

THE VOICE OF CONTROL LINE
AEROMODELLERS FROM
AROUND AUSTRALIA

Number 53



Produced by the Victorian Control Line Advisory Committee

March 2002
INSIDE THIS ISSUE

- Contest Calendars
- Contest Results
- Engine test. Merco 40
- W.A. News
- Old Time Team Race
- Speed corner
- For Sale
- Wanted

**Copy Deadline for next issue is:
Wednesday 20th March 2002
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 pretyped, and please use a good black ribbon for best reproduction.

Best of all is to send it on a 3.5" disk as a Windows Write, Word for Windows, or as an ASCII TEXT FILE or use Email

Contest results should be tab delimited, ie use a single tab between each column of results, if submitted by disk. This makes formatting much easier on the editor. Harry Bailey. 37 Thompson Street. Clayton VIC. 3168.

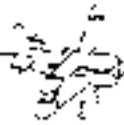
Telephone (03) 9543 2259.

Fax is also available on (03) 9511 0171 but please notify before sending to ensure fax is active.

Email address:- acln@ozemail.com.au



COMING EVENTS



CONTROL LINE CONTEST CALENDAR 2001

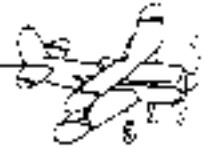
MAR 3	Hand launched glider	SMAC at Ross Reserve
MAR 17	FAI Team Race, Goodyear, Simple Rat Race	CLAMF
MAR 24	FAI, Novice & Jnr Aerobatics, Vintage "A" Team race, Classic "B" Team race.	KMAC
MAR 29 - APRIL 1	Victorian Control Line State Championships.	CLAMF, KMAC, CLAMF
APR 7	Simple Combat.	SMAC
APRIL 21	FUN/LEARN TO FLY DAY PROMOTE C/L FLYING.	CLAMF
APRIL 28	Classic Stunt, Bendix.	KMAC
MAY 5	Vintage "A" Team race, Aust "A" Team race.	SMAC
MAY 19	FAI & Combined Speed, Triathlon (Artmil Trophy), 1/2 A Team race.	CLAMF
MAY 26	FAI (Yeoman), Novice & Jnr Aerobatics, Simple Rat race.	KMAC
JUNE 1-2	Simple Rat race, Simple Goodyear, Vintage "A" Team race, Classic "B" Team race, 1/2 A Combat.	Horsham
JUNE 9	Balloon Burst, Limbo.	SMAC
JUNE 16	FAI Team race, Goodyear, 1/2 A Combat, FAI & Modified Combat.	CLAMF
JUNE 23	Vintage Stunt, Combined Speed, Vintage "A" Team race.	KMAC
JULY 7	Simple Rat race (whipping permitted).	SMAC
JULY 14	FAI & Combined Speed, Jnr 2.5cc Combat, Mini Goodyear, Jnr 2.5cc Rat race.	CLAMF
JULY 21	FAI (Stuntmasters), Novice & Jnr Aerobatics, Class 2 Team race.	KMAC
AUG 4	Simple Combat.	SMAC
AUG 11	FAI Team race, 2.5cc Rat race, 1/2 A Combat.	CLAMF
AUG 17-18	Events to be advised	Bendigo

NOTE - All SMAC events to be held at KMAC flying field. All events at KMAC except Aerobatic events to be run by CLAMF, DAC & SMAC members.

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



COMING EVENTS



CLAS 2002 CONTEST CALENDAR

DATE	CLUB:	EVENT:
26th Jan	REMAC	Bob Burrell Memorial Vintage Stunt
27th Jan	KMFC	"Classic, Novice and Vintage Stunt"
10th Feb	KMFC	Gala Racing Day - contact John Nolan for details
17th Feb	KMFC	F2BAerobatics
2nd/3rd Mar	MDMAS	Hunter Valley Championships (Muswellbrook).
9th Mar	WMFC	Practice and Fun Fly
10th Mar	WMFC	F2B Aerobatics & Classic Stunt
24th Mar	SSME	"Phantom, Vintage 1/2A, Vintage A, Bendix TR"
7th Apr	KMFC	0.10cc Combat & Slow Combat
14th Apr	Doonside..	Venue KMFC F2B Aerobatics
28th Apr	SSME	F2B Aerobatics
5th May	KMFC	Palmer / Aldrich Classic Stunt
18th & 19th May	To be confirmed	Veteran's Gathering in Muswellbrook
26th May	SAT	F2B Aerobatics
14th Jul	KMFC	"AGM, 2.5 Stunt, F2CN & Slow Combat"
20th Jul	REMAC	All American Senior (de Bolt) & Vintage Stunt
27th Jul	SSME	"Vintage 1/2A, Vintage B, Goodyear T/R & Combined Speed"
28th Jul	SSME	"Phantom, Vintage A, & Bendix TR"
11th Aug	KMFC	F2B Aerobatics
18th Aug	WMFC	Aussie Slow Combat 2.5cc
25th Aug	Doonside..	Venue KMFC F2B Aerobatics
15th Sept	KMFC	"Classic Stunt, Vintage Stunt, Simple Rat, Slow Combat and Swap Meet"
29th Sept	SSME	Slow Combat (bonus points for WW2 style models).
Oct T.B.C.	CLAS N.S.W.	State Control Line Championships
12 th Oct	REMAC	Duke Fox Memorial Vintage Stunt
10th Nov	SAT	F2B Aerobatics
17th Nov	NACA	Classic Stunt
17th Nov	KMFC	"Vintage, Vintage 1/2A, Vintage A and Vintage B Team Race"
24th Nov	SSME	F2B Aerobatics
8th Dec	KMFC	"Xmas Fun Fly, Slow Combat, Phantom Racing & Xmas Decoration"

CLASII CONTROL LINE EVENTS CALENDAR 2002

Flying field at Leichardt Park just past One Mile Bridge
Ipswich

Members fly most Sundays between 9am and 1pm. Club competition days are held on the second Sunday of the month. Visitors are most welcome but please bring your F.A.I .card to prove current MAAQ membership. This is a Council Park with permission given to fly only control line planes, no radio and only between the hours of 9am to 5pm. Further information on club activities can be obtained from President Mark McDermott 07 32889263 or Secretary. John Taylor 07 33927679 email johnndt@iprimus.com.au

MARCH Sunday 10th Clasii (simple) Rat
Triaerotheron

APRIL Sunday 14th **Ipswich Open Grass
Speed & Team Race
Championships Part 1**
Combined Speed
Vintage A
Vintage B
Bendix

MAY Sunday 12th Scale Fly In
(Mother's Day)

**JUNE 8th 9th 10th QUEENSLAND
STATE CHAMPIONSHIPS
At ALC FIELD**

**Chetwynde Street
Loganholme.**

**Further details from
Secretary ALC**

JULY Sund 14th Clasii (simple) Rat
Class 2
Goodyear
Classic B

AUGUST Sun 11th Clasii (simple) Rat
Junior 2.5 Slow Combat
2.5 Slow
FAI Combat

SEPTEMBER Sun 8th Clasii (simple) Rat
**INTERCLUB MOUSE
CHALLENGE**
Mini G/Year
Open Combat

OCTOBER Sun 13th
NOVEMBER Sun 10th **Ipswich Open Grass Speed
& Team Race
Championships Part 2**
Combined Speed
Clasii (simple)Rat Open

**Team Race \$15 per team
Prize nib Norvell 15 glo motor, 2nd & 3rd Trophies
2 Rounds of heats and fastest 3 to Finals**

DECEMBER Sun 8th Junior 2.5 Rat Race
Christmas breakup and Fun Fly

FOOD AND DRINKS ARE AVAILABLE AT THE FIELD ON CLUB DAYS. Visitors are requested to make a gold coin donation to club funds for fun flyins. Competition events commence 9.30am. Separate entry to apply to each event. Clasii (simple) Rat rules available from Secty.

Pics from the Nats. Top Ken Taylor and his "Kestrel" assisted by Doug Grinham.



Below :- This model belongs to John Elias "Tucker Special"



Below:-Tony Bonnello flew his "Enigma"



ENGINE TEST -

MERCO 40

Derek Pickard tests a new look at an established size which has benefited from the fresh approach.



Every now and again it's good to have an outsider run his eyes over what we do. Obviously, those second pair of eyes have to be qualified in the area they're viewing, but if they bring a wide experience, the observations and recommendations can always be well worth it.

And that is the case with the new Rustler Merco 40 from Ian Russell in London. He laid down the basic specs of the market needs for a good 40 and then let his engine building specialist in Russia finalise the design. The result is a good stunt running 40 of low weight and top quality with some unusual but useful features.

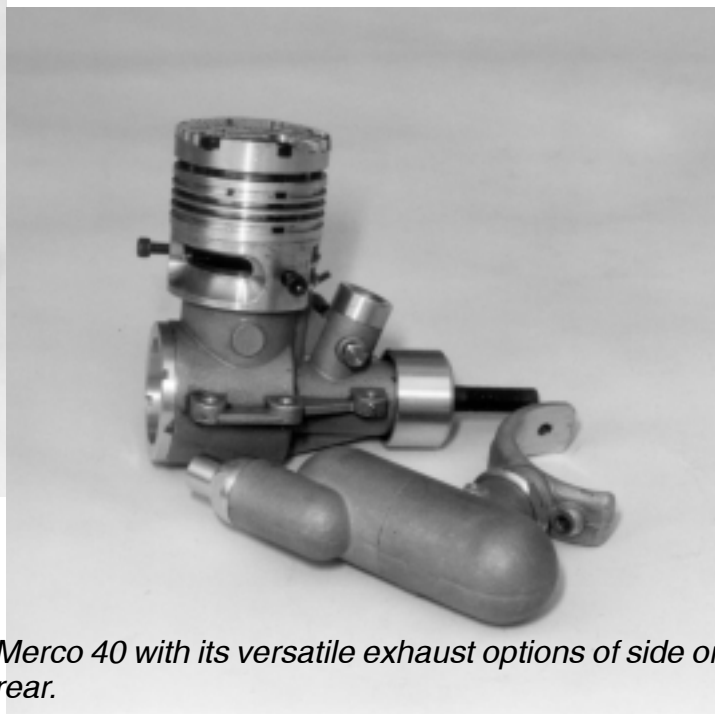
The basis of the design is a traditional 40 with a deflector piston and front induction all on OS-size mountings. This gives a readily acceptable product of 35 weight but with the right type of 40 power. Additionally, the builder has put an excellent contemporary ABC, single sided NVA layout, extra front mounts and an exhaust muffler which can be easily switched for side or rear outlet.

The fundamental specs are right with the 21.45 x 17.90mm bore and stroke giving 6.46cc with appropriately small porting throughout. The combustion chamber has a hemi head which is located by 6 socket screws with the liner and cylinder fins also being quickly detachable.

The timing is 140 to 120 exhaust/transfer with the inlet showing 40 ABDC/45ATDC. All good stunt stuff. As delivered, the compression is a European no-nitro 10.5:1 but that can be easily shimmed back to something in the region of no more than 8.5:1 for our nitro fuel application.

Build quality is reasonable in that the liner incorporates half a thou taper and the piston fit is good. The rod diameters are 5.5mm big end and 5mm piston pin with an oil hole for the crank and circlips in the piston. The shaft is unbushed.

About the best overall feature is the way the cylinder ports don't run the conventional across the cylinder or in line with the shaft, these are at 45 degrees so the exhaust comes out at what initially appears an odd angle. But by smart design of the exhaust port window and the muffler manifold, it's possible to reverse the mounting and run the muffler out the side or at the rear with just a few screws. Nice one. How come no one has thought of that before? At the other end, the inlet is a Eurostyle small hole with an offset needle.



Merco 40 with its versatile exhaust options of side or rear.

Complete with muffler, the all-up weight is just under 9 ounces. The shaft nut is 1/4 UNF.

Out of the box, the motor needs breaking in and this one took 45 minutes before that vital feel of a minimum top pinch was achieved.

The test plane was a very cute looking Tucker Special that had been powered by an OS 35S running on 62ft fines and a 10.5 x 6 Bolly prop. The Japanese motor was removed and the Merco dropped in place. Because of the plain front shaft bearing, the fuel chosen for the test was 23% castor oil and 8% nitro.

Running an Enya #3 plug the motor started its usual reliable self and needled into a dull 4 stroke quickly. In the flight, the preferred 4-2-4 stunt run was easy to obtain and retained throughout the pattern.

Power is about equal to the OS 35S it replaced but that should be capable of being increased with the modification of swapping the stock small inlet facility for a conventional venturi of around 275/280 thou with a 4mm NVA. Such a change should increase power without any adverse effects.

Repeating the flight test on another day in different weather conditions, the engine proved just as easy to set and just as good in the air. Impressive.

No opportunity was available to test the motor with the

exhaust manifold reversed and the muffler swivelled around to give a rear outlet. But as the internal dimensions are much the same as with the side layout, such a running position should be identical.

Conclusion: A very good conventional stunt 40. Recommended.

Declaration of interest:

Derek Pickard was loaned this engine for testing and supplies are available from Ian Russell of Rustler UC at 98 Elers Road, Ealing, London, W13 9QE, UK.

Fax-44-2089-326-783 and

Email rustler@aero.fslife.co.uk. He sells the Rustler Merco 40 for £90 (about \$US140) which includes the cost of post to anywhere.



TARMAC Notes for January and February

They say that variety is the spice of life, so to hopefully add some spice into the lives of any readers of these simple missives (especially those with an interest in engines), I have changed the format entirely for this month. As mentioned last month, I have been fortunate enough to get a very interesting and useful article from Hans Bertina on the subject of engine management.

Hans is a clever and methodical worker who has had an active interest in high performance engines that started over forty years ago when he began working with team racing engines. He then built his own Schneurle ported speed engines shortly after the time that Bill Wisniewski introduced them to the aeromodelling world by smashing the world FAI speed record. Hans pioneered the use of tuned pipes here in WA, firstly on model engines and then on 100cc engines for Go Kart racing. He has also demonstrated that he can set up the slower running stunt engines. In essence, my message is that when it comes to engines, Hans is a man that knows what he is talking about. Due to the space constraints, he has supplied much material of a general nature and the article is intended to get you thinking, if you have an interest in any particular area mentioned, please just ask and he will be happy to give more details. Now, over to Hans.

HUMAN ENGINE MANAGEMENT

If you use an air-cooled engine to power your model aircraft then this article may increase your know-how at getting the best performance to suit your requirements. It would be easy to write an entire book on this subject but I don't have the time yet (retirement takes up most of my time). So here then, with the best intentions are my experiences and opinions. These opinions could vary from yours and in that case I am happy to debate them via Email at bertinuts@bigpond.com.

Probably the most misunderstood component in our hobby is the engine compartment. How often, for example, have you seen Team racers that are very fast in practice only to see them die in a race, or stunters with inconsistent engine runs? In many cases possible winners have not achieved their potential through lack of quality engine management.

To begin with, the most important concept to get in to your brain is the idea of a "thermal cycle." The running engine produces heat, and up to a certain operating temperature the unit behaves as expected. Beyond that, anything can happen.

The beyond that is mostly seen as "lean runs," burn downs," fall over," and other aero modelling expressions.

At the point where the cooling process and heat generation reach equilibrium we have a "STABLE THERMAL CYCLE" and the motor will continue to run constantly and stable for as long as you like. A stable cycle achieved at the optimum for the particular motor will give optimum performance a stable cycle at other than optimum is a compromise and inherently can quickly become unstable. Unfortunately many things affect the thermal cycle but once you believe that a stable thermal cycle is required then all you need to understand are the elements that affect your particular environment.

Firstly the ONLY good heat is the heat from combustion, it is the only thing that is controllable with the adjustments available to you. It is also the only thing producing power. Any other form of heating is bad news as it is unstable and generally increases with stress. For example if your bearings are not perfect they will generate heat and as they get hotter cause more friction and even more heat. Too tight a piston fit at running temperature will cause an increase in heat generation because of the extra friction and can lead to very rapid burn down or seizures. In fact, any kind of misalignment will lead to "bad heat." It is a fact of life that both glow and diesel motors fire by compressing the mixture to a self ignition point. Therefore increasing the temperature at a given point advances the timing. This can be very bad.

Why does all this matter? Well, simply because most motors when used at their maximum power generate more heat than air-cooling can remove. They rely therefore on fuel cooling to augment the air-cooling. In the case of high performance diesels, they are set to give regular misfiring to give an occasional cooling stroke. With all this in mind all you need to understand are the things that affect your thermal cycle enabling you to reach optimum performance.

These are:

- Ignition timing
- Fuel consumption
- Fuel content
- Propeller load
- Compression
- Plug (glow)
- Compression setting (diesel)
- Fuel feed

Cooling

Type of event

As you can see, there are quite a few and you may be able to think of even more. Not surprisingly the fuel content and ignition timing are major factors in our motor operations. For whatever RPM you are operating at there is an ideal timing for combustion to start. Too late (retarded) is never harmful but not powerful. Too early (advanced) is dangerous and can lead to permanent damage, overheating and other nasty things. In all the large engine research I have done, increasing the temperature of the gas in the combustion chamber advances the ignition point. That is, hotter plug earlier fire, increased compression earlier fire (increased compression = more heat). Of course too hot means pre ignition. That is real bad news, as now the ignition is so early it is fighting the motor. Remember that all things that affect temperature affect timing and timing when ideal is good but early is bad and late is slow.

In general when the fuel starts to run too hot then within a matter of seconds everything goes bad quickly. Often you see racing diesels burn down or fall over within a lap or two. It is the rapid build up of earlier and earlier ignition that causes the fast overheat as it builds on itself, even though the motor may have appeared to be running well for twenty laps or so beforehand. Obviously the thermal cycle was not stable. Importantly don't let the heat build even slowly as you will suddenly get to a point of no return. Speed engines do the same thing hence the need to play with the fuel and compression settings.

In modern large engine management systems combustion is very tightly controlled by fuel quantity both for pollution and temperature. With unleaded fuel pre-ignition sets on very easily and very fine control is needed to keep the engine running well. A standard practice is that if the engine load increases (i.e. go uphill) but nothing else then the fuel ratio is increased to compensate for the slight temperature increase that would otherwise occur. For our model engines it is exactly the same. All motors will increase in temperature with increasing load, because relative to the prior load the ignition point has advanced and, if not relieved could run away.

Interestingly Team racers held up in traffic burn down for that reason. A setting with less compression gives less overall performance but will withstand the traffic or slow pilot problems. In general a Stunter increases power during manoeuvres because firstly the temperature rises due to slight leaning of the mixture in turn advancing the ignition which causes more of the too rich mixture to burn, causing more heat to be generated. We have the potential for a runaway. Quite often if the manoeuvres last for too long then the engine might continue to run hot and fast for the rest of the tank full. Now your arm gets sore from hanging on to a heavy model that is flying too fast. Speed motors simply get too hot and slow down. In all cases once the motor is too hot the pre-ignition is quite audible and with a little observation you can learn to recognise this.

HOW DO WE FIX THIS?

Temperature control is every thing, but the majority of our planes have very poor cooling management. Most stunters have no cooling management at all, just a motor

either in the open or prettily cowled. Speed models appear to have very little cooling and although most team racers have shrouding to force cooling air to pass through the fins, it is not just the cylinder that needs to run at the correct temperature. Although the cylinder produces the most heat the temperature of the entire engine needs to be correct. The temperature of the fuel mix in the combustion chamber determines the ignition point if nothing else is changing. The crankcase temperature also affects the mixture temperature. An F2C racer could come down overheating (over compressed as recognised by the mechanic). Pouring cold fuel or water on only the crank case is usually sufficient to cure this, or using a different fuel mixture with .05% less DII would also work. In both cases the ignition timing has been retarded. Another consideration is that the fuel mixture is not adjustable in flight yet it has the greatest effect on temperature.

The answer for maximum performance and flexibility is that the conditions must be provided for a constant thermal cycle. It is not much use having a racer that is hotter at the end of the tank than at the beginning. You cannot achieve its ultimate performance this way. The same goes for a Stunter or Speed model. The fastest speed models (at least the ones that I saw at the world champs) are the ones that don't sag in the last two timed laps.

I have listed all the things that affect the thermal cycle. Since there are so many, how can we get to the best compromise? It is a combination of weight, drag, propeller, fuel and cooling in all cases. Find a propeller and fuel combination that gives an even run, then use a fully cowled engine compartment where you can control the cooling temperature independently to the parts that matter. Separate the air to the carburettor, crankcase and cylinder. Control the flow of air over these parts by changing the outlet vents. By making the air cooling the adjustable part and fixing everything else you can get more flexible settings. National's winner David Campbell's F2C relies on outlet air restriction to generate heat rather than compression. His view is that by using the air to get to the right temperature a less critical setting is achieved giving greater tolerance in traffic. At the Busselton nationals I timed his model in the final. At times it was doing 17.8 seconds for 10 laps at other times it was doing 19.2 but it sang like a bird all the time. I have the prop he used with me now. The tips were damaged partway through the race and a considerable amount was missing. In fact most racers missing that much prop would have cooled down and gone slow. It did not seem to slow Campbell's racer, and in fact the Brits were dead set better. How does Campbell control the cooling? By a piece of sticking tape over a portion of the air exhaust duct.

Of course compression ratio (or compression setting) has its effect but this should always be used to set the timing not wound up to get motor temperature. This should be controlled through the outlet ducts.

There are many fuel factors to consider also. Nitro methane when added to glow fuel greatly increases the combustion temperature because more fuel mixture is burnt and this generally requires a reduction in compression ratio to remain stable. Diesel Ignition Improver (DII) advances the timing when the motor gets hotter, while xylene has a mild retarding effect. You may

find it interesting to learn more about fuels and fuel mixes so that you can experiment with ratios knowingly.

The big difference between the real world and us is that petrol engines are usually spark ignition thereby having good control over the ignition point and of course most use water cooling which is about 100 times more efficient than air. While full size diesel engines use the injector timing and quantity to set the ignition point.

The information that I have given you is just the tip of an iceberg, but hopefully there is enough to whet your appetite to know more. All types of powered models can benefit from the technique of controlled cooling, all you need to do is think through how your engine run behaves and start to diagnose from there.

Good Luck. Hans Bertina

That is it until next month, and remember, a procrastinator's work is never done.

Charlie Stone VH4706
Emailcestone@bigpond.com

Associated photos: Right

As there are no other illustrations this month, I dug into the TARMAC archives to find this photo of Len Armour's original 'Lasher' stunter. It was taken at Woomera in 1956 and the Lasher was powered by a Sabre .49 that wore out quickly due to it's consumption of the local dust. This was the first of a long series of Lashers built by Len.



SPEED NEWS

Speed and other events at the state champs will be run to the OLD rules as we ran at the NATS, the new rules will come into effect when the new rules book / CD? is printed. So please could ALL speed flyers get out their models and have some FUNN!!!!!!!. You may not be competitive but if you don't fly you never will be. You have to fly to be competitive. All you have to do is beat your personal best, to hell with the top guys everybody started off at the bottom.

Why buy gear and not use it? Or go out first day and if not fast enough give up?

Feel welcome to take part in the VIC STATE CHAMPS.

FAI starts at 9am Saturday 30th followed by COMBINED SPEED for hard surface models after FAI T/R. COMBINED SPEED on GRASS is at KNOX on Sunday, with Midge on Monday, 18th back at Frankston unless you are from interstate and will not be there Monday.

ROBIN HIERN

SUBSCRIPTION APPLICATION ARE YOU BORROWING?

If you have just finished reading somebody else's copy of Australian Control Line News why not get in now and order your own copy. Australia and New Zealand residents cost \$20A and other countries \$30A. For this annual amount you will receive eleven issues of this newsletter, and be up to date on Control Line both in Australia and elsewhere. Please make payments payable to "Control Line Advisory Committee"

You can order from:

G. WILSON
P.O. BOX 298
SEAFORD
VICTORIA 3198 AUSTRALIA

NAME _____
ADDRESS _____

POSTCODE _____
TELEPHONE _____



This picture is of a ME109 which is kitted by Brian Burke. The builders were John and Coby Dingham-Rolls and uses a 50th Anniversary Fox 35 up front.

OLD TIME TEAM RACE

Thanks to Andy Kerr, more Vintage flyers have some Lubrizol in their fuel box than they did before Albury. The small bottles sold by Andy disappeared from the back of his van as if he was selling hot cakes.

Like many old time enthusiasts, I have preferred to 'keep things simple' and just use one or two percent of Coolpower in the diesel mix, believing all the cleaning virtues described on the bottle's label. A purpose designed cleaner like Lubrizol should certainly work more efficiently.

Exactly how much to use is the obvious question. I remembered reading a recent edition of Paul McPeake's 'Linecheck'. This is what was recommended.

Re Lubrizol - It's a carbon dispersant used in full size diesel engines 'cos their fuel is so dirty. It reduces the carbon build-up and the carbon which does accumulate is softer and easier to clean off. The 'correct' amount is 0.125 - 0.2% **repeat, one eighth to one fifth of one per cent.**

Try this way of mixing. 2 cubic centimetres of Lubrizol to a litre of T/R fuel. That is 0.2% on top of the usual blend. Any more than 0.2 is just a waste. It's very gooey, like treacle, so most people thin it 50/50 with paraffin. If you can't get Lubrizol, I think a lot of the STP products are just thinned down Lubrizol e.g. diesel injector cleaner. Lubrizol isn't something that replaces oil, but a "detergent" that prevents carbon buildup.

If anybody has any further tips on using this stuff, don't hesitate to drop the Editor a line.

Noticed in the latest edition of Vintage T/R News from England that 1000 lap Class B races are still happening. In fact 2001 saw the 41st event run by the Wharfedale Club. Holmes / Orchard were home first in 49.55 from Toogood / Ward and Bailey / Pickles. (Was our Editor there on holidays...?) Enya 29 BB's were first and second and an SS 30 was third. The winners flew a 'Double Dice' which did 19 pitstops. Next was a 'Blue Star' with another D/D third. The 'Blue Star' did 23 stops. That's a hell of a lot of flicken' & flyen'!

40 Years ago, when Secretary of the Oakleigh MAC, I organised a Postal Competition for the 1000

lap Class B Team Race, us against the Wharfedale Club. From memory, the Brits won! How much easier it would be today with efficient, cheap and modern communications and not having to get a Bank loan to pay for a Trunk Line call to England!

The 2002 1000 lapper will be held on 6th October at Dishforth in England. The rules for motors have been opened up. Looking at the new range of allowed engines, it should be a fantastic event. Apart from Vintage B motors currently in use, the list now includes;

OS 25 FP or LA

OS 25 FSR

OS 28 (heli)

Enya 29 BB

Enya SS 30

Any side exhaust .21 (e.g. K&B 21, OPS .21)

Super Tigre 29 (Front induction)

MDS 25 or 28

MVVS 28.

John Hallowell

VH 1984.



Pics from the Nats

Above :- Gary Tansleys "Predator"

Below :- Peter Whites "Zodiac"



QLD C/L STATE CHAMPIONSHIPS.
QUEENS BIRTHDAY WEEK END 8-10 JUNE–2002
(Don't forget to mark your calendars)

UPDATE.

REMINDER – Scale is also in the Champs this year.

Once again the administrator for Qld Champs is none other than Brian Burke. Most entrants have already guessed that but it 's now official.

Brian is about to send out entry forms to clubs and ACLN for publication. If you like you can ring Brian direct on (07) 3200 1308 or mail to 2/24 Appaloosa Crt Munruben Qld, 4125. Alternatively you can call Les Winterton (07) 3207 6325 or Adrian Harrison (07) 3341 0201 and we will relay details to Brian.

Further improvements are planned to make the weekend more enjoyable, particularly as scale is also included in this years champs. The last 2 State Champs have been a little crowded with both the entrants and spectators moving around the fields and particularly under the shade. To help these problems we have re - claimed 4 metres of land to extend the top field for extra pit area. We are also negotiating for an additional grassed field adjoining our existing fields so the combat specialists can have their own area.

Finally I have to mention the CUT OFF times for entries. It is essential that we get your entry if you wish to compete. WE NEED YOUR ENTRY BY close of business 10 MAY 2002. How many entries do we need to run an event ??? Well generally Junior and FAI events will be run if sufficient numbers are received to run them. All other events depend on there being a minimum of 5 entries. Check the entry form, the official conditions of entry are spelt out there and Brian Burke can provide further clarification if you have any difficult questions. DON'T forget a Stamped SAE with your entry, that's IMPORTANT.

Well that's enough for now – Don't forget to mark your calendar and remember the CUT OFF DATE for entries is 10 MAY 2002.

Les Winterton
ALC. (leswinterton@iprimus.com.au)

Brian Burke – (gmb01@ozemail.com.au)
ALC

Notice:-

MAAQ has withdrawn from running the 56th Nationals as they are not able to get the required flying sites in the Toowoomba area.

An alternative will be arranged if possible at the MAAA council conference on 23/24 February 2002.

Victorian State Championships

It has been decided to run two extra events on the Monday of the Vic State champs. These will be Simple Rat Race and 1/2 A team race.

Those who wish to enter these events should add them to the entry form that was included in last months newsletter.

Due top the fact that the new rule changes have not yet been published by the MAAA all Australian events will be run to the rules that were used at the 55th Nationals.

CONTEST RESULTS



Held at Frankston 17/02/2002

Midge Speed

Pos	Name	Class	Engine	Flight 1	Flight 2	Flight 3	Fastest	Km/h
1	K Hunting	Midge	Taipan	10.47	10.28		10.28	140.90
2	J Hunting	Midge	PAW	10.50	10.42	10.78	10.42	139.00

FAI Speed

1	C Agnew	FAI	ZALP S15	13.65			13.65	263.74
2	N Wake	FAI	Irvine 15R	NEL	NEL			
3	R Hiern	FAI	Irvine 15R	NEL	bang			

Combined Speed

Pos	Name	Class	Engine	Flight 1	Flight 2	Flight 3	Fastest	Km/h	%
1	R Hiern	Class 1	OS CZ11 PS	NEL	15.14	15.63	15.14	237.78	98.08%
2	R Hiern	.21	Novarossi 21	15.21	14.92	15.17	14.92	241.29	93.73%
3	C Agnew	Class 1	OS CZ11 PS	15.92			15.92	226.13	93.28%
4	N Wake	Class 1	OS CZ11 PS	16.62	16.47	17.16	16.47	218.65	90.19%
5	K Wareham	S/Speed	Fox 15	36.74	33.12		33.12	108.70	66.43%
6	N Wake	.21	Novarossi 21	NEL	NEL	NEL			0.00%

Mini Goodyear T/R

Four teams fronted for this event. Plenty of sunshine and a slight breeze made for a pleasant 26deg C day.

None of the quick OS CZ11PS motors were used and the resulting times were somewhat slower than can usually be expected from this event. The Wilson / Ellins team had plug troubles. They used 4 plugs for their 37 laps in their first heat and decided to call it a day.

So straight in to the final went brothers John and Ken, father and son Jim and Colin joined by Harry and Peter (Not related) The Hunting/Hunting team had a mechanical failure at the first pit stop. The Rays had a piece of foreign matter in the fuel line which caused a hit and miss engine tune. Bailey / Roberts had a good race with quick pit stops and were the eventual winners.

Heat 1	Engine
J Hunting / K Hunting 5:01.41	OS CZ11P
H Bailey / P Roberts 4:47.85	OS CZ11 P

1/2 A Combat

Heat 2	Engine
G Wilson / M Ellins 37 laps	OS CZ11 P
C Ray / J Ray 3:56.50	CS 11

A couple of bouts of 1/2A Combat took place between Graeme Wilson and Harry Bailey. They both used 1/2A Russian models. Graeme used a PAW engine and Harry used a deiselised OS10 followed by a PAW in the second bout.

Final. 200 laps	Results
H Bailey / P Roberts 9:08.28	G Wilson Win 338 pts Win 293 pts
C Ray / J Ray 9:57.50	H Bailey Loss 141 pts Loss 286 pts
J Hunting / K Hunting DNF 39 laps	

Results of Class 2 Team race at 55th Nationals (Omitted from last months edition)

	Round 1	Round 2	Round 3	Final
1 H Bailey / M Ellins	3:04.62	DNS	DNS	6:14.11
2 G Wilson / A Lumsden	4:13.88	3:10.22	DNS	7:46.59
3 R Fry / A Taylor	3:17.59	3:34.59	DNS	8:21.25
4 C Ray / J Ray	3:33.59	3:34.63	3:22.00	
5 J Hallowell / K Baddock	3:33.69	4:39.19	DNF 60Laps	
6 R Justic / R Owen	DNF			

Three other teams entered but did not start

For Sale

Castrol 'M' in 20 litre containers. \$120
Seven Strand Stainless Steel Control Line. 40lb, .015"
Shogun Brand. 10 cents per foot plus \$5 spool and
postage.
Peter White Tel (03) 5623 5120

Super Tiger. ST60 Stunt engine. Early model with tube
muffler. Eather converted. All excellent. \$175
Derek Pickard Tel (03) 9889 1149

Aluminium Tongue Mufflers
CNC Machined
Weigh less than 1/2 ounce.
Fits Fox .25 - .35, OS Max .35 - .40 FPS and OSLA .40
\$15 + postage
Peter Lucas Tel (03) 9315 6150

VOROBIEV front exhaust FAI TR MOTOR
\$450.00 ONO.
Darryl Mills Ph 08 9399 6570 (AH) W.A. TIME

MODEL MAGS FOR SALE

The following mags were found to be duplicates when the Max Starich collection was donated by the MAAA to the State Library of Victoria. The proceeds of this sale will be used to buy mags to fill in the gaps still in the SLV collection. This collection is available, via the internet and inter library loans, to aeromodellers throughout Australia.

1. AIRBORNE: All issues from autumn 1975 (Vol. 2 no. 2) to no. 125 (Nov.1994) except for the following issues: Vol. 2 nos. 3&4, Vol. 3 no. 3(no. 15), nos.27,28,32-39,42,50. All are VGC. Up to no.50: \$1.50 each, no. 51-125: \$1.00each or, the lot \$100.00
2. MODEL AIRPLANE NEWS: June '87 VGC, Dec. '82 VGC, Aug.'39(NRC, GC)'87 & '82: \$1.00each, Aug.'39 \$15.00.
4. AEROMODELLER: June, April '82, Dec., Aug.'81, Sept.'67, Jan.'64 All VGC \$1.50 each.
5. AERO MODELLER ANNUALS: '58,'59 Complete but binding loose & spine split, no dust jackets. \$5.00 each.
6. AMERICAN MODELLER / AMERICAN AIRCRAFT MODELLER: Jan.- Mar. '75, Feb.-April, Sept. Dec. '74, Aug. '73, Feb., May, July-Sept., Dec. '72, Oct. '71, July, Aug'66, Sept. Oct. '64 All GC. \$1.50 each, or \$25.00 the lot.
7. MODELAR; (Czech) nos. 1,2,3,5. All GC \$0.50each.
8. ZAIC YEARBOOKS '35-'36, '57-'58 All VGC \$5.00each.
9. MODELE MAG. (French) Sept. '78 GC \$0.50
10. RADIO MODELLER (English) June '94 GC \$0.50

Contact: Darien Cassidy Ph. / fax (03) 9899 0322

WANTED

Any parts including gaskets and screw sets or information leading to parts for O.S. twinstack 29 [1957-58]

Jim Trevaskis
10 Gillam Way Beechboro
Western Australia 6063
Tel 08 9 3775631
Email jimtrevaskis@bigpond.com.au

Fit young enthusiastic team race pilot wanted to fly approx seven different classes of fast competitive team race models at state interstate and National championships, must live in Brisbane area, be prepared to practice and travel on a regular basis. If you think you fit the bill please contact

John Taylor (07)33927679 fax (07)33927529
email johndt@iprimus.com.au

WANTED

A Victorian Control Line Contest Modeller to be the representative on the MAAA Control Line Sub Committee, I will not be standing and have told the MAAA in my annual report. A new Sub Committee chairman will have to be elected by the MAAA Council at the conference to be held over the 23/24 February 2002.

Thanks for your support over the last number of years, Graeme Wilson.

A.C.L.N. ADVERTISING

For the newer readers, we point out that "private" (personal) ads are free to subscribers, and "commercial" ads are \$20 per quarter page, or \$5 for business card size. Commercial Advertisers can receive a free business card size ad for submitting original articles of interest to A.C.L.N. readers.

Copy or artwork for ads should be sent to the editor, cheques to the treasurer (G Wilson P.O. Box 208 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"

The views and opinions expressed in ACLN do not necessarily reflect those of the Editor or Committees of Clubs or of the members of the Club represented in ACLN but are those of the respective authors.

Any comments, queries or complaints with respect to any article in this publication should be addressed to the author of the article.

The Editor and Committee of Clubs accept no responsibility or liability for any loss or damage incurred or suffered by anyone as a result of this publication or in reliance upon or as a result of acting upon anything contained in this publication.

AUSTRALIAN CONTROL LINE NEWS
Print Post Publication No. PP 343695/00024

If undeliverable return to:-
G. WILSON
P. O. BOX 298
SEAFORD VIC 3198

**SURFACE
MAIL**

**POSTAGE
PAID
SEAFORD**

MODEL RACING SERVICES



*** Services ***

Motor Modifying and Blueprinting for all competition classes, ie. Pylon, Control Line, R/C, FF, Aircraft, Boats, & Cars, Rebush Conrods - Replace Conrod - Replace Piston - Diesel Conversions - Motor Repairs - General Machining - McAnelly Pans.

*** Kits ***

"Arrow" - 2cc - 2.5cc speed kit includes pan, pre cut wood, hardware, plans etc. **\$85.00**

"Ol Blue" - 2cc Mini Goodyear - pre cut wood, hardware, wheel, shutoff, plans etc. **\$69.00**

COMPONENTS FOR THE COMPETITION & SPORTS MODELLER

Goodyear Shut Offs	Venturis
Head Inserts ¼ x 32 & Nelson	Check Valves
Wheels 27, 40, 50 & 60mm	Stunt Mufflers
Racing Undercarriage Leg & Box Sets	Line Reels
Prop Nuts, Prop Drivers & Extensions	Piston Rings
Elevator & Flap Horns	Pan Hold Downs
"Adjustable" Team Race & Stunt Handles	Alloy Wings
Tank Valves - Pressure & Suction	Exhaust Extensions
Single Blade Counter Weights	Mono-Line Torque Units
Mono-Line Handle Units	Single Strand Lines
Paxalon & Steel Bellcranks	Bobbin Bellcranks
Magnetic Prop Balancers	Time Traveller valves and fillers

“ Plus Many More Items ”

For Mail Order or for complete price list to :-
**Robin Hiern Model Racing
Services**

P O BOX 976 CRANBOURNE 3977 VIC
Phone 03 59 96 0339 Fax 03 59 96 0307

Hrs. Monday to Friday 8.30 a.m. - 7.00 p.m. Visitors by appointment