

THE VOICE OF CONTROL LINE AEROMODELLERS FROM AROUND AUSTRALIA

Number 138

Produced by the Victorian Control Line Advisory Committee



November 2009
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**Copy Deadline for next issue is:
Wednesday November 18th 2009
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Contest results should be tab delimited, ie use a single tab between each column of results, if submitted by disk or email. This makes formatting much easier on the editor.

Email address:- hbbaily@optusnet.com.au



COMING EVENTS



VICTORIAN CONTROL LINE CONTEST CALENDAR

Nov-1	CLAG Club Flying Day	
	Vintage Stunt/Vintage combat	Knox
Nov-8	Speed , Simple Rat, Aussie A, Triathlon	CLAMF
Nov-22	Monty Tyrrell Classic Stunt	KMAC
Dec-6	CLAG Club Flying Day	Moe
Dec-6	Goodyear, Mini Goodyear,	
	Nationals Practice	CLAMF
Dec-13	Speed, F2C Team Race,	
	Nationals Practice	CLAMF
Dec-20	Club day and Nationals practice.	KMAC
Dec-28 - Jan-5 2010		

63rd Australian National Championships

ALBURY NSW

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), 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 :- Ken Taylor (03) 97380525
John Goodge 0439 972 006
Email :- johnnogo@bigpond.com.au

CLAG Contact :- Graham Keene
Email :- gkeene@wideband.net.au
Details of venues can be found on web site
www.clagonline.org.au

Brimbank Falcons Stadium Drive, Keilor Park Recreation Reserve, Keilor. (Melways ref 15 C 5). Regular flying day 3rd Sunday of each month 10.30am.
BFCLMAC club President is Mathew Shears.
Email: "Mathew Shears" matshears@gmail.com
Ph home 03 5472 3881 Mobile 0432 491 794
Club Secretary is Steve Vallve
email chitwillow@gmail.com, phone:5782 1693.

Control Line Aeromodellers of Gippsland Inc.
Event dates 2009-2010

2010

January 10th		Moe
February 7th	Classic Stunt, Novice Stunt	Knox
March 7th		Moe
April 4th		Moe
May 2nd	"All Aussie"/Vintage combat	Knox
June 6th		Moe



COMING EVENTS



C.L.A.S. CONTEST CALENDAR 2009

**** Events which form part of Team Selection for 2010 World C/L Championships.**

DATE	CLUB	EVENT
Sun 1 Nov	SAT (Kelso Park)	F2B Aerobatics
Sun 15 Nov	KMFC	Slow Combat and 1.6cc
Sun 22 Nov	NACA (Gateshead H.S.)	Classic Stunt & Cardinal Stunt. (I.Smith Ph:024975 2292)
Sun 22 Nov	KMFC	Vintage T/R, 1/2A, A (2 divisions)and Vintage B.
Sun 29 Nov	KMFC	KMFC Christmas Party and Fun Fly
Sun 6 Dec	Doonside.	To be held at SSME F2B Aerobatics

Dec 28th - 5th Jan. 2010 63rd NATIONALS.

Albury NSW *(hosted by Victoria)***

KMFC - (Ku-ring-gai Model Flying Club) - St. Ives Showground, Mona Vale Rd, St. Ives.
NACA - (Northern Area Contest Aeromodellers) - Gateshead H.S., Pacific Hwy, Gateshead.
SAT- (Sydney Aeromodelling Team) - Kelso Park North, Henry Lawson Dr. Panania.
SSME - (Sydney Society of Model Engineers) - Model Park, Luddenham Rd, Luddenham.
MDMAS - (Muswellbrook District Model Aero Sports Inc.) - Mitchell Hill Field, New England Hwy, Muswellbrook
DOONSIDE- (to be held at SSME)
Luddenham.

Adelaide Aeromodellers Club **2009 Events Calendar**


7. Vintage Combat #2 - November 7th
8. Novice and F2B Stunt – December 5th

Notes:

1. All AAC events at Unley Rd are on Saturdays, dates are provisional
2. Start time of all competitions is 11.00 am.
Practice from 9.00am
3. All AAC events to be held at the AAC field, Unley Rd City opposite BMX Park
4. All entrants must be MASA members and with valid FAI licence
5. Safety straps required on all handles in all events.
6. Mufflers mandatory on all glow motors 2.5cc and above

For more info contact Peter Anglberger,
Tel 8264 4516

Newsletter Editor
Harry Bailey.
37 Thompson Street
Clayton 3168
Victoria
Tel (03) 9543 2259



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Attention combat fliers and Vintage Stunt fliers.

Just a quick reminder that the **Brimbank Falcons Vintage Combat Day** (Combined with the **CLAG** club's Vintage Stunt event) - scheduled for Sunday 1st November 2009

Is Still on!

Where? at the **KNOX MAC** field (Melway ref: 72 K9)

Combat flying **starts 10:30 am**
Vintage Stunt starts 10:30 am
(processing starts 10:00 am)

Volunteers for time keepers & streamer cut counters always welcome.

(Lunch and light refreshments will be available from the CLAG club)

For more details
Contact:

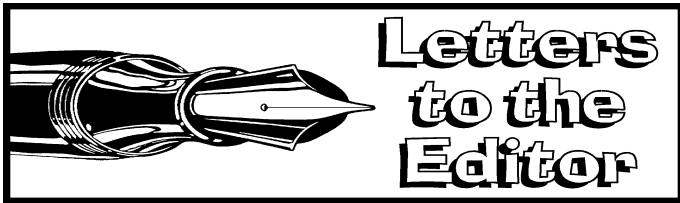
Ken Maier
0433 797 058
03 9398 8244

Graham Keene
0427 359 165

Mathew Shears
5472 3881

Nationals Vintage Combat rules. Note:-

(10) The model will have a minimum of 20% colour of the total surface area, no totally clear covering allowed.



Dear Editor,

How's it going mate; trust you're all keeping well. I've been a bit slack reading September's edition {plenty of reasons but no excuses} and can't fathom the hysteria over wrist tethers. I mean where were these guys when combat fliers were saddled with them in the 1980s [and more importantly, this year when F2D, etc. were lumbered with fly away fuel cut outs]?

I have been using tethers for almost 30 years whether flying combat, racing, aerobatics or just fun flying and we have always used them at displays for obvious reasons. The only time tethers are a liability is when teaching someone to fly or rat racing when whipping with either or both hands is permitted. In the latter case the handle must be of such a design as to facilitate changing hands safely, unlike most team racing handles I have seen or used.

The reason that I've figuratively put pen to paper are the things mentioned used to under lie the forecasts of doom these F2C blokes are putting out. C'mon you guys, you have always had the solution in your hands, it's called a cut out! It's not just for testing, tuning and pit stops but a primary safety device. If you feel that you have to change hands to prevent a crash or crashes, then you should already have hit your cut out! After all you will be awarded a re-fly if its not your fault and your model won't tent peg as badly if it's not under power and you can't be awarded a "time" if you have had to change hands anyway. You already have four heats, how many more chances do you experts need for a finals time anyway!

I do realise however, that competing in events that allow participants to "cheat" twice in each race without penalty doesn't breed the ideal mindset for this to intuitively happen. Accordingly disasters do happen simply because one does not expect the unexpected and the racer in you will not admit that the situation or model has got ahead of you until it's too late. Both this and the potential for injuries from "shrapnel" can be circumvented by standing back and adopting a broader view together with a level of maturity that tethers the heavy bits {engine, pan/crutch} to the control system.

In any case there are indeed solutions. Back before wrist tethers were legislated into FAI combat etc. and when Duncan was a kid {the good old days, hey mate!} I flew against Steve Rothwell and was intrigued by his wrist tether set up which allowed him to CHANGE HANDS around you if you "pinned" him. It's Steve's copyright so I won't go into too much detail but it consisted of a metal plate formed into a hooked clip that fitted into his closed hand and was riveted to a leather strap around his wrist. So go and order one from Steve if you can't bring yourself to hit the cut out in time and must change hands.

The other "solution" is the fly away fuel cut out. Despite the average F2D model covering about 40 metres/second before the engine actually stops and weighing four or more times than a cricket ball delivered by a fast bowler, these are seen as a panacea to all our perceived problems so it won't be long before everyone has to have them. After all combat enforces engine and wrist tethers, fly away cut outs and still DQ's you should you "release" the handle! And the "traffic" is hardly ever one way either!

Just a thought though; what price the Europeans cutting their opponent loose if they're losing a bout because it is now "safe" to do so? You read it here first!

All the best and regards,

Brian Burke B.Com.
AUS 2738

Product Review: ChemQuest VISE polyurethane glue.

After 55 years of modelling, I finally decided to make a new plywood flight box. This one would have an electric starter motor, of the type used by wireless modellers. My starting technique for F/F models using pacifiers is a bit dicey: as I am stuffed full of Warfarin, I bleed rather copiously when slashed by a prop. Not good, especially out of range of most medical services in the wheatbelt of WA.

Needing a fresh supply of Aliphatic resin for glueing up the flight box, I dropped by Bunnings to get some. However, there was none within range of my +3 dioptrre glasses. There was, instead a bottle of VISE glue, labelled "Polyurethane Glue, ideal for woodworking, etc"

Price was OK, so I bought a 125g size bottle and set sail for home.

The first task for the glue was to hold a partition in place, which was supported by triangular gussets 150mm long. I ran a thin bead along both surfaces of the gusset, and pressed it into place. Looked good, held there well without clamping, so I did the opposite one as well. Too easy.

After 20 minutes, I returned to admire my workmanship. What I saw was incredible: I could hardly believe my eyes. The glue had swelled up and pushed the gussets out about 2mm from their positions! How utterly weird. So I pushed them back in place, as the glue was not yet hard.

Foamy muck was now sticking out around the edges. I tried to wipe it off, but the stuff was too sticky, so I just pushed it down flat, bursting a few bubbles.

Fifteen minutes later I had to do it all again!

Time to put on my +4 dioptrre glasses and read the fine print: here it is.

"Apply sparingly from bottle to one surface. Bring surfaces together within 15 minutes: secure or clamp for 3-4 hours. Glue will foam while curing, so wipe off excess with a cloth to limit sanding or planing"

There is a fair degree of understatement here. The glue foamed to about 5 times the volume that I applied. I have seen rabid dogs with less foam on their lips than this stuff makes. A replacement for Aliphatic resin it aint. Nor is it a glue suitable for woodworking, not in my sense of the word.

So what to do with it? Well, it certainly sticks to wood, and sure has great gap filling properties! Maybe it could be used for blind glueing, like when closing wing leading edge sheeting onto spar and ribs. Plenty of working time, good

adhesion, but the sheeting sure needs to be clamped in place, or it will rise up most gracefully.

So if you try to use some, at least first give yourself a lesson in its properties, with a test piece.

You have been warned!

Addendum: The photos show the glue immediately on expression from the bottle,



then an hour later.



1 gram of glue produced 5ml of foam.



The glue will not set or foam in the absence of moisture. The amount of moisture in wood or the air is fine for setting off the glue. If the glue was injected, into say, a carbon fibre moulded leading edge, it probably would not set or foam. However, a balsa D-box would be fine, the foam giving good support. The foam can be cut with a sharp knife and sands well, although a little on the tough side.

Cheers Supercool

The FAI has received the following Class F (Model Aircraft) World record claim:

Claim number : 15620
Sub-class : F2 Open (Controlline Circular Flight)
Category: Aeroplane
Group : Piston Motor
Type of record : 132: Speed (swept volume 2.51 to 5.00 cm²)
Course/location : Pécs (Hungary)
Performance : **335.8 km/h**
Pilot : Sándor KALMÁR (Hungary)
Date : 10.10.2009
Current record : 312 km/h (12.10.1986 - P.A. HALMAN, UK)

The details shown above are provisional. When all the evidence required has been received and checked, the exact figures will be established and the record ratified (if appropriate).

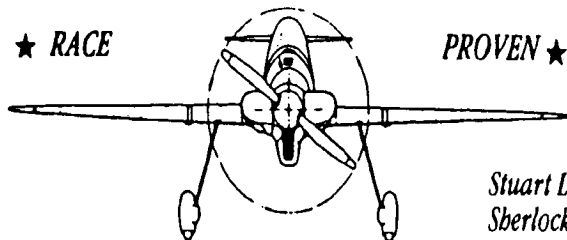
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F2C12 6.4 X 6.3

F2C13 6.4 X 6.4

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PARRA 2.5cc Diesel Engine Review

Tested by Maris Dislers

When the news reached us of a new 2.5cc diesel aimed at general control line applications and club-level competition work, we wasted no time in securing a PARRA 2.5 Diesel for evaluation. This is an initiative of Alberto Parra, who runs an Internet Shop for a range of Control Line equipment from the Canary Islands. Specific details can be accessed through the link given below.

<http://www.clubtamaran.com/parramotorING.htm>

Manufacture of Parra engines is undertaken in Ukraine and is currently limited to engines with "steel" piston/cylinder sets. An AAC version is undergoing development.



Parra 2.5 Diesel in a combat "Test Model"

Design and Construction

The PARRA's front induction and side exhaust arrangement lends itself to a range of applications. Features such as a safety strap attachment point, short mixture needle and cupped prop driver are sure to appeal to combat users. However, the engine can also be used in racing and the "steel" setup conforms to the Spanish specification for F2F models. A regular Enya silencer can be attached, using a simple adapter plate, should noise be of concern. A variable speed carburettor is also available.

General construction follows orthodox practice. The one-piece crankcase is an aluminium alloy investment casting. It is threaded for the backplate and head retaining ring. The crankshaft has 12mm main journal diameter, stepping down to 6mm diameter and rides in two ball bearings. A standard M6x1 thread is used for the prop nut. The crankweb flanks are cut away either side of the crankpin, to counterbalance reciprocating mass. The machined aluminium conrod has a bronze bush fitted to its big end and has drilled lubrication holes.

The cylinder is of hardened steel, with tapered lower exterior profile, to aid gas flow to the three Schnuerle transfer ports. The cast iron piston is of lightweight design, having its lower skirt generously scalloped front and back. The upper edge of the sealing area is chamfered in the manner now accepted as good practice for such engines. The piston appears to have been heat treated before final finishing.

A push-pull cylinder head made of aluminium alloy is a nice touch and significantly enhances the engine's performance and ease of use. Actual design harks back to that used for the FMV team racing engine by employing a short screw with left hand thread to link the compression screw and contra piston. This permits push-pull operation and the small contra piston diameter allows for very fine compression adjustment.

The head is retained by a threaded clamp ring against a group of copper gaskets. The number of gaskets can be altered to give coarse compression adjustment. It is recommended that optimum combustion chamber shape is with contra piston just a little recessed when adjusted for best running. Some trial and error with gaskets and other variables would of course be required. However, we had no need to alter the head position as set at the factory and a check after flight tests showed the contra-piston face recessed around 0.5mm. This is quite OK. The clamp ring has four holes to accept a pin-spanner. None is supplied with the engine or offered as an extra. However, spanners for Fora and other F2D engines are available and fit this engine.

The needle valve assembly has an angled nipple for fuel line attachment and a gland nut to maintain the mixture needle setting. This particular feature is in our opinion an improvement over the common practice with F2D engines of using a short compressed length of silicone tubing to retain the mixture setting. It does mean that the needle is somewhat more exposed to crash damage, but makes it easier to reach the needle when making adjustment. The coarse serrations on the needle's thumb-wheel are perhaps the best we've seen for providing good grip, especially with the safer thumb-only

adjusting method.

The Parra is supplied with two venturi inserts, having 3.45mm and 4.45mm choke diameters. The smaller size conforms to the F2E Combat specification and would also be used for general purpose work involving aerobatics. The larger venturi is intended to give extra power at high running speeds, as in F2F or similar racing models. Actual venturi insert design follows the current practice of locating jet holes below the minimum choke point. To further direct the incoming fuel stream, the jet holes are inclined by 30 degrees towards the crankshaft.

The various port timing and duration "numbers" suggest that this engine has been specifically pitched at the multi-purpose role rather than outright power at the expense of flexibility. We measured the following;

Intake port opens 47 degrees ABDC

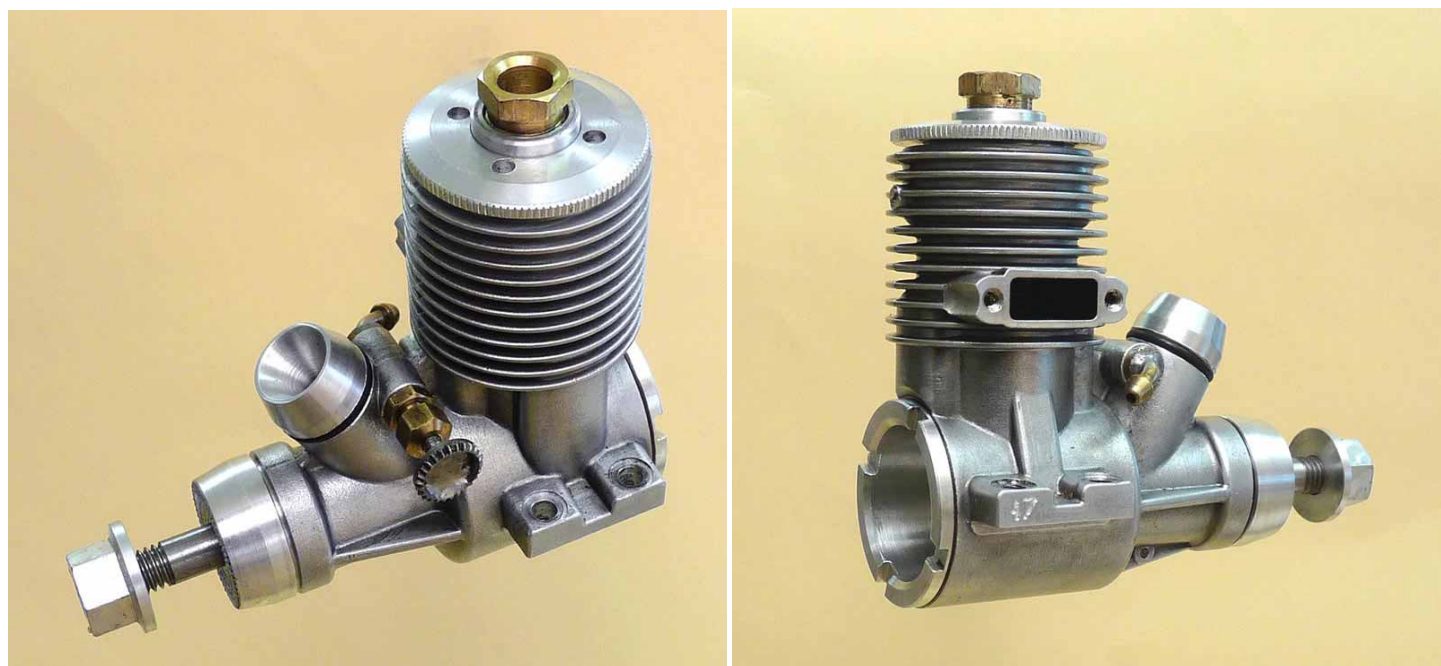
Intake port closes 32 degrees ATDS

Intake duration 166 degrees

Transfer/boost port duration 124 degrees

Exhaust port duration 140 degrees

To summarise, a carefully thought out design that reduces weight and bulk where possible, but remains robust where it counts. Ours weighs 160g (5.6 oz). Aside from needing a pin-spanner to remove the head clamp ring, there are no exotic construction features to bamboozle the average owner. Fit and finish are of a fine standard.



Performance tests

Although the Web site boasts that the engine needs no more than a couple of tanks of fuel for running in, we gave the test engine over 30 minutes of prior running. In that time it was apparent that the engine really was essentially ready to go providing it was not pushed to its maximum potential too soon. By the end of this initial period, a nice grey sealing band had developed around the upper piston skirt, a good sign. The piston/cylinder fit deserves high praise, feeling "just right" both hot and cold.

The Parra responded well to normal starting protocol. Choking the carburettor was sufficient to prime the engine and we did not need to resort to exhaust primes. In the test stand it was easy to flood the crankcase, as it was not always clear whether the fuel feed gallery of the carburettor had been filled and the engine adequately primed. When flooded, a number of flicks were needed to clear the excess fuel. Even so, the engine did not "bite", nor was it necessary to decrease compression if flooding occurred.

Starts were generally good, improving as lighter propeller loads allowed higher compression ratios to be set. On large propellers, it was best to increase compression somewhat for starting and initial warm-up, before decreasing it to a running setting. The Parra shows very good "heat tolerance" probably due to the aluminium cylinder head. So there is no need to set compression with a misfire. Conversely, it is also possible to innocently over compress the engine, which results in a tell-tale dark exhaust oil colour. Mixture setting is not critical. The Parra does not lose speed greatly on rich mixture settings, so the engine tester's favourite "just lean crackle" is not needed to register top performance. General handling improved significantly when loaded with propellers that give peak or near-peak running speeds. Starting, warm-up time and response to adjustments were all at their best at higher running speeds. So to summarise, set compression up to peak, but keep the needle a little on the rich side.

Having completed our tests with the smaller venturi insert, the larger size was substituted. While our report gives RPM values at lower speeds and power increases are apparent, the engine was rather difficult to operate at low to moderate speeds, being very insensitive to mixture adjustment. This situation improves considerably at speeds approaching peak power output, being quite satisfactory for achieving improved straight-line airspeed.

Our results show peak torque with the small carburettor of 30 oz-in. at the lower end of the useable RPM range. This decreases relatively quickly as speeds increase. Peak power output of 0.4 BHP occurs around 16,000 RPM. This is about typical for engines of this type. Running with the larger carburettor boosts torque and reduces its decline across the useable speed range. Peak power rises to a little more than 0.45 BHP over a quite broad range, such that near-peak performance can be achieved anywhere between 15,000 RPM and 18,000 RPM. Beyond this level, vibration builds significantly.

Flight tests

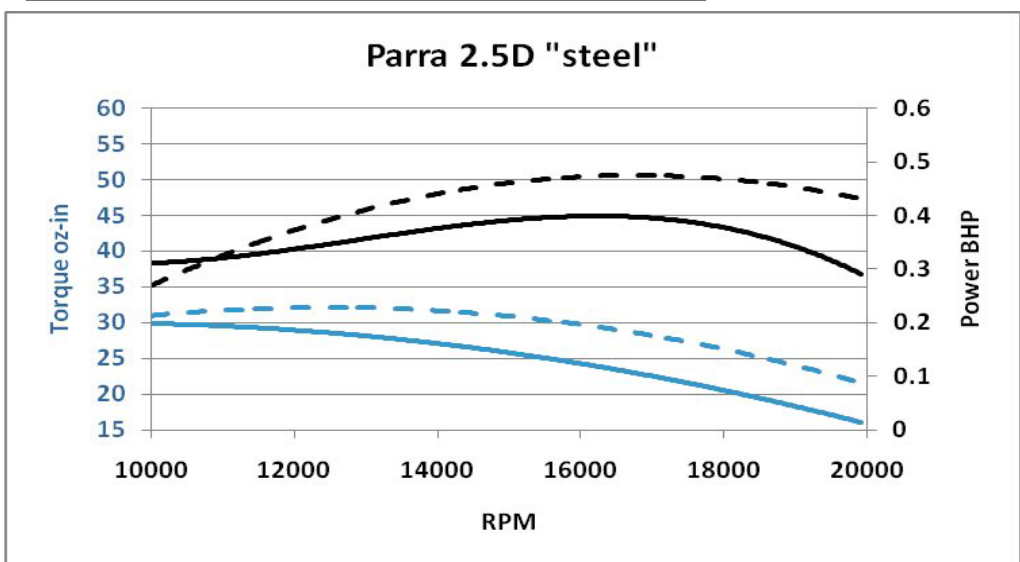
We fitted the Parra to a Viko F2E combat model. The best starting technique was to point the carburettor downwards and choke it several times. Excess fuel can therefore freely drip out and the engine is sufficiently primed for starting within six flicks. The fuel tank feed position is considerably outboard of the carburettor, so a relatively rich mixture setting is needed on the ground. Never the less, the engine could be successfully warmed up without resorting to pinching the fuel line by pointing the nose vertically upwards.

Consistency of run was excellent. There was no appreciable difference between upright and inverted flight. Leaning out during tight turns was well within acceptable norms, allowing the engine to be set close to peak during level flight. We found that the Taipan 8x6 propeller gave lap times of 3.0-3.2 seconds per lap and is at the upper end of propeller load for this application. The Parra was happier with 7x6 propeller, showing improved lap times of 2.6-2.8 seconds. It was also noticeably more nimble in turns. We also tried a Taipan 8x4 nylon prop. Lap times increased to around 3.3 seconds, which is quite slow enough for speed-limit combat, which sets a maximum lap time of 3.5 seconds while towing a streamer. As expected, the engine was not able to “over-rev” sufficiently to make up for the one-third reduction in pitch. It is of course operating beyond the BHP peak and vibration is certainly noticeable. Despite initial fears, the dreaded fuel frothing problem that can plague diesel combat engines was absent.

Conclusion

We are told the Parra 2.5D has undergone extensive development by Spanish and Ukrainian flyers. Their efforts have certainly delivered an engine that is easy to use and really “works”. This is a welcome change to some recent experiences with engines that have been sold “off the plan”, but then need alteration to become truly effective, or require alteration from their intended purpose to suit the somewhat different control line club-competition role. Inevitably, the quite deliberate compromises in specification mean other similar 2.5cc diesel engines can boast higher peak power and torque levels on the test bench. Yet the Parra delivers its performance in a very practical no-fuss manner “out of the box” that supports its aim of being a modern substitute for those favourite 2.5 diesels of the past. Independent tests of three different engines fitted with APC 7x6 propellers, by three different users gave RPM values between 17,000 and 17,200 RPM. That suggests very good quality control. The Parra 2.5 diesel with “steel” piston/cylinder is sensibly priced at 110 Euros.

Propeller	RPM 3.5mm venturi	RPM 4.5 mm venturi
APC10x4	10300	
Graupner 9x5	11000	
APC 9x4	12600	13300
APC 8x6	13000	14000
Graupner 8x5	13200	13900
APC 8x4	15100	16300
Cox 8x4	14600	15300
APC 7x6	16000	17000
APC 7x5	16900	18100
APC 7x4	18200	19100
APC 7x3	19300	



CLASSIC B & VINTAGE A at ALBURY, 4/10/09.

At the Albury meet for the NSW F2C and F2A State Champs, there were many delays in the racing and speed program due to the damp weather. The drizzle did not clear until after lunch on Sunday when conditions became ideal.

The program was held at the magnificent hard stand facility at the Twin Cities Club. We cannot forget the foresight and generosity of the MAAA and State aero modeling bodies that provided this superb venue for Australian control line Speed and racing fliers. Used for intensive practice last year, this hard circle has already provided dividends with two current Australian World F2C champions and a forth placed team as well. I am surprised it is not also in demand by the aerobatic competitors as overseas events like the Worlds and the US & British Nats are all flown on hard surfaces.

F2A was won by Ian Gapps with 289.38 kph from Andrew Heath and Richard Justic. Ken Hunting was the winner of Combined Speed with his Midge after a 151.34 kph flight to claim 92.67% of the current record. The F2C final was won by Murray Wilson & Mark Poschkens from Hugh Simons & Grant Potter. Fitzgerald Ellins withdrew from the final due to equipment failure. Classic B was next as it was held over from Saturday. Six teams took to the air with some mixing and matching of pitmen and pilots going on among the participants.

It was really good to see John Nolan having a crack in the Classic circle. His own design model flew very nicely with Steve Rothwell as the pilot. The OS FP 25 engine needs a little sorting and then it should be right on the pace. Just for the record, the fastest Classic B model in the world is Mark McDermott's Lone Gone, also with an OS FP 25. It regularly records less than 15 seconds for 7 laps.

The Cosmic Rays had the B25R/Crescendo combination wound up with their airspeed the equal of any. It was only a couple of extra flicks both times on the restarts that kept them out of the final. Their heat times were amazingly consistent with a 3.15.44 and a 3.15.47!

Harry Bailey thought he had won the lottery when he scored reigning World Champs F2C pilot Hugh Simons to fly for him so Harry had the chance to "flick" for a change! Their second round time of 3.09.31 with the B25R Galaxie was only 37/100ths of a second away from FTD.

That time belonged to John Hallowell & Mark Ellins who posted a 3.08.94 with the new orange Rocket and OS FX power. This was the first time a .25 ball race engine has been run at a competition in Australia. They have been used in the USA in their Classic B for at least 10 years. They flew the untried Streak in the second round using Melbourne settings but were way too rich on the day.

Murray Wilson & Mark Poschkens got their act together in the second round with a smokin' 3.09.63 with the Galaxie and B25R. 'Posh' was on pitting duties filling in for engine man Lance Smith who, although he couldn't be at Albury this time, was there in spirit with his stamp on most of the engines used.

The Dream Team of Ken & John Hunting tried hard with a best of 3.19.69 but could not reproduce their excellent times of the last Albury Nats. Just like then, at this competition, half the teams were separated by less than a second!!! As has been said many times before, if you like close racing, there is none better than Classic B.

The final promised more of the same, but as is often the case, it didn't happen. Murray & Posh changed fuel brews and couldn't get the right setting back so they slowed right down and effectively threw in the towel. Hugh and Harry showed early promise but seemed to slow down a bit as the race progressed and also had three pit stops, they were often passed by the orange Rocket. Meanwhile, Mark Ellins needed just three flicks to win the race... one at the start and one at each of two stops. As Mark said later, "it was just two 3.05 heats back to back." So the new Rocket was victorious in the first competition for the OS FX engine in the very fast time of 6.10. Not quite Paul Stein and Fitz territory yet, but we're working on it!

The OS 25FX engine used by the winners was stock standard out of the box except for a head modification by Lance Smith to increase the compression ratio and improve high speed burning. Lance would be very happy to assist anyone requiring this modification. A Rothwell 'B Class' venturi was also fitted screwed into a delrin 'top hat' expertly made for the OS by Andrew Nugent. An OS R5 plug was used and a 7x7 APC was the prop of choice.

Further solo testing of the same setup the following Sunday showed a best speed of 15.65 and up to 55 laps using a fuel containing 20% oil, 20% nitro, 10% IPA, 5% xylene, 5% iso propyl benzene and 40% methanol. I have little doubt that 15-20% IPA would work just as well as the xylene and IPB. . Lots more testing still needs to be done. With Lance, Murray Wilson and Gavan Opperman, we are down at Frankston just about every weekend trying to find the ideal set up. I believe we are now getting very close! The GMS .25 ball raced engines are also going very well. Lance Smith can supply these engines in racing tune at a very reasonable cost.

As a reminder, the new Classic B engine rules are as follows:

Allowable engines: Any engine (max. .30 cid) manufactured for commercial sales prior to January 1, 1961. Any "modern" (max. .30 cid) plain bearing engine. Any of the following modern ball race engines are allowed:

OS FX .25 GMS .25 Enya SS.25 BB (diesel or glow) Thunder Tiger PRO 25 BB Rothwell R320BR Irvine .25 ASP .25

*Glow plug engines in the above list of modern ball race engines must use a 1/4 " x 32TPI standard thread glow plug. No Nelson plugs, Turbo plugs or button heads are permitted in the modern ball race glow plug engines listed **above**.*

Everything else remains the same. The existing OS LA & FP, Brodak, Enya, Thunder Tiger and other .25 PB engines can continue to be used.

Results of Classic B:	Heat 1	Heat 2	Final
1. Hallowell/Ellins	3.08.94	3.19.16	6.10.44

2. Simons/Bailey	3.20.75	3.09.31	6.45.09
3. M. Wilson/Poschkens	3.18.28	3.09.63	7.40.25
4. Ray/Ray	3.15.44	3.15.47	
5. Hunting/Hunting	3.43.38	3.19.69	
6. Rothwell/Nolan	3.42.84	3.51.72	

Steve Rothwell took advantage of the breaks in flying to continue testing the R320 in the Andrew Linwood built Anduril. Along with National Combat Champs, Murray Wilson and Mark Ellins, I was fortunate enough to have a fly. It was most impressive! The model ran very strongly through the turns, losing very little speed. The way it hauled was very different from a good 2.5 diesel. Prop was an 8 x6 nylon.

Classic B Finalists



The R320 continued to pull the Anduril around with out a miss.

Steve tried a number of different venturi sizes and the R320 continued to pull the Anduril around with out a miss, even on the big sizes. We checked level flight speed a few times and regularly got mid to low 26's/10 with a best of 25.9. This special combat engine certainly shows a huge amount of promise.

Ever popular VINTAGE A was next to be run with 8 teams lined up ready to do battle. After the tuning flights, it was obvious Steve Rothwell's superb new Ray Harvey built Dimpled Dumpling was going to be the model to beat. Swinging a Graupner 7x7, the R250 sounded quite different with more revs and had the legs on the others for speed. Richard Justic was slick in the pits and a second round FTD of 3.16.90 underlined their potential.

No doubt that Graeme Wilson and Mark Ellins should have easily won their last race at Albury, the Nats, by a fair margin if the gale force wind had not dashed their model into the ground on the other side of the circle on takeoff. This time they were out to make amends. A first round time of 3.19.28 saw them off to a good start.

A regular at Albury meets, Andy Kerr was conspicuous by his absence. He was rumored to be somewhere in Asia on holidays. Hugh Simons and Harry Potter had a forgettable afternoon with their Vintage A engine playing up.

They withdrew from the event without posting a time. That should be enough to stir Harry up for the Nats as back-to-back titles beckon.

Things didn't quite happen on the day for Colin & Jim Ray. Their R250 Voodoo V is quick enough to make a final any day of the week IF everything goes to plan! The brothers Hunting were also having a few worries trying to get engines like their MARZ on race pace. Last Nats Vintage A finalist Harry Bailey was flying with Murray Wilson in what should have been a winning combination.

As Lege couldn't make it, Rob Fitzgerald was helping John Hallowell with pitting duties for the Pluto. They were a bit slower than they should have been and could only manage a best of 3.26.16, but still good enough to sneak into the final.

As expected, Richard Justic had the DD in the air right on the go signal and this team was never headed from there. They went on to win from an off tune Wilson/Ellins and a fast finishing Hallowell/Fitzgerald. Doing ¼ lap landings with the Pluto, on one occasion John couldn't get to the circle's edge quick enough and a wide landing to Fitz's fingertips saw a possible second place slip away. Nothing ventured, nothing gained... It was the end of the racing and despite the weather, it was the end of another top racing and speed weekend at Albury in October.

Results of Vintage A	Heat 1	Heat 2	Final
1. Rothwell/Justic	3.21.83	3.16.90	6.40.31
2. G. Wilson/Ellins	3.19.28	DNS	7.06.78
3. Hallowell/Fitzgerald	3.26.16	3.31.29	7.14.82
4. Bailey/M.Wilson	3.51.50	3.29.50	
5. Ray/Ray	3.31.91	4.07.96	
6. J. Hunting/K. Hunting	3.50.52	3.38.29 (NPS)	
7. K.Hunting/J.Hunting	6.57.36	DNF 56	
8. Simons/Potter	49 laps	DNS	

Report and pictures by
John Hallowell
AUS 1984

Vintage A Finalists



2009 NSW CONTROL LINE STATE CHAMPIONSHIPS RESULTS - ALBURY

Ian Gapps F2A



F2A Speed	rd 1	rd 2	rd 3	km/h
1. Ian Gapps	12.73	12.44	dnf	289.38
2. Andrew Heath	13.75	13.36	12.78	281.69
3. Richard Justic	13.07	6 laps	dnf	275.43

F2C Team race	rd 1	rd 2	rd 3	rd 4	final
1. M.Wilson/M.Poschkens	4:01.56	3:23.75	3:11.78	3:36.13	6:32.00
2. H.Simons/G.Potter	3:28.37	3:22.29	3:29.50	3:36.00	DQ 188
3. R.Fitzgerald/M.Ellins	3:09.22	3:15.87	3:52.47	3:13.56	dns
4. K.Hunting/J.Hunting	disq	4:49.62	dnf 91	dns	

Draw :- Rd 1 W/P, S/P ; H/H, F/E
 Rd 2 F/E, W/P ; S/P, H/H
 Rd 3 H/H, W/P ; S/P, F/E
 Rd 4 W/P, F/E, S/P

*R. Fitzgerald,
H. Simons and
M. Wilson
flying F2C*



Combined Speed	Class	rd 1	rd 2	rd 3	km/h	%
1. K.Hunting	Midge	11.71	9.55	dns	151.34	92.67
2. N. Wake	5	16.26	15.38	15.47	234.07	91.15
3. R.Justic	2	11.10	11.16	dns	260.97	90.09
4. R.Blomberry	2	13.27	11.92	dns	243.01	83.89
5. R.Blomberry	5	6 laps	17.16	16.82	214.03	83.35
6. H.Bailey	1	17.18	0	209.54		80.67
7. M.Wilson	1	20.73	17.31	dns	207.97	80.06
8. N.Wake	P	31.18	31.14	DNS	186.09	77.48

To round of the cold wet Saturdays happenings many of the State Champs participants and friends went out to an Indian restaurant in Albury for a very enjoyable meal and some interstate socialising.

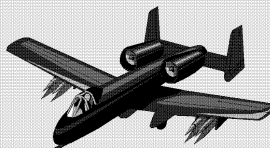
All events were concluded on Sunday with the exception of F2F team race. This event only had Victorian entrants so it was decided to fly it at Frankston on Sunday 18th October.



*R.Blomberry dodges
the rain in Combined
Speed.*



CONTEST RESULTS



Western Australia 2009 Vintage - A Team Race State Champs.

Team name	Place	Heat 1	Heat 2	Final
Letchford / Walton	1	3:25.94	3:24.63	7:17.14
Fry / Taylor	2	3:25.44	3:42.15	7:24.94
Hoogenkamp / Leknys	3	6:42.34	3:46.69	7:52.57
S Leknys / R Leknys	4	3:52.82	3:53.35	
Bellis / Gannon	5	DNF 58	DNF 33	
Stivey /Adler	6	DNF 3	DNS	

Results of our Vintage-A held on 28th September.
We used 15.92m lines, most got better times than last year on the shorter lines.
A couple of normally prominent teams were absent this year.
Trevor.



Results from the CLAMF competition held on the 18/10/09
Please note 1/2 A Combat was not completed due to the time and the damn mozzies

F2F Teamrace	Heat 1	Heat 2	Final
1. M Wilson/ M Ellins	4:05.81	DNS	8:01.32
2. B Young/ P Stein	4:17.57	DNS	8:52.72
3. G Wilson/ H Bailey	4:28.81	6:19.57	10:18.28
4. J Hunting/ K Hunting	4:53.59	4:54.62	

1/2 A Combat	Engines used				
=1. G Wilson W W L B	CyclonJak 09				
=1. M Wilson L W B W	CyclonJak 09				
=1. T Caselli W L W L	CyclonJak 09				
4. H Bailey L L	OS 10 diesel/PAW				

Next bout, G Wilson vs M Wilson, winner wins, Loser flies T Caselli for 2nd and 3rd



Finalists of the F2F race that was re-scheduled from the Albury competition.

Combined Speed

Pos	Name	Engine	Flight 1	Flight 2	Flight 3	Fastest	Km/h	%
1	R Hiern	Class 1	Nova Rossi 12	14.22	14.49	14.22	253.16	97.47%
2	N Wake	Class 5	Novarossi 21	15.32		15.32	234.99	91.51%
3	K Hunting	Midge	BRAND X	9.86	9.81	9.81	147.65	90.21%
4	N Wake	Class 2	OS 30VG	11.19	N.E.L	11.82	258.88	89.37%
5	A.Nugent	Class 1	Nova Rossi 12	15.61		15.61	230.62	88.79%
6	N Wake	Vintage Proto	Force .21	36.98	38.47	36.98	156.67	83.18%
7	K Hunting	Vintage Proto	GMS 25	37.70		37.70	153.68	81.59%
8	H Bailey	Proto	Novarossi 21	29.95	N.E.L	30.95	193.44	80.55%
9	H Bailey	Class 1	OS CZ11 PS	19.74	19.34	19.34	186.14	71.66%
10	R Hiern	Vint/FAI	K&B 15 R TORP	25.01		25.01	143.94	64.85%
11	R Hiern	Classic FAI	Rossi 15 Fl.	N.E.L	N.E.L			0.00%

PERKY

V Marquet	Perky	ED Racer	68.26	65.01	61.08	61.08	94.85
A.Nugent	Perky	Super Tigre G15	N.E.L	42.32	44.26	42.32	136.90
R Hiern	Perky	Super Tigre G20/15	42.71	43.14		42.71	135.65
P.Stein	Perky	McCoy 19 spark	56.75	79.75		56.75	102.09

Average Speed 50.71 sec =71.00 MPH

Closest to average Winner = P.STEIN 56.75 sec 63.43 MPH



Annual Burford day at KMFC

Another very successful tribute to the man who did so much for Australian aeromodelling.

More than forty modellers were there, from Coffs Harbour to Canberra and all points between.

We really appreciate the support of the Coffs Harbour people. It's a long way to come, but things wouldn't be the same without the magnificent engine display brought down each year by Wayne Wilson. Fred Pearson also made the trip, and both he and Wayne gave out decals they had made commemorating the day. A nice touch—thanks guys.

Roy Summersby from the Central Coast also exhibited a superb Burford engine display.

Stunt and speed were the first events. Stunt kept club president Grant Wyllie busy judging for two hours, and Paul Turner, Steve Rothwell (I think), and Greg Frail

took the placings. Speed was a disappointment. Phil Poole and John Nolan had the only two real speed models. Phil didn't fly until later in the day when it was all over.

John didn't get enough laps for a time before the pushrod came loose. Only a broken prop, but no more flights until fixed properly.

The genteel fly-past of Sabre trainers (not the racing ones) is always a crowd pleaser.

Concours was won by Tom Ransome with a very popular little biplane which I'm told is an SE5.

The raffle of an LA 25 was won by Emma Justic, and it just made her day. What a lovely little girl.

David Owen, who has collaborated with Gordon on many projects, was there, and I should have asked him to say a few words to mark the occasion, but in all the rush of the day it slipped my mind.

Sorry David.

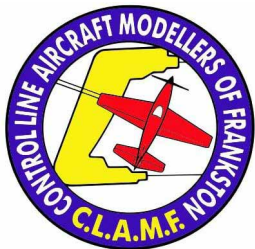
The record attempt for the most Burford engined planes aloft at the one time fell two short of last year's record of fifteen. No crashes, which isn't bad when you consider that most of the pilots don't fly multi-pilot events as a rule.

All in all a very enjoyable day. More of the same next year.

Mr Burford, I hope you are aware of how much fun we have in your name.

John Nolan





The CLAMF Website continues to be updated at regular intervals and has plenty of pictures to view of events club members have been involved in.

It is also a mine of useful information on contest rules. The engine information section has some areas that your input could help to fill some missing gaps.

They can be viewed at the CLAMF Aerosports website

<http://clamf.aerosports.net.au/>

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WANTED. Black case Merco 40 in good nick. Condition of piston and liner not important. Contact Peter White Ph: 08 9307 3000. Email: peterwhite1942@hotmail.com

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1 M.R.S. Monoline handle.

Contact Merv Bell (02) 68850581

WANTED :- A helping hand into racing circles. Second hand competitive Classic B racer + engine.

Contact Mark Dillon Mob. 0417618439, Ph. 07 32024497
Email :- flyerdillon@hotmail.com

Thank-you,
Mark Dillon

For Sale

I have obtained a limited number of specialist racing piston and liner sets for the Brodak 25R (see photo below) from an East European engine manufacturer. These piston and liner sets differ from the original Brodak set in that they are designed specifically for racing and not for sports or control line aerobatics like the original piston liner sets. They are priced at \$100 each plus postage. A set P/L includes piston pin and con rod ready to go. The liners are plated with a harder and finer grade of "Russian Chrome".

The bore is tapered correctly for racing.

The general fits and nip is set up for hard racing.

No further lapping of piston or liner is required.

Once correctly fitted the engine should be run in as per the breaking-in instructions for the B25R on this site.

http://web.me.com/flyingkiw1/Model_Aircraft_Stuff

The instructions for fitting the new P/L set are given on this web site as well.



Contact : Lance Smith
6 Karina Street
Frankston
3199 Victoria
AUSTRALIA
email: smithlw@optusnet.com.au
Phone: 03 9708 8315
Skype phone flyingkiw1

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These pans are a gravity sand cast unit and as such need some cleaning up. They are cast from AA601 Aluminium alloy and when polished up look very good. You will need to drill and tap them to suit your engine.

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Please allow \$6 for postage and packaging for 1 pan for interstate buyers.

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Ron Chernich has installed a new control line discussion forum as an adjunct to ACLNostalgia. Looking a bit like the Barton forum (it's powered by a new version of the same free software), we hope that in time it will grow to become a worthwhile Australian contribution to the aeromodelling scene. See it at www.dkd.net/forum and register to check out all its features.

Back issues of ACLN are archived, indexed, and may be searched here.

<http://www.dkd.net/clmodels>

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