th
Dave Paton	Jumping Bean		?	210	150	297				507	5th
Alan Suley	Swayback		ST 40	228	118	152				380	6th
<b>BURFORD 2/3</b>											
Jim Rae	Amazoom	38	BB	300	300			600	260	860	1st
Peter Scott	Dream Weaver	38	BB	300	300			600	153	753	2nd
Dave Paton	Stardust Spl	40	PB	300	300			600	132	732	3rd
Peter van de Waterbeemd	Ollie	40	PB	298	300	295				598	4th
Paul Farthing	Ollie	40	PB	295	300	4				595	5th
Garry Whitten	Stardust Spl	38	BB	300	257	1790				557	6th
Alan Suley	RC1		Tyro 1.8	300	207	159				507	7th
Geoff Potter	Spacer	40	PB	217	186					403	8th
Peter (Condo) Smith	FAlson	38	BB	215	118					333	9th
Vince Hagarty	Little Diamond	38	BB	219						219	10th
<b>DURATION 2/3</b>											
Peter van de Waterbeemd	Lanzo Bomber	40	Mccoys 60 S	420	420					840	1st
Peter Scott	Playboy	40	Mccoys 60 S	293	419	420				839	2nd
Craig Thornton	Playboy	25	OS 37 2s	263	360	420				780	3rd
Alan Suley	Playoy	32	Saito 62FS	226	295	420				715	4th
Dave Paton	Playboy	32	Saito 62FS	251	347	342				689	5th
Jim Rae	Lion Cub	32	Saito 50FS	232	210	420				652	6th
Vince Hagarty	Stardust Spl	32	Enya 53FS	356	232	280				636	7th
Garry Whitten	Playboy	32	Saito 56FS	220	162	283				503	8th
Geoff Potter	Playboy	25	OS 25 ?	75						75	9th
<b>R/C CABIN SCRAMBLE</b>											
Jim Rae		1348	1st								
Peter Scott		1234	2nd								
Peter van de Waterbeemd		1218	3rd								
Peter (Condo) Smith		750	4th								
Alan Suley	Launch Mishap		5th								



Top: Nostalgia event 3rd Peter Scott 1st Peter van de Waterbeemd 2nd Peter (Condo) Smith. Peter Scott flew a Jaded Maid, Peter van de Waterbeemd flew a Swayback while Condo's model was a 110% Swayback.

Above: Geoff Potter prepares his Spacer powered by plain bearing Taipan diesel engine for the Gordon Burford event.



Left: Bob Marshall. He stuck his finger in a prop before he even left home - most people at least do it under the duress of a competition!! He did not fly. It was a brief social visit to show us his bandaged finger and gory photo's.

Right C/wise: Burford 2nd Peter Scott, 1st Jim Rae, 3rd Dave Paton.

Cabin Scramble 3rd Peter van de Waterbeemd 1st Jim Rae 2nd Peter Scott.

1/2A Texaco 2nd Dave Paton 1st Vince Hagarty 3rd Jim Rae.

Garry Whitten with his Texaco Lanzo Bomber.

Duration event 3rd Craig Thornton 1st Peter van de Waterbeemd 2nd Peter Scott.

Condo launches Geoff Potter's Playboy in Duration.

Below Garry Whitten, and Paul Farthing taking a rest Sonya Grossmith in the middle.



Action on the flight line getting ready for the contesting for the Alan Brown Perpetual Memorial Texaco Shield.



Below Condo looks on as Geoff Potter prepares his Lanzo Bomber for Texaco.





Above: Peter Scott's Flamingo

Right: Texaco 3rd Dave Paton, 1st Geoff Potter, 2nd Peter (Condo) Smith. Far Right: Geoff Potter, a very happy winner. Below: Texaco competitors, all Bombers except one Flamingo.





*Above: Look, he's asleep! SAM 1788 President Peter Scott takes a quick little nap between flights. Meanwhile CD Jim Rae continues to keep track of models still flying.*



*Above: Another view of Texaco flightline looking towards some of the Orange club's shade area for general club flying..*



*Above: What you do when it's too wind to fly. Most everyone joined in a friendly game of skittles with wooden dowels which turned out to be a lot of fun.... It's different.*



*Clockwise from above: Aerial view of the Orange Model Aircraft Club field. The Oldtimer flight line can be seen at the landing strip intersection.*

*Peter (Condo) Smith's FAISON Burford model powered by a ball-bearing Taipan diesel.*

*Alan Suley and Dave Paton returning with their respective Bombers after a round of Texaco. Dave is wondering who is the owner of the Bomber which has just landed (crashed) in the weeds off the edge of the strip. Note the red arrows.*

*Peter Scott with his Flamingo powered by an Attwood Spark engine, the only spark motor used in the Texaco event. Jim Rae assisting Peter.*





*Top Left: A fine lunch being enjoyed by all present. Middle Left: Meals were prepared by Jim Scritchley, Orange MAC President Norm Barnes and Jim Blacker in the well equipped kitchen in the club house.. Top right: Competitors and partners relaxing on the flight line while some fully engaged in the models currently flying. Orange MAC field has spectacular views from the flying field. Bottom left to right: The Alan Brown Perpetual Memorial Texaco Shield and winner's shield. Orange Mac President Norm Barnes presents a very happy Geoff Potter with the Shield and trophy shield for his win in Texaco. Well done Geoff.*

**A SURPRISING FIND**

From Peter van de Waterbeemd

On our way back from the Alan Brown Memorial competition at Orange we had an overnight stay at the free camp caravan site behind the Historic Bredbo Inn Hotel.

No Charge for the overnight stay but they would like you to spend some dollars in the Inn. Bredbo is a tiny village located on the Monaro Highway between Canberra and Cooma about 35km north of Cooma.

Mudite and I went into the bar for a drink late in the afternoon and were greatly surprised to see a vintage Ben Buckle Standard Buccaneer model, complete with engine, hanging from the ceiling in the bar.

On the bar was an unfinished aluminium casting of an engine crankcase with the name "Owen" clearly visible on both castings. Additionally, there was a large, framed photograph of a reproduction Elfin diesel and castings somewhat hidden behind the Standard Buccaneer.

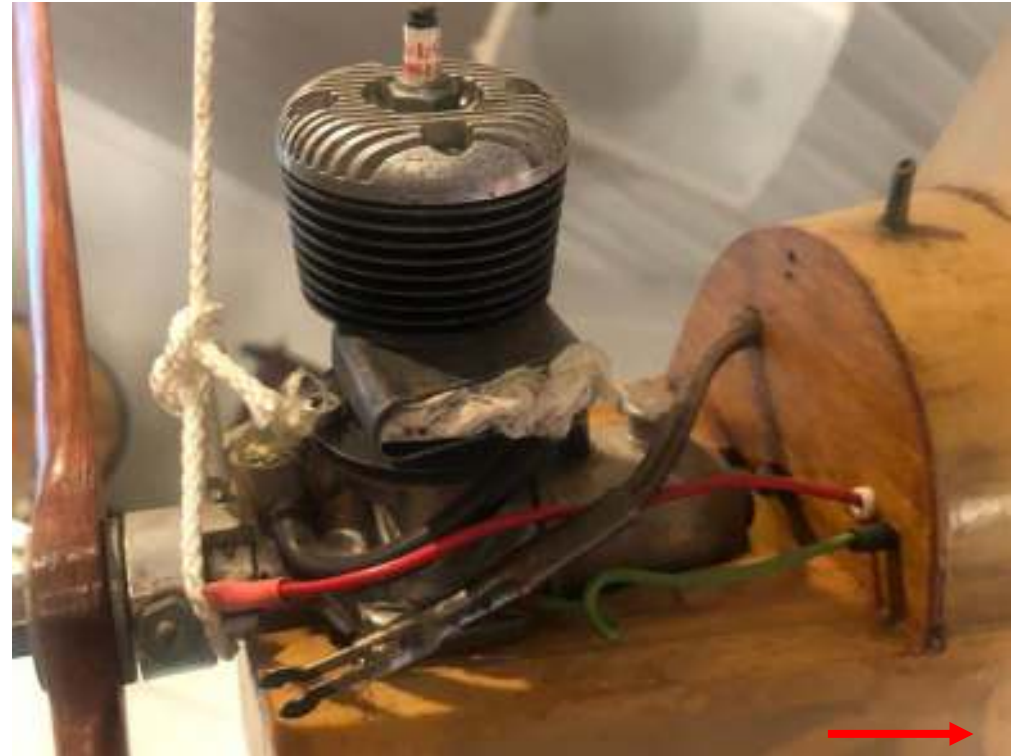
The story is that the publican's daughter is going out with David Owen's son and the publican is obtaining these treasures from this source and is very pleased to display them in his establishment. Clearly they are David Owen's Standard Buccaneer, castings (used for making the wax masters for casting hence the funnels) and the photograph.

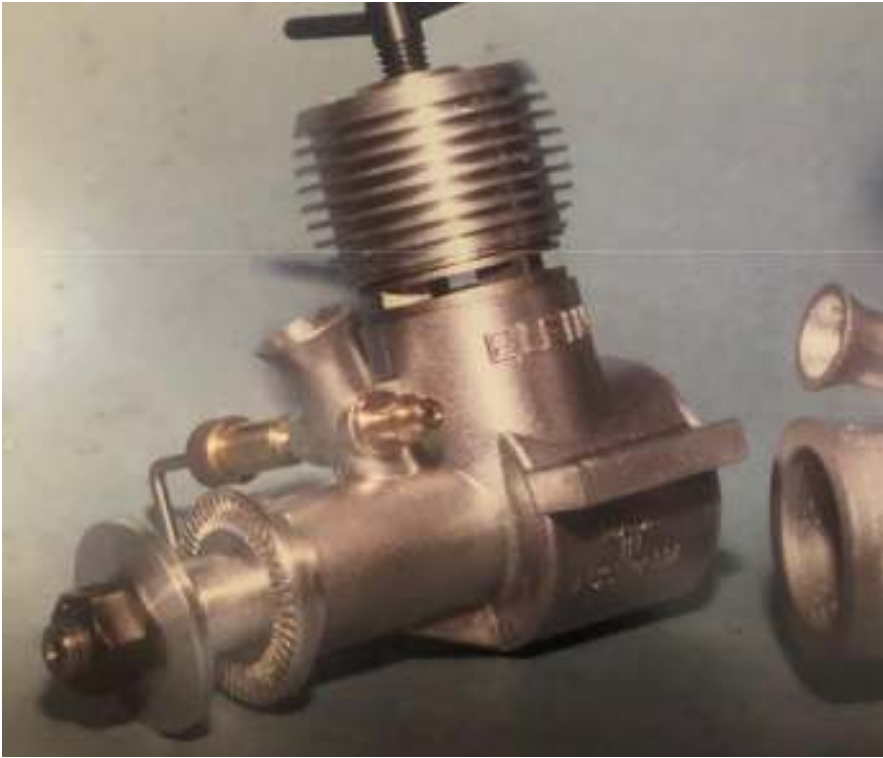
As you will recall, during the bushfires early in 2020, tragically, a Lockheed C-130 Hercules water bomber crashed in the area of Cooma killing three American airmen.

In a display case at the front of the Inn there is a propellor blade from the C-130 is displayed along with photographs of the three men. At the rear of the Inn there is an undercarriage leg of the aircraft which will also become part of the display. A sad reminder of the fragility of life.

Peter van de Waterbeemd.

**Editor:** *I am pretty sure this model was flown by David Owen at the old timer comp at the Illawarra MAC, West Dapto (NSW) field, where, in 1982, a meeting in the club's tent decided to create the SAM Australia Chapter, so it is a pretty historic model. Its good condition probably due to the Solartex covering, which never seems to age. Heavy but a very long lasting.*





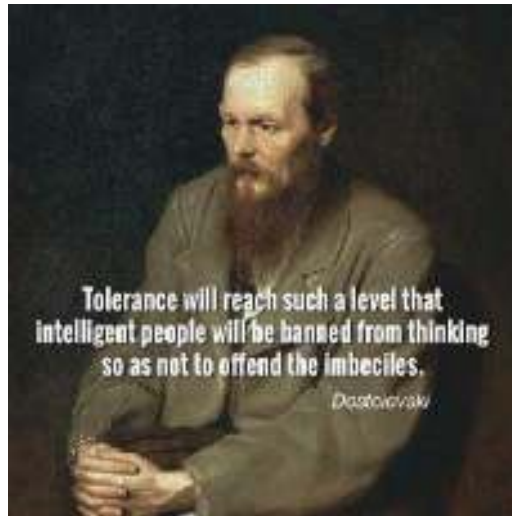
**BOSS:** DO YOU BELIEVE IN LIFE AFTER DEATH?

**EMPLOYEE:** CERTAINLY NOT! THERE'S NO PROOF OF IT.

**BOSS:** WELL, THERE IS NOW. AFTER YOU LEFT EARLY YESTERDAY TO GO TO YOUR UNCLE'S FUNERAL, HE CAME HERE LOOKING FOR YOU.



He's definitely improving - He wants a copy of TAT to read!



Tolerance will reach such a level that intelligent people will be banned from thinking so as not to offend the imbeciles.  
Dostoevsky



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



<b>WAMAC / SAM 270 COMMITTEE</b>	
<b>President:</b> Hans Van Leeuwen Mobile: 0419 921 693 Email: hans.vanleeuwen@bigpond.com	<b>Vice President:</b>  
<b>Secretary:</b> Graeme Cooke Mobile: 0447 508 883 Email: graemecooke@bigpond.com	<b>Treasurer:</b> Ian Dixon Mobile: 0408 802 034 Email: ian@perthartglass.com.au
<b>Contest Director:</b> Rod McDonald 0447 244 549 rodjmed@bigpond.com	



**An Update from Hans Van Leeuwen.**

Hope all's good where you are. Not much to report to date, it's been far too hot for flying and total fire bans are in place at any temperature over 36°C and it's been over that mostly since just before Christmas, dry, windy and bloody hot. Fortunately, all the bush fires around Perth and down the southwest and up north have not been close to us. Was like this last Christmas as well.

I am still thinking about the trip over to the SAM Champs, whether it be Canowindra or the Adrian Bryant Field at West Wyalong. It wouldn't worry us as we also combine this with seeing our kids and grandkids in Canberra and our daughter in Wollongong. It won't take much to get ready and I'll make a final decision at the end of the month. I'd love to go because of the 40<sup>th</sup> Anniversary and to catch up with everyone and also to see our family. Now I'm looking forward to seeing the AB field at WW.

I can't scare up much for TAT as the flying scene has and will be thin till at least to mid-March because of the way the weather has been. I don't know if you've heard but we now face an international fire management process to minimise the world wide fires and I believe that our Government has signed up. It impinges on the availability of our Toodyay field because the Toodyay Shire Council is already enforcing the requirements of that process. There are to be no IC engines when there is a total fire ban. That includes lawn mowing, so in their wisdom they've replaced all their mowers and associated equipment with electric machines, never mind the risk of Lipo induced fires. We also now need a ridiculous amount of firefighting equipment to be allowed to fly at the Toodyay field.

We also need to discuss the ramifications of this with the farmer whose property we use for Old Timer/Free Flight contests and general flying at Beverly. This is likely to incur more expense and inconvenience and may even be the death knell for our sport.

Regards, Hans.

WAMAC CONTEST CALENDAR 2022				
	Free Flight Events	Oldtimer Events		
28 February				
6 March	Labour Day Long Weekend			
13 March				
20 March		Standard Duration	State/Club	Beverley
27 March	Combined Open FF		Club	Beverley
3 April				
10 April		1/2A Electric / 2cc	Club	Beverley
17 April	Easter			
24 April	1/2A Power / E36		Club	Beverley
1 May		Texaco	State/Club	Beverley
8 May	Mothers' Day			
15 May	P30 / Coupe		State/Club	Oakford
22 May		Duration	State/Club	Beverley
29 May	Slop / Nostalgia		State/Club	Beverley
5 June	WA Day Long Weekend			
12 June		'38 Antique	State/Club	Beverley
19 June				
26 June	Open Power		State/Club	Beverley
3 July		Nostalgia	State/Club	Beverley
10 July				
17 July	Open Rubber		State	Beverley
24 July		1/2A Texaco	State/Club	Beverley
31 July				
7 August	Combined FAI		State	Beverley
14 August		Burford	State/Club	Beverley
21 August				
28 August	F1Q/Open Electric		Club	Beverley
4 Sept	Fathers' Day			
11 Sept		Oldtimer Glider	Club	Beverley
18 Sept				
25 Sept	Queen's Birthday Long Weekend			
2 October		Tamboy IC/Electric	Club	Beverley
9 October				
16 October				
23 October				
30 October				
6 November				

**SAM 1993**  
**SOUTH AUSTRALIA**  
 (Formed 1993)  
**COMMITTEE**

President: Rex Brown 0468 448 375  
 Secretary: Peter Leaney 8337 2936 [pleaney@bigpond.net.au](mailto:pleaney@bigpond.net.au)  
 Treasurer: Bill Britcher 0434 775 173 [bullydog@inet.net.au](mailto:bullydog@inet.net.au)  
 Meetings held at the home of Rex Brown from time to time

**Model Dockyard Whirlwind Update**  
 From MARIS DISLERS

David Owen's *The Whirlwind Story* (Aeromodelling Digest 1997) covered the bewildering variations in detail, based on five crankcase styles - assigning Model A to E designations, with early/late sub-types. As part of my ongoing research into Australian model engines, I was keen to determine the Whirlwind's actual performance. Which ongoing opinion regards as quite poor. Yet Peter Scott has had reasonable success in Old Timer Duration contests with a Whirlwind. My thanks to Peter, Anthony Williams and Ed Holly, who made the four test examples available.

Fun Fact - Whirlwinds were designed for clockwise running. Can be run anti-clockwise providing those with screw-in crankpin have it well secured against unscrewing and timer is repositioned (somewhat awkwardly) to suit. Lack of cooling prop wash did not affect the results.

The supplied Model A was too worn for testing. The rest in reasonably good shape, but I opted for Penrite racing castor/synthetic oil instead of SAE 70 mineral oil in the 3:1 petrol mix. Thought it might improve the piston cylinder seal a little.

Providing timing is retarded (timer arm vertical) and spark is good, hand starting is very easy with a light prime of around 6 drops from syringe into venturi. Even easier if model diesel fuel is used for the prime. Timer adjustment straightforward - advance until the moving point is horizontal. Needle a little more particular. Vibration OK until smaller propeller loads lift RPM.

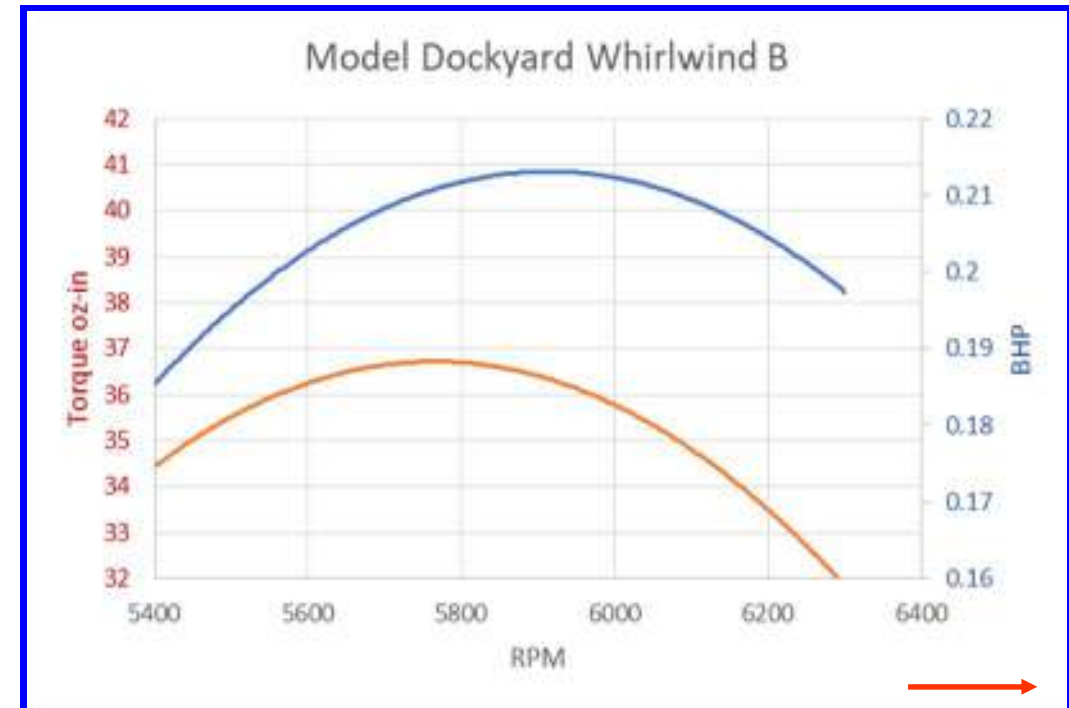
RPM numbers and performance curves tell an interesting story. All three peak around 5,400 - 5,900 RPM and maximum torque lies only a few hundred RPM lower. So that best performance is in a rather narrow RPM range. Peter's choice of 13x6 propeller is spot on. Model B clearly superior - around 1000 RPM up - with any load. The most likely reason is its transfer arrangement, whereby mixture flows via window in piston skirt, through lower transfer port to the external bypass chamber. Then to cylinder via upper transfer port. Same as the Model A and Model C versions. That is, any with mounting lugs on the crankshaft axis.

Models D and E have redesigned crankcases with mounting lugs up high and revised cylinders where

transfer to bypass is direct from crankcase chamber via vertically drilled hole(s). No window in piston skirt. While the A, B & C versions maintain transfer passage same as port area, Model D's three 1/8" bypass holes are a 25% reduction and Model E's single 3/16" hole is 44% less area than the row of four 1/8" holes forming the transfer port to cylinder.

Model B's .215 BHP at 5,900 RPM compares quite well with the Brown Junior for specific output. Just don't mention the weight. Going by serial numbers, people who got pre-war Whirlwinds, or those Model B's made "out of sequence" by Cliff McGuinness in 1946 would have been reasonably happy. Around .13 BHP at 5,400 RPM for the later high-mounting-lugs versions falls well short of the claimed .25 BHP in the Model Dockyard's specification and backs up those memories of lacklustre performance.

PROPELLER	RPM Model B	RPM Model D	RPM Model E
APC 14x6	5400	3700	4300
APC 13x7	5800	4900	4700
APC 13 x 6	5900	4900	5100
APC 12 x 8			4800
APC 12 x 7	6100	5200	5000
Graupner 12.5 x 6	6100	5200	4900
APC 12 x 6	6300	5500	5300
APC 11 X 6	7000	6000	5900





Model B  
Whirlwind



Model E  
Whirlwind

From Ron Chernich's *Model Engine News*.  
Circa 2002

**Un-gunking Engines:** Another email came to me just too late to help. The writer had a Mk II Taipan 1.5 that was apparently seized up solid. He'd managed to get it turning again, but in the process had inflicted some damage that could have been avoided. "If Only's" are seldom of use after the fact, and while I thought everyone knew this one, it's probably worth mentioning one more time and placing it in the FAQ for others. It's this: Castor based oils will solidify over time to a quite good adhesive, but a little heat is all that's required to make it let go to the point where disassembly and cleaning is possible. After it's in pieces, aluminum parts can be cleaned by boiling them in anti-freeze, or even in detergent. I use an ultrasonic bath, but this is expensive to buy and allows you to do more harm than good with very little effort. Detergent, or anti-freeze in an old crock-pot and elbow grease applied with an old tooth-brush do just as good a job.



**The Legacy of Ivor F:** The name of Ivor F (1925–2015) will need no explanation to an Australian modeller, but the broader readership may be a bit mystified. Today, most countries have a national body that "administers" aeromodeling activities, providing third party insurance, FAI affiliation, etc. In Australia, it's the Model Aeronautical Association of Australia (MAAA) which came into being in 1948. Prior to this, individual states did their own thing, issuing their own membership numbers. In 1952, members of MAAA affiliated bodies were allocated unified, national "VH" numbers (in Oz, full-size aircraft registrations are prefixed with "VH", just like the "N" numbers in the USA and "G" letters in England), and one Ivor Francis Stowe was granted VH-1 in recognition of the attention his activities had gained.

Following service in WW II, Ivor taught at a number of Sydney area schools, always encouraging and assisting youngsters to take up aeromodeling, frequently using materials and supplies from his own pocket. His life-long pedagogic leanings, plus a spirit of rugged individualism that we think is uniquely Australian (but isn't), eventually led him to take a stance on spelling - a very *firm* stance, and to show total commitment to his views, he changes his name to *Ivor F* (no period, no nothing). Unfortunately - or fortunately, depending on your point of view - his scheme did not gain overwhelming acceptance. Still, Ivor wrote a series of articles for the ozzie mag *Airbourne* on Gordon Burford's engines using his rules which seem to include some injunction against the use of adjacent vowels, so *head* for example, becomes *hed*, and I'll leve you, der reder, to form yor own opinin!

Well anyway, I received emails from a couple of Sydney residents who'd seen a newspaper article that told of Ivor's intention to sell off his entire model engine and magazine/book collection and donate all the proceeds to charity, or local schools depending on which newspaper you read. As this collection was reported at some 1800 (that's one thousand, eight hundred) engines, we are talking a significant sum, especially if it happens at eBay prices (saw a clapped "bones" Taipan 1.5 go for over A\$60 this month - total lunacy!) Ivor is not only an Australian icon, but also a patriot, so a very large part of his collection is Taipans and other Gordon Burford designs, plus I'd expect a number of the engines Ivor himself manufactured over the years (the Sesqui, Elfin 149 ABC, the "Doonside Mills" ...).

Now call me old fashioned, but I tend not to trust the press. So I asked local (Brisbane, Oz) collector Ray Strinati who is a close friend of Ivor's if he could confirm the story. Ray reports that the press \*nearly\* got it right. Ivor is selling a part of his collection (the duplicates) and the proceeds will go to his school. How and when this will all take place, I've no idea, neither do I have contact details for Ivor. All I can say, stayed tuned.

## Southern Cross' Taxi Run Follows 11 Year Aircraft Restoration at HARS Museum.

By Agron Latifi

It was more than just a first powered taxi run for project manager Jim Thurstan.

The event at HARS Aviation Museum today marked the end of 11 years of painstaking restoration on the full-size replica of Charles Kingsford Smith's famous Southern Cross aircraft.

So Mr Thurstan was naturally very proud as he fired up the three Jacobs piston motors then watched as the aircraft made its first taxi run outside the museum at Shellharbour Airport.

Built in the 1980s the flying replica suffered a broken wing in an emergency landing in South Australia in May 2002, then trucked to the Historical Aircraft Restoration Society (HARS) museum in 2010 for a total rebuild.

HARS president Bob De La Hunty said Jim Thurstan and his team had created a magnificent restoration of the replica of arguably Australia's most famous pioneering aircraft in which Smithy and his team made the first flight from America to Australia in 1928.

"It now looks amazing, a work of art as much as a full-size replica with its 22m wingspan," Mr De La Hunty said. "Although a replica it is one of Australia's most significant pioneering aircraft and our target is to have it in the air again during 2022."

Registered with Smithy's original VH-USU, the Southern Cross II has flown only 555 hours. She is the largest "exact replica" aircraft in the world and has the largest one-piece wing ever made in Australia.



## A STORY ON WWII GASOLINE

It has always puzzled me as to why the German Luftwaffe kept on using 87 Octane Aviation Gasoline while the Americans and British used 100 Octane Gasoline in their Spitfire Fighters and Americans used 130 Octane in our P-51 and other fighters.

This is a declassified article by the British Society of Chemists (Declassified in 2014)

It seems that the German and British aircraft both used 87 Octane Gasoline in the first two years of the war. While that was fairly satisfactory in the German Daimler-Benz V-12 engine, It was marginal in the British Rolls-Royce Merlin XX engine in British aircraft. It fouled the spark plugs, caused valves to stick, And made frequent engine repair problems.

Then came lend-lease and American aircraft began to enter British service in great numbers. If British engines hated 87 Octane gasoline, American, General Motors Built, Allison 1710 engines loathed and despised it. Something had to be done!

Along came an American named Tim Palucka, a chemist for Sun Oil in their South East Texas Refinery (Beaumont). Never heard of him? Small wonder, very few people have. He took a French formula for enhancing the octane of Gasoline, invented the "Cracking Tower" and produced 100 octane aviation Gasoline. This discovery led to great joy among our English Cousins and great distress among the Germans.

A Spitfire fueled with 100 Octane gasoline was 34 miles per hour faster at 10,000 feet. The need to replace engines went from every 500 hours of operation to every 1,000 hours. Which reduced the cost of British aircraft by 300 Pounds Sterling. Even more, when used in 4 engine bombers. The Germans couldn't believe it when Spitfires that couldn't catch them a year ago started shooting their ME-109 E and G models right out of the sky.

Of course, the matter had to be kept secret. If the Germans found out that it was a French Invention, They'd simply copy the original French patents. If any of you have ever wondered what they were doing in that 3 story white brick building in front of the Sun Oil Refinery on Old Highway 90, that was it. They were re-inventing gasoline. The American Allison engines improved remarkably with 100 Octane gasoline but did much better when 130 octane gasoline came along in 1944. The 130 Octane also improved the Radial Engine Bombers we produced.

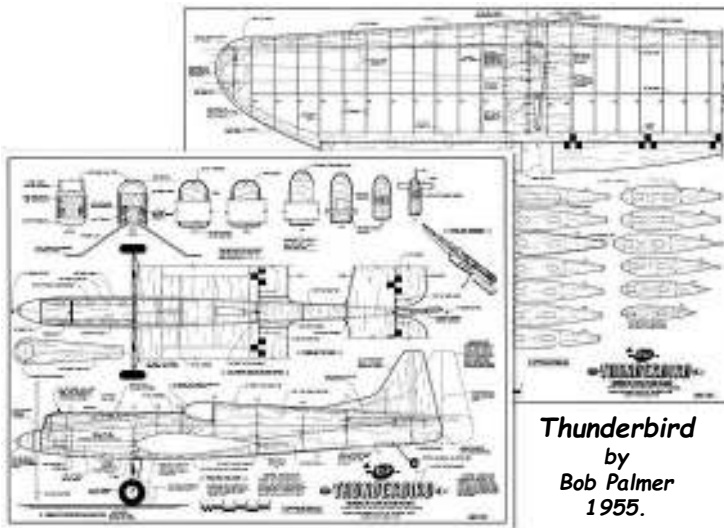
The Germans and Japanese never snapped to the fact that we had re-invented gasoline. Neither did our "Friends" the Russians. 100,000 Americans died in the skies over Europe. Lord only knows what that number would have been without "Super-Gasoline". And it all was invented just a few miles west of Beaumont, TX and we never knew a thing about it.



A Classic Stunter by Bob Palmer. Australian Kookaburra kit of an upright engine Thunderbird built by Glen A. of Hertfordshire, England. From the Barton C/L List.



From the Barton C/L List.



Thunderbird  
by  
Bob Palmer  
1955.

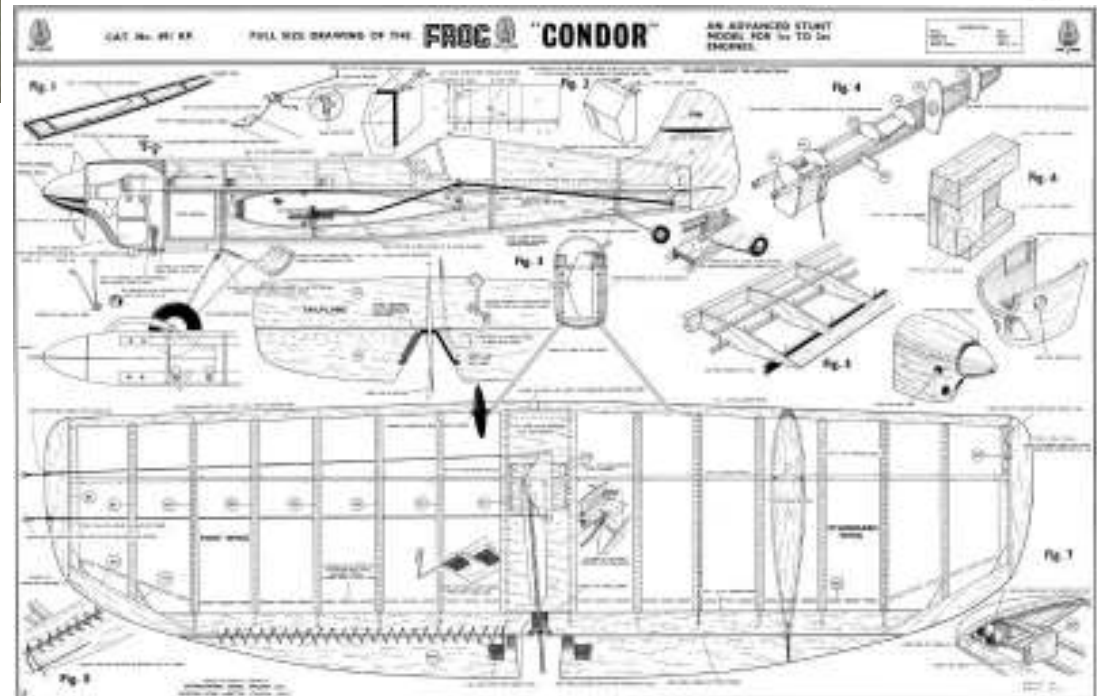
**VECO THUNDERBIRD.**

Control line stunt model.

Quote: "The Veco Thunderbird, designed and flown by Bob Palmer. 54in span, length 37in, 597 sq in area, weight 36oz. For .29 to .35 engines. Traced from original Veco kit by Tom Dixon 10/82. Plans by Steve Buso 2/90.

All dimension per original Veco kit #C-11; Production ended 1969."

Quote: "Original Veco Thunderbird. From the first flight it worked fine. Each flight demanded another and another. Bob Palmer's classic Veco Thunderbird continues to provide a special kind of Stunting pleasure.



Plan on Outerzone [https://outerzone.co.uk/plan\\_details.asp?ID=1677](https://outerzone.co.uk/plan_details.asp?ID=1677)

Plan on Outerzone: [https://outerzone.co.uk/plan\\_details.asp?](https://outerzone.co.uk/plan_details.asp?)







**About this Plan**

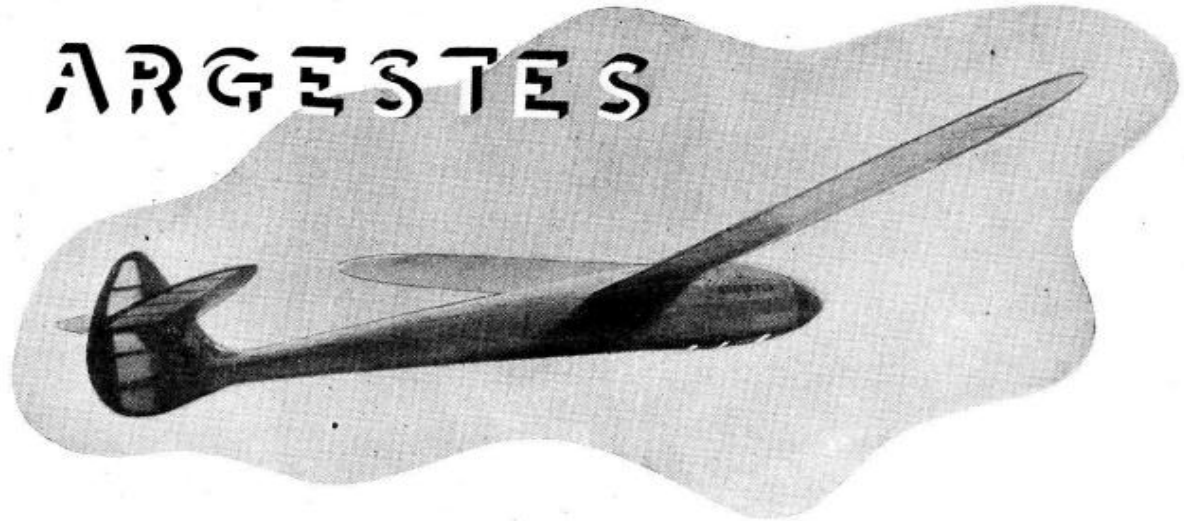
Thunder Bird (Thunderbird). Free flight gas model.

Quote: "Presenting America's finest popular priced gas model. Span 6 foot, chord 12in, length 46in, curve RAF 32, weight (minus motor) 2 1/2 lbs."

PDF Plan: [https://outerzone.co.uk/plan\\_details.asp?ID=4880](https://outerzone.co.uk/plan_details.asp?ID=4880)



# ARGESTES



A 60 - IN. SPAN HIGH - PERFORMANCE  
**HEAVYWEIGHT SAILPLANE** — BY N · GREGORY

THE design of the model is almost semi-scale in appearance, indeed, a moulded cockpit cover might well have been incorporated. The weight of all models increases with time and this is no exception! Its present weight, 13½ ozs., gives a wing loading of 6.8 ozs. per sq. ft., which is heavy for a model of its size and its fine glide is due to efficient flying and not featherweight floating. It will be noticed that over 4½ ozs. of the model is dead weight in the nose. This might have been avoided by building a longer nose or by putting the wing further back. The answer to this criticism is that I wanted to build a model with its wing right on top of its nose. Mick Farthing and others have used this layout with good results in the lightweight class. The model gets out of a stall after a very few pheugoids, for although the total weight is increased the moment of inertia about the C.G. is small and the momentum is still there. Unlike the lightweight class, I have taken advantage of the long tail moment arm to reduce the tailplane area to a minimum. Notice the novel crashproof positive fitting on the tailplane. It uses no rubber bands and works very well. In my particular model, the planking at the rear was left unnecessarily thick; removing a little weight here might well result in an ounce or more off from the nose. In the Thurston Cup on Epsom Downs the model put up a flight of 410 secs. o.o.s. which lost me the model, but it was fortunately found and returned later in the week.

**Order of Construction.**

Make the tongues and boxes first. There should be 2 in. between the working parts of the tongue to allow for fuselage width. Build the wings around the boxes, the bottom spar will need slight cutting away and the top spar packing up to fit on to the box. Do not forget to pack up the trailing edge at the tips to give the required washout. The bottom sheet should be fitted and glued

first, then fit the top sheet, and cement while the wing is pinned down with washout incorporated. The tongue should now be boiled in water for a few minutes and then bent at the centre to an excessive dihedral angle and clamped. When dry (overnight), the tongue should be flattened out until the wing has 4 in. dihedral at the tips. Two dihedral retaining pieces from scrap balsa should be glued on the bottom until the tongue is ready to be incorporated into the fuselage.

Make the tailplane next. This has the same dihedral angle as the wings, and the tongue should be used as a dihedral board when setting this. Make full depth fuselage keel. Incorporate towing hooks and glue in tongue, adding bulkheads four and five. Make tailplane box and tongue. Cement latter into main spar, adding rib F.3, trailing edge, and underfin. Cement on to rear fuselage keels and complete fin. Cut out bulkheads and cement into place.

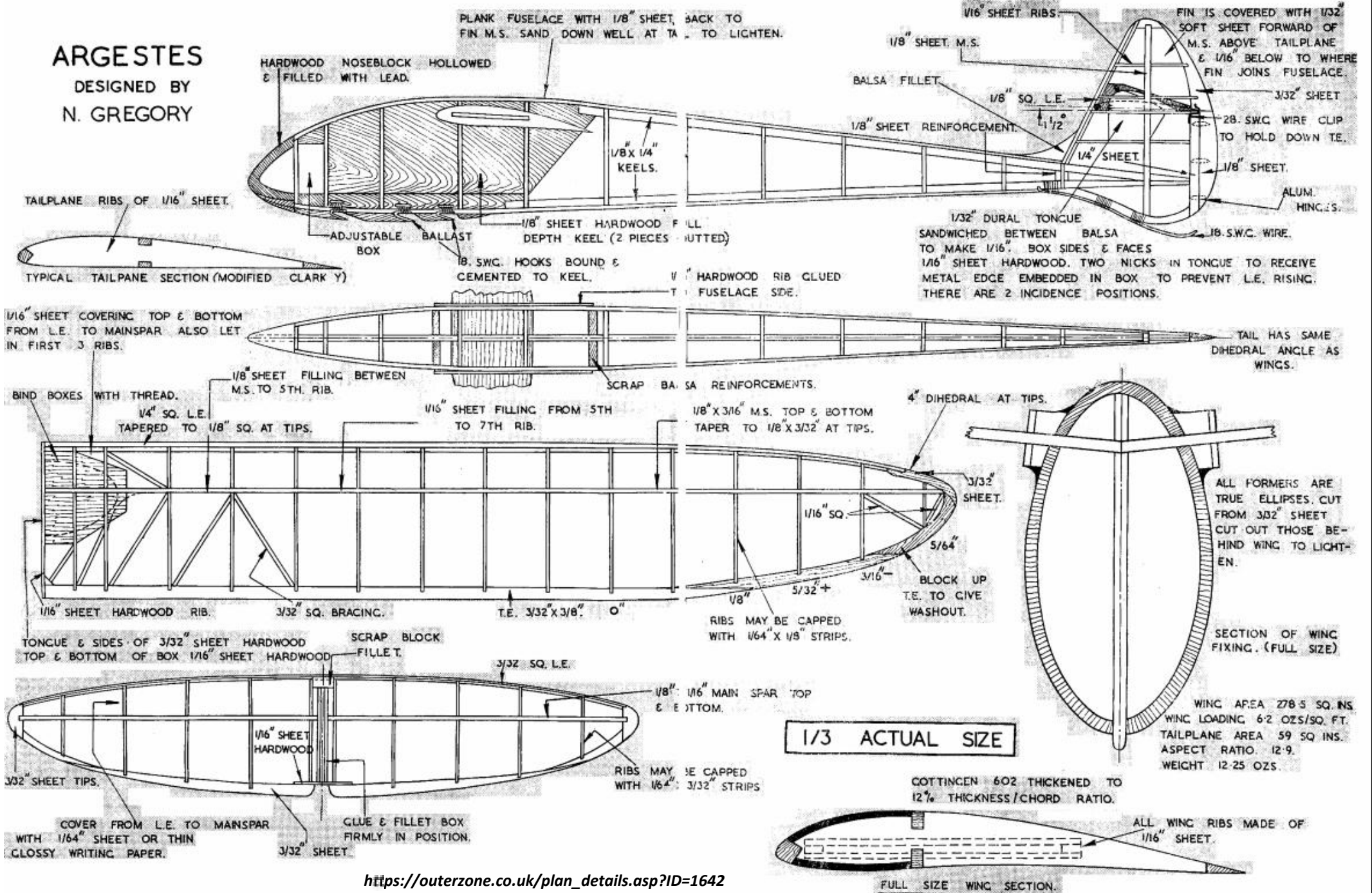
Cement the halves of fuselage together and plank. Leave a space between bulkheads 1 and 2 for a trap door for ballast. Complete by sheeting in front of fin. Sand smooth, sanding thinner at back. Fill with banana oil, sanding between each coat. The nose block is carved from hardwood, hollowed and filled with lead and glued on. Complete by cementing box on to tailplane and adding upper fin.

Flying surfaces are covered with tissue. The wing has one coat of water, two of glider dope, two of banana oil. The tail unit one coat of water, one of shrinking dope, two of banana oil. The fuselage was left natural with many coats of banana oil.

**Trimming:**

Start with C.G. near one-third of the chord from the leading edge and move back till stall just not present. Then increased tail incidence position can be used in windy weather. →

**ARGESTES**  
DESIGNED BY  
N. GREGORY



MODEL

Aircraft

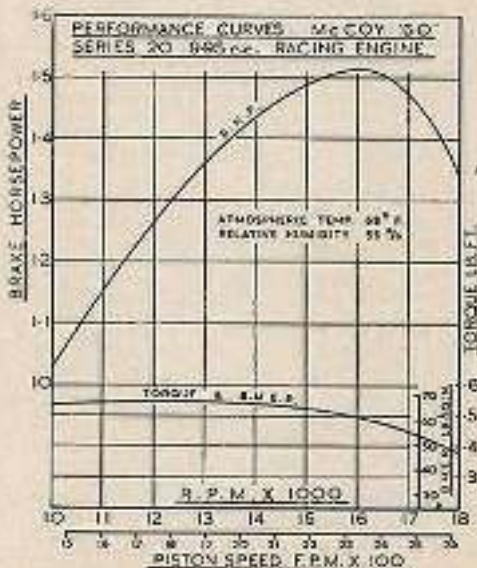
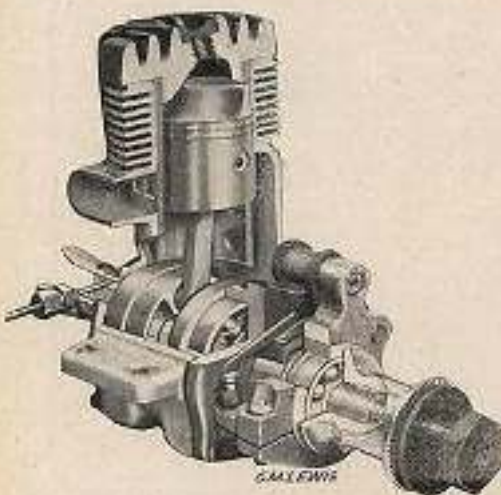
# ENGINE TESTS

No. 29 THE McCOY "SERIES 20"

**D**URING the past few years the McCoy engines, produced by the Duro-Matic Company, of Hollywood, U.S.A., have built up a contest record, particularly in C/L speed flying which probably exceeds that of any other make. This has been due, not only to the exceptionally good performance of these units, but also to the fact that they are produced in very large numbers and therefore at a reasonable selling price and are available to suit every capacity class.

Thus, McCoy's invariably outnumber all other types in speed entries in the U.S.A. This is especially so in the .19 and .29 classes. In the .60 and .89 classes, the McCoy dies have a serious challenger of course, in the Dooling.

Designed by Dick McCoy, one-time model racing car record holder, the first engine to be marketed by the Duro-Matic concern was the "Red Head" model of 10 c.c. After many successes, in racing C/L aircraft, a "Red Head Junior" version was designed for the .49 c.c. 21 displacement class (8 c.c.) and was marketed early in 1947, being later followed by a .89 (5 c.c.) model. Towards the end of 1948, a .19 model was introduced. About this time also, an



improved .60 model, embodying various modifications which had been proved in competition during the previous two seasons, and known as the "Series 20," was put on the market.

Modifications included a 44 per cent. greater carburettor choke area, with larger intake aperture and rotary-valve, a substantially larger transfer passage, amended timing and port areas and various structural improvements. The actual improvement in performance of the Series 20 over the earlier engine was appreciable, b.h.p. being increased to the order of 50 per cent., with peak r.p.m. raised by about 3,000.

In general layout, the McCoy conforms to the now familiar general pattern of miniature racing two-strokes. That is to say, it is a disc-valve, ball-bearing engine, featuring 180 deg. exhaust porting, a large intake and transfer passage, lightweight alloy piston with rings and specially shaped crown, the entire engine being of robust construction to provide adequate stiffness, strength and cooling to cope with

November 1951

MODEL AIRCRAFT



cast and anodised cylinder-head. Aluminium piston with two rings and two skirt transfer ports. Automobile type contact-breaker points.

### Test Data

Ignition equipment : Spark ignition : Champion VR racing sparking plug. Contact-breaker points set at 0.005 in. Glow-plug ignition : Champion VG.2 glow-plug. 1.6 volts to start.

Fuel used : Record "Powerplus" racing blend. Total time logged : Approximately : hour. (In short, high-speed runs.)

### Performance

The engine tested was an entirely standard maker's unit but was given careful running-in treatment. It was frequently stripped and inspected and, during the early stages, slight scraper work was found necessary on a corner of the piston baffle and a corresponding position on the cylinder head where insufficient clearance was causing a certain amount of burning at these points at the higher speeds.

When running on spark ignition with a racing prop. fitted and with the contact-breaker set for maximum performance, a mechanical starter is, of course, a necessity with the Series 20. Using glow-plug ignition, however, the engine is quite easy to start and no difficulty was experienced in hand starting the McCoy even when loaded to produce its peak output. The performance obtained on glow-plug ignition was found to differ but slightly from spark ignition and the accompanying graph shows the performance curves which were eventually obtained on glow-plug ignition using a standard Champion plug and a standard nitroparaffin content glow-plug fuel.

(Continued on page 532)

extremely high revolutions and high outputs. The general standard of workmanship is necessarily of a high order, particularly as regards the finish of actual working parts.

### Specification

Type : Single cylinder, air-cooled, two-cycle. Spark or glow-plug ignition. Rotary-valve induction via slotted disc driven from crankpin. 180-deg. exhaust porting. Supplementary sub-piston air induction. Baffle piston with matched cylinder head and inclined ignition plug.

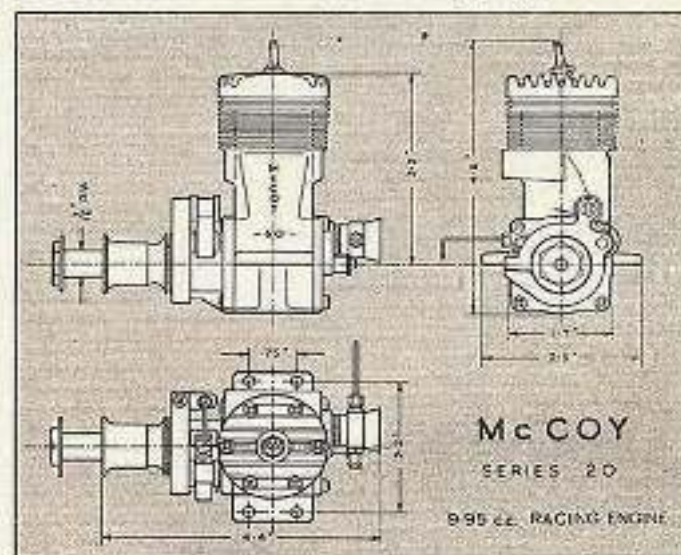
Swept volume : 9.95 c.c. (0.607 cu. in.)

Bore : 0.940 in. Stroke : 0.375 in.

Compression Ratio : (standard head) 9.5 : 1.

Stroke/Bore Ratio : 0.95 : 1. Weight : (including prop. drive assembly and contact breaker) 15 1/2 oz.

General Structural Data : Sand-cast crankcase and cylinder barrel. Machined fins. Shrunk in cylinder liner. Sandcast front crankcase cover and bearing housing. Die-cast rear cover carrying machined dural carburettor and die-cast rotary-valve. Forged connecting rod bushed both ends. 1/4 in. diameter tubular steel gudgeon-pin with dural end-pads. Chromed counter-balanced crankshaft running in two MRL ball journal bearings. Die-



November 1951



# Engine Tests

(Continued from page 527)

The maximum output power output, it will be noted, was reached at about 16,100 r.p.m. and the actual power was 1.52 b.h.p. Needless to say, this is a truly outstanding performance and one which provides the reason for the wide success of the McCoy Series 20 in racing C/L model aircraft.

The manner in which this power is obtained can be seen from the torque/b.m.e.p. curve. This shows a maximum value equal to 67 lb./sq. in. b.m.e.p. which is by far the highest figure recorded in this series of tests. At the same time, torque is well maintained up the r.p.m. scale, the decline being such that the peak power is realised at just over 16,000 r.p.m. where the torque has only then dropped below the 0.5 lb. ft. mark.

Especially when running on glow-plug ignition, it is inadvisable to run an engine of this type under too heavy a load and the r.p.m. range over which the McCoy was tested was 9,500/18,000. Over this range, however, the engine ran smoothly and evenly at all times—particularly so at the higher end of the scale where it would hang on absolutely steady readings and with considerably less vibration than is commonly recorded by c.i. engines of only a quarter of its size.

There was no tendency towards loss of power with warming up which is common in lapped piston engines and especially in compression-ignition types. The McCoy, in fact, takes a few seconds to reach its peak r.p.m. under any load, after which it will hold its output indefinitely provided that cooling is adequate.

In conclusion, it may be noted that both the specific output and power/weight ratios shown by this engine are higher than any previous figures published in these tests.

Power/weight ratio (as tested and less contact-breaker) : 1.6 b.h.p./lb.

Power/displacement ratio (as tested) : 153 b.h.p./litre.



## ENGINE OF THE MONTH

By John Pond  
Model Builder Magazine  
June 1985

### McCOY 60 REDHEAD

As usual, we have to acknowledge the generosity of another engine collector, Dave Brodsky, for the use of this month's subject, the McCoy 60.

There has always been a tremendous controversy over which was the best racing engine, the Hornet or the McCoy. However, when the McCoy hit the market under the banner of Duromatic, dealers were pleasantly surprised to get 40% discount. Up to then, the discount for Hornets was one-third. The McCoy, which had been used in boats and cars, was pinpointed for the control line speed circles. In no time flat, they had all the records. In short, Walt Cave and Snow had been out hustled and out merchandised by the enterprising Southern California firm.

The McCoy 60 first started appearing in national model magazines early in 1946. Modellers immediately like the one-piece crankcase over the bolted two-piece system employed by Hornet. Other than that, the engines were practically alike in performance. Retail prices were alike so the success of the McCoy can be traced to the immediate availability of this engine at the local hobby shop.



McCoy engines are easily identified by the red cylinder head. This trademark was carried in all their racing engines with the sole exception being their sport models. McCoys



also came with the option of different colour heads for high compression and sport types.

When the McCoy 60 was introduced to the control line speed crowd, it became an immediate sensation. In those, Don Newberger, of Los Angeles, with his "White Comet" and "Whirlaway" designs was king of the speed merchants. Once the avalanche was started, everyone started using McCoy engines. This same story has been repeated countless times as the winner sets the pace in what engine to use. Then too, there is always the implied guarantee of success provoked by the winning record.

When the McCoy 60 first came out, this columnist had the first one in Northern California mounted in a "Swoose" type pencil bomber he called the "High Hatter". Performance was absolutely sensational, but starting the engine by hand was something else, as the engine could never be fully retarded. On ignition, this made the engine quite cantankerous, giving

out with more than just a little "kick". Nowadays, in old timers, with the excellent electric starters, McCoy engines are a "piece of cake" to start.

Manufactured by the Duro-Matic Products Co. of Hollywood, CA, the initial price of \$35.00 remained the same throughout its career. The McCoy 60 set all sorts of records that made it the envy of the motor manufacturers. About the only field that the McCoy failed to capture was the free flight category. At 17 ounces this motor was a trifle heavy and required large wingspans to get the overall weight to the specified eight ounces per square foot.

The McCoy Redhead (as the 60 was first called) was a typical "over square" speed engine with a bore of .940 in. and stroke to .875 in. giving a displacement of .60 cu. in. As mentioned before, bare weight without coil, condenser, or batteries, was seventeen ounces. This mass gave the engine a very solid foundation that give practically vibrationless running at high speeds.

The McCoy featured the one piece crankcase and cylinder made from low X195T6 aluminium alloy. The cooling fins were machined from solid bar stock. Phillips screws were used plentifully to hold the front and back aluminium crankcase covers. The rear cover plate supported the rotary disc valve, intake tube and carburetor, also machined from aluminium bar stock.

The red anodized cylinder head was cast aluminium fastened with six Philips head

screws. The head was machined to suit the high domed baffle of the piston and of interest is the 8 degree offset angle of the VR-2 Champion plug.

Other features included a cylinder liner of centrifugally cast iron with a high degree of hone finish. The cast aluminium piston with baffle was fitted with two steel piston rings. Wrist pin (or as the English say, gudgeon pin) was steel, ground to exact fit. Looking at the exhaust ports, one finds these webbed to maximize the support of the cylinder. Many modellers would file these supports to almost paper thin to further open the exhaust port. Nevertheless, very few failures of the crankcase were ever reported.

Performance wise, the McCoy 60 was a real eye opener. Even with plain gas and oil mixture, the engine would turn a 10 inch dia, 10 inch pitch at better than 12,000 rpm. When converted to glow, the engine was sensational.

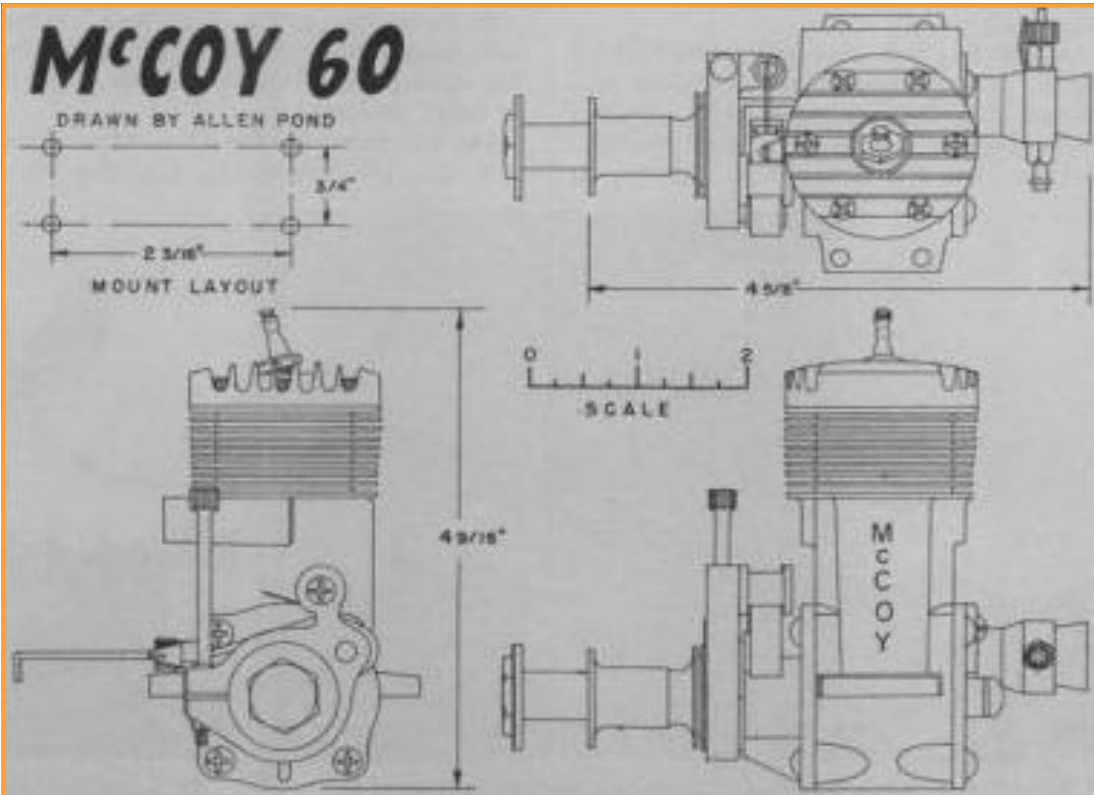
To this day, many of the so-called modern racing engines (such as the Rossi, etc.) owe their parentage to the McCoy 60 with its one piece crankcase and cylinder.

The McCoy to this day is still quite competitive when reworked. No one has yet built a more reliable timer than the cast aluminium automotive type that assures skip-free spark ignition. The three-piece ground steel crankshaft set in two ball bearings has set the style for forty years in rear intake type engines. As one observer put it, "There is nothing new under the sun".

Because of the recent demand in old timer radio control, McCoy 60 engines have increased considerably in price. The only saving factor is the availability of some of the old parts from Dick McCoy himself. Many an old engine has been rejuvenated with new rings and bearings. Actually, when you look at it, what else is there to wear? Maybe the aluminium bronze bearings of the dural drop forged connecting rod might be suspect, but the engine would have to take a lot of abuse.

In short, a well made engine that has survived four generations.

*Right now it is seven plus generations - Editor*



Take a tip from me—these gifts get the Checkered Flag!

**DURO-MATIC McCOY** with the Red Head

The McCoy RED HEAD engine is a triple three record-maker... in the air... on land... on water. The RED HEAD has a reputation for official wins... facts and figures prove it to be the World's Fastest Engine. **535**

**Invader** Prototype racing car... \$43.00

**McCOY** World's champion racing car... \$43.00

**Hot Rod** A-75 racing prototype... \$43.00

**DURO-MATIC PRODUCTS COMPANY**  
HOLLYWOOD 38, CALIFORNIA

**DURO-MATIC SPEED FACTS**  
April 1946. The racing RED HEAD sets new official AMA world's record in All-Women's Open, Los Angeles (123.49 mph).  
September 1946. The McCoy RED HEAD "60" and "45" get first place in both Class C and B at the Whittier Nationals.

DECEMBER, 1946 AIR TRAILS PICTORIAL PAGE 23

**NEW McCOY ENGINE SERIES 20**

**NEW LOWER PRICE**

**NEW SPEED & POWER**

**WORLD SPEED RECORD BROKEN FIVE TIMES**  
IMRCA—Los Angeles—Nov. 30, 1947  
Manufacturers' Proto Class

Name	MPH
Joe Robertson and James Persons, San Leandro	120.00
Roy Torrey, San Dimas	117.95
Dick McCoy, Pomona	117.95
Mrs. Fred Brock, Santa Ana	116.12
Don Sharvet, Santa Monica	112.92

All with Invader cars and McCoy 60 engines

**DURO-MATIC**

**Red Head "60" SERIES 20**

Designed by Dick McCoy

Want a winner? Here's your engine... brand new and raring to go... the hottest Red Head in a complete line of McCoy contest engines. The new improved McCoy "60" follows precision standards of other famous Red Heads (49, 29 and original 60). It is built to win... to set records... to show its heels to the competition in all events. It is built to make you kingpin of your contest.

Here it is—more engine at this price than has ever been offered before.

**FEATURES**

2 MRC precision ground ball bearings	Max. RPM, 20,000 plus
2 Perfect Circle piston rings	Machined surfaces, metal to metal fit, no gaskets
	VR2 Champion racing

**\$27<sup>50</sup>**

**MODEL AIRPLANE NEWS** ■ April, 1940



**DURO-MATIC**  
PRODUCTS COMPANY  
HOLLYWOOD 38, CALIFORNIA

**OLD ENGINE ANALYSIS #19**  
**McCoy Spark Ignition Engines**  
 by Charlie Bruce

Dick McCoy of California is a true superman of model engine design. Starting in the 1940s and continuing in the field at this writing, Dick is responsible for over 100 different production engine designs in spark, glow and diesel ignition types. Unsatisfied with available engines for midget tether car racing, he designed his own McCoy 60. It was very successful and became the MCCR and MCCA series of racing engines, produced commercially by Duro-Matic in 1945. Early in 1946 a McCoy Super 60 with slightly different castings was produced.

The early engines were plain grey matte finish. The Black Case Red Heads followed in 1946 in both 60 and 49 sizes. In 1947 the Red Head 29 was added to the line. The 19 came in 1948 along with the updated Series 20 Silver Case Red Head 60, followed shortly by its smaller cousins the Series 20 McCoy 49 and 29. The Series 20 60s had a new crankcase casting with enlarged bypass and increased port capacity. The Series 20 49 and 29 had increased port capacity. All engines had enlarged venturis. If you are going to run in the SAM horsepower race, you need the Series 20 McCoy's.

The Engine Collector's Journal issue #103, Dec. 1992, has a complete list and pictorial review of all of Dick McCoy's commercial engines. I highly recommend it as a source of reference. This analysis will cover the spark ignition engines sold commercially in 1945 through 1948.

The spark engines were all of similar layout and construction so service will be essentially the same. Differences will be noted as we proceed. First a general note.

The 60, 40 and 29 used no gaskets, while the 19 had conventional composition gaskets on the head and front case surfaces. All engines used aluminum pistons with two rings and had a twin ball bearing supported



crankshaft, though the spark 19 had only one ball bearing at the rear of the crank.

**Disassembly:**

**Prop drive:** The 60, 49 and 29 have an aluminium spool keyed to the crank with a steel 1/16" sq. key. Remove the prop nut and washer, then pull the spool forward being careful not to lose the tiny key or the special ground surfaced spacer washer at the rear of the spool. A small gear puller may be required. The 19 has a taper-scat friction drive which usually falls off easily.

**Timer:** The 60 and 49 timers are moved by loosening the knurled arm, then moving the frame to desired position and re-tightening the arm. This is all done within a scant inch of the spinning prop. Not safe! I recommend fixing the advance and using an electric starter. To remove, loosen the knurled arm or pinch screw, compress the end of the moving point spring slightly and remove the 6-32 screw from the fibre spool. Release tension on the spring and slide the timer frame forward

off its seat, noting that the moving point slides off its pivot pin as you remove the frame.

On the 29 timer, the knurled end arm has nothing to do with the friction setting. There is a 4-40 pinch screw which sets that. Loosen the pinch screw and compress the end of the moving point spring to disengage it from the double ended fibre spool. You can inch the frame off forward while working the moving point off its pivot. Keep the spring compressed till the frame is far enough forward for the spring to be released and clear its support bar. Sounds harder than it is. Don't lose the little fibre spool. Once the spring tension is off it will usually drop out and roll off behind something.

The 19 timer is enclosed and

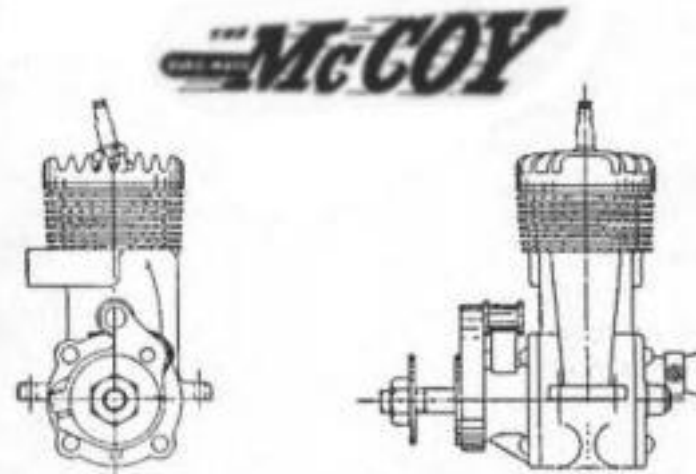
quite similar to that used on the Bantam 19. Remove the two 2-56 screws holding the timer case to the arm. Note that the topscrew is longer and fits between ribs cast in the front cover to limit timer advance and retard. Slide timer off front being careful not to lose the point buffer, a small section of aluminum tubing with a notch in it which fits over the tail of the moving point. The arm will slip out of its groove in the front bushing.

**Head:** Remove 6 screws (6-32 on the 60 and 49; 4-40 on the 29 and 19). No gasket on the 60, 49 and 29 but the composition gasket on the 19 will probably be stuck. Heat it up to loosen, and remove head.

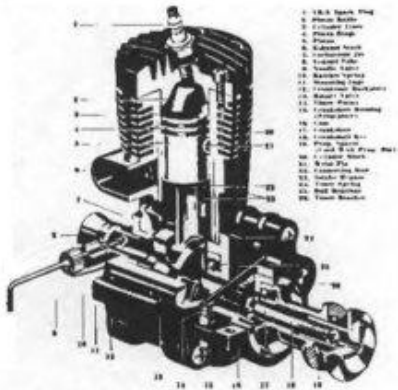
**Cylinder Sleeve:** If you decide to remove the sleeve be sure the engine will turn over. You may have to remove the backplate (not on the 19, it's integral) and heat and lubricate the engine to get it to turn over. The sleeves in the MCCR, MCCA, Super 60, Red Head Black case engines (60, 49, 29) and the 19 are a tight shrink fit. The case must be quite hot (approx. 350-400°F) to expand the aluminum enough to release the cast iron sleeve. The Series 20 engines have a slip-fit sleeve but if the engine has been run and put up for several years, the lube has probably turned to gum and you'll still have to heat the case but not as hot. Put a prop on the engine and position an old glow plug gasket (copper or aluminium) on top of the piston so that it just protrudes into one of the exhaust ports in the sleeve only enough to engage the sleeve but not enough to hit the case. For the 29 and 19 engines you'll have to file a couple of flats

on the plug washer so that it will engage the port sufficiently to move the sleeve. Hold the hot engine with thick gloves and rotate the crank to push the sleeve upwards. At the top of the stroke quickly grasp the sleeve with a gloved hand and pull it free. It may help to rotate it back and forth.

**Rear Cover:** Remove the 4 screws and work the rear cover out. It's







- 1. 1/8" B. Spring, 194g.
- 2. Piston, 60cc.
- 3. Piston, 49cc.
- 4. Piston, 29cc.
- 5. Piston, 19cc.
- 6. Piston, 19cc.
- 7. Piston, 19cc.
- 8. Piston, 19cc.
- 9. Piston, 19cc.
- 10. Piston, 19cc.
- 11. Piston, 19cc.
- 12. Piston, 19cc.
- 13. Piston, 19cc.
- 14. Piston, 19cc.
- 15. Piston, 19cc.
- 16. Piston, 19cc.
- 17. Piston, 19cc.
- 18. Piston, 19cc.
- 19. Piston, 19cc.
- 20. Piston, 19cc.
- 21. Piston, 19cc.
- 22. Piston, 19cc.
- 23. Piston, 19cc.
- 24. Piston, 19cc.
- 25. Piston, 19cc.
- 26. Piston, 19cc.
- 27. Piston, 19cc.
- 28. Piston, 19cc.

best to do this and also loosen the front cover while the case is warm and the gummy goo is soft. Note that you may have to unscrew one or both needle valve stubs to access the rear cover screws. The 19 rear cover is integral with the case casting. The rotary

valve disc will be attached to the rear cover. If you wish to remove it you'll find various systems are used on the different engines. The MCCR, MCCA, Super 60, Red Head Black Case 60 and 49 have a brass washer soldered to the outer end of the rotor shaft. Block up the rear cover (protect the joint surface) so that the rotor disc is free to move downward when you melt the solder and push the shaft out through the washer and rear cover bushing. It will take a large soldering iron and lots of heat to melt this joint due to the heat sink effect of the rear cover. There should be a thin (.001\*-.002") steel shim between the disc and rear cover. Don't lose it!

The Series 20 engines (60 and 49) have a pressed on friction lock ring which usually has to be pried off and ruined in the process. If the lock ring doesn't break, it can generally be flattened and re-used. If you're going to run the engine I recommend replacing the friction lock with a soldered washer. Some Series 20 engines have a full faced steel shim between the disc and cover, with ears fitting into the cover intake port, to prevent rotation. Be sure the ears are intact.

The 29 and 19 engines have the rotor disc retained by a headed rotor pin which is a press fit into the rear cover on the 29 and into the case of the 19. The pin is stationary and the rotor spins on it. As with the other engines there is the thin shim between the disc and cover.

The 19 front cover must be removed to access the rotor disc. Some 19's have a small coil spring under the head of the rotor pin to keep the rotor pressed against the back cover. You may find the full face shim on

some engines as well.

The venturi may be unscrewed from all engines but the 19. It's usually not necessary to remove the venturi but if you do, remove the needle valve parts and insert a snug fitting rod or drill bit in the holes to use as a lever to turn the venturi.

Front Cover: Remove 4 screws and work the cover out forward. The piston and rod assembly can now be removed out the top of the engine. You do not have to remove the sleeve to remove the piston and rod assembly.

The wrist pin is a push fit in the piston. McCoy's have pressed-in aluminium wrist pin pads. Be sure they



So, what do you do with a McCoy 60? Bud Romak (left) flies a Super Zomby, Bob Oslan (above) and Bruce Augustus fly Sailplanes. Oslan claims to have have a Dooling in his, but Romak and Augustus revealed they suspect a McCoy is lurking in that cow!



are in your engine. The rings may be removed by the "thumb nail and finger" system with the piston held gently in a padded vise. If you break 'em, replacements are available from Dick McCoy or Frank

Bowman.

The front cover contains two ball bearings (one in the 19) which support the crankshaft. Except for the 19, which is an easy push fit, the cranks are usually tight in the bearings. If you plan to remove the crank or bearings, use a press or large vise with proper fitting bushings to protect the sealing surface as you press the crank out to the rear. Don't use heat in this step or the rear bearing will come out with the crank. Sometimes it does anyhow; then a set of opposing wedges and considerable swearing is generally necessary to persuade the bearing from its seat on the crank. To remove the rear bearing from the front case, heat it quite hot and smack it down on a piece of wood with a hole to take the bearing. The front bearing can be pushed out forward with a proper size wood dowel. Never hammer on ball bearings!

The ball bearings used are as follows: (MRC numbers)

All 60's and 49's: Front 38F (shielded); Rear R-8  
29's: Front R-4; Rear R-6  
19's: Rear R-4.

Reassembly:

Clean up all the gum and varnish using a suitable solvent or active detergent. Be careful with flammable solvents and follow the manufacturer's instructions for personal protection. The paint on certain parts of these engines will be removed by lacquer thinner, acetone and similar solvents, so be wary or plan to repaint your engine. If the bearings are rusty or feel rough after cleaning, they should be replaced.

Front Cover: Heat up the cover and insert bearings. Use the cleaned up crank to align and seat bearings by pulling tight with an old prop. sometimes it takes a light tap with a plastic mallet to seat bearings fully. The shaft should spin freely when it's in right.

Rear Cover: If you removed the rotor disc, replace it being sure the shim is in place. Allow a tiny bit of end play so that the disc spins freely. On the 19 with the spring loaded rotor, the head of the pin should be about 1/16" above the disc. Don't over-compress the spring.

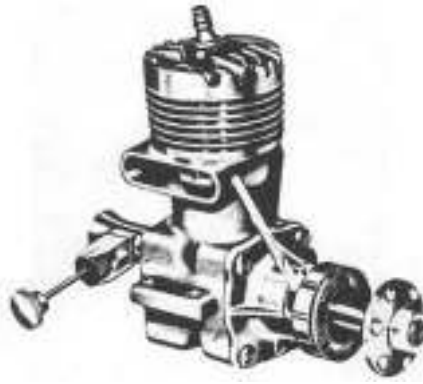
**Sleeve and Case Assembly:** If you removed the sleeve, heat up the case and insert the sleeve being careful to align the ports with the openings. Also be sure the exhaust ports (highest and most numerous) are on the exhaust side, Series 20 sleeves should fit with no heating. If you are installing new rings, check the end gap before you place them on the piston. To do this, compress one ring at a time and insert into the top of the sleeve. If it won't enter, carefully file the ends at the gap until it will just enter the sleeve. Go easy here, a heavy hand will open the gap too much very quickly. Line up the ring squarely with the bore by pushing it with the bottom of the piston. Use a feeler gauge to measure a .004 to .005 end gap. It's a cut-and-try process. Too little gap will wear out the rings and may score the sleeve. Too much gap will leak compression. Assemble the piston, rings, wrist pin and con rod. McCoy rods are all symmetrical front to back. If there is a bronze bushing in one end, it goes on the crank pin. Insert the assembly into the sleeve using finger nails or a piece of soft aluminium to force rings to enter the sleeve. Keep downward pressure on the piston crown and work around the ring, pushing it into the piston groove. Push piston down into the sleeve and be sure the wide side of the baffle faces the exhaust.

You can install the front case so that the exhaust will be on either the left or right side of all engines but the 19. Be sure the mating surfaces are clean and fit the front case in place. Timer point opening is at the top on the 60, 49 and 29. Piston clearance cut is on top on the 19. Fit the crank pin into the con rod. On the 19 line up the big end of the con rod with the round drive recess in the rotor disc, then insert the crank pin into both. When it all mates up, turn the shaft a few times to be sure everything works freely, then put in the screws, tightening them evenly. Check rotation frequently; there should be no binding.

On all engines but the 19, the rear cover fits in place with the venturi in the upper right hand corner looking from the back. Be sure the crank pin engages the drive recess. Peek in the venturi and turn the crank to make sure it all works freely before tightening the screws.

The head is installed so that the lobes fit the piston. You may have to lap the head-to-sleeve joint to get a

good seal. A little pumice or powdered cleanser in some light oil will usually grind it in with a few turns. Try for a narrow bright grind and be sure to clean all the compound out before final make up. A .002" copper gasket will help seal stubborn leakers. Use an asbestos type composition gasket on the 19.



Timers go back on by reversing the removal procedure. Point gap adjustment is made by moving the threaded fixed point retained by a lock nut. The 19 adjustment is cut and try with washers under

the fixed point. Don't try to bend the 19 moving point; it will break!

McCoy instructions say to set all point gaps at .004 to .006. Plug gaps are .015 to .018.

McCoy recommends the Champion VR-2 plug for all engines. Due to variation in head and gasket thickness the piston baffle on the 19 may hit the plug electrodes. Try a V-3 plug if this is a problem.

**Parts and Engines:** Because of the large number of engines produced and the durability of McCoys, there are quite a few available at MECA Collectos. You may have trouble finding one that hasn't been cut or filed by a U/C speed flyer, but most cut ones run well anyhow.

Dick McCoy is still in business.  
Send \$3.00 for his parts catalog to:  
Dick McCoy  
5674 San Bernardino St.  
Montclair, CA 91763

For piston rings for McCoy and others:  
Frank Bowman  
1211 N. Allen  
Farmington, NM 87401

For ball bearings (catalog \$3.00):

Boca Bearing Co.  
7040 W. Palmetto Park Rd.  
Suite 2304MI  
Boca Raton, FL 33433

For repro parts try: (catalog \$6.00)  
Acro Electric (Woody Bartelt)  
1301 W. Lafayette St.  
Sturgis, MI 49091

There is an excellent engine book out by Dave Gierke. It's titled, 2-Stroke Glow Engines but it has many excellent pictures of the old engines. Much of the text applies to any 2 cycle engine. I highly recommend it. Published by Air Age (Model Airplane News) and available at your hobby shop for about \$20.00.

Test Runs: All on 3/1 Methanol/castor oil.

Red Head-Black Case 60:  
Rev Up 13x6 - 9200  
Rev Up 12x6 - 10,600

Red Head-Black Case 49:  
Rev Up 12x6 - 10,100  
Top Flite Power Point 11x6 - 11,900

Red Head-Black Case 29:  
Top Flite P.P. 10x6 - 9,900  
Top Flite P.P. 9x6 - 11,200

Red Head 19:  
Rev Up 10x4 - 8700  
Rev Up 9x4 - 10,400

Note: All Series 20 engines run with case pressure fuel feed.

Series 20-60:  
Rev Up 13x6 - 10,200  
Rev Up 12x6 - 11,800

Series 20-49: I don't have one

Series 20-29:  
Top Flite P.P. 10x6 - 10,000  
Top Flite P.P. 9x6 - 11,600

Next Analysis; OK Super 60.

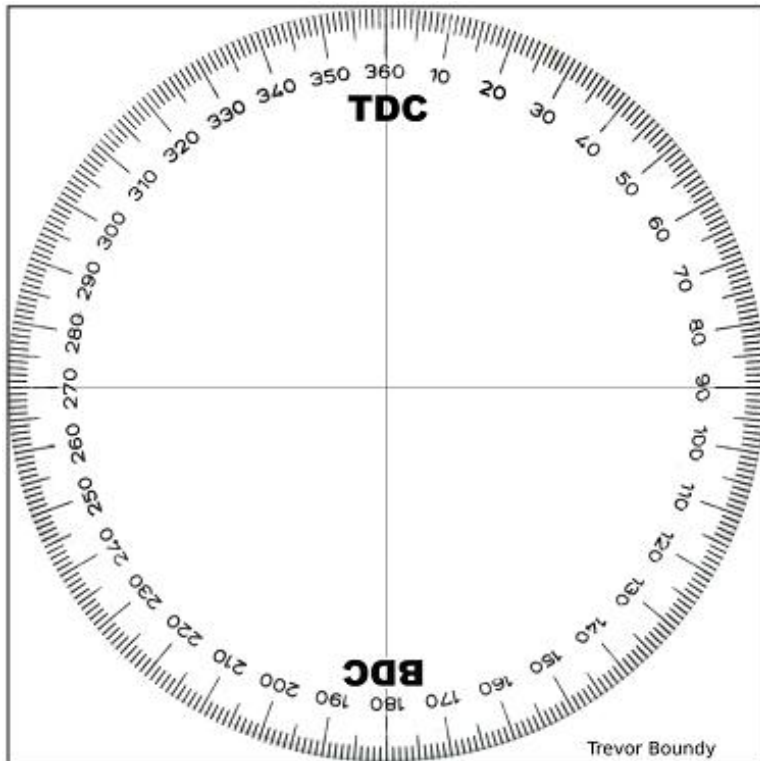
Charlie Bruce  
Rte. 1, Box 766  
Milano, TX 76556  
Phone (512)455-9543, FAX (512)455-3921



**SETTING IGNITION TIMING.** By Bob Angel SAM 26 USA

Some engines (such as the McCoy 60) almost require that the timer be locked down instead of being advanced and set "by ear" each time they're started. This method can give the best and most repeatable performance if you test various settings with a tachometer to find that best setting. Setting ignition advance for performance is a lot like needle valve adjustment. Using a tach, you should adjust the needle for peak RPM, then back off (richen) just a tad to prevent overheating and premature wear or damage. Similarly, the spark should be advanced for peak RPM, then backed off by a hundred or so RPM.

The main piece of equipment you need for this operation is a degree wheel. I bought a nice pair of degree wheels from one of the scientific products catalogues years ago, but the exact source is forgotten and probably non-existent today. Fortunately our SAM webmaster Trevor Boundy has a nice do it yourself printable one on the SAM website. You can just cut and glue it onto a piece of smooth plywood, plastic, metal or whatever. I'd suggest making at least a couple with centre holes drilled for different prop shaft sizes. You can download this copy from the SAM web site and resize it to any convenient diameter.



The wheel can, of course, also be used for checking engine port timing

EQUIPMENT NEEDED is shown below.



Well, actually it shows a bit more than what's really needed. The machinists dial gauge gives a more accurate reading of the pistons top dead centre (TDC) location, but isn't strictly necessary. The gauge probe and head insert had to be custom made to use the dial gauge. The head insert screws into the spark plug hole. It's hollow to allow the longer than stock gauge probe to reach in and touch the piston top.

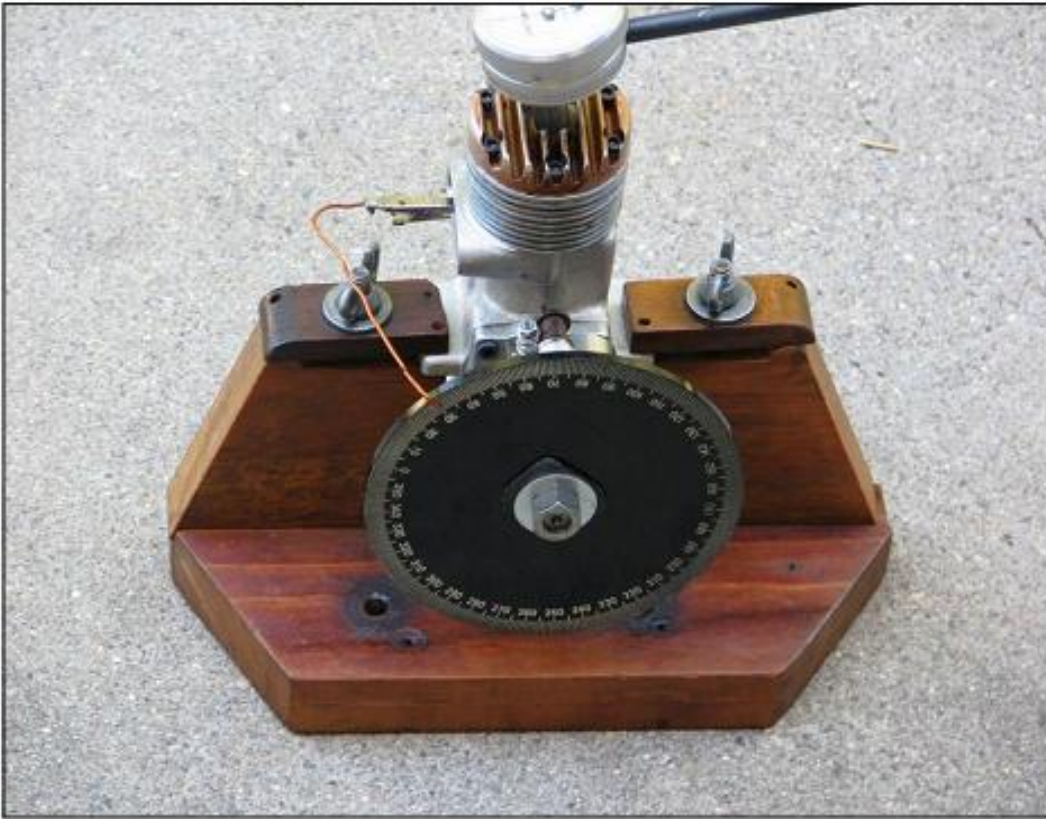
I made an insert for each of the two plug sizes.

The four small unmarked parts at the bottom right are used to lock the degree wheel onto the prop shaft. The two crude looking black washers are made from rubber to prevent the degree wheel from slipping.

FINDING TOP DEAD CENTER (TDC) is the first step in the process. All engines have a zone of excess "play" at TDC where a very slight clearance in each end of the connecting rod is magnified. Unless you bring the piston to the top from each direction you can get a false reading of up to 5° or more, depending on rod clearance.

That indicator wire shown is just one approach to getting a reading. In this case I clamp the alligator clip to the lower edge of the exhaust stack and bend the other end around in front of the degree wheel. As an alternative you could attach an indicator to the motor mount.

Lacking a dial gauge, you can get the piston to TDC by just looking into the exhaust port while rotating the crank from each direction and averaging the few degrees of difference. Some people like to line up the degree wheel and the indicator (or pointer) at top dead centre. This makes life simpler for recording readings. But I find it mechanically easier to just read and record the degree number wherever TDC happens to hit. That does require more mental attention to do the adding and subtracting.



The above picture shows the indicator wire in place, along with the dial gauge for establishing TDC. The dial gauge isn't locked in, but is just hand held solidly in place while rotating the wheel and taking readings.

"ENGINE TIMING FOR DUMMIES" would be the title for the next three paragraphs if they appeared in a book. So you experts can skip ahead, while those who I've insulted read this part. By the way guys don't be offended, as I also happen to keep a couple of "For Dummies" books around on other subjects.

The only point to be made or repeated here is that a spark ignited engine has to have the spark plug light the charge off before the piston reaches TDC for best power and efficiency. The reason is that the charge doesn't "explode" instantly, but builds up pressure over a few milliseconds. And we won't plod through the mysterious electrical workings of a spark coil, but will just point out that the coil fires when the points open, not when they close.

A lot of variables go into the exact time in degrees that an engine needs to fire for best efficiency. And those variables are never the same between engines, fuels, prop load, etc.

#### MEASURING THE ADVANCE:

The picture below shows the dial gauge removed and a simple continuity light attached between engine ground and the insulated point. If you just want to know what advance you've been running, you just rotate the degree wheel in the normal running direction, note where the light goes out and take the difference between that point and TDC.

As a point of reference, some of the the older, slower engines run best with just 10 or 15° of advance. By contrast the McCoy 60's or other high speed engines need up to 40° or more. So this whole exercise is usually preceded by a running adjustment using a tachometer as described in the first paragraph of this diatribe. Then, whenever some change to the points happens, you can re-set the advance in the shop without having to run the engine. This assumes you haven't made any significant change to fuel, prop, etc. and just want to re-set.

But when you're trying to re-set timing to some known value it usually takes a bit of cut and try to get it exact. You may find you can rotate the timer to the point where the timing light goes out at the right spot on the degree wheel, but when you tighten down the timer clamp, that sweet spot has moved a few degrees. So you note the degrees and the direction of the deflection (sounds like poetry?) and compensate. With luck you'll hit it exact or close enough with just a couple of tries.



## THE LAST PAGE



Ivan Unger and Gladys Roy after their stunt playing tennis on wings in 1925



Gladys Roy and Ivan Unger play tennis on the wing of a biplane in flight, 1925.