

THE VOICE OF CONTROL LINE AEROMODELLERS FROM AROUND AUSTRALIA

Number 197

Produced by the Victorian Control Line Advisory Committee



May 2015

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COMING EVENTS



VICTORIAN CONTROL LINE

CONTEST CALENDAR 2015

DATE	EVENT	CLUB
May 17	Warbird Stunt, Speed , Classic B T/R	CLAMF
May 24	Warbirds	KMAC
Jun 6-8	NSW State Championships, Grass Events	SYDNEY
Jun 14	Classic FAI , Vintage A, F2C/F2F , 1/2A Combat	CLAMF
Jun 28	Rat Race Invitation and Club Day	KMAC
Jul 12	Speed , Classic Stunt, Mini G/Y , Simple Rat	CLAMF
Jul 26	All Aussie Day and Vintage Combat	KMAC
Aug 9	Carrier, 27 Goodyear, Goodyear .	CLAMF
Sep 13	Speed , Vintage Combat, 2.5cc Rat Race	CLAMF
Oct 3-5	NSW State Champs, Hard Surface events	ALBURY
Oct 18	Coreflute Combat, F2B, F2F	CLAMF
Nov 8	Speed , Warbird Stunt, Combat (TBA)	CLAMF
Dec 13	Vintage A, Classic B, Classic FAI	CLAMF

Events in **Bold type** will be flown over hard surface.

CLAMF Frankston Flying Field, Old Wells Rd, Seaford (Melway 97J10), GPS -38.086777,145.148009
10.00am start

Contact :- G. Wilson (03) 9786 8153,
H. Bailey (03) 9543 2259

Email :- clamf@ozemail.com.au

Web site :- <http://clamf.aerosports.net.au/>

KMAC Stud Rd. Knoxfield.

(opposite Caribbean Gardens) (Melway 72 K9) 10.00am start.

Contact:- Peter Koch 0413222046 or
Steve Vallve 0409935358

Web site :- <https://sites.google.com/site/knoxmacv/>

CLAG has monthly fly-ins at the Moe Race Track every first Sunday of the month.

Contact :-Treasurer. Alan Frost

Email:- afrost2@skymesh.com.au

Phone 03 52817350

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COMING EVENTS



C.L.A.S. CONTEST CALENDAR 2015

DATE	EVENT	CLUB
May 2-3	Veterans' Gathering.	MDMAS
May 9	Club Competition . (DGY, Stunt, Combat)	KMFC
May 17	Phantom, Vintage A and Diesel Goodyear.	SSME
May 29-Jun 1	AWA State Champs	Perth ***
May 31	Classic Stunt.	Doonside
Jun 6-8	NSW C/L State Champs CLAS.	Whalan Reserve
	*** Qualifying event for F2B and F2D W/Ch.	
Jun 14	Club Competition.	KMFC
Jun 20-21	"Old Phartz and Friends" Vintage Weekend. At Coffs Harbour	KMFC
Jul 5	AGM	KMFC
Jul 12	F2B Aerobatics	Doonside
Jul 19	Club Competition.	KMFC
Aug 2	Combined Speed.	SSME
Aug 2	F2B Aerobatics.	KMFC
Aug 16	Classic Stunt.	SAT
Aug 16	Diesel Goodyear, 1/2A DGY, Burford Racing & Diesel Speed.	KMFC
Sep 5-6	MAAQ Queensland State Champs F2D CLASSI Ipswich	

Sep 19-20	MAAQ Queensland F2B	Rockhampton QLD ***
Sep 20	F2B Aerobatics.	SSME
Oct 3-5	CLAS NSW C/L State Championships F2A and F2C C.L.A.S. at Twin Cities. TBC.	***
Oct 11	Gordon Burford Day.	KMFC
Oct 18	F2B Aerobatics.	SAT
Oct 25	Club Competition	KMFC
Oct 30-Nov 1	MAAQ Queensland F2A and F2C Maryborough QLD.	***
Oct 30-Nov 1	F2B , Classic and Vintage Stunt Doonside (West Wyalong NSWFFS field) TBC	
Nov 22	Vintage T/R and Diesel Goodyear.	KMFC
Nov 22	Classic Stunt.	NACA at Gateshead
Nov 29	KMFC Christmas Party and Fun Fly.	KMFC.
Dec 6	F2B Aerobatics.	Doonside.

Events marked *** are qualifying rounds for the 2016 C/L World Championships.

KMFC - (Ku-ring-gai Model Flying Club) - St. Ives Showground, Mona Vale Rd, St. Ives.

SAT- (Sydney Aeromodelling Team) - "Duck Pond", Ashford Road, Milperra.

SSME - (Sydney Society of Model Engineers) - Model Park, Luddenham Road, Luddenham.

DOONSIDE- Baseball diamond, Whalan Reserve.

Western Australia Contest Calendar 2015

Date	Event	Site
May 29	F2A, Combined Speed, Classic-B Team race	CLAW
May 30	F2C Team Race. (Rnd 1 & 2) Vintage A Team Race.	CLAW
May 31	F2F Team Race (3 rounds) F2C Team Race (Rnd 3,4 & final)	CLAW
Jun 1	F2D Combat , Classic FAI Team Race	CLAW

Note:- F2A, F2C & F2D are to be W/C 2016 qualifying events.

The 16th Annual Shortest Day Slow Combat Contest
Saturday June 20 at Mercer, 40 Minutes drive from Auckland NZ
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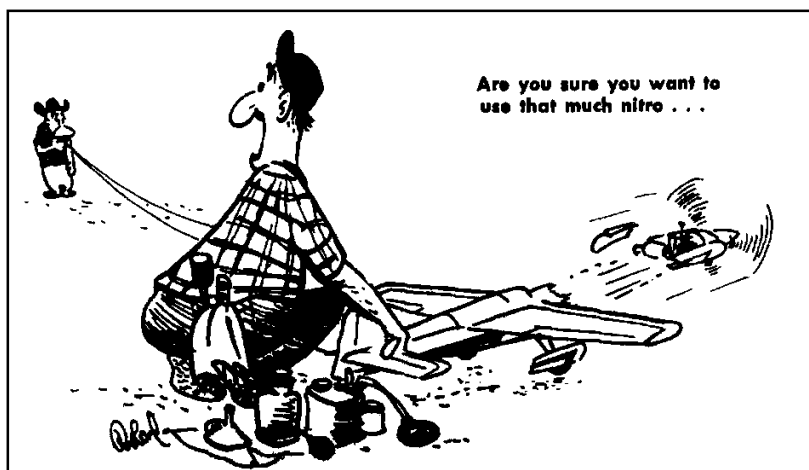
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Victorian Control Line State Championships April 3rd-6th 2015

Results and reports.

F2F Team Race

Team	Rd 1	Rd 2	Final
1 st Leknys/Leknys	4:43.03	<u>3:56.31</u>	8:16.19
2 nd Christie/Brown	<u>3:54.60</u>	4:00.09	8:48.07
3 rd McDermott/Wilson	<u>3:58.01</u>	DNS	9:06.56
4 th Hunting/Lacey	DQ	<u>4:46.03</u>	



F2C Team Race

Team	Rd 1	Rd 2	Rd 3	Rd 4	Final
1 st Wilson/Poschkens	3:18.06	<u>3:14.94</u>	3:23.19	3:15.15	6:40.03
2 nd Fitzgerald/Ellins	3:12.06	<u>3:11.60</u>	DNF 37	3:16.81	6:41.40
3 rd Potter/Harvey	3:19.12	DNF 33	<u>3:15.03</u>	3:24.00	6:49.57
4 th R. Leknys/Reichardt	DNF 69	DNF 34	<u>3:22.53</u>	3:54.13	
5 th McDermott/Ewart	3:55.21	3:52.77	<u>3:28.25</u>	3:38.68	
6 th C. Leknys/S. Leknys	<u>3:28.53</u>	3:35.75	3:43.22	3:40.06	
7 th Christie/Brown	<u>3:38.38</u>	DNF 34	4:49.25	DNF 35	
8 th Hunting/Lacey	<u>DNF 67</u>	DNF 0	DNF 95	DNS	
9 th Justic/Stein	DNF 0	<u>DNF 69</u>	DNF 34	DNS	



F2A	Rd 1	Rd 2	Rd 3	Rd 4	Fastest km/h
1 st Richard Justic	12.69	12.84	<u>12.37</u>	13.12	291.02
2 nd Ian Gapps	12.86	12.86	N/T	<u>12.45</u>	289.15
3 rd Murray Wilson	13.58	12.69	<u>12.55</u>	N/T	286.85
4 th Andrew Heath	13.27	13.13	12.78	<u>12.65</u>	284.48
5 th Robert Fitzgerald	<u>13.08</u>	N/T	N/T	N/T	275.22
6 th Bruce Bellis	N/T	N/T	N/T	N/T	0
7 th Richard Bellis	N/T	N/T	N/T	N/T	0



FAI Speed Report.

A good entry of 7 contested the champs. This was helped by the fact that it was a qualifying round for the 2016 World Champs in Perth.

Ric Justic posted the fastest speed in round 1 using his ZALP engine, he eventually went faster to take out the contest with a 12.37/291km/h.

Ian Gapps was next gradually improving his times to end up second using the usual PROFI (as did all the rest of the field) doing 12.45/289km/h.

After Murrays recent good form and reliability, especially in South Australia, things did not start out well, with a slow first flight in round 1, due to the engine dying lap 6.

Eventually he got back on track for 3rd with 12.55/286 km/h.

I did not fly in this comp, it's the first State Champs I have not flown for 40 years, as I am channeling all my efforts in getting Murray on the Team.

Problem is we only have 1 motor, but there is another on the way. We have a new spare model I set up, but need the motor for it, I rebuilt my old thing to use as a spare model in an emergency, also reluctant to continually test his as we don't want to wear it out until the new engine comes.

Andrew Heath was a little off form for 4th, but he was getting better as the day went on.

Next was Rob Fitzgerald flying Mark Poschkens model, a good first flight, considering it has not been sorted, then later flights running short of laps. I got some quick laps on the watch before it stopped, investigation later revealed the problem as a split tank.

Even the slightest leak in a uniflow throws the tune right out even if it does not lose fuel, better luck at the Nats Robert.

Next were the Bellis brothers, they had not yet managed to get a model on the pipe at home, they gradually got better but a few problems prevented getting a time. It just takes more practice, welcome to FAI [Frustration Aircraft International]

At present only 2 competitors have competed in 2 State Champs, so Murray is on 993 and Ric 973.5 points, we'll see what happens at the Nats.

Watch out for Murray now that he has a new "flight box" and has retired the cardboard box.

Thanks to our CD Peter Roberts and the timekeepers.

Next speed comp at Frankston 17th May.

Report by Robin Speed.

Classic FAI Team Race

Team	Rd 1	Rd 2	Final
1 st Nugent/Ellins	<u>4:11.87</u>	DNS	9:19.60
2 nd Hallowell/Justic	<u>4:20.53</u>	4:45.85	9:31.53
3 rd Leknys/Lacey	4:38.14	<u>4:20.34</u>	DNF 96
4 th Bailey/Roberts	DNF 37	<u>4:55.75</u>	
5 th Ray/Ray	6:28.23	<u>5:28.62</u>	
6 th McDermott/Ewart	6:12.72	<u>5:31.34</u>	
7 th Wilson/Poschkens	<u>6:53.10</u>	DNF 34	
8 th Fitzgerald/Cameron	DNF 37	DNF 42	



F2D Combat

Entrant	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5
1 st Bruce Bellis	W	W	W	W	W
2 nd Richard Bellis	W	W	W	L	(W) Flyoff
3 rd Michael Comiskey	W	L	W	L	(L) Flyoff
=4 th Murray Wilson	L	W	L		
=4 th Trent McDermott	L	W	L		
=4 th Robert Owen	W	L	L		
7 th Tom Linwood	L	L			



Bruce Bellis flew five F2D bouts without a loss to claim first place.

Vintage A Team Race

Team	Rd 1	Rd 2	Final
1 st Justic/Stein	3:16.35	<u>3:13.09</u>	6:39.22
2 nd McDermott/M. Wilson	3:14.47	<u>3:13.75</u>	7:03.28
3 rd Hallowell/Nugent	<u>3:15.72</u>	DNS	7:04.09
4 th G. Wilson/Ellins	<u>3:20.29</u>	3:24.41	
5 th Christie/Brown	DNF 58	<u>3:24.43</u>	
6 th Ray/Ray	3:42.94	<u>3:30.13</u>	
7 th Bailey/Roberts	3:53.53	<u>3:36.16</u>	
8 th Hiern/Hunting	3:55.53	<u>3:42.29</u>	
9 th Owen/Owen	<u>3:45.81</u>	4:17.22	

Classic B Team Race

Team	Rd 1	Rd 2	Final
1 st McDermott/Wilson	<u>2:51.82</u>	DNS	5:49.34
2 nd Justic/Stein	3:00.78	<u>2:58.94</u>	5:52.34
3 rd Bailey/Roberts	<u>2:58.47</u>	DNS	6:23.28
4 th G. Wilson/Ellins	DNF 61	<u>3:01.35</u>	
5 th Hallowell/Nugent	DNF 51	<u>3:12.43</u>	
6 th Ray/Ray	DNF 61	<u>3:24.65</u>	
7 th Hunting/Hiern	<u>3:30.87</u>	DNF26	
8 th Owen/Owen	4:03.82	<u>3:28.22</u>	



Vintage Combat

Entrant	Rd 1	Rep 1	Rd 2	Rd 3	Rd 4
1st M. Wilson	B	W		W	W
2 nd R. Bellis	W		W	W	L
3 rd B. Bellis	W			W	W
4. M. Dislers	W			W	L
T. Linwood	L	W	W	L	
T. Caselli	L	W	L		
W. Leadbeatter	W			L	



Murray Wilson and Michael Comiskey in a Vintage Combat bout.

H. Bailey	W		L
K. Maier	W		L
T. McDermott	L	W	L
N. Robertson	L	L	
M. Usher	L	L	
M. Comiskey	L	L	

Goodyear Team Race

Team	Rd 1	Rd 2	Final
M. Wilson/Ellins	<u>3:42.41</u>	DNS	7:26.06
Justic/Owen	<u>3:53.57</u>	DNS	8:30.38
Fitzgerald/Poschkens	5:12.69	<u>3:17.37</u>	DNF 152
McDermott/Lacey	<u>4:12.00</u>	4:18.12	
Hunting/	DNS	DNS	

Half A Combat

Entrant	Rd 1	Rd 2	Rd 3	Rd 4	Fly-off for 2 nd place
M. Wilson	W	W	L	W	
R. Bellis	W	L	W	L	(W)
H. Bailey	L	W	W	L	(L)
B. Bellis	L	L			

27 Diesel Goodyear

Team	Rd 1	Rd 2	Final
G. Wilson/M. Wilson	<u>5:06.40</u>	5:12.10	10:13.69
McDermott/Lacey	<u>5:05.31</u>	5:16.54	10:26.88
Stein/Ellins	<u>5:06.78</u>	DNS	10:48.19
Owen/Owen	5:16.40	<u>5:12.10</u>	
Bailey/Roberts	6:17.84	<u>5:24.50</u>	
Hunting/Bailey	DNF 0	DQ (1 stop)	



F2B Aerobatics - Expert			EVENT SCORES					Best 3 of 4 Flights		
Place	Contestant	EVENT SCORE	NOT USED	Round #1	Round #2	Round #3	Round #4	NOT USED	NOT USED	Final SCORE
1st	Mark Batty	3006.87	0.00	980.57	981.17	1002.07	1023.63	0.00	0.00	3006.87
2nd	P J Rowland	2979.13	0.00	959.37	984.13	1007.90	987.10	0.00	0.00	2979.13
3rd	Murray Howell	2956.13	0.00	958.63	974.93	995.17	986.03	0.00	0.00	2956.13
4th	Russell Bond	2773.10	0.00	864.10	892.40	940.50	940.20	0.00	0.00	2773.10
5th	Reg Towell	2646.13	0.00	885.90	875.07	885.17	855.57	0.00	0.00	2646.13
6th	Tony Bonello	2578.07	0.00	857.87	854.63	828.20	865.57	0.00	0.00	2578.07
7th	Frank Battam	2498.97	0.00	857.83	793.53	847.60	46.37	0.00	0.00	2498.97
8th	Mark Ellins	2492.07	0.00	869.47	0.00	808.80	813.80	0.00	0.00	2492.07
9th	Peter Anglberger	2412.20	0.00	823.73	821.40	767.07	0.00	0.00	0.00	2412.20
10th	Adam Pogue	2139.00	0.00	718.10	718.93	666.57	701.97	0.00	0.00	2139.00
11th	Doug Grinham	1602.87	0.00	0.00	0.00	792.43	810.43	0.00	0.00	1602.87



Picture:- courtesy of John Boys.

F2B.

Centre-
Mark Batty 1st

Left-
P J Rowland 2nd

Right-
Murray Howell 3rd

It is not obvious from the table above but this competition came down to the wire in the last round. Leading into the round there was only 22 points separating the top 3. Murray drew 5th in the flying order for the round and needed a top score of the day to be in contention. Unfortunately it was not to be with the cloverleaf pulling him down. Mark and PJ were the last two flyers setting up a tense situation. Mark put in the best flight of the day so far by 16 points really dishing it out and putting the wood on PJ. Who is to say what happened on this last flight, the wind certainly picked up and psychologically there was a lot of pressure. For PJ there was no one manoeuvre that scored poorly rather an inability to better his previous rounds impressive score. Congratulations to Mark who showed consistent improvement throughout the competition, saving the best for last.

MAAA CLASSIC STUNT			EVENT SCORES				Best of 2 Flights			
	Contestant	EVENT SCORE	NOT USED	Round #1	Round #2	NOT USED	NOT USED	NOT USED	NOT USED	Final SCORE
1st	Frank Battam	1077.90	0.00	1071.80	1077.90	0.00	0.00	0.00	0.00	1077.90
2nd	Tony Bonello	1077.50	0.00	1036.40	1077.50	0.00	0.00	0.00	0.00	1077.50
3rd	Adam Pogue	1009.00	0.00	938.00	1009.00	0.00	0.00	0.00	0.00	1009.00
4th	Andrew Nugent	889.50	0.00	869.90	889.50	0.00	0.00	0.00	0.00	889.50
5th	Graeme Wilson	875.50	0.00	826.30	875.50	0.00	0.00	0.00	0.00	875.50
6th	Peter Koch	780.50	0.00	780.50	0.00	0.00	0.00	0.00	0.00	780.50



There was what has become typically, a small number of entries for Classic which made for a quick competition, being the best of two flights. Defending his winning performance of 2014 was Frank Battam flying his familiar Bearcat. There was no Dougie Grinham to campaign against this year. Instead there were a couple of rivals from his home state against the boys from CLAMF and our own Peter Koch. Well we all know the rivalry between NSW and Victoria has deep roots. However on the Day the main contest turned out to be between the boys from NSW. From the outset Frank proved that last years win was no fluke, posting the top score for the first round. Kachie might have provided some stiff competition if he hadn't been so careless in sticking his thumb in the propeller, just to see if he could shave it down a bit. Needless to say the prop did comply and shortened itself against the best nature of the laminations and the Enya .60 hardly missed a beat. With a long deep gash down to the bone on the back of his thumb the country boy wrapped a hanky around it and marched off to the centre of the circle and took off. With an inch missing of one side of the prop, heaven knows how the engine did not vibrate itself off its mounts. When it came to the vertical eights the engine decided it had just about had enough, it struggled through to the overhead eights where it finally said that's it! The score sheet tells the story. THANK YOU again, Frank and Chris for your first aid skills.

Well this little diversion must have been enough for Tony to refocus, he came out smooth as silk and put himself in the lead with a margin of 5.7. Could Frank who was yet to fly, better his first round performance by 6 or more? It was a tense moment. It should be mentioned at this stage that Adam, also from NSW put in a great flight, improving on his first round score by 71 points but not enough to threaten the top two. How disappointed must Tony have been when the scores went up and what great competitors and sportsmen they proved to be. Frank finally pipping the post by .4 of a point.

All competitors should be congratulated. I would like to acknowledge Graeme Wilson's support in particular.

MAAA VINTAGE STUNT			EVENT DETAILS				
	Contestant	EVENT SCORE	Static	Flight #1	Flight #2	Model	Motor
1st	Maris Dislers	483.00	143.00	261.00	340.00	Wombat Biplane	Oliver Tiger .15
2nd	David Nobes	477.00	124.00	346.00	353.00	Guided Whistle	Atwood 49
3rd	Ken Maier	401.00	115.00	286.00	252.00	Ringmaster S1	Fox 35
4th	Dave Lacey	397.00	116.00	60.00	281.00	Jamison Special 1949	K&B Torpedo 53

Vintage has both a flight score and a static score which are combined to produce the final score. Like the Classic Competition this year Vintage was won from the best of 2 flights. Maris's Wombat is always difficult to top as it ticks all of the boxes in the static score. Against that however it is not the easiest model to fly. David Nobes's Guided Whistle on the other hand performs a very nice pattern (at least in his hands) and is only 19 points behind in the Static department. Looking at the results you can see that Maris did not have the best flight whilst David scored as might be expected in the first round. In fact taking into account the difference in static score David was 66 points in front. Ken was in front of Maris also but only by three points. Unfortunately Dave Lacey had a bad tune and did not get past level flight for the round.

So what could Maris pull out of his hat for the second flight, would Davey get his engine on song, would Nobes's Atwood keep it together and could Ken catch him? Well Maris must have had something else other than ether and castor in his fuel bottle and had a big sniff, whatever it seemed to settle him down and he posted a strong score of 340. David improved on his previous score also but fell short by 7 points for a win. Kens Fox let him down badly and put him out of contention. Davey recovered well but fell 5 points short of taking 3rd from Ken.

It was an enjoyable spectacle.

Stunt reports by Steve Vallve.



Combined Speed Results

Pos	Name	Class	Engine	Flight 1	Flight 2	Flight 3	Fastest	Km/h	%
1	R. Hiern	Class 1	Novarossi 12	15.12	14.64	D.N.S	14.64	245.90	101.82%
2	R. Justic	Class 3	Rossi .61 RV	9.54	9.60	D.N.S	9.54	303.65	101.57%
3	R. Hiern	Class 5	Novarossi 21	13.57	13.67	13.35	13.35	269.66	100.60%
4	N. Wake	Class 5	Novarossi 21	15.35	15.02	16.17	15.02	239.68	89.41%
5	N. Wake	Proto	Force .21	32.19	32.35	D.N.S	32.19	179.98	74.95%
6	V. Marquet	Proto	K&B .29 RV	41.50	41.44	42.81	41.44	139.81	58.22%
7	R. Hiern	Proto	Novarossi 21	ATT	ATT	D.N.S			0.00%
7	D. Shackelford	Class 5	Novarossi 21	D.N.S					0.00%
7	R. Justic	Class 2	Nelson .29	ATT	ATT	ATT			0.00%

Three Australian records were broken during the Combined Speed contest. Robin Hiern set the ball rolling on Saturday with his Novarossi 12 and 21 models. Robins best flight was made in Class 1 where a flight speed of 245.90Km/h broke the existing record by 101.82%.

On Monday afternoon Richard Justic flew his monoline Rossi.61 model and almost but not quite matched Robin's achievement with a flight of 303.65 Km/h and missed out on equalling the record set by Robin by 0.25%.



Robin Hiern appears pleased as he displays his two record breaking Combined Speed models.



Richard and Robin obtained the top three positions in Combined Speed.

Victorian C/L State Championships Contest.

Reports round up by the Editor. Pictures by Neil Baker and Harry Bailey

As this was the second of the four State Champs that could be used to gain qualifying points for obtaining a place in the Australian National team for the 2016 World Championships in Perth, competition in all of the F2 events took on an added importance and this was shown in the larger than normal entry levels from interstate competitors.

F2C team race had nine entries. The teams decided to fly four rounds of racing so that every team had an equal amount of flight opportunities to post a competitive race time. Fridays racing commenced at the appointed time and two rounds were flown. The early pace setter teams were Wilson/Poschkens, Fitzgerald/Ellins and Potter/Harvey. The time of 3:11.60 by Fitzgerald/Ellins was going to take some beating. Saturday's racing got off to a late start and every effort was made to move the event along to ensure the event would be concluded. A halt to the proceedings occurred when a medical helicopter was required to land at the moto-cross track adjoining our field because of a serious accident there, and the racing schedule was unfortunately delayed a little bit more. None of the top three teams managed to improve on the times that they recorded on the previous day but were all able to progress through to the final. Two teams did not manage to record a race time in any of the four rounds.

Wilson/Poschkens managed to have a four stop final race and just managed to secure a win over Fitzgerald/Ellins by a margin of 1.37 seconds.



*F2C pilots,
Trent McDermott, Shane Leknys, Murray Wilson.*

F2D combat was flown after all the racing events had concluded. There were seven entrants representing NSW, WA, Qld and Vic. The Bellis brothers from WA had a successful contest to claim first and second places. Richard had to have a fly-off to decide second and third places with Michael Comiskey and it was Michael that was placed third.

Classic FAI Team race was dominated with the use of Parra engines. The only exception was the Fitzgerald/Cameron team that

were using an Oliver Tiger.

In the final race the Leknys/Lacey model had a mechanical failure at the half way point and Nugent/Ellins flew an efficient race to edge out the Hallowell/Justic "Tiger" model.

Vintage A team race was the first event at KMAC on Sunday morning. If you have a look at the race times from the two heats you will see how close the racing was to set qualifying times for the final.

The final race was an all "Dimpled Dumpling/R250" affair. Justic/Stein had the airspeed and combined with good pit stops they took the grey DD to first place. Second and third place had just over a second between them.

Classic B team race was another close affair. To obtain a place in the final race it was necessary to record a heat race time of less than three minutes. The engines used in the final were two OS25FX and an Irvine 25.

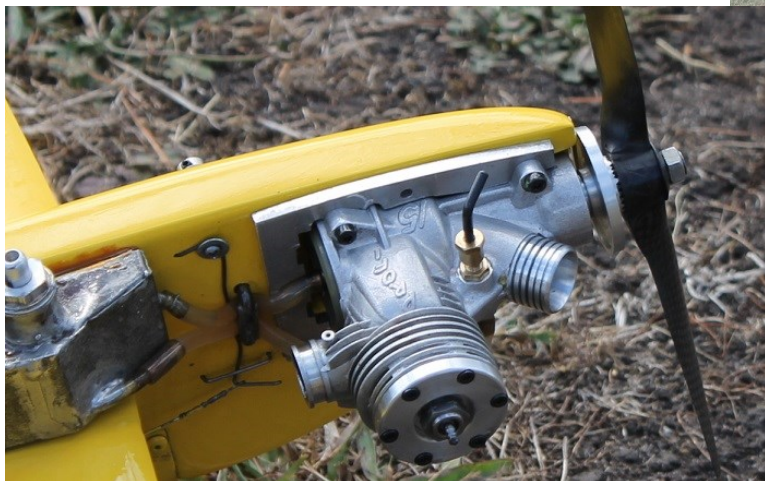
Vintage Combat followed the team racing. With an entry of thirteen competitors it took a bit of juggling of the draws to get down to the last eight. The Bellis brothers again featured prominently in the combat circle but it was local man Murray Wilson that claimed the top honour. The last competitions of the championships were flow at Frankston on Monday.

Goodyear team race was memorable for the race performance of the Fitzgerald/Poschkens team. In their second heat they had their Gillott tuned Rossi engine singing a lovely tune and combined with this, the pit stops were super quick. A resultant race time of 3:17.37 is as good as it gets. In the final it was a different story as they had to retire after 152 laps and M. Wilson/M. Ellins came home to a very respectable 7:26.06 win.

27 Diesel Goodyear was another race in which the times recorded in the heats for the top three teams were separated by a hairs breadth. The father and son "Wilsons" efficiency carried them through the contest to a well deserved first place.

Half A Combat was a small entry affair. Of the six entrants only two Victorians and two Western Australians flew. Murray Wilson added this first place to the one he obtained in Vintage Combat.

Power plant of the winning Goodyear model.



Paul Stein grabs a slippery Dumpling.



Vintage Combat pits.

Richard Bellis 2nd, Murray Wilson 1st, Harry Bailey 3rd



Half A Combat top three.

Vintage A pilots, R. Justic, C. Ray, G. Christie.



Doug Grinhams F2B electric "Starcraft"



Contest Director for Vintage A and Classic B team race was Keith Baddock.



F2D launch.

33 seconds remaining and someone gets a cut in Vintage Combat.



Vern Marquet's Vintage Proto Speed model.

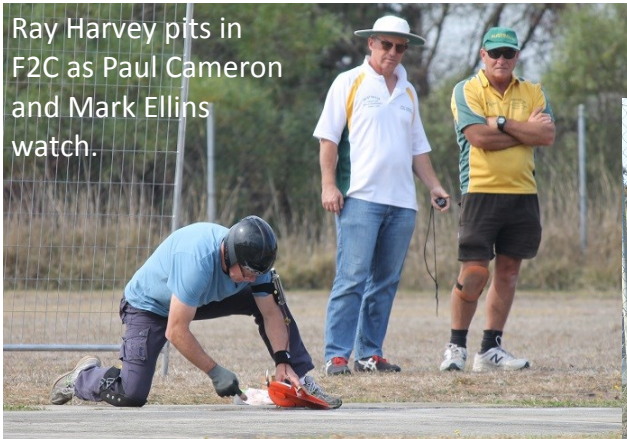


F2B winner Mark Batty's Yatsenko "Shark Ellipse" powered by a Discovery Retro 76 using no Nitro in the fuel and a 14.2 x 6 inch wood prop.

Tony Bonello's Classic Stunt Caprice is in the background.



Ray Harvey pits in F2C as Paul Cameron and Mark Ellins watch.



F2B Judges watch the flight by P. J. Rowland.



Robert Owen finds that all good things must come to an end sooner or later.



Lunch time at KMAC.

A big thank you goes out to all the people and organisations that gave their time and support to the running of the Vic State Champs.

Special thanks to the VMAA for providing the trophies, also to Christian Traders and Whites Model Aircraft for donating raffle prizes.

Boca Bearings for providing sponsorship with donations of prizes including some tee shirts, multi-tools and a voucher for \$100 of their products.

To all the other people that donated prizes for the raffle draw, and to those that purchased tickets your patronage is appreciated.

Running 15 events over a four day period takes a lot of organising and without the timekeepers, judges, CD's, catering providers, field preparation teams and all the other workers in the background we could not hold an event worthy of the attendance of the dedicated interstate and local competitors.

The Victorian Control Line Advisory Committee appreciate all of your participation.



Model Engine Vibration Modes.

by Joe Supercool

It can be assumed that engine vibration leads to a loss of performance in speed and racing models. For this reason, efforts are made to reduce the inherent vibration found in single cylinder racing engines.

The nature of the inherent vibration is due to the reciprocating motion of both the piston and conrod. This vibration can be reduced by making the piston and conrod as light as possible. However, I have recently found that even reducing the weight of these components to zero would not necessarily lead to zero vibration.

There is another mode of vibration which is excited by the relative location of the engine mount to the engine centre of gravity. Consider first the most simple situation, which is the engine removed from the model and held loosely, say in the hand.

This engine, which we will say has weightless piston/conrod assembly, is then started running. Ignoring the discomfort of the combustion heat, there is every likelihood that the engine torque will tear the engine from the hand, no matter how firm the grip.

The problem is that the engine torque acts about the engine centre of gravity, not the points of restraint provided by the hand. If the points of restraint provided by the hand are in line with the engine centre of gravity, then the torque variations induced by the repetitive firing impulses average to zero, leaving only a pure torque consistent with the power of the engine. Not a problem.

This latter situation, with the mounting point (the hand) in line with the engine centre of gravity, does mean there is now a turning couple as the engine centre of gravity is not in line with the propeller thrust. In a flying model, this couple is easily trimmed out by giving the appropriate amount of elevator to make the model fly level. This trim causes drag, and indeed has the name "trim drag".

However, if the mounting point is displaced away from the engine centre of gravity, then there exists an oscillating torque couple which is responsible for engine vibration. This vibration is unrelated to the weight of the engine moving components.

Rather than holding the engine in the hand, consider now the case of the engine in the model. Since the engine is bolted to the model, it becomes a little difficult trying to decide where the mounting point lies, as it is the whole model. Similarly, it is not clear where the engine centre of gravity lies. In effect, the model is the whole "engine" in terms of the above analysis.

Nonetheless, this point of attachment does exist somewhere on the model, even if we cannot figure out where that is. With regard to the model centre of gravity, we are perhaps in a better position to discover the location in three dimensional space.

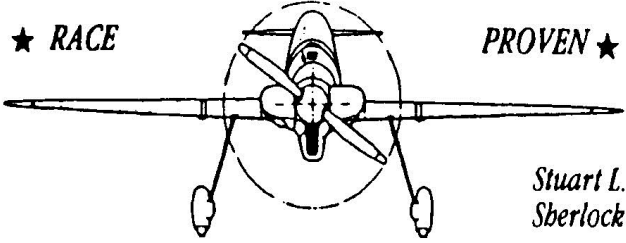
If the somewhat elusive engine mounting point is not in line with the model centre of gravity, then the torque induced vibration, as exists when the engine is held in the hand, will still apply to the whole model. The amount of vibration will be reduced by the damping effect of the model structure. In this regard, a balsa model, being somewhat flexible compared to, say, a rigid carbon fibre model, will vibrate less.

One can then conclude that placing the centre of gravity on the crankshaft axis, in three dimensions, will have the effect of reducing vibration and eliminating the couple which causes trim drag.

I note that in the case of F2A speed models, the lateral centre of gravity may be as much as 75mm from the crankshaft axis. This is rather extreme. The very high RPM of F2A engines tends to hide the vibration caused by the misalignment of shaft axis and aeroplane centre of gravity, but nonetheless the vibration is still present and eating away at airspeed. The vibration is not doing the engine any good service either.

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F2C14 6.4 X 6.5

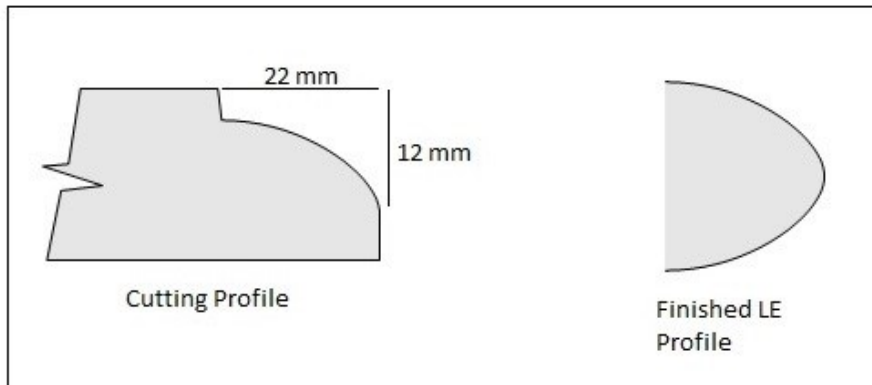
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Router-shaped balsa LE's for Vintage Combat.

Whilst Maris Dislers and I were driving to the KMAC field for Sunday's events at this year's Victorian State Champs, the vehicular discussion turned to the shaping of leading edge profiles for vintage combat models.

On the back of that chat, I looked online for router bits shaped to cut large elliptical profiles. They're certainly out there if you look, and the one I subsequently bought (T1370-1/2 from www.wealdontool.com) has the cutting profile shown on the left. After facing the top and bottom of a 1" square leading edge, this should give the leading profile shown on the right. Of course, if you prefer a slightly more blunted shape, just shallow the depth of cut by a smidge and that should work fine.



So, there you have it. Oh, and as a final sweetener and offering to the C/L community ... if you get in touch with me, we can arrange a time for you to pop over to my place (I live in Preston, VIC) and buzz your unshaped LE's into shape. Just let me know.

Cheers,

Dave Shackelford
(AUS46841)

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Copy or artwork for ads should be sent to the editor, cheques to the treasurer (G Wilson P.O. Box 298 Seaford, Vic. 3198) If you want to save a stamp, I can forward on any cheques sent with ads, but please make them payable to "Control Line Advisory Committee"

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