



# The Thermaleer

SAM 600 of Australia Newsletter Issue No.147 October-December, 2018



Cox 1/2A Texaco Placings at the Cohuna Oldtimer weekend 10<sup>th</sup>-11<sup>th</sup> November, '18 2nd Phil Eagles, 1st Brian Laughton 3rd Kevin Fryer

## NEXT COMPETITONS

<p>February 2<sup>nd</sup> &amp; 3<sup>rd</sup></p>	<p>P &amp; DARCS CARDINIA 10 am Start            Saturday: Classic Aerobatics, Vintage Gliders, Fun Fly, Foam Gliders            Sunday: Roy Robinson Trophy Texaco, Duration,</p>
<p>March 16<sup>th</sup> &amp; 17<sup>th</sup></p>	<p>ECHUCA            Saturday: 1/2A Texaco, Burford, Duration            Sunday: 8.30am General meeting, Texaco, 38 Antique, (Climb &amp; Glide)</p>

# SAM 600 Australia - Victorian Old Timers Association Inc. Committee



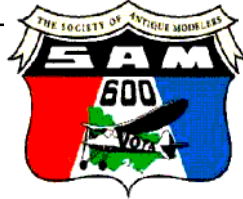
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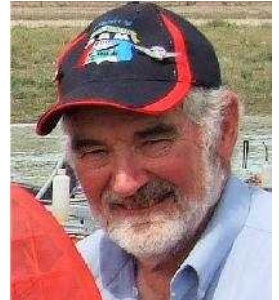
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"The Thermaleer" is the official newsletter of SAM 600 of Australia, Victorian R/C Old Timers Association (SAM600) Inc.

**— Segelflugmodell „Libelle“ —**  
 Bauplan und Bauanleitung von Gustav Aldinger, Bad Comstorf.  
 Maßstab der Bauzeichnung: 1:2,5 und 1:1.

1 Spant	20 Spant, ein	mit Zeichnung	2 Stützstreifen	30 Alu-Profile	ein	1 x 2 x 10
1-1	19 Spant, ein		3 Thon-Profile	30 Alu-Profile	ein	25 x 10
2	18 Spant, ein		4 Holz	30 Alu-Profile	ein	25 x 2 x 10
3	17 Spant, ein		5 Holz	30 Alu-Profile	ein	2 x 2 x 10
4	16 Spant, ein		6 Holz	30 Alu-Profile	ein	25 x 2 x 10
5	15 Spant, ein		7 Holz	30 Alu-Profile	ein	25 x 2 x 10
6	14 Spant, ein		8 Holz	30 Alu-Profile	ein	25 x 2 x 10
7	13 Spant, ein		9 Holz	30 Alu-Profile	ein	25 x 2 x 10
8	12 Spant, ein		10 Holz	30 Alu-Profile	ein	25 x 2 x 10
9	11 Spant, ein		11 Holz	30 Alu-Profile	ein	25 x 2 x 10
10	10 Spant, ein		12 Holz	30 Alu-Profile	ein	25 x 2 x 10
11	9 Spant, ein		13 Holz	30 Alu-Profile	ein	25 x 2 x 10
12	8 Spant, ein		14 Holz	30 Alu-Profile	ein	25 x 2 x 10
13	7 Spant, ein		15 Holz	30 Alu-Profile	ein	25 x 2 x 10
14	6 Spant, ein		16 Holz	30 Alu-Profile	ein	25 x 2 x 10
15	5 Spant, ein		17 Holz	30 Alu-Profile	ein	25 x 2 x 10
16	4 Spant, ein		18 Holz	30 Alu-Profile	ein	25 x 2 x 10
17	3 Spant, ein		19 Holz	30 Alu-Profile	ein	25 x 2 x 10
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Otto Haier - Verlag - Ravensburg, Bd. 180





## FROM THE PRESIDENT

**Kevin Fryer.**

I would like to thank you all for the expressions of care and support shown to me over this very difficult time.

Nick would have liked me still to go to the Alice Springs Masters Games, so I decided to go and win him a Gold medal in Texaco. My Texaco model was the model he laser cut for me.

This idea was stuffed up by Mr Steven Gullock who ended up with the Gold Medal and who was later heard to say, "I usually don't beat the old bastard." Well done Steve.

It was a long trip but very worth the effort.

FJ5 Electric Glider was a great event to fly in. John Adams was C/D for this high-tech event. You can change models if you wish, the rules are 10min flight time and land on the spot for landing points. Your motor run time is max 30 sec, max height on motor run is 200mtrs. You have on board a height recorder and there is a big point loss if you go over 200mtr,

I started off with my Boing 666, rough landing, changed to my 80% Cumulus. There was nobody there who had seen an Old Timer. I got to 200mtrs pretty quick and did about a 9min flight. Everyone was very impressed. Wind was coming up and Steve had a migraine, so I changed to his and mine Radian. I had a 9.58 min flight and landed 1mtr from the button, and I knocked off the Plastic Fantastics. By the way Steve was doing very well with the points when he retired.

Kevin Weston, who came second in this event, asked me about the Cumulus, so I said, "Would you like a fly?" "Yes". He caught about three thermals and when he landed asked me if I would sell him the Cumulus. He said he would learn a lot and improve his flying by flying one of these. I will build him one. Some of the IMAC Guys also want kits.

The Electric Half A Texaco at Cohuna had 10 entrants and the flyoff time was over 45min. Steve Jenkinson cleaned up with Colin Colyer second. Phil Eagles, in his first time event, got second in Cox Half A Texaco and had some good flights with his 92% Cumulus McCoy.

Thanks to all who have made this a good year, have a safe and Merry Christmas see you all at the Roy Rob,

Be safe,  
Kevin Fryer.

## CONTEST CO-ORDINATOR'S REPORT

**Don Grant.**

Due to my absence for most of the year there is not much I can say about this years' events.

Next year however could be a difficult year as with the present revision of height limits it is hard to say what effect they will have. The highest ceiling available is 1800ft. Anything higher will require additional written justification.

We have already been flying above the Echuca clubs' previous ceiling of 1000ft which they have re-applied for. So, do we just ignore the ceilings or introduce some method of staying below them.

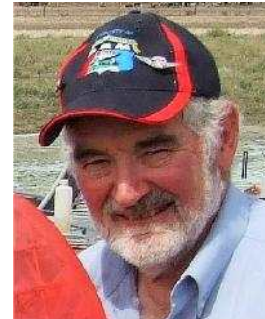
I will be installing a vario in all my Old Timers to see how high I am getting with the current fuel allocations and timed engine runs. Then I will experiment to see what engine runs are needed to stay below various ceiling heights.

The easiest solution would be to completely change over to electric motors and install height limiters which can be set to the available ceiling height. This doesn't take into account thermals of course. The question that needs to be answered is, would height limiters without allowing for thermal activity be enough to satisfy CASA? Would telemetry radios that call out altitude be enough. I know varios are banned at the moment but it could be them or nothing.

I have been told that 1788 are considering height limiters that apply down elevator to control height. Might be OK for Texaco but a hot Duration model would be another thing entirely.

However, Christmas is coming so all the best to you and your families for Christmas and the New Year.

Don Grant.



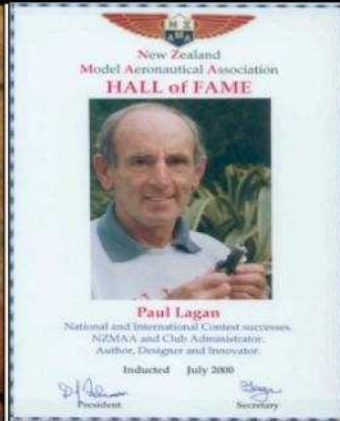
## VALE PAUL LAGAN

AVANZ



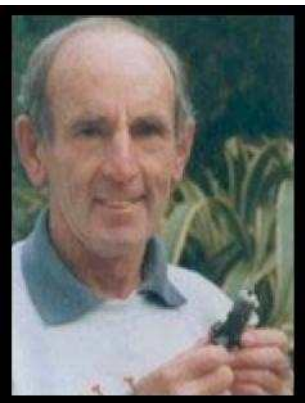
NEWS

Newsletter of the Vintage Special Interest Group of Model Flying New Zealand #168



## PAUL LAGAN

### 1941-2018



New Zealand modelling lost one of its prominent members with the passing of Paul Lagan. While best known for his free flight successes, Paul flew in all classes of aeromodelling, representing New Zealand internationally on many occasions, and in 1993 was awarded the FAI Alphonse Pernaud Diploma. Not only a dedicated modeller, Paul also served in key administrative roles in the NZMAA.

Born in 1941, Paul flew models from an early age with the Christchurch MAC and had a long career with the Air Force as an Avionics Engineer. No matter where his work took him aeromodelling remained an inseparable part of his life. A regular Nationals and South Island competitor his record includes winning the National Champion of Champions award an outstanding eighteen times.

Paul commenced International competition in 1965 with proxy flown free flight models and from 1971 travelled to World Championships in Sweden, Spain, USA, Australia, Switzerland and Israel, gaining high places in A2 glider and Wakefield. He won many individual titles in Trans Tasman competition and represented New Zealand thirty-five times in these events.

Moving to the RAAF in Australia from 1980 until 1986 did not limit his modelling activities and success in Australian and International competitions led, in 1989, to Paul being inducted into the Model Aeronautical Association of Australia 'Hall of Fame'.



As an administrator it would be difficult to find a position or role that Paul has not filled. Never one to seek the limelight, he saw the real issues and got on with it. By his own admission he was the gnome that got the work done, whether at club or international level. Paul helped with the establishment of two clubs as well as the Free Flight of New Zealand Association. He twice served as president on the South Island MAA and on two separate occasions as NZMAA Secretary.

Paul Lagan promoted and fostered participation in many aeromodelling codes, he was a Life Member of the Christchurch MAC and the NZMAA and will be sadly missed by his wide range of friends both local and world-wide.





## “The Stebbings Memorial” Champ of Champs - 2018

Event	1 <sup>st</sup> Place	2 <sup>nd</sup> Place	3 <sup>rd</sup> Place	Number In Fly Off	PROGRESSIVE POINTS I/C		
ROY ROBERTSON 28 <sup>th</sup> JANUARY, 2018 - CANCELLED					Kevin Fryer	42	1st
					Lyn Clifford	28	2nd
ECHUCA 17 <sup>th</sup> -18 <sup>th</sup> March - Re-Scheduled to 21 <sup>st</sup> -22 <sup>nd</sup> April 2018.					Steve Gullock	25	3rd
					Brian Laughton	23	4th
ECHUCA 21 <sup>st</sup> -22 <sup>nd</sup> April, 2018					Pat Keely	19	5th
1/2A Texaco	Lyn Clifford	Kevin Fryer	Pat Keely	3	Steve Jenkinson	13	6th
Electric 1/2A Texaco	Graeme Gulbin	Kevin Fryer	Gavin Dunn	5	Robert Taylor	12	7th
Duration	Pat Keely	Robert Taylor	Lyn Clifford	3	Graeme Gulbin	10	8th
Electric Duration	Kevin Fryer	Gavin Dunn		2	Col Collyer	9	9th
Burford	Kevin Fryer	Lyn Clifford		2	Max Heap	6	10th
Texaco	Kevin Fryer	Robert Taylor	Lyn Clifford	5	Don Grant	5	11th
Electric Texaco	Lyn Clifford	Gavin Dunn		2	Brian Dowie	1	12th
'38 Antique		D N F					
VIC/SA State Champs 5 <sup>th</sup> -6 <sup>th</sup> May, 2018							
1/2A Texaco	Lyn Clifford	Brian Laughton	Max Heap	4			
Electric 1/2A Texaco	Steve Jenkinson	Graeme Gulbin	Brian Laughton	5	PROGRESSIVE POINTS ELECTRIC		
Burford	Brian Laughton	Steve Jenkinson	Lyn Clifford	3	Kevin Fryer	27	1st
Duration	Lyn Clifford	Steve Jenkinson	Max Heap	2	Graeme Gulbin	19	2nd
Electric Duration	Brian Laughton	Gavin Dunn		2	Gavin Dunn	18	3rd
Texaco	Steven Gullock	Graeme Gulbin	Robert Taylor	4	Max Heap	17	4th
Electric Texaco	Max Heap	Steven Gullock	Lyn Clifford	4	Brian Laughton	16	5th
'38 Antique	Steve Jenkinson	Lyn Clifford	Robert Taylor	1	Lyn Clifford	9	6th
BALLARAT 19 <sup>th</sup> -20 <sup>th</sup> May, 2018					Steve Jenkinson	8	7th
1/2A Texaco	Kevin Fryer	Brian Laughton		2	Ted Arnup	6	8th
Electric 1/2A Texaco	Graeme Gulbin	Kevin Fryer	Brian Laughton	6	Colin Collyer	5	9th
Duration	Brian Laughton	Kevin Fryer	Steven Gullock	3	Steve Gullock	5	9th
Electric Duration	Kevin Fryer	Brian Laughton		2	Peter Miller	1	10th
Burford	Kevin Fryer	Steven Gullock		2	Pat Keely	1	10th
Texaco	Steven Gullock			0			
Electric Texaco		D N F					
'38 Antique		D N F					

**"The Stebbing Memorial"**  
**Champ of Champs 2018**  
*continued*

Event	1 <sup>st</sup> Place	2 <sup>nd</sup> Place	3 <sup>rd</sup> Place	Number In Fly Off
<b>ECHUCA 15th-16th September, 2018</b>				
½A Texaco	Kevin Fryer	Pat Keely		1
Electric ½A Texaco	Graeme Gulbin	Ted Arnut	Max Heap	6
Duration	Pat Keely	Max Heap	Steven Gullock	2
Electric Duration	Kevin Fryer	Graeme Gulbin		2
Burford		DNF		
Texaco	Kevin Fryer	Steven Gullock	Robert Taylor	3
Electric Texaco	Max Heap	Kevin Fryer		2
'38 Antique		DNF		
<b>COHUNA 10<sup>th</sup> - 11<sup>th</sup> November 2018</b>				
½A Texaco	Brian Laughton	Phil Eagles	Kevin Fryer	3
Electric ½A Texaco	Steve Jenkinson	Col Collyer	Kevin Fryer	12
Duration	Brian Laughton	Robert Taylor	Lyn Clifford	4
Electric Duration	Brian Laughton	Kevin Fryer	Col Collyer	4
Texaco	Col Collyer	Pat Keely	Steven Gullock	7
Electric Texaco	Max Heap	Gavin Dunn	Lyn Clifford	3
Burford	Kevin Fryer	Steve Jenkinson		3
'38 Antique	Col Collyer	Kevin Fryer	Steven Gullock	1
<b>BALLARAT 25<sup>th</sup> November 2018</b>				
1/2A Texaco		DNF		
Electric ½A Texaco		DNF		
Climb & Glide	Steven Gullock	Kevin Fryer	Brian Dowie	-
Texaco	Don Grant	Steven Gullock	Kevin Fryer	2
Electric Texaco		DNF		
'38 Antique		DNF		



If you really want to win, get one of our new "Gift Pack" contest accessory packs in authentic battered tin boxes— "A win in every tin" obtainable only from

**DEADLOSS MODELS TO USE**  
 Leave open at contests for use of other competitors.

**Type "NON START"**  
 (For C/L work) contains: Invisibly cracked props, blocked neoprene, burnt-out glo-plugs, flat battery, undrilled spray bars, stripped 6BA nuts and bolts, blunt wire cutters, corroded C/L wires in unmatched pairs, etc.

**Type "OVER-RUN"**  
 (For F.F. Power) contains: "Slow run" fuel (10% Latex additive), ¼-speed stopwatch (for testing motor runs), off-centre and undersize bored props, fully hardened neoprene, stripped needle valves "Timerlog" Grease, "Slow Burn" D/T Fuse (10 min. between markings), etc.

**Type "KILLIMAX"**  
 (For Open Rubber) contains: "Deadloss" Rubber lubricant (with "Rotfast" additive plus 10% sand), "Slowburn" D/T Fuse, frayed rubber bands, "Fall-Apart" balsa cement, abrasive bobbins, pull-out winder hooks, etc.  
 See next month's advt. for R/C, Glider and "Indoor" packs.

**DEADLOSS MODELS**  
 Auchenstuffit, SCOTLAND  
 Send 10/- P/O for FREE lists of our KILLJOY KITS



**COHUNA November 10<sup>th</sup> & 11<sup>th</sup> 2018****Report from Brian Laughton. Photos by Graeme Gulbin.**

Hi Fellas, Well the weather man predicted a pretty good weekend and he didn't disappoint us. The Cohuna field was beautifully presented and the Cohuna boys provided protection from the sun with 3 large shelters.

The first event was 1/2A Texaco, and electric was flown first with 12 entries. This event is quickly becoming the most popular and has some fierce competition as all 12 flyers got in the flyoff with the winner being Steve Jenkinson flying his ever reliable Stardust scoring 45 min 50 sec and Col Collyer flying his Playboy Jnr coming second scoring 45 min 13 sec and after 45 minutes in the air only 37 seconds separated them. You can see why the comp is so popular and the competition so fierce, this was a great event keep it up boys.

Then on to I/C 1/2A with only 3 entries. This was nowhere near as exciting as the electric event with new chum Phil Eagles coming in 2nd flying one of Kevin Fryers models and Kevin coming in 3<sup>rd</sup>.

Then it was lunch time with dim sims, sausages in bread, hamburgers with the lot and Joy Taylor's fruit cake to die for. Thank you Joy and all those that give us such good grub. As I have said before I don't know if we go to Cohuna for the flying or the food or maybe we just indulge ourselves in both.

After lunch we flew Duration this also had 12 entries and good weather, but some carnage with Steve Jenkinson's RC1 screaming off the ground straight into a loop and buried itself just behind the pits. Then Max Heap had some control trouble with his Bomber and folded his wings on the way up. When he retrieved his model even the engine was smashed to pieces. Pat Keely and Brendon Taylor had radio problems and withdrew. Eventually Rob Taylor was 2<sup>nd</sup> to me with Lynn Clifford in 3<sup>rd</sup> place.

Then electric Duration with 5 entries, 4 got in the flyoff. My luck was still holding out as I got 1st place, Kevin Fryer 2<sup>nd</sup> and Col Collyer 3<sup>rd</sup>. All three of us come from the VARMS club in Melbourne. End of day one.

Day 2 dawned as forecast, calm air but high temperatures. First event was Texaco, both I/C and electric. There was only 3 in electric so this was run at the same time as I/C which had 10 entries. Again bad luck for Steve Jenkinson losing his model down wind out of control but was found a little later by Gavin Dunn using his drone over the last area the model was seen. Rob Taylor had engine trouble which forced him to retire. This event was won by Col Collyer flying his Bomber with an OS diesel up front, 2<sup>nd</sup> was Kevin Fryer and 3<sup>rd</sup> was Steve Gullock.

Then lunch again with fantastic food. Next event was '38 Antique with 6 entries. Again "Mr Thermal Hunter" Col Collyer won this with his OK powered Flamingo. Haven't seen one of those around for awhile. 2nd with his Forster 99 powered Cumulus was Kevin Fryer and 3<sup>rd</sup> was Steve Gullock with his new engine, the DC Wildcat, powering his Stickalic. Unfortunately, Don Grant lost rudder control on his RC1 but with great skill managed to get it back to earth undamaged but landing out. Great flying Don.

Last event of the weekend was Burford. Unfortunately, the heat was starting to get the better of us and only 3 people put their hand up to fly so it was decided to make it one flight, best time, the winner. Sadly, Steve Gullock's Stardust some how got out of control on the climb and folded its wings under power. This must have been the worst air of the day because Kevin Fryer won with a time of 3 min 35 sec, 6 seconds ahead of Steve Jenkinson. Even in non-thermal air a 5 minute max is easily achievable so this air must have been all DOWN.

So completes another fantastic Cohuna comp thanks to the all the Cohuna boys for all their great effort and thanks to Don Grant for running a great comp.

Brian Laughton.



*Texaco Placings 3rd Steven Gullock, 1st Col Collyer and 2nd Pat Keeley*

## COHUNA 10<sup>th</sup>-11<sup>th</sup> November 2018

### Results from the Contest Director for Electric Power

#### 1/2A ELECTRIC TEXACO

Name	Model	Engine	Sec/cc	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Steve Jenkinson	StardustSpecial		600	600			2750	3950
2	Col Collyer	Playboy Junior		600	600			2713	3913
3	Kevin Fryer	Stardust Special		600	600			2285	3485
4	Brian Laughton	Albatross		600	600			2197	3397
5	Graeme Gulbin	Stardust Special		600	600			1690	2890
6	Gavin Dunn	Stardust Special		600	600			1589	2789
7	Steven Gullock	DC Diamond		600	600			1040	2240
8	Lyn Clifford	Stardust Special		DNF	600	600		935	2135
9	Ted Arnup	Stardust Special		600	600			880	2080
10	Phil Miller	Fox 107		245	600	600		L/O	1445
11	Max Heap	Stardust Special		600	600			L/O	1200
12	Pat Keely	Stardust Special		600	400			L/O	1000

#### ELECTRIC TEXACO

Name	Model	Engine	CC/sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Max Heap	Bomber		600	600			530	1730
2	Gavin Dunn	Lanzo Racer		600	548	600		L/O	1200
3	Lyn Clifford	Bomber		600	600			L/O	1200

#### ELECTRIC DURATION

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Brian Laughton	New Ruler		420	420			470	1310
2	Kevin Fryer	Cumulus		420	215	420		432	1272
3	Col Collyer	E.S. Gas Champ		420	377	420		348	1188
4	Gavin Dunn	Bomber		420	420			DNF	840
5	Graeme Gulbin	Playboy		252	166	420			672



*Electric Texaco Placings 3rd Lyn Clifford, 1st Max Heap and 2nd Gavin Dunn*



## COHUNA 10<sup>th</sup>-11<sup>th</sup> November 2018

### Results from the Contest Director for IC Engines

#### 1/2A TEXACO

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Brian Laughton	Albatross	Cox	340	420	420		446	1286
2	Phil Eagles	Challenger	Cox	356	420	420		406	1246
3	Kevin Fryer	Cumulus	Cox	221	406				627

#### BURFORD

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Kevin Fryer	Spacer	P/B	40				215	215
2	Steve Jenkinson	Dixielander	B/B	38				209	209
3	Steven Gullock	Stardust	B/B	38					

#### DURATION

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Brian Laughton	Playboy	Thunder Tiger 36	25	420	274	420	667	1507
2	Robert Taylor	Cumulus	YS 63	28	420	420		590	1430
3	Lyn Clifford	Cumulus	YS 63	28	420	420		512	1352
4	Col Collyer	Stardust Special	Dubjet	25	420	420			840
5	Kevin Fryer	Playboy	McCoy 60 Spk	40	342	420			762
6	Don Grant	Playboy	YS 63	28	361	293			654
7	Phil Eagles	Cumulus	McCoy 60 Spk	40	192	420			612
8	Steven Gullock	Bomber	Enya 40	25	298	214			512
9	Robert Taylor	Cumulus	YS 63	28	420	OUT			420
10	Pat Keely	Bomber	OS 56	32	269	OUT			269
11	Max Heap	Bomber	GMS	25	OUT				
12	Steve Jenkinson	RC 1	ASP 40	25	OUT				

#### TEXACO

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Col Collyer	Bomber	OS 46D	10	600	600		1126	2326
2	Pat Keely	Airborne	OS 61	15	600	600		1050	2250
3	Steven Gullock	85% Bomber	Enya 53	15	600	600		866	2066
4	Kevin Fryer	Cumulus	Foster 99 Spk	24	600	600		862	2062
5	Don Grant	Bomber	Anderson Spitfire Spk	24	600	600		823	2023
6	Brian Laughton	Bomber	OS 60	15	600	600		787	1987
7	Lyn Clifford	Lanzo Racer	ASP 61	12	600	600		688	1888
8	Graeme Gulbin	Bomber	OS 60	18	408	530	600		1130
9	Steve Jenkinson	Bomber	ASP	18	600	F/A			600
10	Robert Taylor	Cumulus	OS 61	18	249	320			569

#### '38 ANTIQUE

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL
1	Col Collyer	Flamingo	OK	128	600	600			1200
2	Kevin Fryer	Cumulus	Fostert99	192	578	600	517		1178
3	Steven Gullock	Stick	DC Wildcat	205	504	336	600		1104
4	Robert Taylor	RC 1	Atwood 61	116	294	600	353		953
5	Don Grant	RC 1	Anderson Spitfire	62	L/out				
6	Brian Laughton	RC 1	Super 60	120	DNF				



Electric 1/2A Placings 1st Steve Jenkinson 2nd Col Collyer and 3rd Kevin Fryer.



Col Collyer coming in to land after electric Duration fly-off.

Steve Jenkinson has his Dixielander launched by Robert Taylor.



Don Grant and Brian Laughton doing some fine tuning before Texaco.



Col Collyer's Flamingo '38 Antique winner.

Texaco winner Col Collyer and his Lanzo and OS46 complete with a Davis Diesel head.



Pat Keeley 2nd place Texaco with his Airborne.



## Number 74, Indian Mills .75 Diesel

By Charlie Bruce

The history of the Mills Brothers (no relation to the US singing group or the British circus of the same name), has been well covered by articles in *The Engine Collectors Journal* (four issues from October 1991 through May 1992) and in *Model Engine World* (six issues from October 1995 through April 1996). They make interesting reading if you want more details, though there is not total agreement by the several authors and experts on some points.

Bert and Frank Mills, through their company (Milbro) produced small steam engines, model railway products and related items in the 1930s. They resumed operation after World War II and in 1946 introduced the Mills 1.3 CC compression ignition (Diesel) engine, the first of its type produced in England. The engine, which was beautifully made and quite a good runner, was a great success. Several improvements in the design resulted in a solid market which led to various other models such as a .75 and 2.4 CC, as well as fuel cut-offs and water cooling. Production continued in England until 1964 with more than 60,000 units sold.

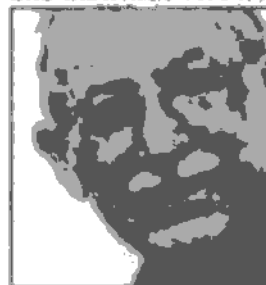
Indian Mills engines were produced by Kumar after Milbro ceased production and may still be available today. In addition to the Kumar engines at least eight other Mills replicas have been produced in England, Australia and Russia.

While I have none of the original Mills engines, I do have two of the Indian Mills .75 CC (.045 cu. in.) engines which I regularly fly. One is in a replica of Colonel Bowden's Porlock Puffin, which stays with my good friend Alan England in England, ready to fly free flight at Old Warden or Middle Wallop. The second engine, examined here, was assembled by me from various spare parts from Alan and from another good friend here in Texas, Bert Striegler. Bert is the designer of the Ebenezer, a nifty free flight sport model easily built of all sheet balsa.

Some of the Indian Mills engines are reported to be poorly fitted but the ones I have seen run quite well. Mine both had over-hardened crankshafts, the threaded portion of which broke off just ahead of the flats cut for the prop drive washer. They were repaired by centering the crankshaft in my lathe, annealing the stub, and then drilling and tapping for a 4-40 socket head screw to retain the prop. It is a simple engine to disassemble as well as an excellent runner. There are no screws.

**Disassembly.** Fuel tank/intake unit: the intake tube is threaded into the rear of the main case casting. It has a lock nut. You can set the tank at your desired orientation for upright, inverted or profile mounting. Loosen the lock nut and unscrew the assembly by hand. Note that the clear plastic tank can be quickly ruined by lacquer thinner, MEK or similar solvents. Use kerosene or another petroleum-based solvent to clean these parts. The tank is clipped to the tank top by two bent aluminum tabs (part of the tank top). Do not remove the tank unless as a last resort, as repeated bending of the tabs will result in their breaking off. The needle valve needle is threaded into the body with a small coil spring beneath

it to provide setting friction. The needle valve body is threaded into the intake tube and holds the tank top in place. Removal is not recommended.



**Rear cover.** The bar stock rear cover is threaded into the back of the crankcase. I use a small Cox wrench or the Austincraft multi-wrench to fit into the rear cover slots to unscrew it by hand. If stuck, a little heat makes it come right out. There is a thin paper or fiber gasket.

**Cylinder.** The cylinder head with compression adjusting screw (tommy bar), is threaded onto the main case and retains the cylinder/contra piston assembly. Using a small strap wrench or wood wrench, grip the cylinder and turn the case by hand to unscrew the head. If stuck, some heat generally loosens it. Resist the urge to grab it with pliers or a pipe wrench. If it is really stuck tight, mount the case in a wood block by all four mounting screws to hold it—never place the case of a model engine in a vise. The cylinder liner may now be lifted out, it's usually fairly tight. There are no gaskets. The contra piston may be pushed out the top of the liner, it will be very tight.

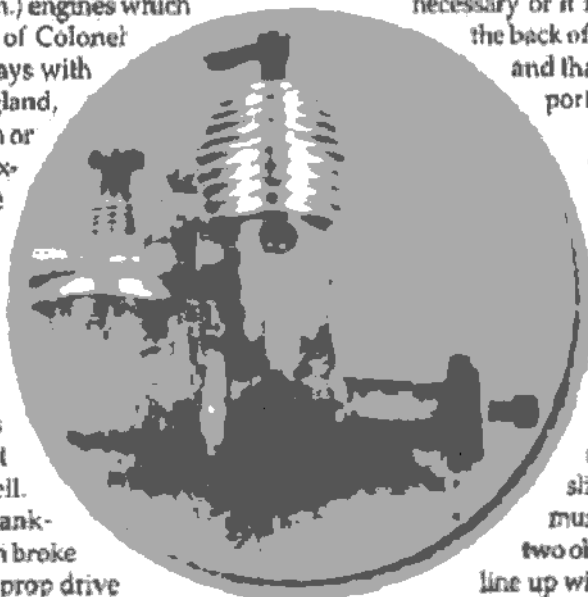
**Internals.** Slip the con rod off the crank and take the piston & rod assembly out the top. The wristpin is a tight press fit in the piston and should not be removed. The prop drive washer is usually a tight fit on the crankshaft drive flats. A small puller may be necessary or it may be removed by pressing the shaft out the back of the case. Be sure the case is well supported and that the emerging crank does not hit any support.

**Reassembly.** After cleanup and oiling, reverse the procedure, noting the following special points. Be sure the drive washer engages the crankshaft flats properly. Use a prop and extra washer to set the drive washer in place. When you install the piston & rod assembly be sure the baffle cut in the top of the piston faces forward. Examine the cylinder sleeve and note that there are two pairs of round holes in the cylinder; the larger pair (intake) is located slightly below the smaller pair (bypass) and must be placed at the rear of the engine, and the two oblong exhaust ports, one on either side, must line up with the exhaust ports in the case.

**Test Run.** When starting a new Diesel engine or a reassembled one for the first time I locate a starting point for the contra piston setting with the following procedure. Install a prop and be sure the engine turns over freely. Slowly tighten the compression adjusting screw while turning the engine, until it just locks up (that is, the piston hits the contra piston). Back off the compression adjusting screw one full turn. Fuel up and start with either an exhaust prime or a choke with the needle valve open 2-4 turns. My Indian Mills 75 serial number A Z 77 turns a 8-4 Top Flight wooden propeller at 7300 rpm on the standard Diesel mix of one third castor oil, one third ether, and one third kerosene.

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(1939)

# OHLSSON .56 GOLD SEAL

BC

The 1939 Ohlsson Gold Seal, shown here, is generally known as the « taper fin » version, with reference to the previous (1938) version, which had a definite « step » in the fin profile.

This was the last engine made by Irwin Ohlsson « on his own », before he teamed up with Harry Rice and the marque became Ohlsson and Rice (O&R), in 1940.





### Sunspot 121

6lbs converted to electric.

3 cell set up and about 450 watts gives a spirited climb out.

Glides forever.

C of G on 50% at the moment.

Not the most enjoyable build given the designer's obsession with weight.

Very fragile building.

Full-size PDF Plan available from:

[http://www.outerzone.co.uk/plan\\_details.asp?ID=7318](http://www.outerzone.co.uk/plan_details.asp?ID=7318)



### From SAMTalk...

Well guys, my beloved, perfectly flying at last, Satellite 788, with 1 1/4 ozs of 60% in the pacifier, at Palm Bay, was launched with my thumb slipping off the starter lever and climbed for about a minute, (not sure what terminal velocity is for this baby) OOS into the blue, heading NNW 25 degrees. Wind was 12 mph. Headed towards the ocean only 8 miles away.

Searched all of SE Florida for 5 days and no signal. Be nice if someone found it. I'm now at peace with this. I guess I'll just fly my Gollywock and towline gliders for awhile.

Merry Christmas to all! Thermals! Dick Bertrand.



**BALLARAT OLDTIMER WEEKEND**

Report from CD Don Grant Photos by Kevin Howard via Graeme Gulbin.

The day was rather cold with a little light drizzle to start and a gusty wind.

A poor attendance from SAM 600 members with only five turning up. Graeme Gulbin was a notable absence because of an operation to have a stent placed in his groin. I visited him after the comp and he is getting on well after the operation.

The day started with an hour of climb and glide which was tackled enthusiastically by the Ballarat flyers with Dave Sampson managing to complete eight flights. Danny Missen flew a light weight very well built electric Bomber I would guess about 75% and had the best flight of the day with a time of twenty minutes nine seconds. Followed by Kevin Howard with eleven minutes thirteen seconds but then the throttle arm on his OS 25 broke and his day was finished. Steve Gullock managed six flights to come in third.

Texaco was flown next in the hope that the wind might abate enough for 1/2A later. Three of the five entrants made the flyoff with Don Grant first, Steve Gullock second and Dave Sampson third. Kevin Fryer was using a Fleetwing 60 motor which proved to be rather uneconomical and he failed to make the flyoff.

Only two 1/2A flyers were willing to brave the increasing wind so that class was abandoned and we retired to the shed for the prize giving.

Don Grant.



Above: Kevin Fryer presenting plaque to Dave Sampson, 3rd Texaco.

Below: Kevin Fryer presenting plaque to Don Grant, 1st Texaco.



Climb & Glide Placings 2nd Kevin Howard 1st Danny Missen 3rd Steven Gullock.



Above: Don Grant's Texaco winning Bomber on final approach.

Left: Kevin Fryer presenting plaque to Steven Gullock 2nd Texaco.





Texaco Placings 2nd Steven Gullock, 1st Don Grant and 3rd Dave Sampson with some damage.

**BALLARAT 25<sup>th</sup> November 2018**  
**Results from the Contest Director for IC Engines**

**TEXACO**

Name	Model	Engine	CC/sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL	
1	Don Grant	Lanzo Bomber	Anderson Spitfire	24	600	600			557	1757
2	Steven Gullock	Lanzo Bomber	Enya 53	15	600	600			425	1625
3	Dave Sampson	Lanzo Bomber	OS 52	15	600	600			369	1569
4	Kevin Fryer	Cumulus	Fleetwing	20	404	600	451			1051
5	Dave Missen	Lanzo Racer	Enya 53	15	371	600	Out			971

**CLIMB & GLIDE**

Name	Model	Engine	CC/Sec	Rd 1	Rd 2	Rd 3	Rd 4	F/O	TOTAL	
1	Danny Missen	Lanzo Bomber	Electric	40	426	1209	611			1202
2	Kevin Howard	Dallaire	Enya 55	40	229	673				673
3	Steven Gullock	Lanzo Bomber	Enya 50	40	490	461	324	360		490
4	Kevin Fryer	Lanzo Bomber	Electric	40	171	425	268			425
5	Dave Sampson	Playboy	OS 40	40	304	333	324	347		347
6	Brian Dowie	Stardust Special	Electric	40	252	329				329





## FOR OLD TIMER'S SAKE.

By Don Howie.

**SIMPLE FREE FLIGHT.** I suspect most people know the A.M.A. Delta Dart rubber model, designed by Frank Ehling and produced by Midwest Products in the U.S.A., to give to beginners. Maris Dislers recently took a dozen or so to Mongolia when he travelled with wife Jill on the Trans Siberian Railway to Russia etc. The models were built there and flown by young students.

The model goes very well and Maris made an enlarged version (of a sort) for the F/F Abomination Event at the recent Cowra Oily Hand weekend. It was powered with a Cox .049 reed valve glo engine with separate fuel tank, turning a 7x4 Taipan prop. Engine run was 8 or 9 minutes and in the contest, he managed a flight of about 12½ minutes under the calm conditions on the Sunday morning. The model is built from square balsa (no airfoil), covered with laminating film, red dayglow paint added and flashing lights. Now he has won 2 x Schlosser 0.25cc BB diesels (last 2 years), he is now banned from flying in the comp again.

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Maris recently designed a simple 30 inch span F/F model he has named "Presto", the object for it to be a free plan in Aero Modeller magazine in the future.

The wing is constructed from 1/4 inch square balsa, the tailplane from 3/16 inch square balsa, and the fuselage cut from 3/8 x 1 inch balsa.

I built mine from measurements, no need for a full size plan, and I made the fuselage 2 inches shorter. I also curved the tips of the wing and tail. It was designed for 1/2 cc diesels (or smaller) and the old 1/2A (0.8 cc) glo engines from the late forties and early nineteen fifties.

The pylon is glued to the wing and this can be slid along the fuselage to get the CofG right. The model is covered (wing and tail) with laminating film and I have doped on strips of coloured tissue. Large, sponge wheels added for easy take offs and landings.

Maris has fitted the new SAM 35 diesel, that is 0.35 cc and was recently tested by him for Aero Modeller. I am using an Arne Hende replica of the 1952 ELFIN 50 diesel that was slightly modified with a gasket under the cylinder, so that it runs nicely on a 7x3 Master Airscrew prop.

Both models were flown at the Oily Hand Weekend (Cowra) and they are very stable to fly with a slight amount of left rudder. Not having an airfoil section (but plenty of incidence) means that the glide is quite poor, so one can have a fairly long engine run, under calm conditions. The engines we are using are very expensive to buy these days, but an old OK Cub 0.49 or Anderson Spitzzy etc. is cheaper.

**VARIOUS EVENTS.** We try to have contests each month at Willunga Vintage Modellers' Club, this being after the Club Meeting on the last Thursday of the month, as we are all retired flyers. We usually get up to 8 flyers (including electric models) and the results of a ½A Texaco event is shown in the photo. As we have to limit height at the field, we hold the model for 1 minute before releasing, then deduct one minute from the time on the stop watch.

It was interesting that in the event of 3 rounds with 2 to count, we still had 2 flyers with two 7 minute maxes. Bill Britcher elected not to do a fly-off so Ray Bobrige won the event with a Kerswap. It was good to see different model types.

Latest Texaco model from Rex Brown is his 89 inch span (full size) 1937 Jasco Flamingo and he has used left over covering (iron-on) for his new model. I find the transparent Orange covering from Hobby King, works well and is low cost. The engine fitted is an ASP 40 glo converted to diesel by Geoff Potter and Rex has fitted a small ENYA throttle etc.

Our most recent event in October 2018 (after the Club meeting) was 2cc Duration with 8 entries (2 electric) and this started at 12.30pm under calm



Maris Dislers' enlarged F/F Delta Dart won Abomination F/F event at Oily Hand weekend, Cowra, August, 2018 with 12½ minute flight.



Maris Dislers in Western Parklands of Adelaide with his 30" "Presto" design powered by a SAM 35 Diesel .35cc by Red Fin which was recently tested by Maris in Aeromodeller.



Don Howie with 30" span modified "Presto" design by Maris Dislers powered by Arne Hende replica Elfin 50 diesel.



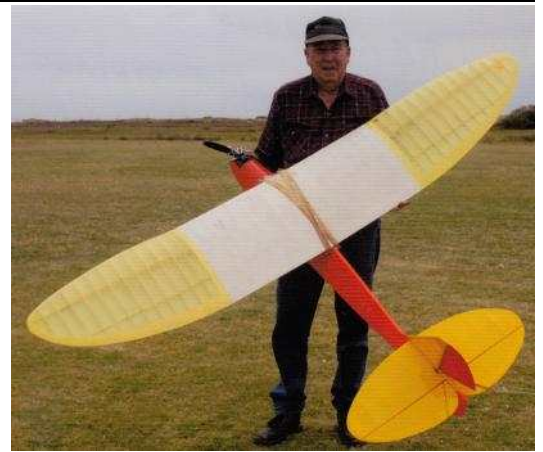
The "Presto" is a great flying model. Glide is poor so you never lose it.



conditions. Rex Brown with his Jumping Bean with Taipan Tyro 1.9cc diesel, got a 5 minute max on the first round, along with Chris Britcher flying an RC-ONE with Cipolla 1.5cc glo. Chris got another five minute max on his second round, but shortly after this the wind became very strong, blowing two models out to the sea, one being the "Crescendo" by Ray Bobrige. Rex Brown managed to land on the beach but a long way from launch. At the time of writing Rex had not found his model.

**INTERESTING ENGINES.** I have owned several Ohlsson 23 (later O&R 23) sideport spark engines, but could never get much power out of them. This latest one has a new gasket fitted by the late George Tallent and is shown running by Bill Britcher on petrol/oil mix. It turned a 10x4 Rev-Up wood prop at 55,800 revs, which I think is rather poor performance. I suspect back-in 1938, when they were first released, this may be reasonable performance. The front rotary models from 1948 are excellent runners.

Another engine Bill Britcher tested recently was the RCV 58 CD four stroke glo engine made in England in the nineteen eighties. He could not get this cylinder rotating engine to run until the timing was adjusted and the carb needle also adjusted. It is shown running on a 13½x6 Bolly Clubman at 7,600 revs, do not run them on small props.



Rex Brown at Willunga Vintage modellers field S.A. with his 89" span 1937 Jasco Flamingo with multiple left over iron-on covering.



ASP 40 Glo converted by Geoff Potter to diesel with small Enya carburettor in Rex Brown's Flamingo.



Winners at recent ½A Texaco Event at Willunga Vintage Modellers' Club, Cox .049 reed valve engines L to R: 3rd place Rex Brown with his RC-ONE, 1st place Ray Bobrige with his Kerswap and 2nd place Bill Britcher with his Stardust Special.



1946 O&R 23 sideport spark engine running at Bill Britcher's home.



Rotary cylinder 4 stroke RCV 58 CD running at Bill Britcher's home.

## 71st MAAA National Model Aircraft Championships - West Wyalong 2019

The New South Wales Free Flight Society in conjunction with the host club, the West Wyalong Model Aero Club, are pleased to host the 71st National Model Aircraft Championships.

Other bodies proud to be associated with the 71st National Championships include the New South Wales Free Flight Club and the Coogee/Bronte Aero Technicians Society, Victorian Miniature Pylon Racing Association, NSW Scale Aircraft Association, NSW Pattern Flyers Inc, Control Line Aircraft Society and Society of Antique Modellers.

The 71st National Championships will feature more than 84 events across eight days at five sites situated within 15 minutes of West Wyalong from 24 April to 1 May 2019.

From aerobatics to graceful gliders, replica scale models to exciting control line combat, the Championships will have something for everyone, from novice flyers to the most experienced.

The Championships are a fantastic opportunity for people to learn more about the sport. The 2019 event will showcase the best in Radio Control, Control Line, Free Flight and Indoor flying.

Don't miss the opportunity to take part in this exciting event, experience the ultimate in competition and the thrill of flying.

Take a look at our program at:

<https://www.maaevents.com.au/images/pdf/2019-71st-Programme.pdf>

or register to fly at the 71st National Model Aircraft Championships now at:

<https://www.maaevents.com.au/about/register>

Come and see the best model aircraft in action and enjoy a spectacular day out with the family.

71<sup>st</sup> MAAA Nationals Championships – Program

Annex A

Date	Social Events	Rego Centre FF/RC Indoor	CL Aerobatic McAllister	CL Speed WW Airport	CL Combat Redman	FF AB Field	RC O/T AB Field	RC Hel Gun Club	Airport and AB Field	RC Pattern Scale/Airport	RC Glider Airport
Wed 24	Opening Ceremony Ind/ Stadium	8am-5pm Registration	Practice	Practice	Practice	Practice Funfly every day see CD daily	Practice	Practice	F5B Practice	Practice	Practice
Thu 25	Anzac Day Dawn Service	9am- O/Rubber Indoor fun fly	9am-4pm F2B AEROBATICS ADV & EXP	9am-1pm Combined/Jet Speed 1pm Junior 2.5cc Rat Race	10am-5pm 1/2a COMBAT Slow Combat	8am-2pm P30, F1J VIN RUBBER & GLIDER	10am-1pm 1/2A Texaco 1.30pm-5pm STD Duration		10am-6pm F5B Glider		IMAC Practice
Fri 26		8-12pm FF Static/Judging 12-5pm Practice 6pm-9pm F1D, F1L 6-9pm	9am-4pm F2B AEROBATICS ADV & EXP	9am-1pm F2C T/RACE Heats 1&2 1pm Classic FAI T/R	8am-5pm Jnr Combat F2D Combat	8am-12pm Vintage Power OPEN POWER	1pm-5pm Duration		9am-6pm F5B Glider	9am-5pm F3A PATTERN Expert & Advanced, Sportsman	9am-5pm IMAC B,S,I,A,U.
Sat 27		6pm-9pm IHLG, ICLG H/Rat, H/R Scramble Indoor fun fly	9am-4pm F2B AEROBATICS ADV & EXP	11am-2pm F2C T/Race Heats 3&4 F2C Finals 2pm F2F T/Race	8am-10.30am VINTAGE A T/R	8am-11am F4A SCALE  8am-2pm F1B	9.30am-10am Sport/Cabin SCRAMBLE 11am-5pm Texaco	PRACTICE		9am-5pm F3A PATTERN EXPERT & ADVANCED SPORTSMAN	9am-5pm F5J GLIDER IMAC B,S,I,A,U.
Sun 28	Swap Meet Auction 6- 9pm	Last day to register Indoor fun fly	9am-4pm F2B AEROBATICS ADV & EXP	11.30am-5pm Open R/ Race, SNR 2.5cc R/Race	9am-11am CLASSIC B T/R	7.30-8.30am SCRAMBLE 9am-11am HLG, CLG, DLG 9am-2pm E 36	10am-1pm Gordon Burford EVENT 1.30pm-5pm Nostalgia	9am-5pm F3C SPORTSMAN, Adv/Exp F3N	PYLON SETUP, PYLON PRACTICE	9am-5pm F4C, F4H F4G Open and Clubman	F5J GLIDER 9am-5pm IMAC B,S,I,A,U.
Mon 29	6pm-7.00pm Night Scramble 7.30pm BBQ AB field	CLOSED	Control line scale Demo/try/fly day	9am-11am Round 1&2 F2A SPEED  GOODYEAR.	8am-5pm VINTAGE COMBAT	8am-2pm F1C, F1A Open Rubber	10am-1pm 2cc DURATION 1.30pm-5pm '38 ANTIQUE,	9am-5pm F3C SPORTSMAN, ADVANCED. EXPERT. F3N	9am-11am Q500 12pm-2.30pm F3D 2.30-5.00pm F400 & F3T	9am-5pm F4C, F4H F4G Open & Clubman	Open Electric Glider
Tue 30		CLOSED	9am Classic Stunt	9am-11am Round 3&4 F2A SPEED 11am GOODYEAR 27sec/10 laps	8am-5pm OPEN COMBAT	8am-2pm F1H, F1G OZ DIESEL	10am-2pm Old Timer GLIDER	9am-5pm F3C SPORTSMAN, ADVANCED. EXPERT. F3N	9-11am Q500 12pm-2.30pm F3D 2.30-5.00pm F400 & F3T	9am-5pm F4C F4H F4G Open & Clubman	9am-5pm F3K R/C HLG, Open Thermal
Wed 1 May	Celebration dinner WW Services club	CLOSED	Vintage Stunt	Reserve Day	Reserve Day	RESERVE DAY	RESERVE DAY	RESERVE DAY	F5D	RESERVE DAY	F3K R/C HLG, Open Thermal 9am-5pm





## Alice Master Games

13<sup>th</sup> - 20<sup>th</sup> October, 2018. (7 Days)

To Alice and Back....

The trip starts for me after Eastern States Gas Champs at Wangaratta.

Hay, NSW, was my first overnight stop. I camped at a 'free camp' near the river. I was surprised to meet up with Joe and Liz, they had a model shop in Ballarat for 20 years, and then I went to Barossa Valley, S.A.

I went and checked out the Barossa Valley Flying Field, and it is a very good flying field. I then continued on to Arno Bay to meet Rod Carrick and family. At this point I got to fly Rod's very large Kerswap (Electric, 5 cell Battery Pack).

I then travelled to Port Augusta, filled up with fuel and had 1000kms to get to Alice Springs. With long straight roads and no travelling at night I arrived at Alice in the evening and went straight to the flying field. The field had a bitumen take off strip. There was a Friday night BBQ at the field and we all got wet when the rain pelted down with cold wind. This was the first rain in 156 days (they even had to light a fire!)

Next day I practiced F5J Electric Glider with my Radian to find the thermals.

Kevin Fryer arrived a day later. We registered for the games, got our bags and went back to the field and then got organised for the Opening Ceremony. The Opening Ceremony was great, we got to march into the oval. There were cameras everywhere. They had a big screen on stage which showed different people and their sports.

As this was the first comp for aero models we tried to get organized, but the wind affected "old timer models" comp was moved to the evenings so F5J was the first event. I had a good time flying in this event for two days. The "IMAC" was flown during the day and the "Old Timers" were in the evening. We therefore got all the events down.

The events run were ½A Electric Texaco, Burford, Texaco and Duration.

Two interesting celebrities were Daryl Sommers (from the "Hey Hey it's Saturday" TV Show) and Dawn Fraser (Olympian). Daryl was very interesting to talk to and actually had a fly of a model.

My Auntie Glad Gullock (90 years old) ran in a 90 metre sprint and won, her time was 15 seconds. She then run the mile and won that as well. Then it was on to bowls and she scored a silver and bronze medal.

The presentation night was on the take-off strip. Lots of tables and lights were set up. The main meal was eaten and while waiting for desert, an electrical storm came through with heaps of cold rain. Everybody ran for cover.

Presentations were then moved to a covered area, and lots of photos of the winners were taken.

The Closing Ceremony for the Masters Games was held on Saturday night. All in all it was a great experience and a wonderful week. I would love to go back in 2020.

Steven Gullock.

Report Steve Gullock and Graeme Gulbin, photos from by Jeff Tanner via Graeme Gulbin.



Top: Graeme Cook timing for Steven Gullock in glider.

Middle: L to R Ken Dunn, Alice Springs, Steven Gullock, and Woody, Alice Spring.

Above: Steven Gullock and Graeme Cook talking tactics.

Left: Texaco Winners L to R CD John Adams, 2nd Kevin Fryer, 1st Steven Gullock, 3rd Max Newcombe & MAAA Sec. Kevin Dodds





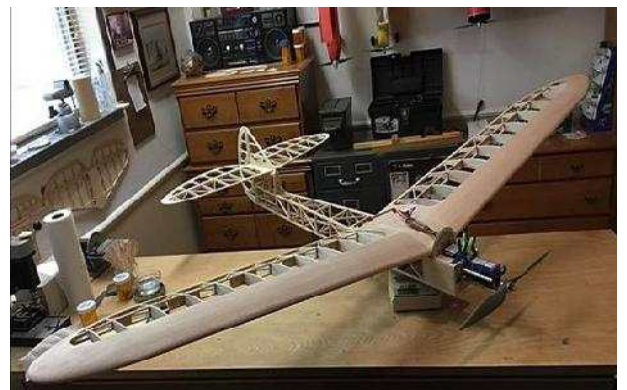
On Oct. 23, 1927, three days after its invention, the first rubber band is tested.



Jay Burkart and his Super Sinbad on 1970's vintage SOAR winch at Muncie 2018 SAM Champs.

**From Trevor Boundy** [SAM\\_Web@antiquemodeler.org](mailto:SAM_Web@antiquemodeler.org)

Hi All, I have been working solidly on the [SAM webpage](#) putting up Tandy Walkers multiple project documentation, it's compulsive and extremely detailed (may be tedious), but has some interesting stuff in my view, and you may find it interesting. Includes documented construction of:-  
[Cleveland Playboy Senior, 80 inch, Electric Powered](#)  
[850 sq. inch 82.8" Electric, New Cyclone Lancer](#)  
[637 sq. 72inch, inch McCoy 60 powered, Comet Sailplane](#)  
 Cheers Trev



**From Mike Myers** [mikemyersgln@charter.net](mailto:mikemyersgln@charter.net)

Jim Walston had to give up his free flight tracker business due to health problems.

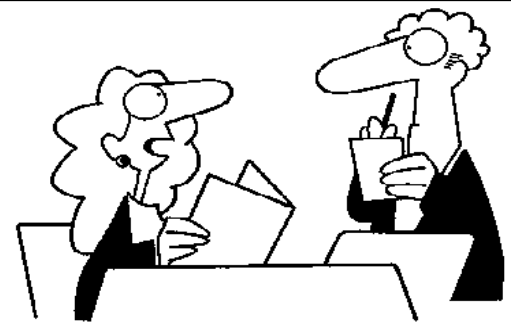
The business was assumed by WMI Model Aeronautics. They had a booth at the AMA Expo in Pomona, CA last weekend.

If you need a new "Walston system" or need additional or replacement transmitter bugs, you can contact WMI as follows:

URL: [www.wmimodelaeronautics.com](http://www.wmimodelaeronautics.com)  
 or  
 email [mikec@caretrak.com](mailto:mikec@caretrak.com)

WMI Model Aeronautics  
 1202 Walnut Street  
 Murphysboro IL 62966  
 800-842-4537 (toll free)  
 618-687-3505  
 618-687-3539 (fax)

Cheers,  
 Mike Myers



"I'm going to order a broiled skinless chicken breast, but I want you to bring me lasagna and garlic bread by mistake."

TRIVIA

Workers In Which Of These Non-Nuclear Industries Are Classified As "Radiation Workers" By The CDC?

Asphalt Production	Banana Packing
Port Inspection	Airlines

Answer →



**Answer: Airlines**

Every time you board an airplane and take to the friendly skies for business or pleasure, you're exposed to a tiny, tiny dose of cosmic radiation at a higher level than you would be exposed to down on the ground. For the average traveler or even a jet-set business person flying from coast to coast every week for work, the yearly exposure is trivial and nothing to worry about.

For workers in the airline industry, however, especially the air crews that man the vast fleets of planes in the air at any given moment, the exposure is more significant. In fact, the yearly exposure for a pilot, flight attendant, or other crew member is so high that not only does the Center for Disease Control classify airline crews as radiation workers due to the level of exposure, but among all radiation workers in the U.S., air crews get the highest annual dosage.

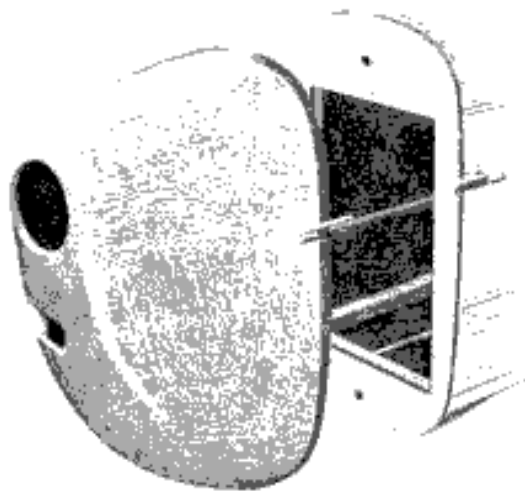
There is, however, a silver lining to this otherwise (seemingly) shocking fact. Even though air crews are exposed to the highest occupational levels of radiation, this is largely due to the fact that industry regulations are so stringent that even people who work with radioactive materials on a daily basis are exposed to an incredibly small amount of radiation. As a related and relevant fact, for example, Grand Central Station in New York City has higher levels of radiation present (because of the slightly radioactive granite the station is constructed from) than would be permissible at a nuclear power plant.



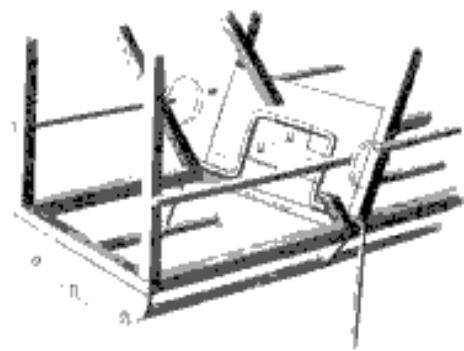
**By Pvt. Ted Lanham**

*Could be!*

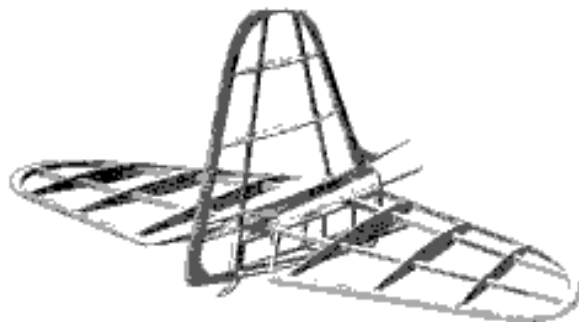
**COULD BE A FREE-FLIGHT JOB OR CONTROLLINER. THIS SEMI-SCALE CLASS B GASSIE HAS EYE-APPEAL, CONTEST-LIKE PERFORMANCE.**



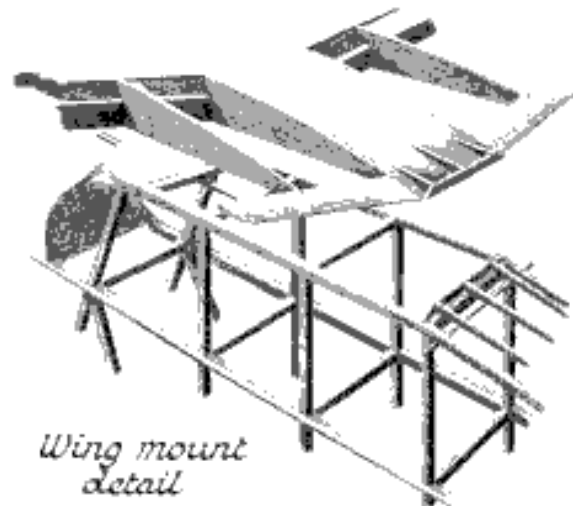
*Cowl attachment detail*



*Landing gear detail*



*Tail assembly detail*



*Wing mount detail*

THIS model is extremely realistic, both in the air and on the ground, because of its smooth, even curves and graceful cowling. The basic design was adapted from the Rearwin Speedster, which has proved to be a good stable design for flying scale-models, but several changes were made to improve stability. The finished model weighed very close to twenty-five ounces and used a Class B motor, though a large class A, such as the Bantam or Ohlsson "19," could be substituted with satisfactory results.

Due to the detachable motor unit, which will knock out if the model comes in too hard, we've never, to date, broken a single propeller. The inverted engine is almost completely cowled, and makes a very neat-appearing nose which at first glance seems to give the appearance of housing a high-powered in-line engine.

If you like a realistic model that will give the gruesome pylon jobs a run for their money, why not give this ship a try. Remember, "Could Be" can be flown either free-flight or control-line, depending

upon your choice. To convert your model for control-line flying, simply build in a control-line mechanism and reconstruct the stabilizer so that the area back of the main spar is movable.

The plans are easily enlarged - just follow the information given on the drawing. The formers can be enlarged by constructing a rectangle of the required width and height and connecting the mid-point of the top or bottom, as the case may be, with the two opposite ends by a smooth, well rounded curve. The first stringer is always in the middle of the former. The other stringers can be located by drawing a line from the mid-point opposite the center stringer to a diagonal corner of the rectangle. The point where it crosses the curve of the former is the location of the stringer, which is  $1/8" \times 1/4"$ .

The fuselage is constructed in the conventional box method. Pin  $3/16"$  square strip on the plan wherever designated, and glue in the uprights. While they are drying thoroughly, fill in, between stations one and two, with  $3/16"$  sheet. This



will help hold the shape of the sides when removed from the plan. Cross braces may now be glued in place. Form the landing gear and install it before stringers are added. The plywood piece which holds the landing gear bolts must fit tightly and be glued well. Now that the landing gear is installed, fill in between stations two and three with 3/16" sheet.

Cut all the necessary fuselage formers from 1/16" sheet wood and glue the bottom ones in place. Add the stringers to both side and bottom, tapering the side stringers to proper size after they are dry. The stabilizer and main rudder spar must be added before the top stringers can be glued in place.

The stabilizer and rudder are simply and easily constructed. The ribs are symmetric, non-lifting airfoils and, therefore, are easy to enlarge.

In gluing the stabilizer to the fuselage, be very sure that it is at 0° incidence. If it is not, difficulties will arise in flying.

The top body formers may now be glued in place and the center stringer added, leaving enough length in the rear to reach the main rudder spar.

The rudder is built in much the same manner as the stabilizer. The main, or rear, spar is tapered from 1/8" x 3/8" to 1/8" square at the tip. The bottom of the rudder is tapered from a 3/8" square to 3/8" x 1/8". This is the only unusual part of the rudder. Leave the lower part of the leading edge square for the fillet. After the rudder frame is constructed, cut the top stringer to the required length and fit the rudder onto the fuselage.

The other stringers may now be put in place. The space between the top of the stabilizer and the first stringers is filled in with 1/16" sheet balsa, and sanded smooth. Rib outlines of 1/16" sheet are glued against the fuselage, on the stabilizer, top and bottom. This furnishes a surface to which the covering may be fastened on the fuselage, giving a one-piece appearance. The 3/16" sheet rudder fillet is glued to the framework, and sanded, completing construction work on the tail.

The 1/16" plywood cowling ring should be glued in place next. It is the same shape as the firewall. Cut out the center to coincide with the main construction of the nose.

The firewall should be made at the same time as the cowling ring, to be sure they match. After the cowling ring has dried, the firewall is placed against it and held tightly while two holes are drilled through both for dowel pegs, which line up the fuselage and cowl.

Now add such details as the 1/16" sheet

covering in front of the windshield, the 3/32" dowel windshield braces, dowel for mounting the wings, the 5/8" diameter holes for priming the engine, the cowling attachment hooks on the nose, and the 1/16" steel wire tail skid which is bound on with thread and glued.

The body and tail group is now ready for covering. Silkspan was used to cover the original model because of the ease with which wrinkles are avoided when this covering is applied damp. The stabilizer is covered in the usual manner,

If care is taken, the rudder can be made to appear an integral part of the fuselage by doping the covering to the outline of the rudder, the fillet, and the lower part of the sheet-covered section above the stabilizer. Do not dope the paper to any of the ribs, not even the base rib. The covering must be stretched tightly, while wet, to prevent wrinkles at the fillet. The paper need only extend forward from the fillet approximately two inches. From this spot to the very back, the rudder is covered in one piece. In front of the fillet the paper is glued to the stringers outlining it. If any wrinkles result in the fillet, dope this section and, when dry, cut out the wrinkles and replace by a small patch. It is most probable that this small patch will never be noticed and the smooth fillet really improves the appearance of the model.

Before covering the body make sure the formers are all sanded hollow enough to prevent touching the surface. Any place where the former touches the covering will show a hump. The body is covered in several strips in order to prevent wrinkles. The side is covered in two strips, the lower one running from the center-line stringer to the lower longeron. The upper section runs from the center-line stringer to the center stringer on top, thus covering half the top. The bottom is divided into two sections by the center stringer. Now cover the surface in front of the windshield, and the fuselage is ready for doping. Be sure to dope the inside of the cabin before putting on the celluloid windows - then no white wood will mar the model's appearance. Glue the windows in place, then paint their outlines.

Now for the wiring and cowling. This will vary slightly with each modeler, depending on the motor he uses. The model was designed for a radially mounted motor; but the changes required for a lug mount would be few.

The wiring is all mounted on a 1/4" x 1/2" hard balsa track which slips into a bracket glued within the body. The wiring is all within the body, including an Austin Midget Tinier which is pulled, by

string, through a grommet in the fuselage side. Penlite batteries should be used.

In order to operate the needle valve, a long spring attachment was soldered to the Ohlson 23 needle valve. It was the same as a "Jiffy Juster," and was just long enough to reach outside the balsa, fill in the nose.

The wing is the most simple thing to construct on this model. The ribs are cut from 1/16" sheet and sanded well. The leading and trailing edges now must be shaped and sanded; also, the trailing edge must be notched to receive the ribs. Four inches from the end, the spar begins to taper from both top and bottom to 3/16". The wing tips are cut from 3/16" sheet and sanded well. Assemble the two wing halves on a flat surface and let them dry thoroughly. While they are drying, cut the 1/16" plywood dihedral brace and prepare it to join the wings.

The center spar in this wing runs all the way to the center line before breaking. After the wings are formed, the bottom of the spar is trimmed flat and a small triangular piece is added on the top, making the spar 1/2" inch thick at the center. The leading and trailing edges of the center section are now added and the center rib glued in place. When this is dry the 1/32" sheet leading edge covering is added on top, and the center section is covered with 1/16" sheet on

both top and bottom.

The small fillets on the wing are easily made. Place some wax paper over the body where the wing mounts and then strap the wing in place with rubber bands. A strip of 1/16" sheet is now glued to the trailing edge and former 7-T. Now continue the stringers onto the wing. When covered, this makes a smooth blending of wing to fuselage.

The front fillet is shaped from a block of 3/8" x 3/8" x 3", and glued to the leading edge of the wing. Sand the entire frame to eliminate glue points and roughness. The wing is easily covered because there is no undercamber to the airfoil. After the plane has been doped well it is really for the test hop, provided there are no warps drastic enough to cause trouble.

The model flew right off the drawing board, so to speak, with a climb that was a great surprise. The model had a tight left spiral that was comparable to most contest models. The motor has never yet been opened up, and it does not need to be. This fourfoot model tipped the scale at exactly 24 ozs. with hardwood longerons, uprights, cross braces, and wing spar. The glide was expected to be extremely fast, but in reality it was slightly faster than the average contest model. For control-line flying, a model like this would please any builder with its looks and performance.

## *Scanned From April, 1944 Air Trails Pictorial*



Rearwin Speedster was used as basis for this design. Model, ready to fly. 25 ozs.





# MAJESCO 2.2 CC DIESEL

*One of  
Claude Bowden's  
favourites*



*Early version used  
the carb/tank assembly  
from the spark ignition engine*



*Later engine  
with attractive embossed  
plastic tank, fuel cutout  
and  
chromium plated  
compression screw*

*and serial numbers  
on the backplate...*



**Engine cleaning from Bill Wells and Sticks & Tissue.**

Using simple and cheap tools I recently cleaned a Blue Bird 32 engine. I appreciate that not everyone has an unlimited selection of elaborate cleaning equipment so here are just a few tips that keep cleaning costs down. I realise that this engine may not be the sort of engine you might want to tidy up and put back into service but cleaning is cleaning. My most useful tools are, cotton buds, an old turkey roasting tray, scalpel, small scissors, awl, rubber gloves, paper hankies, a very small jam jar and a large jam jar with a big top (honey jar). A battery terminal puller is very handy and the one as shown is available at a Mart that sell Machines for £8-39! An old tooth brush that does not melt in cellulose thinners. Brushes that look like extra large toothbrushes with steel, brass, and plastic bristles are available in threes at most Pound Shops. Another very cheap and useful tool that usually sells for about £2 is a small ratchet lever that comes with a few screwdriver and socket attachments. A Compass Cutter is invaluable for cutting out gaskets. Standard cellulose thinners available at car finishing shops for about £8 a gallon is used to dissolve caked on castor oil. This engine was so dirty I had to use washing up liquid and water to get the worst of the dirt off.

Remember if an engine is caked in dirt DO NOT turn it over because if there is a small bit of grit in the wrong place you will ruin the engine. If an engine is locked solid do not turn it with brute force. If seized up but clean use a bit of fuel to lubricate the engine especially behind the prop drive and with a propeller gently rock the crank do not force things if it doesn't move. If that does not work remove all plastic parts, rubber grommets, parts with decorative painted surfaces but especially the back plate and soak overnight in thinners that should loosen things up. **WARNING**, some small engines have ball joint little ends, if the piston is seized in the cylinder you will pull the ball out of the piston if you turn the crankshaft to pull the piston down.

Wear Eye Protection especially when using solvents. Thin rubber gloves are a good idea but they expand and break easily if exposed to large quantities of solvents. To avoid skin contact with the solvent use a small pair of pliers or tweezers to pick the engine parts out of the solvent. Dry the parts on a paper hankie in this way the gloves will not perish quite so quickly. There is a **VERY SEVERE RISK OF FIRE WHEN USING CELLULOSE THINNERS. THE THINNERS IS TOXIC AVOID BREATHING IN OR USE IN A CONFINED SPACE.**

Castor oil congeals around screw threads and makes them almost impossible to move in severe cases the use of an oven heated at 150°C for 15 minutes can be helpful but ensure there are no plastic parts or surface finishes that could be damaged before you try this. In a lot of cases head screws can be removed by **LIGHT** taps from a small hammer onto a ratchet lever screw driver while applying anti clock wise pressure.

Be very careful to use only well fitting bits especially on cross head screws. A three ounce blow from a hammer puts about 15lbs per square inch on a 1/8 inch screw. Lots of light taps with a small hammer are all that is required. The reason this works is the taps momentarily jar the threads away from their locked surfaces while the sideways pressure allows the screw to release. With small screws very light rapid tapping and only a modest amount of anti clockwise pressure while making sure the screw driver tip does not slip off the screw head should work. If this doesn't try heating up in an oven and use thick leather gardening gloves when handling the engine.

Cotton buds dipped in thinners are invaluable to get into corners as are small toothbrushes but make sure you use some sort of eye protection. You do not want thinners flicked into your eyes. When pulling off a propeller drive



*As bought*



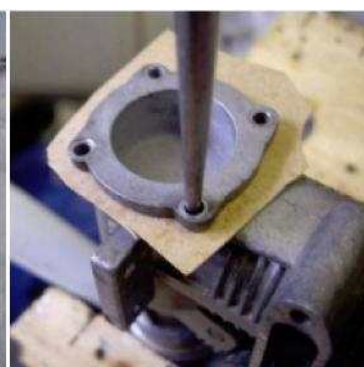
*After cleaning*



*Cellulose Thinners*



*Check Correct size*

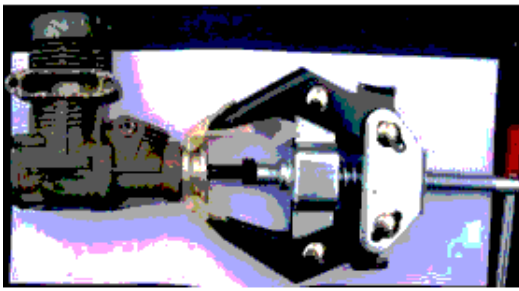


*Fit Gasket Under Back Plate*



*Fit screws carefully cut away surplus*





Getting to Grips

make sure the drive is not damaged by taping the ends of the puller. Use a nut of the same thread as the prop shaft on the end of the shaft to reduce the risk of damage to the shaft threads when applying the puller. The compass cutter normally comes with two scales the upper one measures the diameter while the lower one is used to set the radius. It does not seem to matter how careful you set the cutter the hole never seems to be quite the right diameter. Trust me always cut a hole in a scrap piece of paper to check and then adjust the size before cutting into that precious gasket material!! There is a shop in most big towns that gives away cutting boards with tear off pages which ensure a clean fresh surface each time you cut something out. 'R-Gus' ever-renewable cutting surfaces are ideal for all small cutting jobs and particularly good for compass cutting.



In Pieces

No doubt other people do things other ways so why not write in with your tips. I have been told of various cleaning methods, which no doubt work, but some, to my way of thinking are down right dangerous and not worth the risk. As already mentioned cellulose thinners is very dangerous stuff it presents a severe fire risk and is toxic so do be very careful when using it. A lot of engines are damaged by being taken apart needlessly. In this case things were so contaminated I had no option.



Ready to clean

The engine had been very badly treated it had laid perhaps on its left side in damp conditions for a very long while. Although it came with a box and papers everything was in a mess and the whole lot covered in dirt. There had been a considerable amount of dampness on the right side of the engine causing pitting.

On the positive side it was bought for £7-08 (one of two engines bought together at an auction) it came with an OS siencer and now runs very well, so the effort to clean it was worthwhile!! Assemble engines in a dust free and clean area and please use a little oil on the moving surfaces!! Store cleaned engines in a clean plastic bag to keep the dirt and grit away from them.



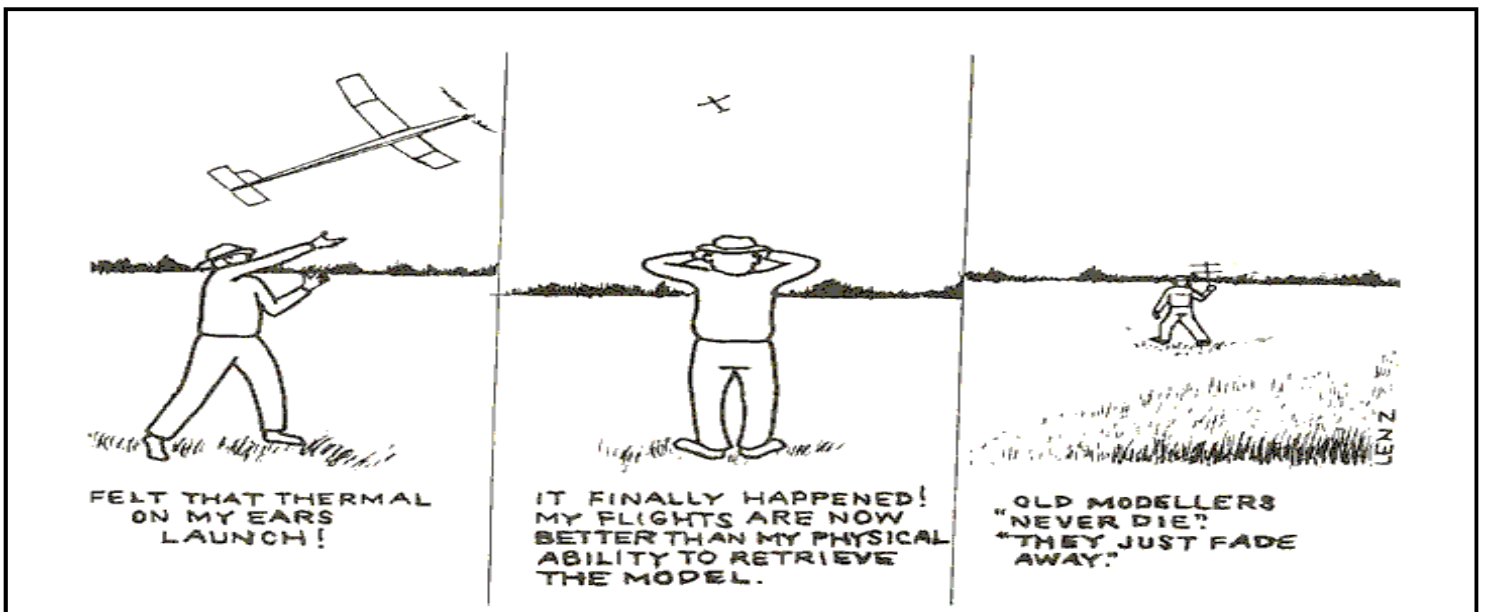
Gummed up (not Blue Bird)



Ratchet Lever



Measure Diameter.







**SHORT ONES.**

- )After my wife died, I couldn't even look at another woman for 10 years.
- )But now that I'm out of jail, I can honestly say it was worth it.
- )Got an e-mail today from a "bored housewife 32, looking for some action!" I've sent her my ironing, that'll keep her busy.
- )The wife's been hinting she want's something black and lacy for her birthday. So I've got her a pair of football boots.
- )Growing up with a dyslexic father had its advantages. Whenever he caught me swearing, he used to wash my mouth out with soup.
- )My wife asked if she could have a little peace and quiet while she cooked the dinner, so I took the batteries out of the smoke alarm.
- )Anyone got an owner's manual for a wife? Mine's giving off a terrible whining noise!
- )My wife apologised for the first time ever today. She said she's sorry she ever married me
- )My wife said I needed to be more in touch with my feminine side, so I crashed the car, burnt the dinner and ignored her all day for no reason.
- )Scientists have discovered a certain food that diminishes a woman's sex drive by 90 percent. It's called wedding cake.
- )Things turned really ugly at my house last night. The wife removed her make up.
- )My wife shouted at me this morning for not opening the car door for her. I would have, but I was too busy swimming to the surface.

**After being married for OVER FIFTY years, my wife asked me to describe her.**

I looked at her for a while, then said,  
 "You're an alphabet wife:  
 A, B, C, D, E, F, G, H, I, J, K."

She asked,  
 "What the hell does that mean?"

He said,  
 "Adorable, Beautiful, Cute, Delightful, Elegant,  
 Foxy, Gorgeous, and Hot."

She smiled happily and said,  
 "Oh, that's so lovely; but what about I, J, K?"

I said, "I'm Just Kidding!"

The swelling in my eye is going down  
 and the doctor is cautiously optimistic  
 about saving my testicles.

Other than that I am O K.

**This actually happened to an Englishman, in France, who was totally drunk.**

A French policeman stops the Englishman's car and asks if he has been drinking.

With great difficulty, the Englishman admits that he has been drinking all day, that his daughter got married that morning, and that he drank champagne and a few bottles of wine at the reception, and many single malt scotches thereafter.

Quite upset, the policeman proceeds to breath test the Englishman and verifies that he is indeed completely hammered.

He asks the Englishman if he knows why, under French law, he is going to be arrested.

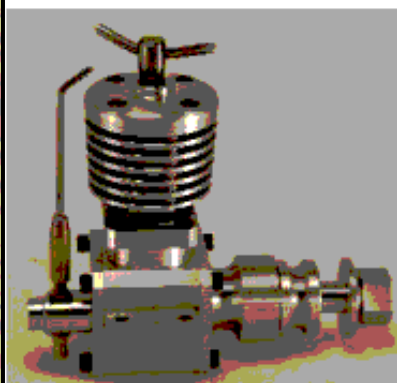
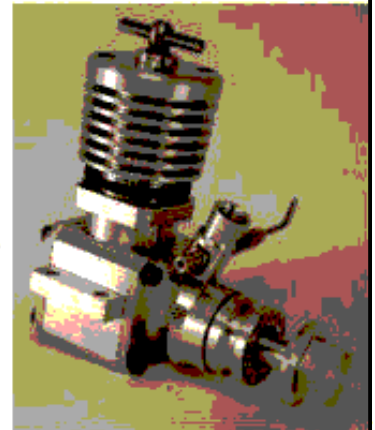
The Englishman answers with a bit of humour, "No sir, I do not! But while we're asking questions, do you realize that this is a British car and my wife is driving . . . on the other side.



**CHARLIE STONE'S NALON VIPERS**

In the mid-fifties,  
 Norman Long,  
 one of the Yulon partners,  
 made an attempt to produce  
 a competitor for the  
 Oliver Tiger TR diesel.  
 He called it the Nalon Viper.

Drawings exist and,  
 a few months back,  
 Australian reader  
 Charlie Stone  
 made this fine replica.



While he was at it,  
 Charlie thought  
 a rear induction version  
 would be interesting...

Et voilà...



Record International  
de DISTANCE

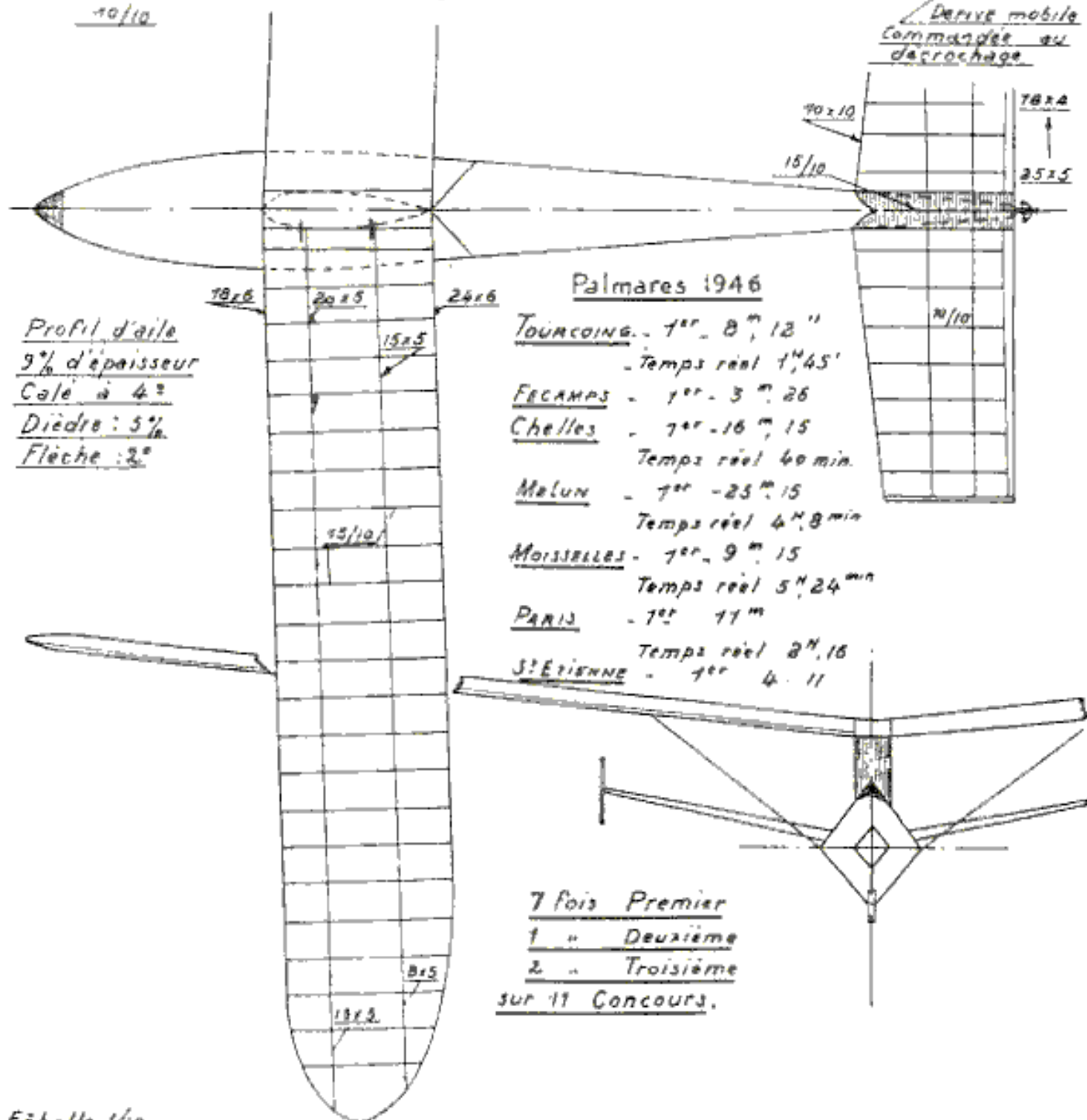
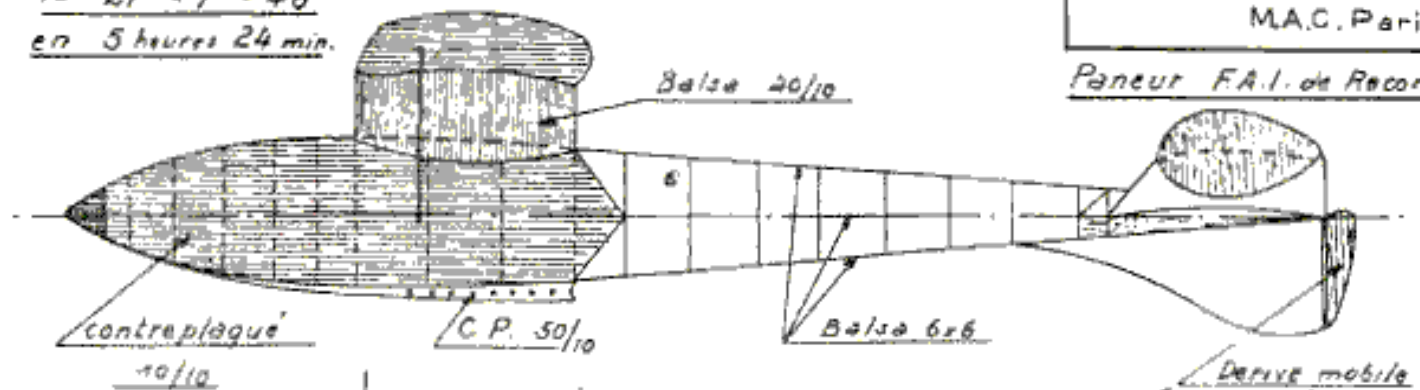
98 km. 720  
le 21 - 7 - 46  
en 5 heures 24 min.

Envergure : 2,86 m  
Longueur : 1,57 m  
Surface : 75 dm<sup>2</sup>  
Poids : 1.150 gr.

VADROUILLEUR  
par H. VARACHE

M.A.C. Paris

Piloteur F.A.I. de Record



Profil d'aile  
3% d'épaisseur  
Cale à 4°  
Dièdre : 5%  
Flèche : 3°

Palmares 1946

- TOURCOING - 1<sup>er</sup> - 8<sup>m</sup> 12<sup>"</sup>  
- Temps réel 1<sup>h</sup> 45'
- FECAMPS - 1<sup>er</sup> - 3<sup>m</sup> 26
- Chelles - 1<sup>er</sup> - 16<sup>m</sup> 15  
- Temps réel 40 min.
- Malun - 1<sup>er</sup> - 25<sup>m</sup> 15  
- Temps réel 4<sup>h</sup> 8<sup>min</sup>
- MOISSELLES - 1<sup>er</sup> - 9<sup>m</sup> 15  
- Temps réel 5<sup>h</sup> 24<sup>min</sup>
- PARIS - 1<sup>er</sup> 11<sup>m</sup>  
- Temps réel 2<sup>h</sup> 16
- S<sup>t</sup>ETIENNE - 1<sup>er</sup> 4. 11

7 fois Premier  
1 " Deuxième  
2 " Troisième  
sur 11 Concours.

Echelle 1/10



# Contest Calendar 2019

**SAM 600 Australia**  
**Victorian Old Timers Association Inc.**  
 19 Cunningham Drive  
 Endeavour Hills  
 Vic 3802

**Contests commence at 9 am, unless otherwise stated.**

## The 2017 MAAA Rules apply

Climb & Glide in brackets will be flown only if time permits

The CD for all SAM600 events will be nominated on the day of the event

**General Meeting Echuca 8.30am March 17<sup>th</sup> / AGM Echuca 8.30am September 22<sup>th</sup>**

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

February 2 <sup>nd</sup> & 3 <sup>rd</sup>	<b>P &amp; DARCS CARDINIA 10 am Start</b> <b>Saturday:</b> Classic Aerobatics, Vintage Gliders, Fun Fly, Foam Gliders <b>Sunday:</b> Roy Robinson Trophy Texaco, Duration,
March 16 <sup>th</sup> & 17 <sup>th</sup>	<b>ECHUCA</b> <b>Saturday:</b> 1/2A Texaco, Burford, Duration <b>Sunday:</b> 8.30am General meeting, Texaco, 38 Antique, (Climb & Glide)
April 17 <sup>th</sup> - 22 <sup>nd</sup> Easter	<b>CANOWINDRA SAM Champs Down Under</b> <b>SAM 1788 Competition</b>
April 24 <sup>th</sup> - May 1 <sup>st</sup>	<b>71<sup>st</sup> AUSTRALIAN NATIONALS West Wyalong N S W</b> 25 <sup>th</sup> 1/2 A Texaco ---- Standard duration 26 <sup>th</sup> Anzac Day ---- Duration 27 <sup>th</sup> Scramble ---- Texaco 28 <sup>th</sup> Burford ---- Nostalgia 29 <sup>th</sup> 2CC ---- 38 Antique 30 <sup>th</sup> Old Time Glider
May 4 <sup>th</sup> & 5 <sup>th</sup>	<b>COHUNA Vic / SA Champs</b> <b>Saturday:</b> 1/2A Texaco, Duration, Burford <b>Sunday:</b> Texaco, 38 Antique
May 18 <sup>th</sup> & 19 <sup>th</sup>	<b>BALLARAT</b> <b>Saturday:</b> 1/2A Texaco, Duration, Burford <b>Sunday:</b> Texaco, 38 Antique, Climb & Glide
September 21 <sup>st</sup> - 22 <sup>nd</sup>	<b>ECHUCA</b> <b>Saturday:</b> 1/2A Texaco, Duration, Burford <b>Sunday:</b> 8.30 am AGM meeting, Texaco, '38 Antique, (Climb & Glide)
October 5 <sup>th</sup> & 6 <sup>th</sup>	<b>WANGARATTA Eastern State Gas Champs</b> <b>SAM1788 Contest</b>
November 9 <sup>th</sup> & 10 <sup>th</sup>	<b>COHUNA</b> <b>Saturday:</b> 1/2A Texaco, Duration, Burford <b>Sunday:</b> Texaco, 38 Antique { Climb & Glide }
November 24 <sup>th</sup>	<b>BALLARAT</b> 1/2A Texaco, Climb & Glide, Texaco

**FOR  
SALE**

Ignition coil assemblies with transistor - ready to go. \$70

**Peter Scott**

(02) 9624 1262. [qualmag@optusnet.com.au](mailto:qualmag@optusnet.com.au)

**FOR  
SALE**