

THE VOICE OF CONTROL LINE AEROMODELLERS FROM AROUND AUSTRALIA

Number 194

Produced by the Victorian Control Line Advisory Committee



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PRODUCTION SPECIFICATIONS

Please remember when submitting copy that if you have access to a PC, or suitable typewriter you can save me retyping by giving me your items pre typed, and please use a good black ribbon for best reproduction.

Best of all is to send a CD or use Email

Contest results should be tab delimited, i.e. use a single tab between each column of results, if submitted by disk or email. This makes formatting much easier on the editor.



COMING EVENTS



VICTORIAN CONTROL LINE CONTEST CALENDAR 2015

DATE	EVENT	CLUB
Feb 8	Speed , Carrier, Simple Rat Race	CLAMF
Feb 22	Hearns Trophy and Yeoman Novice	KMAC
Mar 7-9	S. A. State Champs, events TBA	MONARTO
Mar 15	Coreflute Combat, 27 Goodyear, Goodyear .	CLAMF
Mar 29	KMAC Carnival and Doncaster Novelty	KMAC
Apr 3-6	Victorian State Champs, events TBA	CLAMF/KMAC
Apr 11-19	68 th Australian National Championships	S.E. QLD
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 will be flown in order of printing.

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

Secretary. Graham Vibert

Phone 03 51346393



COMING EVENTS



C.L.A.S. CONTEST CALENDAR 2015

DATE	EVENT	CLUB
Feb 8	F2B Aerobatics.	SAT
Feb 15	Diesel G/Year, 1/2A Diesel GY, Burford racing and 2.5 Diesel Speed.	KMFC
Mar 7-8	HUNTER VALLEY CHAMPIONSHIPS	MDMAS
Mar 15	Classic Stunt.	SSME
Mar 22	Club Competition Day incorporating Brendan Farrell Cup.	KMFC
Mar 29	F2B Aerobatics.	KMFC
Apr 3-6	VMAA Victorian State Champs	***
Apr 11-19	MAAQ Queensland Nationals	***
Apr 26	F2B Aerobatics.	SSME
Apr 26	DGY, 1/2A Diesel GY, Burford racing and Diesel Speed.	KMFC
May 2-3	Veterans' Gathering.	MDMAS
May 3	Classic Stunt.	Doonside
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 ***
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.

2015 Queensland Contest Calendar

All MAAA flyers welcome.

April 11-19,

68TH QUEENSLAND NATIONALS

Location: VARIOUS LOCATIONS IN SOUTH EAST
QUEENSLAND

South Australia

Contest Calendar 2015



Feb 7	F2B Aerobatics competition.	Monarto
Feb 14	Team Race practice day.	Monarto
Mar 8-10	MASA South Australian State Champs. F2B Adv/Exp and Novice, F2C, F2F, F2A/Combined Speed, Classic FAI T/R Classic Stunt, Vintage Stunt, Vintage Combat, Half A Combat, Classic B T/R, Vintage A T/R, Grass /Junior Rat Race, 27 Goodyear.	Monarto

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Call-out for helpers/CD's for the Queensland Nationals.

I need experienced people to help run events; people that will give up a little of there time to help.

If I do not have the helpers, events will not go ahead,

Pass the word with fellow club members, and let me know if you can help, it will be much appreciated.

Kerry Ewart

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Control Line

Grand Prix Jan

3rd—Jan 6th



The Grand Prix was originally planned to be held at the Twin Cities club in Albury but the weather forecast for the planned dates was for hot windy days with a possibility of total fire bans being put in place. As the Twin Cities club have a policy of not allowing any flying on total fire ban day's the CLAMF executive made a decision to re-locate the event to their home field in Melbourne. Saturday's events had to be postponed as the weather in Melbourne produced high temperatures and strong winds that made any chance of model flying impossible. The day was not wasted though because the gathered crowd spent much of the day in the shelter of the club Barn having a modellers chin wag.

Sundays weather was much improved as a cool change had happened overnight and the weather for the rest of the weekend promised to be more favourable for model flying.

F2C team race was the first event on the hard surface.

This contest was a good opportunity for some competitive testing of equipment before the upcoming qualifying rounds for the 2016 World Championships in Perth. The 3mm venturi rule has now come into effect and the top teams were using models that complied. The new pairing of Colin Ray and Ron Lacey were using a Sosnovsky engine with a larger venturi in a borrowed model and gained some valuable experience during the contest.

Murray's regular pitman Mark Poschkens did not make the trip from Whyalla so Andrew Nugent was his able substitution.

Two rounds were flown on Sunday. The remaining two rounds and the final were flown on Monday.

The final was a very close run affair but Fitzgerald/Ellins exhausted their fuel supply with only a few laps remaining of the race and had to have an additional pit stop. This gave Wilson/Nugent the opportunity to claim first place by a margin of only 1 second.

F2C results

Team	Rd 1	Rd 2	Rd 3	Rd 4	Final
1. Wilson/Nugent	3:31.78	3:30.75	3:32.06	3:37.81	7:00.72
2. Fitzgerald/Ellins	3:20.22	3:23.78	3:14.06	3:13.78	7:01.74
3. Ray/Lacey	5:05.71	3:53.34	4:10.37	3:34.05	DNF 36
4. Leknys/Reichardt	3:47.00	3:35.93	DNF 70	DQ 74	
5. Justic/Stein	DNF 36	4:50.81	3:42.72	DNF 52	
6. Bailey/Hunting	DNS	DNF13	DNF 0	DNF 77	

F2A speed only had two competitors and they flew all their rounds on Sunday after F2C .

F2A Speed results

Entrant	Rd 1	Rd 2	Rd 3	Rd 4	Fastest	Speed in KPH
M. Wilson	12.83	NT 6	NT 5	12.87	12.83	280.59
R. Justic	13.75	ATT	13.51	—	13.51	266.46



Ric and Murray prepare their F2A models.

Whilst the concrete was being utilised, Classic Aerobatics was taking place on the large grass circle. In addition to the competitors listed below, Peter Roberts had brought his Peacemaker model, but he volunteered for a judges role instead.

There was a mixture of genuine Classic models and some profile Warbirds but they all flew the same Classic Stunt pattern.

Peter Koch's "Larakin" would have been the best looking model, but Mark Ellins put in a good second flight to get the highest point score with his profile P40 Warbird.

Classic Stunt results.

	Rd 1	Rd2	Best	Model/Engine
1. Mark Ellins	986	1019	1019	P40 Warbird /ST46
2. Paul Stein	964	922	964	Nobler/Brodak 40
3. Peter Koch	871	911	911	Larakin Mk3/Enya 61
4. Andrew Nugent	859	744	859	Nobler/ OS46LA
5. Gavan Opperman	679	-	679	Oriental/Veco 35
6. John Hollowell	483	-	483	Thunderbird/ST46



The winning P40 Warbird /ST46 that was flown by Mark Ellins.

Due to time constraints it was decided to postpone Half A Combat until Monday.

Vintage A Team Race had a small entry of four teams. There were two "Dimpled Dumplings", a "Pluto" and "Voodoo" lined up in the pits. Stein/Justic and Hallowell/Nugent posted times that were expected to be good enough to make the final so it was between Bailey/Roberts and Wilson/Lacey to see who could make the final. Harry and Peter improved their time in Rd 2 but Murray and Ron went slower so they were relegated to time keeping duties.

Vintage A Team Race results

Team	Rd 1	Rd 2	Final
1. Stein/Justic	3:29.60	3:20.44	6:43.90
2. Hallowell/Nugent	3:23.38	DNS	6:56.57
3. Bailey/Roberts	3:51.22	3:36.38	7:34.13
4. Wilson/Lacey	3:40.31	3:53.00	

*Paul and Richard with
the grey Dimpled
Dumpling*



SPEED AT THE 2015 "GRANDPRIX" FRANKSTON.

Sunday we flew FAI speed after team race, unfortunately we only had 2 entries as some of the interstate entries did not come. Ric Justic made the trip for FAI and Combined Speed and Murray Wilson flew his. Murray was anxious to see if the good practice session we had after the last comp day helped, it is now operating consistently, not blowing plugs now and the comp setting is right.

Murray's first flight was his best at 12.83/280.59.kph

Ric had a few problems and managed a best of 13.51/266.46kph, both models will go faster with a bit of sorting.

I ran the event, this is the first FAI speed event I have watched from the outside in 40 years.

On Monday we ran combined speed, Ric Justic won with his Nelson 29 model after a few attempts at getting it on the pipe properly, doing, 292.90kph / 100.10% of his own record.

My models were a little off their usual pace, the Class 5 .21 doing 262.39 kph, then my 2cc at 234.53 kph, this is on the .4mm wires now.

Noel flew both his Class 5 and Proto models, getting 3 good flights in both classes.

Ric then flew his .60 model on the big grass circle, a good first flight then the 2nd one stopped halfway. On the 3rd flight it would not start, it was later revealed the problem was a broken pressure nipple. He is using a ROSSI 61 RE, and next time out it should go faster as I have worked on it so it can breathe better. The carb was too small etc. good thing I had it apart as it had a crack in the con-rod, so next time it would go Bang !

John Hallowell had 3 good flights with his Vintage Proto.

I even managed some slow flights with my new troublesome

flying wing Proto with another Novarossi motor as were all 3 of my models, no blown plugs all weekend.

Thanks again to our hard working timekeepers Ron Savage and Phil Wake, both of whom are non members.

Our next speed comp is at Frankston on the 8th February, please come ...

Robin Hiern.



Combined Speed results

Pos.	Name	Class	Engine	Flight 1	Flight 2	Flight 3	Fastest	Km/h	%
1.	R. Justic	Class 2	Nelson .29	ATT	11.35	9.89	9.89	292.90	100.10%
2.	R Hiern	Class 5	Novarossi 21	13.87	13.72		13.72	262.39	97.89%
3.	R Hiern	Class 1	Novarossi 12	15.35			15.35	234.53	97.11%
4.	J. Hallowell	Vintage	Proto OS25FX	31.78	31.82	32.87	31.78	182.30	96.79%
5.	R. Justic	Class 3	Rossi .61	10.35	NEL	D.N.S	10.35	279.89	93.62%
6.	N. Wake	Class 5	Novarossi 21	15.32	15.29	15.22	15.22	236.53	88.24%
7.	R. Hiern	Proto	Novarossi 21	29.20	28.17		28.17	205.67	85.64%
8.	H. Bailey	Proto	Novarossi 21	30.81	NEL		30.81	188.04	78.30%
9.	N. Wake	Proto	Force .21	33.81	32.51	32.53	32.51	178.21	74.21%
	N. Wake	PERKY	Force 15	48.50			48.50	119.46	

1/2A Combat.

Murray Wilson came to compete in 1/2A Combat with some home built "Half A Russian" models powered by Taipan engines. Ryan Leknys was also using Murray's models. At the other end of the technology scale, Tony Casselli had Ukrainian made models with Cyclon Jak engines and Harry had the same type of models with Fora power.

Would Murray be able to overcome the speed and manoeuvrability disadvantage?

Murray flew against Tony in the final bout but Tony flew well with better equipment to get three cuts to Murray's two.

Half A Combat results

1. Tony Caselli	W	W	W	L	W
2. Murray Wilson	L	W	B	W	L
3. Harry Bailey	W	L	L		
4. Ryan Leknys	L	L			



Murray's Half A models.



When the speed contest had finished and pylon had been removed from the centre circle, models for Classic FAI started to be prepared in the pits and some practicing took place before racing started. There were more models available than teams to fly them but 6 teams names went into the CD's book. Most of the models had been built in recent times but Ron Lacey was using a model that had been built in the seventies that had a Parra installed. Most teams used Parra engines but Ken Hunting used a ST G20/15. All teams managed to record a time during the two rounds and times were close enough that it appeared not one team had a clear advantage.

The models that made the final were an "Orion", "Klotznorutski" and Ron's antique.

The race progressed without any dramas but on lap 189 Harry brought the green "Klotznorutski" in quickly for a pit stop but Peter thought there was going to be another glided lap. The model ran in and rolled to a standstill.

Andrew and Mark continued to have a steady race and beat Leknys/Lacey over the finish line by 14 seconds.

Classic FAI Team Race results.

Team	Rd 1	Rd 2	Final
1. Nugent/Ellins	4:16.00	DNS	8:43.39
2. Leknys/Lacey	DNF 99	4:12.68	8:57.50
3. Bailey/Roberts	4:38.80	4:23.80	DNF 189
4. Fitzgerald/Stein	4:25.18	DNS	
5. Hallowell/Justic	4:30.82	DQ	
6. Hunting/Bailey	DNF 38	5:44.19	

27 Goodyear Team Race

Diesel engines from four different manufacturers were used in 27 Goodyear. Bailey /Roberts fell foul of the speed police but failed to do an extra pit-stop penalty and had a resulting DQ, this left a nice number of three teams for the final race.

Nugent /Wilson were always close to the 27 second for ten laps

regulation and Andrew used the "arm in" or "arm out" tactic to manage minor speed adjustments when instructed by pitman Murray.

27 Goodyear results.

Team	Rd 1	Final	Engine
1. Nugent/Wilson	5:05.78	10:10.53	Super Tiger G20/15
2. Stein/Justic	5:25.16	10:53.69	PAW (Goodyear Special)
3. Lacey/Hunting	5:48.73	13:54.47	MVVS
4. Bailey/Roberts	DQ (Speeding)		Nelson RISE

Vintage Combat had a small field of five entries and was flown using the "two losses and your out" system. Murray Wilson and Ken Maier had to have two fly off bouts to decide the winner and it was Murray that finished in the top spot.

Vintage Combat results

1. Murray Wilson	W	W	W	L	W	W
2. Ken Maier	W	W	W	L	L	
3. Nigel Robertson	W	L	L			
=4 Harry Bailey	L	L				
=4 Tony Caselli	L	L				

Murray and Ken in the Vintage Combat final bout.



Leknys/Lacey, Nugent/Ellins, Bailey/Roberts



"27 Goodyear" teams.

Classic B Team Race

The grass on the big circle had come in for some special manicuring attention prior to the Grand Prix competition so racing on 60 foot lines was achievable.

As this was the last contest of the weekend most of the interstate visitors had already packed up and left to head home. This left only a small entry of three teams.

A decision was taken to go straight into a final race and Paul and Murray made no mistakes to record a very fast time of 5:48.03.

Classic B Team Race results.

Team	Final	Engine
1. Wilson/Stein	5:48.03	OSFX 25
2. Lacey/Hunting	8:04.28	GMS 25
3. Bailey/Roberts	DNF 129 (Loose needle valve)	Irvine 25



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John Hallowell with his Classic FAI Tigers.



Ken Hunting releases his 27 Goodyear model.



Peter Koch flew in Classic Stunt.

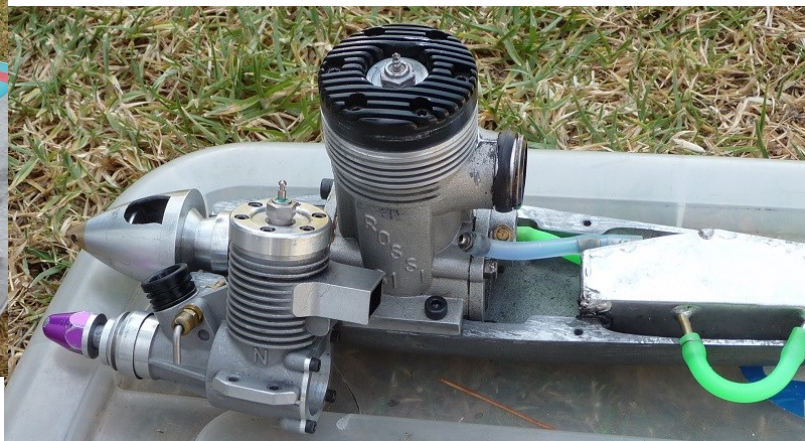


Andrew Nugent grabs a bouncy "Pluto"



Two of Robin Hiern's Combined Speed models.

Ric's Rossi .61 and a Nelson 2.5





Tony Caselli in the 1/2 A Combat pits.



Ron Lacey in F2C action.



F2C pitmen Andrew Nugent and Julian Reichardt



Mark Ellins catches whilst timekeeper Neil Baker watches.



Colin Ray and Ryan Leknys during a F2C race.



Richard Justic during the 27 Goodyear racing.

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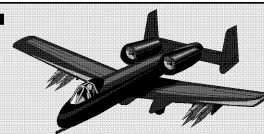
Combined Speed, held at Frankston 14-12-2014

The CLAMF final competition of the year was held on a day that was blessed with good

weather. Chris Wee and some friends from Singapore called in at the flying field as he was visiting Melbourne.

The day's competition was rounded off with an end of year break up party. A spit roast with all the trimmings followed by lots of yummy deserts.

CONTEST RESULTS



Pos	Name	Class	Engine	Flight 1	Flight 2	Flight 3	Fastest	Km/h	%
1.	R. Hiern	Proto	Novarossi .21	27.90	27.29	27.36	27.29	212.30	88.40%
2.	N. Wake	Vintage Proto	Magnum .25	39.15	N.E.L	N.E.L	39.15	147.99	78.57%
3.	R. Hiern	Class 2	Novarossi .28	12.90	12.97		12.90	224.56	76.74%
4.	V. Marquet	Vintage Proto	K&B .29	41.82	41.02		41.02	141.24	74.99%
=5.	R. Hiern	Vintage Proto	OS 25 FX	N.E.L					0.00%
=5	M. Wilson	FAI	Profi N.E.L	N.E.L					0.00%

PERKY SPEED – FRANKSTON 14-12-2014.

NAME	Rd1.	Rd2	Rd3	FASTEST	MOTOR	SPEED in KPH.
A. Nugent.	45.57	N.E.L	42.61	42.61	ST G20D	135.96 KPH.
N. Wake.	N.E.L.	47.50	47.30	47.30	FORCE .15	122.48 KPH.
G. Wilson.	38.85	39.41	39.97	38.85	ST X15 G.	149.12 KPH.

AVERAGE OF TIMES = 42.92 SEC.

CLOSEST TO AVERAGE = A.NUGENT 42.61 = WINNER.

Burford Team Race results.

Wilson/Nugent 4:31.57

Bailey/Roberts 4:44.38



Break-up party time.



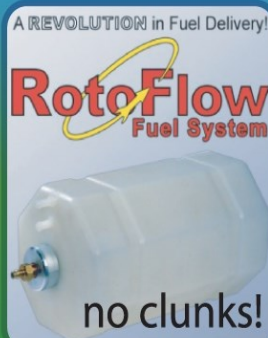
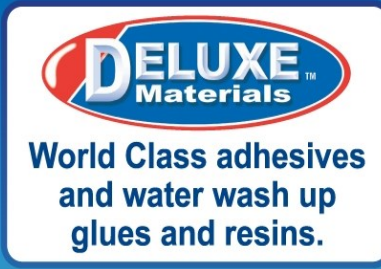
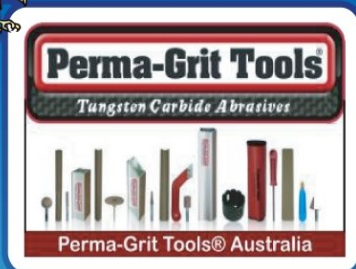
Some overseas visitors.





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PETER ELLIS TALKS ON ENGINES

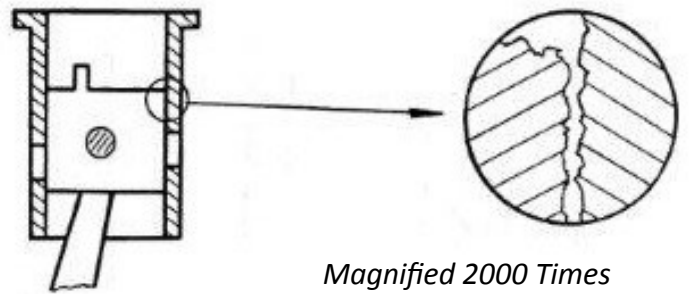
At the C.L.A.M.S. November meeting well known speed modeler, Peter Ellis, gave an informal lecture on the subject of engines.

His talk was so interesting and well received that some of the points he made will be presented here, random fashion, for the benefit of those who were unable to attend.

When you come to think of it, most model engines are a masterpiece in engineering considering what they cost. DO read the maker's instructions when you buy a new engine, regardless of your prior knowledge; the maker knows his product best and in many cases gives valuable clues that will enable you to get the best from your unit.

Today we know more about the true nature of what happens when motors are being run—in. Even micro finished parts are really quite rough when magnified sufficiently, and look something like this:

In the ideal case, the gap between these two surfaces would be filled with oil, and the piston would travel up and down without actual metal to metal contact with the cylinder. In practice, the oil becomes very thin, the piston expands due to heat, and the mountains (high spots) of each mating surface do actually collide.



Partly the high spots are rubbed off, some are torn off, and some are compressed and bent over into the valleys. The effect of all this is to produce a work hardened surface on each of the mating parts, the Bielby Layer. This layer is actually harder than the parent metal, and once it has built up the engine is ready to give its best end of high speed work.

Ideally, running in should only be required to form this Bielby Layer, not to wear down badly fitting parts to the proper size, as it is often expected to do. If you are unlucky enough to own a motor that is still too tight to scream properly after hours of running, it is better to pull the motor apart and lap the offending parts out to a looser fit rather than to continue "running in". More will be said about lapping later, but it is a process requiring skill and experience to do properly, and it is best to get someone who has done it before to do it for you unless you want to risk ruining an engine.

K&B have recently found by microscopic examination that engines develop a wear pattern on the rubbing surfaces, depending on how the motor is used. A motor used for speed all its life will develop a different wear pattern from the one it would have developed if used at low R.P.M. in a stunter. In fact if a speed engine is run slowly for long periods it will develop a pattern such that it will never be a really fast motor again, unless it screamed long enough to develop a new wear pattern. For this reason it is best to have a separate motor for each class of competition you fly in, rather than swapping the motor from model to model all the time.

Except for some of the very small American glow engines, running in is really essential, as it governs the life of an engine as well as top end performance. Use a fairly small propeller to start with, so that the engine will be lightly loaded, but keep R.P.M. low with rich mixture setting. Give short runs of about 30 seconds, allowing to cool between runs. Speed and running time should be gradually increased until by the time half an hour of running time has been accumulated the motor will hold a continuous scream without slowing down. Some motors may require longer than half an hour to reach this stage, but once it has been reached the motor ready to fly.

Getting back to the process of lapping, this is usually concentrated on two areas:

1. Piston - cylinder the most critical and most important; if you have a good piston — cylinder you will have a good motor even if the rest of the parts are a bit sub—standard, but if you have poor piston— cylinder you may as well throw it away no matter how good the rest of the motor may be. It is impossible to say just how loose this fit should be; it depends on the materials of which the engine is constructed, use to which the engine is to be put, type of engine etc. etc.

Experience with the motor in question the only true guide. Some experts lap in their engines a little at a time, run-

ning the motor between each lapping operation to observe the effect.

2. The crankshafts bearing on a plain bearing motor is sometimes supplied too tight for maximum performance. In the large glow engines, it should be possible to rock the shaft up and down in its bearing, and to see the piston move up and down slightly without rotating the shaft at all. If you suspect that a tight bearing is slowing your motor up, feel the outside of the bearing while the motor is running it should be cool enough to touch.

The actual lapping is done by applying abrasive paste to the parts and rubbing them together. Holding a piston with the con—rod it should be rotated and worked up and down with a corkscrew motion, then put in upside down and the process repeated. But be careful, it is easy to go too far. Finally, all parts are scrupulously cleaned. Scrub them with detergent and hot water if necessary, then oil well and reassemble, making sure that there are no binds.

Note that this lapping is quite unnecessary if the motor is not too tight when new. Most of today's engines will be perfectly satisfactory for general use without any reworking at all. Many speed and team-race records are held by perfectly standard engines too.

Coming now to engine maintenance, it is a good idea to wash out the engine with petrol or kerosene after a day's flying and inject a few drops of a light oil such as Redex or 3 in 1. This is especially true if racing fuels are used.

After a while engine lacquer builds up on cylinder walls inside the engine, thought to be caused by the castor oil used in the fuel breaking down under the effect of heat. Unless this lacquer is removed from time to time it fills up the minute scratches in the metal surfaces that would normally hold oil, and generally gums up the engine and slows it down. The effect is most noticeable in small engine sizes.

To remove this lacquer the engine is dismantled and the cylinder cleaned with fine steel wool. All parts must then be thoroughly washed before re-assembly. It is always a good idea to mark parts before dismantling so that when re-assembling they can be lined up in exactly the same positions as they were in originally.

It is always a good idea to filter fuels just before use; filtering through lightweight tissue placed in a funnel when filling your squeeze bottle is a convenient time. This is because most fuels will develop a sediment in them if left standing for a length of time, and while this sediment may not actually harm the engine it will certainly block up the needle valve and play havoc with tuning.

A few words of warning about model engine fuels might be appropriate at this juncture. All fuels are POISONOUS if swallowed, but some are even more dangerous because of their TOXICITY. Glow fuels are worse than diesel in this respect. Did you know that methanol for instance can be absorbed into your system straight through the skin?

Nitrobenzene can blister your skin, and even its fumes can be deadly.

Some of the ingredients used in team-racing fuels are the worst of the lot: benzol, xylol, iso-propyl alcohol, etc. etc. are all health hazards if not handled correctly, and worse still, many of these gradually build up in your system affecting the central nervous system and the brain without your noticing it until one day you wake up dead.

This is not meant to scare you off flying; only to point out the need for common sense when handling fuels. Always remember:

1. Mix fuel in a well ventilated room or out in the open air.
2. Avoid getting fuel on the skin unnecessarily.
3. Do not go around smelling fuels or ingredients.
4. Wash hands after a day's flying, but never wash them in fuel.
5. If fuel gets in eyes, seek medical advice
6. Fuels burn like crazy; store them in a safe place.

Note:- This article by Peter Ellis was written whilst he was a member of Control Line Aircraft Modelers Society back in the 1970's

MASA Control Line State Championships 2015

All events at Adelaide Model Aerosport, Monarto

Hosted by Adelaide Aeromodellers Club and Adelaide Model Aerosport

7th – 9th March 2015

Program of Events:

Saturday 7 th March		Sunday 8 th March		Monday 9 th March	
Grass RC Field	Hard	Grass RC Field	Hard (H)	Grass RC Field	Hard
F2B Exp /Adv /Novice Round 1	F2C	F2B Exp /Adv / Novice Round 2	F2C	Vintage Combat	F2B Exp /Adv / Novice R3
9.00 am	R1 & R2	9.00 am	R3, R4 and Final	10.00 am	9.00 am
Classic Stunt R1 and R2 11.30am	F2F	Vintage Stunt R1 and R2 11.30am	Vintage A T/R		
Grass / Junior Rat Round 1 2.00pm	Classic B T/R	Grass / Junior Rat Round 2 and Final 2.00pm	1/2A Combat (grass area adjacent hard circle)		
	Classic FAI T/R				
	Diesel Goodyear (27/10)				
	F2A/Comb. Speed (incl. 1/2A Proto Speed)				

Notes: 1. **Vintage Stunt Static Judging: 10.00am to 11.00am Saturday 7th March.** Please ensure you have all of your documentation with you to be able to receive static points.

2. All aerobatics events will take place on the RC field except F2B round 3 will be held on the hard surface pending completion of Racing events. The Aerobatics CD may reschedule rounds in the case of extreme weather.

Flying Site Details:

Adelaide Model Aerosport, (AMA) Monarto is located on the Princess Highway, 6km on the right travelling to Adelaide from Murray Bridge.

All Grass events will be held on the AMA RC flying field except for 1/2A Combat which will be flown on the grass area adjacent to the hard circle.

Conditions:

All entrants to be current MAAA or FAI affiliated organization members. Please bring your MAAA / FAI cards with you.

Programmed events will be run as per current MAAA rules book except Vintage Stunt where a simplified scoring system is used.

Junior competitors as per MAAA age requirements.

Accommodation:

Princes Highway Caravan Park:
313 Old Adelaide Road,
Murray Bridge.
(08) 8532 2860

www.murray-river.net/princes

Murray Bridge Visitor Centre:
3 South Terrace,
Murray Bridge.
(08) 8539 1142

mbvc@rcmb.sa.gov.au

Oval Motel & Caravan Park: Adelaide Road Motor Lodge
4 LeMessurier Street, 212 Adelaide Road
Murray Bridge, Murray Bridge.
(08) 8532 2388 (08) 8532 1144

ovalmotel@lm.net.au mbmotorlodge@bigpond.com

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Reichardt/Oddy pan.

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Regards,
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Wanted dead Profi F2A crankcase, crankshaft and head for mock-up of F2A fuse [new project all carbon]. Price and details to jakeandfran@bigpond.com

If there are any dramas please email me.

Thanking you John Jacobsen. 5075

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