

# THE VOICE OF CONTROL LINE AEROMODELLERS FROM AROUND AUSTRALIA

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Wanted

**Copy Deadline for next issue is:  
Wednesday October 20th 2010  
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, 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:- [hgbailey@optusnet.com.au](mailto:hgbailey@optusnet.com.au)



## COMING EVENTS



### VICTORIAN CONTROL LINE CONTEST CALENDAR

Oct 2-4	NSW State Champs ( <b>F2A, F2C</b> ) Also on the program will be <b>Combined Speed, F2F T/R, Vintage A T/R, Classic B T/R</b>	Albury
Oct-3	CLAG Club day	Moe
Oct-17	<b>Speed</b> , Simple R/R, Simple Goodyear.	CLAMF
Oct-24	Club Day	KMAC
Nov-7	CLAG Club Day, Vintage Stunt & Combat	Knox
Nov-14	Triathlon, <b>Speed</b> .	CLAMF
Nov-21	Vintage A T/R, Classic B T/R	KMAC
Nov-28	Monty Tyrrell Classic Stunt	KMAC
Dec-5	CLAG Club day	Moe
Dec 12	<b>F2C T/R, Goodyear.</b>	CLAMF
Dec-19	Club Day, Nationals Practice	KMAC

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](mailto: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](mailto:johnnogo@bigpond.com.au)

**CLAG** Contact :- Craig Hemsworth Mob 0433 809 862  
Email :- [chemsworth@childhood.org.au](mailto:chemsworth@childhood.org.au)  
Details of venues can be found on the club web site  
[www.clagonline.org.au](http://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.

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## COMING EVENTS



DATE	EVENT	CLUB
2nd-4th Oct	CLAS. NSW C/L STATE CHAMPIONSHIPS. (F2A and F2C) Also on the program will be Combined Speed, F2F T/R, Vintage A T/R, Classic B T/R	NSW. Venue Twin Cities, Albury
Sun 10th Oct	Gordon Burford Day. (Details TBA) SWAP MEET	KMFC
Sat 30th Oct	CLUB STUNT ( Novice ) and Club Race	KMFC
Sun 31st Oct	Phantom, Vintage A, Vintage B, Bendix T/R and Vintage 1/2A	SSME
Sun 7th Nov	F2B Aerobatics	SAT (Kelso Park)
Sun 7th Nov	Slow Combat and 1.6cc, Vintage Combat	KMFC
Sun 14th Nov	Combined Speed (contact Ron Blombery for details Ph: 9956 5952)	SSME
Sun 21st Nov	Cardinal Stunt and Classic Stunt. (I.Smith Ph:024975 2292)	NACA (Hunter Sports H.S.)
Sun 21st Nov	Vintage T/R, 1/2A, A (2 divisions) and Vintage B.	KMFC
Sun 28th Nov	KMFC Christmas Party and Fun Fly	KMFC
Sun 5th Dec	F2B Aerobatics	Doonside.
	To be held at SSME	

**COMSOA-** (City of Maitland Soc. Of Aeromodellers.) - Don Macindoe Memorial Flying Field, Raymond Terrace Rd, East Maitland. UBD Newcastle map 51

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

**NACA** - (Northern Area Contest Aeromodellers) - Hunter Sports 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

### 2010 Events Calendar

Oct 9th	Vintage A Team Racing
Nov 6th	Peacemaker Flite Streak Stunt
Dec 11th	Novice and F2B Aerobatics #3

Provisional Dates for Scouts Air Activities Weekends at Armstrong near Blanchetown:

22nd and 23rd May – Flinders Park Scouts  
21st and 22nd August – Hope Valley Scouts

# Rob Fitzgerald and Mark Ellins win F2C at 2010 FAI CL World Championships

The 2010 FAI Control Line World Championships in Hungary were held during the last week of July. SA's Rob Fitzgerald (pilot) and Victoria's Mark Ellins (pitman) won the gold medal in F2C Team Racing.

Reigning 2008 F2C World Champions, NSW's Hugh Simons / Grant Potter, finished 13th, WA's Trevor Letchford / Steve Walton 23rd and Victoria's Murray Wilson / SA's Mark Poschkens finished a creditable 25th in their first World Championships F2C outing. It was Mark's first ever CL World Champs as a competitor. Murray has previously competed at the World Champs in F2D (FAI Combat).

Tom Linwood from NSW won a well deserved Junior Bronze medal in F2D Combat. This is a young man to watch in the future as at 16 years old he is already one of the best CL combat flyers in Australia.

Both Rob and Mark have been competing at elite level in F2C, considered by many as the 'Formula 1' of model aircraft racing, for many years. They've won numerous MAAA National titles and have represented Australia at the World Championships in F2C multiple times. Their heat times have consistently been world class and only bad luck with equipment and race jury or FAI jury decisions have prevented them from winning the ultimate prize in CL racing until now. This article is a tribute to their persistence in overcoming numerous setbacks and disappointments in previous World Championships.

F2C is the FAI classification for the international class of CL racing. A pilot and mechanic (pitman) compete as a team to fly a model of approx 650mm wing span weighing 300 grams on lines slightly less than 16m long. The maximum motor displacement allowed is 2.5cc. Races have 3 teams competing simultaneously in the same circle. Each team draws lots to determine who has the choice of the optimum pitting segment. The object is to finish a 100 lap heat / semi final or 200 lap final in the least time.

Fuel tank size is limited to just 7cc. Usually 2 pit stops are required to complete a 100 lap heat. The models are fitted with shutoffs activated by a rapid and momentary application of full down elevator. The aim is for the pilot to shut off just before the tank is empty to maximise range but to allow him to avoid the other racing traffic to ensure a rapid and incident free pit stop. Timing of the shut off is critical, so that the model glides and touches down just before the waiting pitman who catches the outboard wing whilst the model still moving at around 60 km/hr! Too early a shut off and time is lost or the model does not reach the pitman, too late and the catch may be missed or the model damaged. The slightest mistake means lost seconds and likely a lost race.

The model is refuelled via a pressurised canister strapped to the mechanics arm, fitted with a hose and quick connect valve on his fingertip. Once refuelled, the mechanic 'hits' the 150mm dia. by 170mm pitch carbon fibre prop with two fingers suitably protected aiming to start with one, at the most two hits. Ground time of a good pit stop is 3 seconds! The airspeed of a competitive F2C model is over 220 km/hr, equating to rotation speeds of 16.5 seconds per lap. Remember three pilots are flying at the same time, pitting

and taking off roughly every 35 laps. Physical fitness and good reflexes are essential due to the speed of the models and the line tension, at this speed, of around 8 kg. Pilots virtually jog the whole race in close proximity to each other and the centre of the circle. A faster model may overtake a slower one only by flying over the top of it. The overtaking pilot moves his handle and lines over the top of the slower pilot to avoid crossed lines.

The motors are compression ignition motors, i.e. model diesel engines, manufactured by specialist suppliers which have evolved after years of development. A typical fuel mix is 50% kerosene, 35% diethyl ether, 10% lubricant

(a castor oil / synthetic blend) plus 1 to 3 % diesel ignition improver. Power output is around 0.8 hp at 25,000rpm.

Due to the 7cc tank limit considerable effort is made to maximise fuel economy to ensure no more than 2 pit stops are required in a heat at minimal expense of airspeed. The fuel system has a sophisticated multi-function valve integrated with the fuel tank to allow filling, automatic priming, set mixture for starting and switching to running mixture. Compression and needle settings are critical as is the pre-race warm up procedure. The cold start setting for compression and mixture are radically different to race settings. The skill and experience of the mechanic is essential to ensure the optimal setting just prior to the start of the race.

Model construction is a mixture of balsa, lightweight fibre glass and carbon fibre. Some of the latest models feature all carbon fibre moulded construction with retracting mono wheel under carriages. Rob constructs all of the models himself but does purchase the MFV and motor from Semen Lerner of Ukraine.

The following account is the result of conversations with Mark Ellins and Mark Poschkens. As Rob was still overseas at the time I wrote this, with the September Newsletter deadline looming, I could not get his impression of the events described. My apologies for any errors or omissions.

Rob and Mark arrived early for a World Cup F2C event, the Carpathia Cup held the weekend before the World Championships at the same site to allow time to set up and test their models. A mix of recently moulded (by Rob himself) carbon models and their older balsa /grp /carbon reinforced model were powered by motors built by fellow competitor Semen Lerner of Ukraine, of whom you'll read more later.

During testing Rob and Mark decided that the older (the 'balsa') model as flown in 2008 World Champs offered the best compromise of speed and reliability. It also featured their 'strongest' motor, the one most likely to maintain its performance during the rigors of heats, semis and hopefully / eventually the final without having to be stripped.

**Monday July 26th** was processing day. F2C models are built to strict rules which are stringently enforced. This was also the first World Champs where wrist safety straps were required to be worn by pilots. Highly controversial and hotly debated, they would become a factor in determining individual team's results in this event. Before their adoption pilots could easily change hands whilst flying to avoid crossed lines which happen occasionally when pilots make errors in positioning their models or bodies in take off, landing or overtaking. The momentary disconnection of pilot and model obviously concerned administrators, but in practice the semi permanent connection of pilot to model seemed to have caused more incidents than it would have prevented.

The format for F2C would be all competitors fly 3 x 100 lap heats, best single time counting with 12 teams progressing to fly

2 x 100 lap semi finals, the single best time determining the 3 teams for the 200 lap final.

**Heat 1** on Monday July 27th resulted in time that would have been a little disappointing for FITZGERALD / ELLINS, 3' 14.9" in 9th spot with no guarantee of a finals spot, but still two heats left to improve on that time. After the conclusion of Heat 1; 1st - OUGEN / SURUGUE (France), 3'05.0", 2nd – SURUGUE / SURUGUE (France), 3'06.3", 3rd - BONDARENKO / LERNER, (Ukraine), 3.07.5.

Other Australian results in the first round were Simons / Potter, reigning World Champions, 15th 3'21.2", Letchford / Walton, 18th, 3'22". Wilson / Poschkens were in 19th place with a time of 3'23.2". Mark could not achieve a setting on their Profi motor in this race. The motor built up heat as the race went on losing them critical seconds over the course of 100 laps. They would unfortunately be plagued by this problem for the remainder of the event.

**Heat 2** on Tuesday July 27th had Rob and Mark achieve an outstanding result, a World Championships record time of 3'02.4"

This would prove to be their guarantee of a semi final position. Rob and Mark flew the tried and test 'balsa' model in this heat

and avoided incidents as their competitors fell by the wayside. Simons / Potter improved to record 3'14.1" but also suffered heat build up / motor setting problems due to carbon cooling ducts on newly developed models. Letchford / Walton were DQ'ed and Wilson / Poschkens were also DQ'ed after Mark missed a catch as Murray brought the model in for a pit stop.

**Heat 3** was delayed a day, until Thursday, due to rain making the concrete surface too slippery to safely conduct racing.

FITZGERALD / ELLINS guaranteed themselves a semi finals spot with 3'05.7". The other Aussies fared less well: Simons / Potter managed only 3'17.5", Letchford / Walton only 34 laps and Wilson / Poschkens 3'24.9". Mark and Murray's third heat was a drawn out affair with the race having to be run 3 times. The first time it was stopped as one team didn't attempt to start the race causing an unfair advantage to the other two teams. The second attempt, Mark / Murray's best race so far, had them in front at the second pit stop but the team in the segment behind them took off and crashed over their lines holding them on the ground unable to take off. They were granted a re-fly but a combination of an engine struggling to start and heat build slowing it down in the 3rd iteration put paid to any chance they had to progress to semis .

Two Australian teams had made the Semis, FITZGERALD / ELLINS and SIMONS / POTTER. All of the heat times were now irrelevant and remaining 12 teams on an equal footing. Rob and Mark were DQ'ed in the first semi due to a pit stop incident. As well as this set back Mark was having problems with needle settings. Prior to the first semi the fuel system had a blockage whilst testing in the practice circle. After repeated attempts, it would not clear fully and the semis were flown with the needle half a turn open from normal race running position.

The second semi was flown with the blockage still present but Rob and Mark's focus on the task at hand saw them record the best time of the semis, FITZGERALD / ELLINS, 3'05.7" ahead of CARDOSO / GOULAO of Portugal, 3'06.4' and BONDARENKO / LERNER of Ukraine, 3'07.9".

Australia's other contenders, SIMONS / POTTER', had luck desert them and could only manage a time of 4'50" in Semi 1 and were DQ'ed in Semi 2.

**Saturday July 31st** was F2C finals day. FITZGERALD / ELLINS (F/E) had first pit segment choice and chose the middle segment; CARDOSO / GOULAO (C/G) next chose the up-wind segment; and BONDARENKO / LERNER (B/L) chose the down-wind segment (all adjacent segments- no separation).

The final started normally with B/L quickest at 16.5 sec / 10 laps airspeed. F/E and C/G were both lapping at around 16.9 sec/ 10 laps. B/L pitted first and were about to release when F/E came in for their first stop. Well before the F/E model reached the B/L pit, Semen Lerner released their model. Rob had already passed his lines over Bondarenko's lines, so a 'crossed lines' situation was created when Rob moved to the edge of the pilots circle to allow Mark to catch the model and Bondarenko moved back in toward the centre of the pilots circle in 'racing' position. Bondarenko removed his wrist strap, and by swapping hands was able to get around Rob and avoid a tangle. (The jury video did not have a record of this event). Mark Ellins was not able to reach his model and it spun in prior to C/G's pit segment. The race was then halted by the F2C jury to consider what action should be taken. After considerable debate Fitzgerald/Ellins withdrew the protest that they had lodged so that the racing could continue.

Mark and Rob protested about the interference and were rightfully upset that the rules did not seem to be applied consistently. They themselves were summarily DQ'ed in the semis for taking off immediately in front of a model gliding in to pit. To complicate matters Bondarenko had released his wrist strap during the race. The wrist strap rule is new and clouded by both controversy and lack of clarity. After an hour of further Jury deliberation the verdict was to restart the final because the protest had been withdrawn. There was to be no disqualification for B/L releasing the wrist strap during a race nor disqualification for 'obstruction' by B/L of F/E.

**The '2nd iteration'** of the final again started normally. The first pit stop was virtually a carbon copy of the '1st iteration', However both teams involved shut off voluntarily and Bondarenko did not release his wrist strap this time. Almost everyone watching then expected a 3rd re-fly but the Jury had somehow detected another infringement and DQ'ed BONDARENKO / LERNER, who strangely did not file a protest, perhaps as they knew they really were 'in the wrong' and were lucky to have had a second chance at the final anyway.

**The '3rd iteration'** ran the full 200laps without further incident. Rob and Mark's motor had slowed a little as over the course of hard racing it suffered some carbon build up. CARDOSO / GOULAO were a little slower than Mark and Rob in the air so F/E flew a no risk race resulting, finally, in a World Champs F2C win and a world record time to boot.

As a post script Rob and Murray Wilson competed at the 2010 BFMA Nationals at Barkston Heath Airfield in F2C. They used Murray and Mark Poschken's gear and won with Rob pitting and Murray flying. Rob is not only a new world champion, but a British national F2C champion, multiple Australian F2C champion and winner, with the late Greg Pretty, of the US National Goodyear (Scale Racing) championship in 2004.

Rob is a quiet, unassuming bloke and would probably be embarrassed by any fanfare, so I will simply congratulate him and team mate Mark Ellins on their outstanding achievement on behalf of all Australian aeromodellers.

Article by Peter Anglberger

# CLAMF Aerosports Club News !!!

We are pleased to announce that CLAMF Aerosports has been successful in an application to the Frankston City Council (FCC) for a Community Grant of \$2500.

This will contribute to our Ride On Mower Project (ROMP) for additional mid-range mowing capability at the club.

The contribution by the community is funded from FCC general rate revenue and reflects the goodwill of Frankston City in supporting the activities of those individual clubs and organisations that benefit from such a contribution. In order that such goodwill is maintained, it is important that this significant contribution is recognised by individual organisations, and that members and/or participants are made aware of such contributions.

So a BIG thanks to the Frankston City Council and CLAMF Aerosports members who contributed to make it happen !

Regards,

CLAMF Aerosports Committee

For the latest competition reports, photos and results visit <http://clamf.aerosports.net.au/>



*Pictured above is Murray Wilson representing CLAMF Aerosports during the official 'hand over' with Don Condon of Southern Mowers in Frankston.*

# Classic FAI T/R.



A blustery cool day greeted 3 contestants for Classic T/R at CLAMF at Frankston today.

Lance and I had spent some time over the past few weeks preparing 2 models for today's meet. Also to make up the numbers Harry Bailey and Peter Roberts flew a Vintage A model. Not strictly "cricket" but the thing is to get people flying to enjoy the day.

Mark and I practiced first and got a reasonable setting fairly quickly. We were soon joined by Lance and Murray and it was apparent straight away that the Fora in the Green Picus would be the model to beat.

We decided to fly 2 up because of the windy conditions.

Into the first heat we went and both models were off at the gun. The Fora was powering along at about 23.5 and my old G20 under compressed at about 26 for ten in the blustery conditions. Both Lance and Mark were on the ball at the pits with 2 great stops by both mechanics. Lance and Murray coming in at 4.30 and Mark and I recording an under compressed 5.18. I was still happy with this race as the model was consistent and started well. We were also delighted with the Fora as it was consistent and a couple of clicks on the needle was all Lance needed to get his tune.

I had a rest and Bailey/Roberts and Wilson/Smith went into the next heat. Harry and Peter did well with their CS Ollie to come in at 5.08. Unfortunately for Lance and Murray the wheel on the Fora model decided to part company with the model and they DNF at 70 laps. I have to give Murray a wrap up here as to hand your model over for someone else to fly is a big thing for me. Murray did the best "crash" landing ever, and skidded the model along for a very short landing and well caught by Lance which resulted in no damage to the model. Well done Murray.

We had one more race in the blowy conditions in which Mark missed the start with not enough prime (5.42) and Bailey/Roberts at 5.21.

A good couple of hours racing in blowy conditions. The winner here was the Fora, showing it would go well and be easy to tune. We have done nothing to this engine. I know it doesn't truly conform to the Classic scenario but having an engine which is available, cheap and easy to tune is definitely a plus for this event.

As a foot note here I have been watching a G15 D on eBay this week. It was sold for \$416 US which is crazy. The Fora's are available in numbers with parts for \$100. Lance is talking about bringing in a batch of these engines. So if you want one speak up and let's go flying!!

Andrew Nugent.

## Results

Wilson/Smith 4.30.0

Nugent/Ellins 5.18.9.

Wilson/Smith DNF 70 laps.

Bailey/Roberts 5.08.

Nugent/Ellins 5.42.5

Bailey/Roberts 5.21.2



*Ben Hallowell, age 4 years, had his first flight of a control line model aircraft on Sunday, September 12th, at the Frankston Club field.*

*Ben's trainer is powered by an OS15FP. His Pa, John Hallowell was very proud of Ben's first effort!*

*Ben, holding his new trainer, tries hard to give a big smile for the camera.*



*John Hallowell gives grandson Ben some C/L pilots training.*

## BRIMBANK FALCONS CLMAC NEWS

Sunday 19th September.



The Brimbank Falcons had a good day at Keilor Park Drive with nine modellers turning up to brave the air.

The weather was fine with a slight south westerly breeze blowing.

Victor had his Phoenician flying well with very steady engine runs and managed a number of flights. Peter did experience some tuning problems with his Ramrod but kept working on it to finally get a good flight in. Alan had a new All Aussie Mk2 enjoying the air and working on trimming and line lengths. The hard luck story of the day was Steve who had a line break while flying his Fw Advancer resulting in the wing broken in two and separated from the fuselage.

Mark Usher had his Ringmaster with a very nicely running Double Star 40, very steady 4/2 run and the large tank gave some quite extended flying time.

Ken, Tony and Mat were busy preparing their combat models and enjoyed the day with some casual mock-up combats. With the exception of one "oops" by Ken, leaving a wing in some state of rearrangement, their day was enjoyable and successful.

A BBQ lunch was enjoyed by all and the days excitement attracted some onlookers through the day.

Present were; Mark Usher, Steve Vallve, Alan Matthieson-Harrison, Ken Maier, Mat Shears, Victor Kizelis, Peter Dawson, Tony Caselli, and a visitor Aaron Aflavell. [This is the second time Aaron has come and seems keen to resurrect his engines from their hiding place and get in the air again.]

Alan Matthieson-Harrison ( President )

PS apologies if I left anyone out.

## Vintage Combat Mutterings.

*At present, Australian Vintage Combat does not have an official set of rules. The rules currently being used have been very successful in attracting competition entries but some people want to open up the options on engine choice so that obtainable current production makes that are reasonably priced and readily available would be eligible for use.*

*A discussion on this subject has been taking place on a well known overseas Control Line Forum and some of those comments have been placed here to give a sample of what has been discussed.*

*As the rules we use in this country are only provisional, any club or group can use what rules they choose but I have taken this opportunity to bring this topic to a wider group of Australian flyers interested in Vintage Combat because one day a set of official rules may be drawn up and some matters will need to be resolved.*

*Editor*

Thu Apr 22, 2010

### Parra 2.5 D eligible for OZ Vintage Combat?

How does one get this motor approved and on the 'list' that is in the provisional rules?

I'd like to have an alternative to ordering a Rothwell (I'd like one but the waiting list is long) or a PAW but there's no point unless I know I can use them in competitions.

Would this be accepted by the rank and file OZ Vintage Combat flyers? A Parra is not really any advantage despite it's ball races, I'm just looking for something modern, available and reliable.

Cheers,

Peter Anglberger

Tue Sep 14, 2010

We had a local Vintage Combat competition last weekend. Fantastic weather with little wind and mainly overcast skies. I managed five cuts in one bout for the first time ever. Was chuffed!

But the purpose of this message is to report how the "steel" Parra 2.5D performed against the competition. I think people would agree that it was good, but not outstanding. In fact, I only got third place with it & was beaten by Mark Poschkens with Taipan Series 70 diesel (slowest of the bunch) and Murray Wilson with his G20D (around mid-speed), fitted with high-revving, but not really getting-anywhere-fast Taipan 8x4 prop. Must admit, the revved-up Super Tigre was slick in the turns.

Other engines were;

Peter Anglberger's Enya 15SS Glow with muffler to meet our local noise rule. Taipan 7x6 nylon prop & Stunt fuel. Solid performer on suction feed & OK restarts.

Brenton Thomas' Taipan Series 70 diesel on pressure. Good airspeed, but a real bear in the pits.

Duncan Bainbridge's MVVS D7 on suction. Will be up with the best when run in.

Mike Davies' Thunder Tigre 15 on pressure. Also with muffler. Quick, but duffed one crucial restart.

I should add that I was running the Parra with Master Airscrew 8x6 S2 prop until it broke & then with a de-cuffed black Czech prop of similar size bought from Mejzlik Modellbau years ago.

All of the models & engines were in with a chance. And unless you're playing stopwatch games or prolonged straight-line chasing, the speed difference was not all that significant.

Food for thought.

Maris Dislers

Thu Apr 22, 2010

Now I'm not knocking anyone here, BUT, Why do we have to have the Parra added to the engine list? Yes it's a very nice engine, but not a vintage engine. There are also a lot of guys flying the class that are doing it very nicely thanks very much, one has to ask why can't you?

I have a problem when rules are made for classes that require a certain range of engines and someone says "why can't I use one of these, all the engines on the list are too expensive, or difficult to obtain or I don't like the colour or smell or it doesn't make sense that I can't use one of these, they're just the same as all the others" etc etc!

John Goodwin

Fri Apr 23, 2010

Here here John. The Parra is a modern high-performance engine. Alberto is advertising it for Goodyear and F2D. If it's allowed in vintage combat, then everything else should be too.

Then again... maybe I'll start building a wing for my Nelson FIRE for Vintage at the Nats? just in case.

Peter Krenske

Mon Sep 20, 2010

Hi All,

We had a bit of a play at the Brimbank club day yesterday. Models were Andurils with Rothwells, Parras, CS Oliver (with Rothwell internals) and Paw 19. Also Yetis with MVVS D7s and Winder with Parra. That's a good selection I think. For reference all very close for speed - pick of the bunch I thought were the CS Oliver and Paw 19 which are both Vintage legal as far as I am aware. Parra is up there but nothing to worry about. Flew mine on a Taipan 7x6 and scimitar 8x5, 7x6 was best for airspeed in the big Winder. Pilot skill would very definitely be needed to sort this lot out - God forbid that we should come to this!

Lets not pretend we are living in the 60's, stop arsing about and get the rules changed...

Mat Shears

Mon Apr 26, 2010

"As we grope towards a national set of rules for Vintage Combat a number of issues have arisen. Surprisingly they focus (so far) on engine choice alone.

The issues are:

#1 Allow modern engines such as the Parra 15

#2 Restrict airspeed to a more moderate 28/10 laps.

#3 Leave engine choice as it is.

Some feel that it is far too difficult to obtain suitable vintage engines and that a modern engine such as the Parra 15 would be a suitable choice with no added speed advantage. However the motor has been improved in each batch delivered and is now available in Iron piston with a chromed steel cylinder, in an AAC and now an ABC format as well. Further it is also now also available in both diesel and glow form. The latter also comes with a choice of standard plug

or Nelson glow heads. In total there are now over seven different versions of the engine.

If only everyone flew at a similar speed everything would be fine. However in NSW some are using Super Tigre G15's on pressure. Airspeeds in the low 26/10 or faster have been recorded.

These motors are legal under the current rules.

What happens if someone turns up with an AAC Parra doing similar speeds.

Otherwise an AAC glow on pressure running 30% nitro?

On similar props and fuel, these Parra engines are proving to be a poor man's Nelson in DGY.

My problem with the Parra is simply that they may go just too fast! They could be detuned but how much? To the performance of a G15?

Limiting the choice to the Chromed steel version is very difficult to police.

Others have linked the recent speed increases in NSW to a sudden decline in interest in the event.

The solution to everyone's concerns is simple. Restrict the airspeed to say 28 sec/10 laps and allow any engine.

This won't please the Vintage era enthusiasts but may be the most effective compromise.

Another possibility is to allow electric starters for reluctant hot PB glow motors with a penalty of say 50-100 points each time they are used. There is still a range of these PB engine available and this simple rule change may make them more competitive."

Ray Fairall

Mon Apr 26, 2010

Don't know if a speed limit will add to the entry numbers but I hope it could head off a big decline.

I've been hearing unhappy mutterings about how it's getting too fast since the last Nats.

Where Olivers, G20's, even Enyas, were entered, it looks like becoming a 1 engine event, and at a speed at which a number of current competitors aren't willing to continue. We've seen it many times before, faster, faster, fewer, fewer.

I think it's a no brainer.

S Rothwell

*For some, the opening up of the engine eligibility list would seem a reasonable request.*

*Some are concerned this approach is a move away from the "Vintage" side of things.*

*Others consider that allowing more modern engines will bring about an un-desired power and speed increase.*

*Many have no problems about increasing the eligible engine list as long as their models are speed limited.*

*I am sure that all Vintage Combat contestants want an outcome that keeps the event viable, sustainable and enjoyable for many years to come.*

*The MAAA C/L sub-committee is intending to formulate a set of rules for a vote at the next MAAA Rules conference, so lots of discussion on this subject beforehand would be a good thing.*

*This article is presented in that spirit.*

Editor

# Gordon Burford's Wombat Stunter



Like many others who'd seen the original construction article and plan (Australian Model Hobbies, September 1949 issue) I had put the Burford Wombat on my ever expanding must-build list. The Wombat hails from the period when control line stunt was more barnstorming than precision aerobatics. De Bolt's Super Bipe kitted by Dmeco in 1948 and Henry J Nichols development of the concept are listed in the construction article as contemporaries. John W Coasby's Yoicks biplane (published in Aeromodeller, October 1949) was another. In typical Burford fashion, the Wombat is simple to construct and in Paul Turner's capable hands has proved to be a good flyer. It was chosen as the designated Australian model design for the Veterans Gathering in Muswellbrook a few years back and Dave Brown of Model Drafting Services produced laser cut short-kits. The Wombat suddenly shot to the top of my must-build list.

For competitive types in Vintage Stunt, the bonus points for using a biplane and no wing flaps, added to the points for model design age would bump up the static score nicely for competition work. I went one step further and chose a 2.5cc diesel engine to get even more points. A bit cheeky perhaps, given that the original was powered by a Gee Bee "Stuntmota" of twice the capacity. However, Paul's Mk 1 Sabre 29 glow had an easy time of flying his model. In our testing the Gee Bee is lucky to produce 0.25 BHP and my CS Oliver Tiger could easily top that by a healthy margin, so the idea at least was sound.

## Technical stuff

A critical look over the design gave a few areas of concern. The engine is mounted on a 3/8in. plywood platform. While nicely held in place by doublers, the likelihood of mounting bolts and engine lugs crushing this material is too well known to ignore. I went for engine bearers and a paxolin plate, which would allow a relatively painless change of engine if the Ollie did not pan out. With such a short nose, care would be needed to avoid a tail heavy model.

The kit has additional doublers to reinforce the fuselage at the wing mounting points. This is a good idea. Unlike a regular monoplane design, the Wombat's wings are not surrounded by the fuselage, but rely entirely on the strength of the glue joint between fuselage and wing surface. Even more material at this joint to increase gluing area would be one solution. Actually, this feature might have been handy when Gordon was still "learning the ropes". A wing might break away in a prang, making for a relatively easy repair job. I chose to have removable wings retained by rubber bands. This is in keeping with other designs of the time, would ease transport and allow access to the innards if needed. That didn't work well in high-G turns, so I now bolt the wings on.

The kit's bellcrank mounting position has been moved more in line with the lead-outs. This is a nice engineering move, along with the keyed former fuselage construction, but it would be picked as an error by an observant competition judge. I missed that one until too late.

The control horn arrangement on the plan looks daft. It shows the bottom of the horn extending into the lower fuselage planking. The pushrod position however is shown almost up to the tailplane, giving an entirely inadequate effective moment

arm to do the job. This point at least cannot be ignored if effective control is expected. I went for a 20mm control horn length, which just pokes out of the lower fuselage, to one side of the tailskid. This was coupled to a 60mm wide bellcrank with the output arm reduced to 10mm after initial flights. This arrangement along with modest line spacing at the handle of 55mm, produced acceptable control gearing. With the benefit of hindsight, a longer control horn hidden in a slightly wider, hollow tailskid would allow for a much better control system geometry. Paul Turner simply put a Z-bend in his pushrod and mounted his control horn outside of the fuselage. I found the resulting maximum elevator movement of between 15 and 20 degrees quite adequate. The recommended minimum of at least 30 degrees seems excessive if the model is balanced correctly and can be expected to act more like an air brake than an effective control surface given the limited lift available from Wombat's thin wing section and the need to maintain airspeed.

The matter of balance point arose as none is indicated on the plan. Nor does the Yoicks plan help. The DeBolt Super Bipe's balance point at approximately 30% of the top wing chord is clearly way too conservative for a biplane with such exaggerated wing stagger. Perhaps old Hal forgot to factor in the lower wing in his calculations? I turned to my copy of "Making Scale Model Airplanes Fly", by W.F. McCombs. While intended for free flight models, the principles of aerodynamics remain the same for us, although we use a slightly more forward balance point than calculated to give a measure of inherent stability. How much depends on personal preference, but performance in turns is of course affected by going very far down this path.

The formula given by McCombs for calculating the balance point is

$$X/C \text{ (in \%)} = 16 + (36 \times \text{Tail Volume})$$

Where X/C is the balance point as a proportionate distance from the leading edge, at average wing chord (expressed here as a percentage). Note that the Wombat has constant chord wings, which makes it a little simpler to do the maths.

Tail volume = (tail area / wing area) x (tail arm / wing average chord)

Tail arm is the distance between the front of the wing average chord and centre of the tailplane average chord.

For a biplane, the two wings can be assumed to work as a couple. For the purpose of this calculation (as upper and lower wings have equal area) an imaginary wing half way between the two can be used.

My calculation indicated a balance point at 50% of the top wing chord or right in line with the front lead-out position. Actual balance point of the finished model came out around 15mm further forwards or at the back of the upper wing spar. This has proven to be quite acceptable.

Lastly, there is the question of the optimum wing incidences relative to the thrust line. It is common practice to have a little less incidence on the top wing for biplanes with forward wing stagger. The boys on the Stuka Stunt Forum chewed the matter over quite a bit recently, but analogies with full size aircraft practice soon became irrelevant because of our symmetrical airfoils and the need for equal performance whether upright or inverted. It all got a bit complicated from a theoretical perspective, but the consensus from actual flight experience with stunt biplanes headed towards a zero-zero arrangement, just as shown on the Wombat plan. I have had no reason to fiddle with this on my model.

Lastly, the lead-out position relative to the vertical CG needs to be correct, to avoid a permanent outer wing up/down bias. There was no way of reliably calculating this, so the lead-out plate was adjusted with the otherwise finished model suspended by the lead-outs until the wings were dead vertical. This called for a slightly taller lead-out plate having holes 8mm above the position shown on the plan.

Construction went well enough and the finished weight of the model (in keeping with traditional Stunt weights and measures) is 24 ounces. This comprised 6 oz for motor, 6.3 oz for both wings and 11.4 oz for the fuselage. Wing loading is 11 oz/sq ft, which is OK. It would be relatively easy to take some weight out of the fuselage and skimp a bit more on the finish, which would be a good idea. The key point here is that the extra horsepower from a heavier engine and model combination is unlikely to work out, as the exponential increase in drag of a biplane flying a bit faster easily saps horsepower, with relatively minor net gain in lift to support the extra weight.

## Flying

The power from the Oliver Tiger engine is quite adequate for this model and an 8x6 propeller suits it well. Line length of 58 feet (17.7 metres) "nose to handle" gives nice lap times and the Wombat more space to fly than on shorter lines.

Takeoffs require a measure of up elevator to avoid nosing over. Despite the large angle of attack when launched, the model can be eased neatly into the air. General flight characteristics were compromised by poor line tension on the outside loop sections of the vertical and overhead eights. At these times, the fuselage aligned with the flight path is largely dictated by the front lead-out guide position. Being close to the CG position, it provides inadequate rake to accommodate the effect of line drag. The significant fin offset appears to be of little help, and the very short nose moment affords little inherent out-thrust angle for the engine to boost line tension. The logical solutions would be to alter the engine thrust line outwards significantly by around 5 degrees or to move the lead-out position rearwards, which would yaw the fuselage to effectively give the desired out thrust angle. Combat models traditionally have "excessively" rearward lead-out position for this very reason. Either way, this is a deviation from the original design, but necessary in my opinion. I chose two new lead-out locations midway between the originals with very good results.

The glide is quite acceptable and suggests that this model has less drag than might be expected from a biplane, thanks to having no interplane or cabane struts. I've yet to get a smooth landing from the Wombat. I suspect it will always bounce a bit because of those long undercarriage legs set well forward and despite the stout 1/8in. diameter wire salvaged from a genuine 1940's sprung bed base. At least I can be sure of it not tipping over.

## Conclusion

For many people, a control line biplane makes a welcome change from all those monoplanes. As a sport model, the Wombat is a relatively quick build, especially from one of Bob Brown's kits. While the idea of using biplanes waned as "stunt flying" morphed into "precision aerobatics", they make an interesting choice for Vintage Stunt competition. Even if they are not right up to the "short list" of favoured Vintage Stunt designs from the early days. Far from relying on static bonus points alone, the

Wombat delivers competitive flight performance after minimal interference with the original design, providing the dragon of excess wing loading is effectively tackled.

The choice of old engines to suit is wide. I'd say the Wombat needs a minimum of 0.3 BHP "at the prop" for good performance. The Oliver Tiger slots in nicely here, as it has very good power and torque for its age and weight, but a lesser 2.5cc diesel (or modern glow engine) might struggle. The key advantage of a diesel engine is the torque level needed to sustain steady speed in manoeuvres versus runaway speed in level flight. An AMCO 3.5BB or ED Hunter would also be suitable choices amongst the older diesels. Truly old and heavy stuff like the Gee Bee Stuntmota or Drone would probably struggle to do the entire pattern convincingly (especially the vertical and overhead eights). Although a large propeller diameter surely helps any model hang in there when wing lift is at its lowest. Any of the capable, older 5cc glowplug engines like Frog 500, K&B Torpedo and Forster 29 should find it fairly easy going, as would a Fox 29 or 35. Or any Sabre or Glo Chief 29/35 if you want to keep it all Burford. Of the modern engines, one of the plain bearing 25 sport engines would also have no problem using its preferred wet two stroke mode on fine propeller pitch and slightly longer line length.

MARIS DISLERS



## New Models

*Decorated in subtle shades of orange and lime green.*

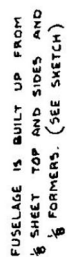
*John Nolan's new Pluto. It has a borrowed Taipan at the moment until David Owen's new engine is available.*



AUSTRALIAN	MODEL	HOBBIES
1. <i>My first car was a 1965 Ford Mustang. I loved it!</i>	2. <i>I have a collection of vintage cars. I love to drive them!</i>	3. <i>I love to read books. I have a large collection of mystery novels.</i>
4. <i>I have a pet dog named Max. He is a Golden Retriever.</i>	5. <i>I love to travel. I have been to many different countries.</i>	6. <i>I love to garden. I have a large garden with many different plants.</i>
7. <i>I have a collection of records. I love to listen to them.</i>	8. <i>I love to cook. I have a large collection of cookbooks.</i>	9. <i>I love to play sports. I have a large collection of sports equipment.</i>
10. <i>I have a pet cat named Mittens. She is a Siamese cat.</i>	11. <i>I love to dance. I have a large collection of dance shoes.</i>	12. <i>I love to collect stamps. I have a large collection of stamps from all over the world.</i>

## STUNT DIESEL-BIPLANE

DESIGNED BY: GORDON BURFORD SOUTH AUST.



WHEN FUSELAGE IS COMPLETED  
COVER WITH TISSUE AND DOPE—  
THIS GIVES MODEL MUCH GREATER  
STRENGTH AND PREVENTS SHATTERING  
IN THE EVENT OF A CRASH

1 SHEET

WEDGE  
TANV

— 11 —

COVER UNDER  
PORTION OF  
NOSE WITH IMM PLY

HARD  $\frac{1}{4}$  BULKHEAD  
FACED WITH PLY

WITH SCRAP

ADD EXTRA 1/8  
SHEET ABOVE  
AND BELOW  
MOUNT AND GLUE  
WELL

OR  
SUN

MOTOR  
MOUNT IS  
CUT FROM  
3/8 PLYWOOD

BIND UNDERCARRIAGE TO  
BULKHEAD WITH FINE WIRE  
AND GLUE WELL

LINE GUIDES  
ON LOWER  
WING ONLY

ALL RIBS  
CUT FROM  
HARD  $\frac{1}{8}$  BALSA

MAIN SPAR  $\frac{5}{8} \times \frac{1}{4}$  HARD Balsa (TOP & BOTTOM)

TRAILING EDGE 1 x 1/4 HARD BALSA

WING TIPS  
CARVED  
FROM SOFT  
BALSA.

SEE DETAIL FOR  
METHOD OF  
MAKING HINGES.

CONTROL HORN  
IS CUT FROM  
SHEET ALUMINIUM  
AND BOLTED  
TO ELEVATOR



FIGURE EIGHT LOOP  
ABOUT TAILPLANE  
SHOWN LOOSE.

RUDDER IS LET  
INTO FUSELAGE  
AND GLUED TO  
B SHEET SIDE.

LINE THREAD  
LOOPED ABOUT  
TAILPLANE AS  
SHOWN - GLUED  
AND CUT AT  
POINT 'A'

HARD  $\frac{1}{4}$  SHEET SMID

RUDDER IS  
LET INTO FUSELAGE

LINE GUIDES

COVER BOTTOM OF TOP CENTRE SECTION AND  
TOP OF LOWER CENTRE SECTION WITH  
1/16 SHEET BALSA

100

FUSELAGE

LET

WON

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373

V

—



①

10

100

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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# 2010 W.A. Vintage-A T/R State Champs.

Team name	Place	Heat 1	Heat 2	Final
Letchford / Morrow	1	3:33.16	-	7:27.30
Kirton / Stone	2	3:42.00	3:29.34	7:34.69
R Leknys / B Bellis	3	DNF 57	3:40.47	8:20.57
Fry / Taylor	4	3:47.75	4:01.85	
R Bellis / Gannon	5	3:48.09	3:58.44	
Hoogenkamp / Leknys	6	4:03.53	3:52.38	
S Leknys / Nash	7	4:56.94	4:30.00	
Sherburn / Dyson	8	DNF 70	DNF 42	

Held on a very wet 21st August at TARMAC's Lumen Christi College site.

It was bucketing down in Perth's southern suburbs, but luckily the weather broke periodically through the afternoon, permitting the annual event to proceed.

Highlights of the day were :-

Norm Kirton having one more go at Team-race. The well oiled Kirton-Stone team set the fastest heat time and came very close to winning the final. So will it be the last?

A new competitor, Christian Nash pitting for Shane Leknys did a fine job of getting his CS Oliver started. With a little more experience we will no doubt see young Christian pitting in F2F and F2C.

Trevor Letchford.

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## TRIATHLON AT KMFC

The first triathlon for a very long while (decades??) was held at KMFC on Sunday 12th September.

We didn't know how many would compete, but we needn't have worried.

We got twelve starters -- more than for our best racing event this year.

The rules were: one model and 2.5 cc engine for the day. One attempt at each discipline (one loss at combat and you're out).

Bad engine runs punished fliers -- there was no second round to fall back on, and this hurt early favourites like Steve Rothwell and Wally Bolliger.

In the end a whole new crop of winners came to the fore.

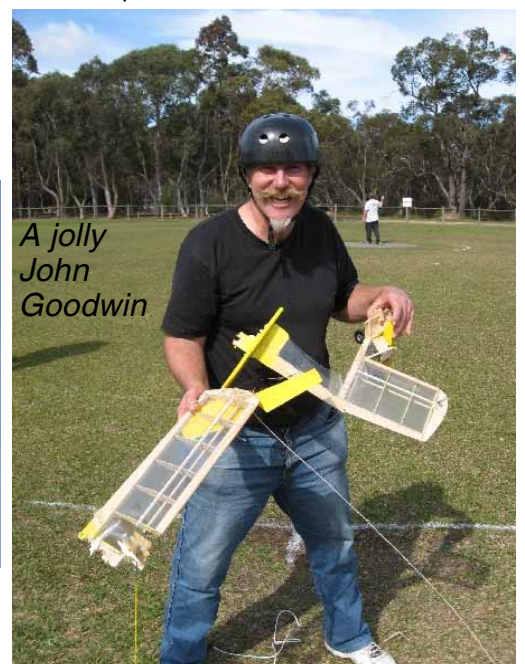
Bob Fisher and Paul Kenny tied for first, Lachlan Fairall was second, and Ric Justic was third.

Any day at KMFC is a good one, but this surpassed everything for fun and good friendship.

I think the club is now expected to hold two of these days next year.

And why not?

Report and pictures from John Nolan



# Australians overseas.

As reported in last month's newsletter our Australian representatives at the World C/L Championships in Hungary had a successful contest.

After the contest most of the team members came home to Australia but a few had made arrangements to continue their stay in the northern hemisphere for a little longer and attend the British Nationals at Barkston Heath.

It was unfortunate for the thousands of people that arrived at Barkston for the long weekend that the weather for the weekend took a turn for the worse and the spectacle was plagued by strong winds and plenty of rain. Tents were ripped apart and it was a struggle to keep the control line safety nets erected. The event was not a complete wash-out and competitions continued to the best of the organisers and competitors ability.

Our boys put on a good showing in the racing circles.

In F2C Robert Fitzgerald took on the pitting duties whilst Murray Wilson held the handle to qualify for the final. Murray Wilson & Rob Fitzgerald won the F2C final, Eifflander/Broadhead came 2nd and Fitzgerald/Thomasson did not finish the race and were placed in 3rd position.

*Rob Fitzgerald and Murray Wilson at Barkston*



*The "Dimpled Dumpling" takes to the air.*

## British Nationals Vintage A T/R final result.

1st	G & M Wilson	7.10.3
2nd	Green / Long	7.11.8
3rd	Langworth / Broadhead	



*VTR Winners with "WARD" Perpetual Cup.*

Pictures from  
Graeme Wilson

*F2C Final. Wilson, Eifflander & Fitzgerald*



The Vintage A race rules in England are slightly different to the ones we have in Australia but Murray and Graeme Wilson had borrowed the John Hallowell's purpose built "Dimpled Dumpling" and fitted Murray's R250 to take on the Brits on their home soil.

Consistent team work resulted in the Wilsons getting through to the fastest three heat placings so the stage was set for two British teams to take on the southern challengers for the right to have their names placed on the "Ward Perpetual VTR Trophy"

From the start Green/Long had the fastest airspeed and were overtaking Wilson/Wilson on a regular basis whilst Langworth/Broadhead were running off the pace.

Wilson/Wilson were doing everything right in the pitting department whilst Green/Long had a couple of really drawn out restarts. When it came to the finish it was the fastest model that crossed the line in second place and the Wilsons that had grabbed first spot by a margin of only 1.5 seconds. Langworth /Broadhead finished the race and the gathered spectators then gave some appreciative applause.

# For Sale

U.S. Hard rock maple bearer wood, precision cut and machine sanded.

Cost \$4 each plus postage

All lengths 12"

Sizes: 3/8"x3/8"

3/8"x1/2"

1/2"x1/2"

email: [aheath14@australia.edu](mailto:aheath14@australia.edu)

## Castor oil for sale!

Highest quality first pressing de gummed.

\$45 for 5 litres (due to a price increase from my supplier)  
(including container) + P&H

\$10 in Victoria

\$15 SA, TAS & NSW

\$20 QLD, WA & NT

Premixed diesel fuel also available – POA

## Taipan white nylon brand new propellers

8x4 & 8x6 \$2.95ea

7x4 & 7x6 \$2.75ea  
+ Parcel Postage cost

Ph Ken 03 9398 8244

Email: [combtkid@hotmail.com](mailto:combtkid@hotmail.com)

## FOR SALE.

Nelson type T/R pans. \$25

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.

Available from Andrew Nugent 0437469402, 95511884.

[andrew.n5@bigpond.com](mailto:andrew.n5@bigpond.com).

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

For overseas postage allow \$12



"Andrews Pans"

Hi All, I am about to get another batch of team race pans done. I have changed the master a bit to allow for front induction engines. The brace will now be wider so that the rear part of it can be removed. This will bring the cutout and tank closer to the engine, as the original position of the brace was to allow for rear induction engines. I have also cut the tails off the rear of the pan and made it 2mm wider near the engine lugs to make it easier to get the engine in. If you have the older pan most engines will still fit, these mods are just improving it a bit. I have ordered 15 pans so if you want one let me know soon so I can increase the order as most of these are already sold. Price will still be the same at \$25.

Andrew Nugent.

UPDATE : ITEMS FOR SALE OF LES ORGAN

## Magazines :

Flying Scale [ box of 40 ] \$20.00

R C Modeller & RCM

Airbourne

Model Builder

Aviation Modeller International

Any of the above..... 15 Magazines for \$10.00

## Engines:

ASP 21..... \$60

McCoy 29.... \$60 [ square casing model ]

ENYA 15 iv ...\$30

Chinese 1.5 Diesel... \$50 [ Gold Head ]

Chinese 2.5 Diesel... \$60 [ Gold Head ]

Cox 049 ..... \$20

Enya 19 ..... \$40

Webra 3.5 ..... \$50

Enya 20 s ..... \$100 [ this one NIB]

.. all engines are used

All items plus postage or call and I will bring to the flying field.

I will continue to update as I visit and inform further.

Alan Matthieson-Harrison

AUS 4409 Mbl 0414 273 180

I have two new OS FX 25's for sale, fully modded up to Classic B standards, high compression heads, short exhaust stacks and other go fast tweaks inside, with Rothwell B carbs.

I am asking \$280 for each engine.

Lance Smith

email: [smithlw@optusnet.com.au](mailto:smithlw@optusnet.com.au)

Phone: 03 9708 8315

Skype phone flyingkiw1

Mob: 0448074015

# WANTED

## WANTED

Purchase Dynajet Pulse jet, reasonable price and condition.

Also badly bent tail pipes off Bailey, Dynajet or Jetbill pulse jets. Realistic price!

Contact John Taylor (Qld) 07 33927679, Fax 07

33927529, mobile 0407150791 or email

[johndt@primus.com.au](mailto:johndt@primus.com.au)

New OS 25 FP AAC piston and cylinder wanted.

Jim Ray PO Box 38, Rushworth, 3612, 58562110

WANTED: copy of "STARION 35" plan.

Steve Vallve 0409 935 358.

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