

FREE FLIGHT

DOWN UNDER

NEWSLETTER OF THE AUSTRALIAN FREE FLIGHT SOCIETY INC

VOLUME 50 NUMBER 3
SPRING 2018



**SPECIAL
E36
FEATURE**

**2018 F1D WORLD
CHAMPIONSHIPS**

**NSW, VIC AND
QLD STATE CHAMPS**

**RICHMOND SCALE WEEKEND
SMALL ENGINE POWER RATINGS**



FRONT COVER: West Australia pioneered E-36 in Australia. My first E-36, an Apache, shown on the front cover, won all Q'ld comps entered, and then it flew away. Its replacement, a Joulbox, won the 70th Nationals first E-36 event. This month FFDU features E-36. Join the fun!

Free Flight Down Under

September 2018

Volume 50, Number 3

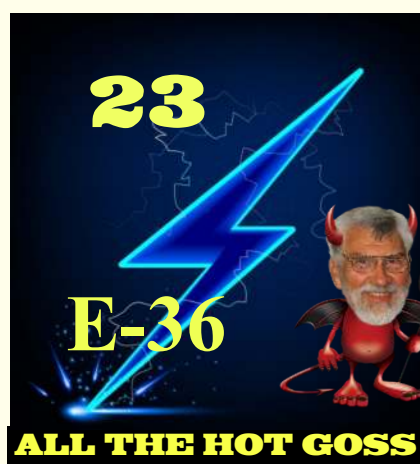
This edition of Free Flight Down Under is edited by Malcolm Campbell,
77 Freshwater Circuit, Forest Lake, Australia 4078. email: actrain@ozemail.com.au

Free Flight Down Under is the newsletter of the Australian Free Flight Society Inc, a Special Interest Group of the Model Aircraft Association of Australia. FFDU welcomes contributions in the form of articles, letters, pictures, etc on any aspect of Free Flight or related topics. Contributions can be sent to the above address or emailed to the editor. Electronically prepared material is preferred. Please keep photos separate and no smaller than 200 kb each.

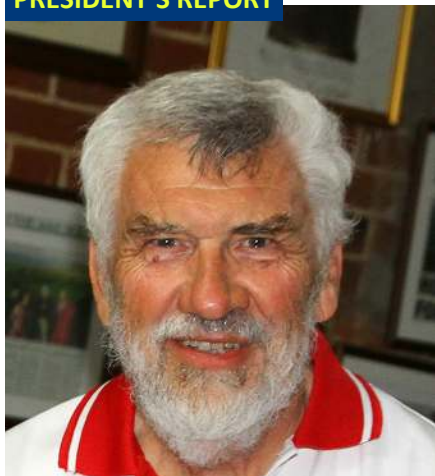
© 1999 Australian Free Flight Society. Material may be reprinted without permission provided acknowledgement is made of Free Flight Down Under as the source and no other specific copyrights are indicated in the material.

Contents

President's Report.....	3
From the Editor.....	3
2019 AFFS Program.....	4
NSW & Vic St Champs F1A/B/C.....	5
Victorian perspective on Vic St Champs.....	9
Q'LD F1A St Champs.....	10
Q'LD F1B St Champs.....	12
A Tale of Screen 24 - take 2.....	14
Richmond Scale Weekend.....	15
2018 F1D World Championships.....	17
Small Engine Power Ratings.....	21
E36 - Australia's fastest growing FF class.....	23
What's hot in E36?.....	31
Selected E36 plans.....	32
Construction Corner.....	36
Progressive Team Trial scores.....	37
State Free Flight Calendars.....	38



PRESIDENT'S REPORT



One of the main points of discussion on the F1A/B/B/S chat sites is how to deal with flights that are likely to go out of sight of the people trying to time the flights. A related problem is that of inadequate fields that are too small to accommodate the performance of modern models, particularly under fly off conditions. There is also the issue of a limited

pool of people willing or able to time the flights.

Here the discussion seems to split into three main streams: how to reduce model performance to keep them within sight and within a field; how to otherwise limit flight times/distances, though mainly in fly off conditions; or how to incorporate electronic timing aids so that flights may be timed when out of sight (OOS). However, given the issues of possible field loss arising from trespass and sensitivity to CASA safety issues, I really wonder if we should be encouraging OOS flights for free flight models.

Each of these remedies has their proponents and opponents and as yet no clear trend seems to be emerging. Does this mean that there is no solution? Should all the F1 classes be re-defined?

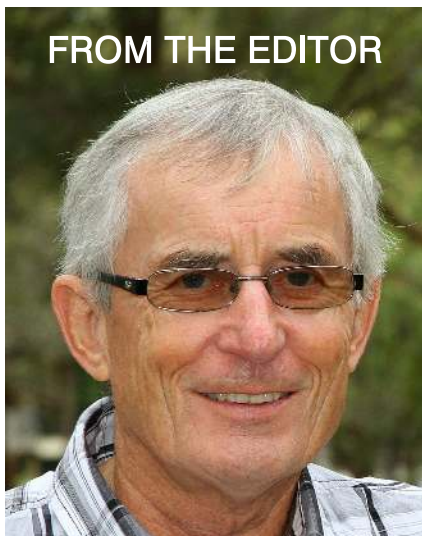
Whatever the case, CIAM will be under pressure to "do something" and will seek the views of Aero modellers around the world. To this end, the AFFS Executive Committee has sent around a simple on-line survey to gauge the feeling of members and possibly reach an AFFS "position". At the time of writing, the majority of respondents seem to favour the status quo: no change to model specification and cease timing if and when the model goes out of sight.

Not unsurprisingly, the chat sites dealing with old timers, balsa models and smaller models like the Flying Aces do not seem to have these problems and focus more on the fun of it all. Is there a message here somewhere?

Cheers,

Paul Rossiter.

FROM THE EDITOR



My editorial this edition will be brief FFDU has a fair mix of competition and

technical articles in this edition, and that is very encouraging. I think we need more technical articles to help those non-technical.

There have been a few State Champs events since the last FFDU and these have been reported by a number of authors so that's great. Time Haywood-Brown contributed an interesting Indoor World Champs report and backed it up with excellent photos. The venue was spectacular but it looked pretty cold outside.

Maris Dislers has written a report that categorises small diesels thus summarising their capabilities and application. Roy Summersby has addressed his indiscreet flight of Screen 24 at the Nationals and shows off his

repairs. I've had to hold over RC flyer Warren Leadbeatter's construction article because I ran out of room!

So a big THANKS goes to all contributors, you've made my job easier.

The key story in this edition is an analysis of the E36s that have been built around Australia. See what everyone uses and where they all reside, you may be surprised.

Finally, the WC Team Trials are running hot. It will be right down to the wire in all classes, probably decided at Dalby and, if not there, final placings will drag out to Lost Hills in October!

Cheers,

Malcolm Campbell



Notice to all Aeromodellers



The MAAA 71st National Model Aircraft Championships will be held at West Wyalong from the 24th April to 1st May 2019



42nd Australian Free Flight Society Championships Widgiewa Cup Narrandera 2019

Widgiewa Cup (World Cup Event)

Friday 03 May	F1A & C	5 x 1 hour rounds	0800-1300
Saturday 04 May	F1A & C Fly-offs from Friday		0700-0800
	F1B	5 x 1 hour rounds	0800-1300

AFFS Championships (World Cup Event)

Sunday 05 May	Widgiewa Cup F1B Fly-offs from Saturday	0700-0800
	Combined %	3 flights no rounds
	F1G*	5 x 1 hour rounds*
	F1H*	5 x 1 hour rounds*
	F1J*	5 x 1 hour rounds*
Monday 06 May	REST/WEATHER/PRACTICE DAY	
	Evening AFFS AGM (Narrandera Club)	1900
Tuesday 07 May	Combined % Open Fly-offs from Sunday	0700-0800
	F1A & C	5 x 1 hour rounds
	P30	3 flights, 120s max
Wednesday 08 May	F1A & C Fly-offs from Tuesday	0700-0800
	P30 Fly-off from Tuesday	0700-0800
	F1B (Jim Fullarton Mem.)	5 x 1 hour rounds
	E36	3 flights, 120s max
Thursday 09 May	F1B Fly-offs from Wednesday	0700-0800
	E36 Flyoffs from Wednesday	0700-0800
	Combined Vintage	3 flights no rounds*
	Combined HLG/CLG/TLG	0800-1200
	Scramble (Russ Hammond & Ivor F Mem.)	0900-0930
	Evening: Presentation Dinner	1800
	Venue: Morundah Hotel Bus from Narrandera provided	

Notes:

- Daylight saving NSW finishes 7 April 2019
- Sunrise 03 May 2019 0651 Sunset 1731
- Sunrise 09 May 2019 0655 Sunset 1726
- Minis & % Combined Vintage will be 1st flight "High Time"



NSW and Victorian State Champs for F1A, B and C

West Wyalong 9 - 12 June 2018

Report and photos by Warren Leadbeatter



During my first visit to West Wyalong for the 70th MAAA Nats I fell in love with the place and I now facetiously call it "The Model Aeroplane Mecca". I went to the Nationals on my own and camped in the very well set up camping area the guys had provided for us on the property. It was so good to be camping among all my aero modelling friends. I was also lucky enough to win 3 bronze medals at the Nats, one in R/C Scramble, one in F/F Scramble and one in C/L Open Combat. I think I might have been the only person who won a medal in all three disciplines. When it was over I just couldn't wait to get back there.

Also, during the Nationals while watching the F1C event an opportunity came up for me to obtain a couple of F1C models which excited me immensely but I didn't have the money needed and I hadn't yet informed the financial controller (my wife Gail) which is standard practice in any good marriage, as I have learnt in my 30 years of being married to Gail. Just before the Nats I had purchased a brand new motorcycle so this wasn't the time. So I waited until the right opportunity presented.

I was hanging to get back to West Wyalong and hoped that the June long weekend would be a good time for me to get my F1C's. We had a few issues at home but I had decided we should go and I would take Gail with me so she can have a break and see how great West Wyalong is. I knew I couldn't just say I was going to spend a whole heap of money on two new model planes so I decided to sell my old motorbike first to raise most of the funds, then I wouldn't be spending so much. It worked!

So after a pleasant 8 hour drive to West Wyalong via Dubbo from our

home at Port Stephens NSW we arrived at the Cameo Motor Inn on Friday afternoon to pouring rain. It hadn't rained out there for months! They were in a drought! It's not supposed to rain in a drought! Gail's first trip to West Wyalong wasn't going so well. I guess they needed the rain so it was good, for them. I took Gail out for her first meal in "Westy" to the RSL Club Chinese, which I had been to numerous times during the Nats, but Gail didn't think it was so hot. Strike 2.

Next day it was raining steadily so Gail wasn't getting out of bed. I knew there wouldn't be any flying on so I didn't rush out to the field either. I left Gail in bed and went out to the field to see what was happening. Everyone was there just standing around so Roy got a working bee going. After that I got my new F1Cs from Gary Goodwin and put them away until I could show Gail. I wasn't going to do anything with the F1Cs this weekend as I would need to check them out and get whatever else I needed to use them later.

Later on the rain eased so I went to get Gail and we came back and I introduced her to everyone and then we flew some models in the afternoon while others test flew some F1Bs & F1Cs. I had brought along a 1/2A high thrust-line Carl Goldberg Viking with a Tee Dee 049 to fly in Open Power, just for fun. I built this model from the Goldberg kit back in Nov 2006 and never flew it. It hung in my workshop for 12 years without ever being flown. I decided to get it going and take it for its maiden flight. After a bit of trimming and mucking around I started it and hurled it into the air for an amazing near perfect launch with a 10 sec engine run and a very nice one

minute flight before the DT cut the flight short which was what I intended. It was looking good for Open Power tomorrow so I put it away.

The weather forecast looked good for Sunday so Dave Thomas (CD) said the **NSW State Champs** were scheduled to kick off 8am Sunday morning. With that we went back into town and went out to dinner at the Indian Restaurant attached to the Cameo Motor Inn with Andrew Linwood and his partner Sally. It was great night of fun and laughs and the food was very nice and also very reasonably priced.

Sunday came and as predicted it was a perfect clear sky with a little bit of early fog and an awesome orange sunrise. It was going to be a great day and the competition was on!

I was watching my old high school buddy Andrew Linwood fly his **F1C** models which are hand me downs from Roy. Andrew's first flight was a bit rushed and he made a rookie mistake of launching his model without having someone timing it. The model flew well and maxed but it flew about 1.5k away from us and



was lost. Another rookie mistake, no tracker fitted. So we sent the Mavic Pro drone over for a look and eventually found it hiding in the scrub about 30 metres from where Andrew was standing. With about 5 mins left in the first round Andrew raced back to re-launch this time with a time keeper only for the model to fly a big arc back into the ground at full speed shearing the wings off. The tail plane was not properly in place apparently. Rookie mistake number 3 and Andrew decided to sit the rest of the day out.

The rest of the F1C guys, Roy Summersby, Shannon Tolmie, Shayne McDonald and Gary Pope all flew on with the result at the end of 5 rounds being Roy, Shannon & Shayne all in the clear with 5 maxes and Gary had dropped two rounds. There was no fly-off and the three guys all finished equal first place.

The **F1B** was contested by Vin Morgan, Bruce Hao, Richard Blackam, Gary Goodwin and Craig Hemsworth with the first place being shared by

Richard and Bruce with Vin in 3rd, just beating Craig by 1 point!

F1A was contested by only one person Matt Hannaford, flying a L'il AL, and he won of course.

Open Power also had only one contestant which was me and I only flew one round before crashing the model in the second round but, hey, it was fun. It's repairable and it will fly again.

After the flying was over we all went back to the house for some wine and



Vin and Leigh Morgan hunting for thermals



Roy Summersby also waits for his thermal



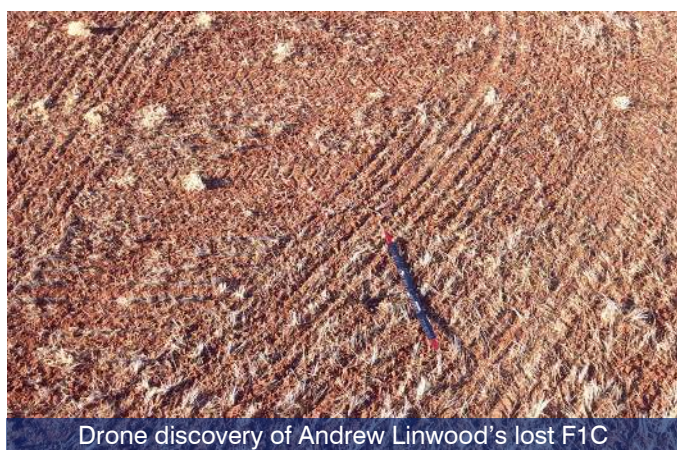
Gary Goodwin stretches out in the launch



Gary's model part way through the power phase



Gary Pope launches his F1C



Drone discovery of Andrew Linwood's lost F1C

cheese and a nice chat in the warm afternoon sun on the veranda of the house. It's so good to have a clubhouse for us all to go back to and debrief rather than all heading off separate ways to motels etc. The library is also very well equipped and is a great resource for information. For Sunday night's dinner we decided to go to the Metro Hotel in Westy which has huge meals but not so high in quality but it had a good pool table, the only one we have found in West Wyalong so far.

Monday morning was the **Victorian State Champs** so we did it all again. Start off at 8am in the far south eastern corner of the field. There was a light breeze and all models in the first round travelled at least 1.8k. Although Andrew had a tracker on his **F1C** this time, he still lost the model again, but as per yesterday we found it using the trusty Mavic Pro drone which has a 4K camera so excellent detail can be seen.

There were no mistakes this time and Andrew got 5 maxes along with

Shayne McDonald & Gary Pope, surprising Roy and Shannon who each dropped one round to be out of the running. Shayne didn't want to do a fly-off but Andrew and Gary did so Andrew and Gary fought it out for first in a 6 min fly off with Andrew winning by over 100 seconds, Gary 2nd and Shayne 3rd.

For **F1B** Vin, Gary, Richard and Craig all got 5 maxes with only Bruce dropping one round. So a fly off was scheduled for 3.00pm and we did the presentation of the Vic States F1A and F1C. We were all stoked for Andrew to win his first F1C comp and he received a nice perpetual trophy and a plaque.

The NSW States presentation followed later on with all winners and officials given bottles of wine which I thought was a great idea, and a very nice souvenir.

The F1B fly off at 3:00pm was 6 mins and was quite good to watch as all the flyers were very serious about it and all fought hard to determine the

result. The winner was Vin Morgan with a 6 min flight followed by Craig Hemsworth with 5 mins 54 then Richard Blackam with 5 mins 13 secs. and Gary Goodwin rounding out 4th place with a 5 min 01 secs.

Craig was unlucky as his model disappeared in the trees and probably did fly 6 mins but went out of sight at 5.54 while Gary Goodwin lost his model somewhere and it was nowhere to be seen. We put the drone up but light was fading fast and we couldn't see anything so we left them to keep looking for it. I was told later that it was found so all good.

That night a bunch of us went out for dinner to the Tattersall's Hotel which I think is one of the best places to eat in town, along with the Royal Hotel. We had a great evening of reflecting on the weekend and a good time was had by all before we said our goodbyes until next time.

Warren Leadbeatter



President Terry awards the victors' spoils



Three joint winners of NSW F1C State Champs



Vin Morgan had a good time at West Wyalong



Craig Hemsworth watches Richard Blackam's launch



Three Victorians win the Victorian F1B State Champs!



Three from NSW win the Victorian F1C State Champs

NSW STATE CHAMPS 2018 RESULTS

F1A	R1	R2	R3	R4	R5	TOTAL	Place
Matt Hannaford	240	180	180	180	81	861	1

F1B	R1	R2	R3	R4	R5	TOTAL	Place
Richard Blackam	240	180	180	180	180	960	1
Bruce Hao	240	180	180	180	180	960	1
Vin Morgan	240	180	180	180	162	942	3
Craig Hemsworth	240	161	180	180	180	941	4
Gary Goodwin	240	164	177	180	127	887	5

F1C	R1	R2	R3	R4	R5	TOTAL	Place
Shayne McDonald	240	180	180	180	180	960	1
Shannon Tolmie	240	180	180	180	180	960	1
Roy Summersby	240	180	180	180	180	960	1
Gary Pope	183	180	139	180	180	862	4
Andrew Linwood	0	0	0	0	0	0	5

Open Power	R1	R2	R3	R4	R5	TOTAL	Place
Warren Leadbeatter	73					73	1

VIC STATE CHAMPS 2018 RESULTS

F1A	R1	R2	R3	R4	R5	TOTAL	Place
Matt Hannaford	240	67	109	180	180	784	1

F1B	R1	R2	R3	R4	R5	FO	TOTAL	Place
Vin Morgan	240	180	180	180	180	360	1320	1
Craig Hemsworth	240	180	180	180	180	354	1314	2
Richard Blackam	240	180	180	180	180	313	1273	3
Gary Goodwin	240	180	180	180	180	301	1261	4
Bruce Hao	240	180	180	180	153		933	5

F1C	R1	R2	R3	R4	R5	FO	TOTAL	Place
Andrew Linwood	240	180	180	180	180	268	1228	1
Gary Pope	240	180	180	180	180	163	1123	2
Shayne McDonald	240	180	180	180	180	dnf	960	3
Shannon Tolmie	240	180	180	180	173		953	4
Roy Summersby	240	180	180	180	156		936	5

A Victorian Perspective on the Victorian State Championships



West Wyalong 18 June 2018

Report and photos by Vin and Leigh Morgan

There were problems this year in finding a field suitable for flying F1A, B and C. We were very aware of the fact that State Championships are team trial events, and competition to get into the World Championships Australian team is serious, especially for third position in B and C. The field at Bridgewater is cropped. We heard of possible fields at Nhill, but after spending a weekend there inspecting a lot of paddocks, we came up against the same problem - any suitable fields were cropped. We then considered combining with the NSW Championships and flying at West Wyalong. This was greeted very positively by the flyers since it meant two competitions from only one expedition. The plan was to have the NSW Championships on Saturday and Sunday, and the

Victorian State Championships on Monday and Tuesday (Monday being the Queen's birthday Holiday).

It turned out that Saturday was wet and windy, the forecast for Sunday and Monday looked good and the rain and wind was forecast to return on Tuesday. We met at the house on Saturday, and decided to fly the NSW Championships, for all three classes on Sunday, and the Vic. State Championships all together on Monday. This turned out rather well; both days were sunny with light winds. F1B and F1C each had five flyers but in F1A there was only Matt Hannaford who had hardly flown since the 2017 World Championships. Matt had a fairly good time considering his lack of practice, dropping just one round in the NSW Championships, and two in

the Victorian. We nearly had two in F1A; a new old flyer from Victoria, Geoff Higgins has returned to F1A but in trimming/practice on the Friday he twisted his ankle and retired back to Melbourne hurt.

The ten fliers in F1B and F1C did quite well. At the end of round 4 they had racked up 40 maxes and the score sheet was a sea of red dots. Tricky air in round 5 saw drops by Bruce Hao in F1B and Roy Summersby and Shannon Tolmie in F1C. Shannon dropped just 7 seconds – again!

There was a lot of thermal activity at the end of the fifth round so Dave Thomas, our excellent contest director, after consulting with the flyers decided to start the fly offs at 3.30 pm. This would allow another flyoff if there was a need after the



Craig and Richard checking the weather on "Warm Lift".



Bruce Hao checking his model, his friend Mary looking on.



Victorian trophies. On the table from left the F1A and F1C trophies, in the foreground the F1B trophy. The names on the trophies are interesting - they go back a long way.

six-minute round. As it happened the contests were decided after one fly off. Vin Morgan made six minutes in F1B, DTing at 40m. Craig Hemsworth's model actually made 6 minutes (as Craig pointed out from altimeter data) but was lost to sight low down behind trees and had to be clocked off. The three places getters in F1B were all Victorians. Andrew Linwood won F1C in the fly off with Gary Pope. Shayne McDonald declined to fly - he was more interested in the Team Trials points and preserving the model than winning. Andrew had damaged a model badly in the NSW Champs and decided to save his second

model for the Vic. State Champs. It turned out to be a good decision.

Combining the two State Championships in the three FAI classes led to two good competitions and is worth doing again. The other Victorian events will be held on our field at Eynesbury, which is a reasonable field and actually quite good if the wind is in the right direction, but is not really suitable for classes like A, B, & C.

We would like to thank the NSW people for the use of their field, and Dave Thomas, ably assisted by Jan for excellent CD work.

Vin and Leigh Morgan



Victorians do it better - a clean sweep in F1B

Queensland F1A State Championships Dalby 16 June 2018

Drone shot of Kathy and Malcolm waiting on the line

report and photos by Malcolm Campbell

The lead-up to the Queensland F1A State Championships was not predictable. It was to have been flown on the same weekend as the F1B State Champs but, for the whole week leading up Sunday looked like being blown out. For a while Saturday did as well so, as this was also a Team Selection Trial, all interested parties were contacted saying the weekend would be postponed until the end of the month.

Then Saturday started to look great and at the last practical moment, F1A was back on the agenda, and I'd just cancelled my accommodation. Luckily I got a room again and John had hung on to his. Ben Lewis was unable to attend with a child illness his top priority. Wind speed prediction Friday morning for

Saturday was now between 1.8 and 4 m/s – perfect. Kathy and I arrived on Friday afternoon and dropped out to the field before checking in. It was windy, consistently 7 – 9 m/s with gusts of 10 – 11 m/s. If we flew on the grass airstrip, we had corn stubble 350 m out, and the predicted wind was taking us there. We would have to fly south of the strip, on the black soil, to avoid over-flying the stubble. The black soil was actually a good towing surface whereas the grass strip had gaping cracks in the parched black soil so it wasn't a good surface to run on. Apart from the NE quadrant, the field was bare without crop residue, and very easy to fly and walk on, probably as good as it's ever been. The road up through the centre would also allow us to do motorised

retrievals if needed. Things looked good.

After booking in, we returned to the field and put in an hours testing until after sun down then returned to the warmth of our cabin.

But on Friday night, things changed dramatically and Saturday was now blowing across the whole five rounds at 5+ m/s. Albert decided to do the Ironman thing, waking at 2.30 am and driving up on the day of the event. He picked up Des Slattery on the way and arrived on the field at a frosty 6.30 am to commence sorting out his models. We got there at 7.30 am and put up a test flight in virtually no breeze. This was not what was predicted but it looked like we wouldn't have strong winds all day.



John Lewis's model didn't go far in the very light breeze

The first round started at 8 am and I went up straight away to record an easy 4 minute flight. Albert's launch initially looked good although it went right and transitioned low to be down in 2.5 minutes. John fared worse, failing to unlatch 3 times before towing in. The cold air affected his grip and he wasn't able to control the line. He eventually got away but didn't make 2 minutes. But we all did badly in round 2. It was a very difficult round, with the very light winds constantly changing through the full 360 degrees making launching difficult. John fared worst, releasing the model early and bunting down for a meagre 58 seconds. He then made the decision to reduce unlatching tension and that helped immensely.

Albert simply caught bad air and my R1 model, usually safe for 3 minutes in R2, flew through the light lift, making me think I should have changed to a thermal model before that round.

John sparked up in R3, getting into good air near the club buildings. I was 50 metres further out to the south and caught a lesser but adequate thermal and we both easily maxed. By R4 the predicted wind direction and wind speed had arrived – 5 m/s and WSW. Albert got a good launch in R4 for a very good max. I was just upwind from him and went first, overcooking the launch, causing the model to knife-edge bunt with the recovery robbing it of half line height

and a possible max if handled better. John fared even worse with a premature launch and no air.

We all needed to get our act together for R5 and the winds had strengthened! John got away early in very good lift and easily maxed from great height. Albert once again failed to find good lift with his rough weather model. I was late getting away, going back to the car to dismantle my 6-panel model and to assemble my short model, as the winds started to gust between 5 and 7 m/s, with some good 2 – 3 m/s lulls. The launch went a bit left and it was flung around in a strong thermal before being whisked upwards for my highest flight of the day and an easy max.

Although the conditions were reasonable, they weren't what we expected, and the cloudless blue sky often made it hard to locate models in the air, but retrieval was generally easy with the clear paddocks. After a week of worrying about too much wind, the lack of wind in the first three rounds tested us. With the F1B State Champs and team selection scheduled for 30 June - 1 July, I hope we stress less about the weather in the lead up days.

F1A STATE CHAMPS RESULTS

Place	Name	R1	R2	R3	R4	R5	Total
1	Malcolm Campbell	240	138	180	98	180	836
2	Albert Fathers	158	87	108	180	148	681
3	John Lewis	107	58	180	82	180	607



Everyone was a winner

Queensland F1B State Championships Dalby 30 June 2018



Start of the 10 minute shoot-out between Vin Morgan and Gary Goodwin

Report and photos by Malcolm Campbell

With World Champs team selection aspirants flying up from Melbourne and driving up from Sydney, it was a nervous wait to see what weather we would have to fly with. There were showers mid-week and predicted winds were still around 5 m/s as late as Thursday afternoon, and then expected conditions started to improve.

In the end, we had one of the best flying days ever experienced at Dalby. Not only were the winds very light all day but they dropped away altogether mid-afternoon allowing us to conduct two fly-offs and decide a winner. And even the day before the event was perfect, allowing interstate

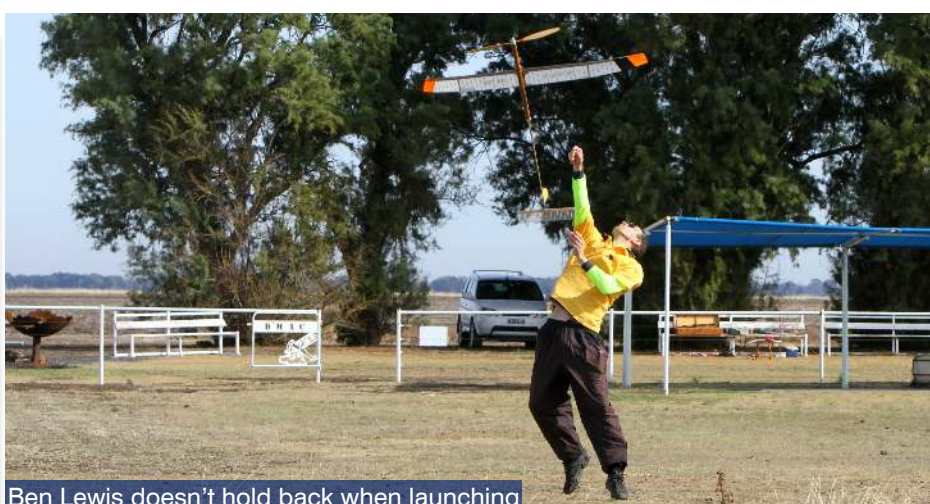
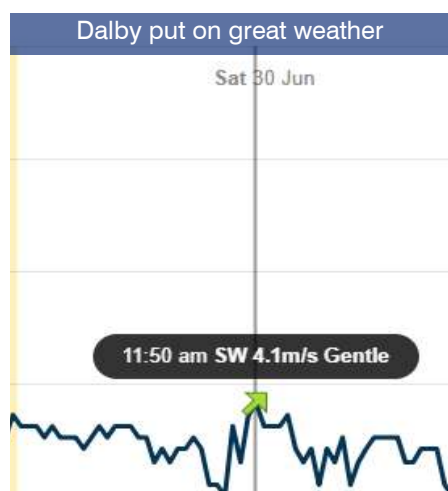
visitors plenty of time to set up and trim their models.

The 4 minute first round had the strongest winds – 3 m/s and angling towards the main road although none of the 4 that maxed this got half way across the paddock. I was concerned that the winds were coming from the south and east, not north and west as predicted earlier. If the winds got up, we could be landing near the main road.

For R2, winds had dropped slightly and everyone maxed. Ben Lewis had his model trimmed too close to the stall so in R3 he paid the price, dropping the round – the only one to do so. With winds from the west in

R4, the segment of the paddock with sorghum stubble could have been troublesome; but the wind was then down to 1 m/s and everyone maxed, landing in open ground.

Ben Lewis put in a second 2:39 score (he didn't wind down the stab after his R3 stall) in R5 whereas father John maxed the last 4 rounds, and was happy with his performance because he knew his model wasn't going to max the 4 min first round. But he'd badly dropped the first round and Ben stayed ahead of him through to the end. By this stage, the three interstaters who had come up for team selection points were still neck and neck, although Gary Goodwin got his heart rate up a bit, once flying in



Ben Lewis doesn't hold back when launching

at 3:04. Bruce Hao broke the rhythm in R5, being the first to launch, into air that failed to help him and he was down in 2:25. This enabled Vin Morgan to swap positions in the team trial placings, but Gary remains 18 seconds ahead of Vin in the team selection stakes.

In the end only two maxed out – Gary and Vin – and a 6 minute fly-off was set for 3.15 pm. Both models got into good air although Vin certainly was higher, and stayed there until DT time. Gary, on the other hand was much lower and falling and it looked

like he'd not make the time. But his model did what it had done in one of the earlier rounds – it made use of ground effects to float tantalisingly close for the final minute and so get the 6 minutes.

By 4 pm the cloud had cooled the ground somewhat and the 10 minute fly-off commenced. Vin launched with Gary about one second behind him. Vin said he'd loaded a soft motor but he did gain good height thanks to a long engine run, and the two models shadowed each other for a minute or so before Gary's moved

off to the north east and Vin's took up position in the south east. Soon Vin's started to come down but Gary's kept its height – he'd managed to stay in the better air to win the event by 54 seconds.

So the spoils went to our visitors and this has set up a fascinating end to the 2018 team selection trials. The final position in each of the three classes, F1A, B and C, will be decided in Dalby, in mid-September. It will be spring and winds can be up so it will be a nail biter, to the end – an event not to be missed.



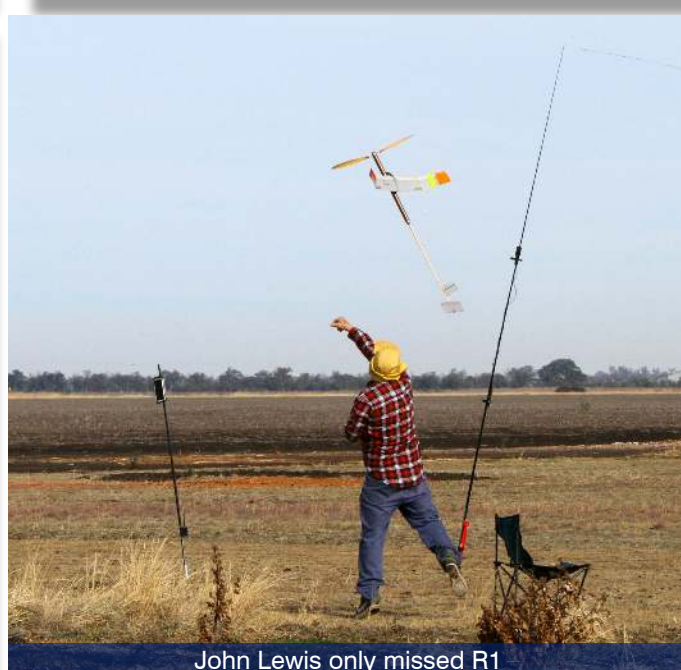
Gary Goodwin gets away in R1



Vin Morgan was consistent all day



Bruce Hao's good luck held until R5



John Lewis only missed R1

F1B STATE CHAMPS RESULTS

Entrant	R1	R2	R3	R4	R5	TOTAL	FO 1	FO 2	OVERALL	PLACE
Gary Goodwin	240	180	180	180	180	960	360	284	1604	1
Vin Morgan	240	180	180	180	180	960	360	230	1550	2
Bruce Hao	240	180	180	180	145	925			925	3
Ben Lewis	240	180	159	180	159	918			918	4
John Lewis	190	180	180	180	180	910			910	5

A Tale of Screen 24

Take 2

By Roy Summersby

Roy's fateful flight, on its way to meet its maker

Happy Queensland F1B State Champs winners



Major damage for Screen 24



Big crater too

As a reader of FFDU you would have read the first tale of Screen 24. What follows here is a short story since then.

As you might remember I brought this open power model back from England in 2013. The main reason was to have a little something of the late and great Stafford Screen. Yes it was trouble getting it back here, the baggage handlers didn't like it much, at Sydney airport, and the wing came out of the oversize tunnel, looking like a shot duck. A little time, and the wing was back together and the tissue covering matched up the best I could.

The plan was to have a few flights and maybe hang it on the wall, but after a few flights the bug set in, maybe I will just use it in one comp then put it away. After I had changed the timer the model was a bit more user friendly and was just so much fun to fly.

Fast forward to the West Wyalong Nationals and into the starter box

Screen 24 went.

When the Rossi comes up on to the pipe, the RPM jumps up; the sound is just fantastic (especially when the model is in your hand). About this time the brain was saying get rid of this thing, so I launched the model. In my case the brain forgot to tell me to start the timer.

The model was well on it's way up to see Stafford (completely out of sight) when, like all good power models, it decided it wasn't ready to meet it's maker and returned back to mother earth on full power, the Rossi singing it's heart out. Having VIT, it climbed vertically and of course returned the same way. The damage was more impressive than what

the Sydney baggage boys could do, giving me many more bits to put back together.

The wing and stab were completely stripped repaired and recovered with Icarex, so it might be easier to see next time the pilot has a brain fade.

PS. *The model is just too much fun not to have flying.*



Roy's rebuild makes it as good as new again

Richmond Scale Weekend

7th – 8th July



Ricky Bould NZ launching his trusty Auster AOP9

Report by Roy Summersby,
photos by Glenn Crouch

The weather God's weren't so kind to us this year. It would be nice to have a direct line with the weather God? I guess we can't complain too much, we have had a super good run for a lot of years.

Entries were down a little; maybe they had looked at the forecast, or felt the wind was too strong for these delicate FF scale jobs. In saying that, there were many good flights made over the weekend. The New Zealanders showed us how to fly F4A in the wind, they took 1st and 2nd using Auster's with far travelled by train Bob Craine taking 3rd place with his Comte AC-4 Gentleman.

Results for rubber scale had to be decided by static points, as the competitors left their flying to Sunday morning in hope that the wind might have been less, but sadly it was stronger. Even the scramble flyers elected not to fly due to the wind.

The new class for us was Kit Scale, and this looks like being popular.

John Goodwin and Dave Bailey even started betting (this started at the Pub) amongst themselves, that if they do not bring a model next year they will pay \$100 each into the prize fund. Two ladies, one from NZ didn't want to miss out on the act and put their hands up as well. What this means is that if these four do not appear with

models, and by the rules have to be built by themselves, there will be \$400 going to the winner of the event! Our first Kit contest was extremely close with only 6 points separating 1st, 2nd and 3rd; a lucky take off making the difference and a win for Roy.

Once again prizes were supplied by Peter Jackson via Big Kev, thanks guys. Sadly the kits have come to an end, so next years will be different.

The Trans Tasman trophy once again went to New Zealand. Well done NZ.

Both days there was cake supplied by Lyn Towel, and bottomless tea and coffee on the AFFS table. Barry



Don Spray's big rubber Puss Moth



George Fay's rubber powered FW 187 Falke

arrived with the B-B-Q mid-morning Sunday and soon after we had hot scones, jam and cream made by Matt Hannaford; he's an expert at this. Lunch was supplied by AFFS; this was also well received, having lunch on the field kept us talking for much longer. Let's hope they do it again next year. Thank you Phil, Noels and the AFFS.

It's interesting, and it was the same last year, that some people want to change the rules no matter what they are, these often get talked about, but unless it gets onto paper and agreed to it must stay the same, so if you want a change start the process now. This was mainly about the painting and covering of Kit Scale.

Thanks must go to our judges. We seem to have the same ones each year so, if you like aeroplanes, put your hand up to be a judge and you get to see the models up close. It's not that hard as you have a sheet and guides on how to do it. What about New Zealand supplying a judge or two? Come on Kiwis, let's make it truly international.



Another shot of Ricky Bould's Auster AOP9



Kiwi rubber man George Fay with his Folkerts Racer

RICHMOND SCALE RESULTS

F4A Scale

Stan Mauger	Antarctic Auster C4	1437.5
Ricky Bould	Auster AOP9	1090.1
Bob Craine	Comte AC-4 Gentleman	1029.0

Rubber Scale

Mike Mulholland	Borel Hydravion	888.2
Phil Warren	Comper Swift	737.9
George Fay	Folkerts SK-3	440.7

Kit Scale

Roy Summersby	Stinson Voyager	139.5	Dumas kit
Mike Mulholland	CT4 Air trainer	133.5	Airsail kit
Phil Warren	Piper J3 Cub	133.0	



Kiwi Mike Mulholland's Borel Hydravion



Phil's models attracted a good deal of attention

The Unbearable Lightness of Being (an indoor flyer)

West Baden F1D World Champs 2018

Article: Tim Hayward-Brown

Photography: Charles Cantrell and Steve Nelson



OK so maybe you've never heard of a film called the 'unbearable lightness of being' in which case my attempt at cleverness has failed. You reach a point in your life where you get used to that. But it doesn't stop you trying.

And so to a story of three Australians going head-to-head with the cleverest indoor flyers in the world. This time we came with reinforcements. For the first time we had a team manager with retired airline pilot Steve Nelson (and wife Dominie) joining us in our quest – and

with Alex Secara's wife Alina as an official FAI timer.

After several months building, and then testing our aircraft at Nuriootpa War Memorial Hall, we were ready to embark for the long trip to the USA. Unlike previous competitions held in the 40+ degree heat of a Serbian exhibition hall or the 10 degree chill of the Romanian salt mine, this event promised to be luxurious by comparison. West Baden Springs Hotel, completed in 1902, had once before been host to the champs –

back in 1980 when it was in almost derelict condition. Now it is restored to its full splendour and is a stunning building to visit.

Max Newcombe and I were keen to get some practice in and arrived early for the warm up competition on the weekend – the Jim Richmond Open – named in honour of the eight-time World Champion from the USA. Jim attended throughout the competition and even made an official flight – pulling out a lazy 22min+ flight that immediately shot him to top place...



Each evening we had live music



Alex Secara at processing



Tim Haywood-Brown, circling at the ceiling

Some of the youngsters eventually reeled him in, but seems he hasn't lost his touch!

One of the great things about these occasions is that you get to spend a bit of time with the top flyers both from current days and from years gone by. Ray Harlan (flyer and indoor supplier), Steve Brown (three-time World Champ), Larry Cailliau (2006 Champ) and many others were all very approachable and interested in talking with the visitors. When I introduced myself to Jim Richmond he immediately said: 'Australia? Did you know Boyd Felstead?' We chatted for a bit as he remembered fondly Boyd's 'world safari' in the seventies where he visited and flew at both US and UK sites with his huge crate of fully rigged models. Then he

said: 'You know, there are two types of indoor modellers: the talkers and the flyers. Boyd was the only one I knew who was BOTH. He used to send me an hour-long audiotape once a month. I said keep sending them to me Boyd. They help me get to sleep!'

Alex Secara unfortunately was somewhat unwell at the start and missed some of the early days of flying. Max and I got in some good practice flights up in the girders. We also had the excellent company of Bill and Kay Long – the first F1D team ever from New Zealand – who shared our workspace.

When the comp started in earnest, sadly, conditions inside the dome had deteriorated. The cold weather outside was causing almost unflyable downdraughts. Many of the entrants

chose not to fly and risk damage, and those that did in the main had times of only a few minutes. Some of the more resourceful (crazy?) flyers discovered that if you launched right next to the wall, you could take an 'up elevator' on the rising air. The Brits – Tony Hebb and Mark Benns – managed 18 and 19 min flights in these early rounds. This was quite hair-raising to watch and a tribute to their steering skills so close to the walls.

Happily, the weather became milder eventually and by round three and four some good times were being posted – including a good 15:22 by Alex. Meanwhile Max was struggling with some damage to his models during early flights, and I was not faring much better. My frustration



Busy Air - middle aircraft is US winner Brett Sanborn's model

was coming from getting good times in practice – only to see the same rubber/prop/torque set-up fail to deliver good official times. Eventually I worked this out – once I had got back to Australia! I read a post by my old buddy Tapio Linkosalo where he reported that his 7/99 rubber had finally given up the ghost. That it would only deliver one or maybe two flights before losing all power. I was using the same batch, pre-winding all my motors late at night in the hotel room, and then using them for a practice flight in the morning before going official. This has always worked well with this batch. But it seems that time has at last caught up with the old stuff – and so while my test flights were looking good, my official flights were not even getting to the ceiling. At the time I could not understand why this was happening.

Meanwhile at the top end of the leader board, after three rounds of almost nothing, the contenders began to emerge. Brett Sanborn (USA) delivered an amazing 27:11 and Zoltan Sukosd (Hungary) and Corneliu Mangalea (Romania) both recorded times also in the 20s. Brett's round five time however was only 18 minutes – meaning he needed another big time in the final round to catch Zoltan who was now a couple of minutes up. In round six Mangalea



Colourful steering balloons

made 26:12 and Mark Benns was in third with a 25:04.

I've had the privilege to fly with these guys for a few years now. And year after year I have watched Brett Sanborn come close to winning and getting pipped at the post due to a bad hang-up or other reason. I remember in 2012 seeing his model collapse and fall vertically from the ceiling mid flight ending his chances. I told him I had a picture of it if he wanted me to send it to him. He smiled and said: 'No thanks. I know what it looked like.'

So I have to say I was very pleased to see Brett calmly go about his preparation once again. He was one of the last to fly in the final round and we all watched as his model, with its amazing elliptical dihedral, steadily clocked up the minutes, until he had another 27 – a full six minutes clear of Zoltan and Corneliu in second and third.

And what happened to the Aussies? Well myself and Max ended up in 30th and 34th – but Alex still had one flight to go. All week Max and I had been encouraging Alex to practice steering, so that if he needed to do it, he would be prepared. Alex, however, is



US flyer Brett Sanborn was the man to beat, but no one did



Brett Sanborn winding - a study of concentration



Bill & Kay, first ever NZ F1D team



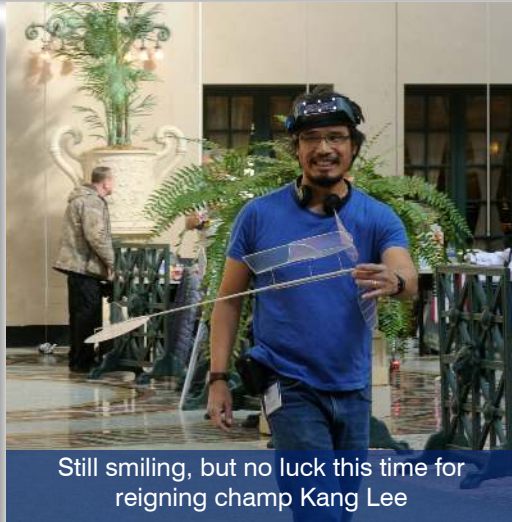
Author in action



Max & Alex worrying about turbulence



Max Newcombe thinks about it



Still smiling, but no luck this time for reigning champ Kang Lee



Japan Team - it's not all deadly serious!

somewhat opposed to the idea, and declined the opportunity to practice. As his final flight got away, we could see that it was eventually going to hit the wall and terminate the flight. Max and I gave each other a look of resignation, knowing that Alex would not steer. Then from behind us came Aurel Popa – Romanian flyer and childhood friend of Alex from his early life in Romania. Aurel jammed a steering balloon into Alex's hand and pushed him by the shoulders under his model, barking out instructions to him in their mother tongue. It was in this manner, that not only did Alex learn the subtle art of

balloon steering, but also secured our best time of 17:14 placing him at 25th overall and helping us into 10th team spot ahead of Poland, Switzerland, Croatia and New Zealand. Well done Alex!

There is some good video, including an interview with yours truly, at the West Baden Springs Hotel YouTube site:

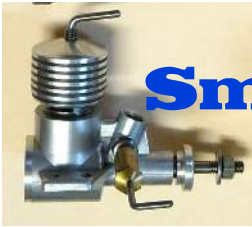
<https://www.youtube.com/watch?v=YDspK4eZ2DE>



Hey baby, it's cold outside



Winners Zoltan Sukosd, Brett Sanborn, Corneliu Mangalea



Small Engine Power Ratings

Maris Dislers



Long, long ago, before Outerzone's collection of vintage plans on the internet, there was the MAP Plans Service. Which had a Handbook detailing their plans and various helpful articles. One really handy idea was to assign power ratings to their plans and a listing of suitable engines. Any engine within a particular rating group would be a reasonable power match for the corresponding model.

The system lapsed many years ago, but still has merit for folk unfamiliar with a particular engine's capabilities. I've updated the list with engines produced since the 1971 Plans Handbook (found that at RC Bookcase on the internet). No doubt missed some too, but here goes.

Group A Engines

These little tiddlers are the low end of the model engine power scale and face the hardest competition from rubber, CO2 or electric alternatives. But internal combustion has a certain allure. The K&B Infant 020 set the USA onto really small power models and, along with the PAL 020 replica, is probably the easiest of the bunch to handle. The special plugs are still available from PAL Model Products. The tiny diesels require careful handling to avoid flooding problems and subsequent damage. Quality control variations mean a lot between individual examples of the same type. For example, UK made CLAN .24's are likely to be better than the later Chinese ones.

Group B Engines

I reckon it's the lower end of the practical model engine size for general "user friendly" use. Think

Ebenezers and models around 30 inch wing span. Traditional .5cc diesel territory. Dominated by the Allbon/D-C Dart, but invaded by some lovely mini replica engines in the .3 to .4cc bracket. Performance varies between different styles. With different shapes and characteristics, such as the firewall-mount John .35 and mini Elfin against the beam mounted side-port induction types. Benno Schlosser's .25cc diesel is a standout in this group, capable of powering a wide range of models and so nice to handle. The petite BMP Baby Tiger gives similar versatility demonstrating that you don't need long stroke and side port induction for sport flying success. PAL LOLA is another good, currently available choice.

The Cox TD 010 is somewhat unique here, as it's Group A displacement, but reaches up to Group B power. Happiest only running flat out with the dedicated propeller and suitable fuel, but will tone down with the larger Cox 4.5 x 2 prop. The companion Pee Wee 020 is more versatile, but suffers most from Cox's integral tank and reed valve foibles. The lesser known glow engines in this group are often disregarded as weaklings, but pick the right one for the job and you won't be disappointed. Dirt cheap via the usual channels.

Group C Engines

This upper end of the small model engine category will fly a 40 inch span model, or more with the most powerful choices. There's enough power for R/C Assist flying without bothering too much with weight. In the diesel camp, the sentimental favourite is the Mills .75. It's all-round "goodness" is special,

inspiring continued production in India (with quality to match budget price) and various clones and functional equivalents. Taipan-made Doonside Mills were the first to fix the P.75's design compromises and achieved an enviably consistent high power, flexibility and easy starts. More recent clones vary in delivering the "promise" and MP Jet's 040 Classic proves that Mills doesn't have the franchise on this sort of thing. Alex Phin's Redfin 030 TBR's made by Aleksandr Matusha have lifted the bar with what can come from a .5cc side-port diesel. Similarly, The PAW 55 is embarrassingly superior to the Allbon Dart, which it was sort-of intended to replace. Use it as a one size up engine, but knowing that it's really cut out for medium to high RPM.

From the mass market bunch, D-C's Merlin is a good pick. Too much choke size for good backed-off reliability. Same goes for some others. Measure up and use my venturi size calculator

[URL: http://adriansmodelaeroengines.com/catalog/main.php?cat_id=133](http://adriansmodelaeroengines.com/catalog/main.php?cat_id=133) to see how things stack up against your target RPM. For example, you only need around 0.02 BHP to fly a Veron Cardinal or Tomboy in gentle climbing circles. That equates to the following propeller RPM:

Cox 6x3 grey	9000
Kavan 6x4	8600
APC or Master 7x3	7700
APC/Master/Taipan 7x4	6800
APC 8x4	5800

If necessary, adjust choke size to the required area for decent suction, with fatter spraybar, tubular insert, or the good old

dodge of blocking half the venturi with a slip of balsa.

OK Cub 049 diesel's and Mk 1 Frog 80's, O-ring in contra piston lends an unusual "spongy" feel when starting, but you never get a stuck contra piston. Replacement Viton BS-0110-ring is readily available. Unlike the McCoy 049D's non-standard O-ring size. Good luck finding a replacement!

The Cox TD 020 has a firm following in America, powering Old Time FF designs scaled down to around 36 inches for super climb rates.

The early OK and Anderson half-A engines (and the D-C Bantam) are comfortable with the sort of "sport" power in the previous example. Thereafter, power in the American 049 group ramps up and is not as controllable as a diesel. Putting the propeller on backwards is the best bet, as running rich is unreliable and leads to increased full power burst

just before the fuel runs out. Fun with an Ebenezer, but a big upset to glide trim for many.

Cox floored 'em with the 049 Thermal Hopper and their humblest Babe Bee reed valve 049's are very strong performers in Group C. Functionally, the Sure-start model with plastic back door and vertical stovepipe venturi is the outstanding pick. Superior needling, choice of fuel tank (go for a transparent option) and you can choke it, or drip in some fresh fuel to unstick the reed for starting. Try blocking off half the choke so you can use 7x3 or 7x4 propeller. Much less frantic. Diesel conversion of Cox 049's is enticing, but success

rate is not good. Piston/cylinder fit is usually too loose, you need special stronger crankshaft and those plastic head discs are a bother.



Radial mounting saves weight. Some newer choices here since the 1970's.



Some Group C candidates. Atwood 049 only goes flat out with 6x3, but runs nicely with 7x3 propeller at 7,000 RPM if a piece of 2mm ID fuel tubing is inserted in the venturi. Wen-Mac 049's are cheap as chips, lighter than Cox 049, versatile beam or radial mounting, use regular glow plugs. PAW is embarrassingly powerful for its size. Tone it down by blocking half the venturi and use 7x4 propeller for mills-like handling and performance. K&B Torp Jr 039 is a handy size one peg down from the 049's.



Plenty of beam-mounted engine choices. Not all cheap, or readily available, but precision workmanship is worth the money in the long run. How many can you identify?

E-36

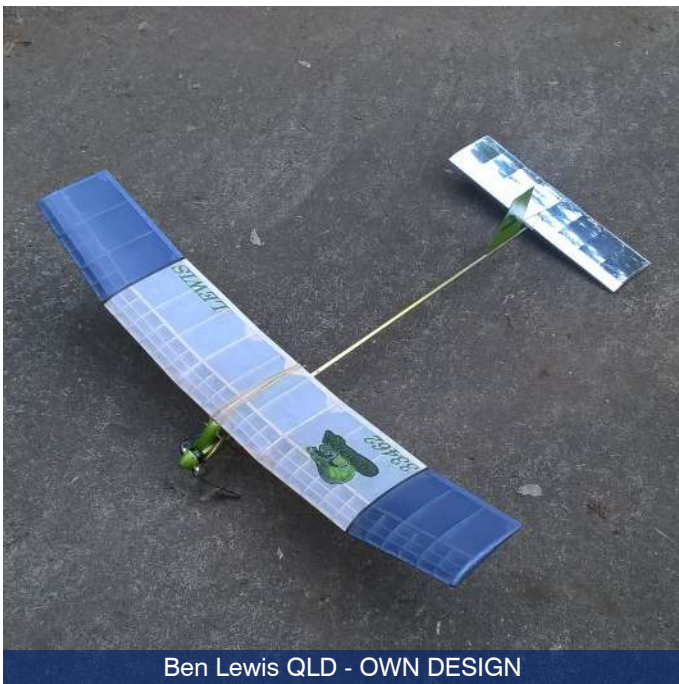


Australia's fastest growing free flight class

This class has quickly become popular and it seems that no one can stop at one of them. Quick to build, great performance, quiet, clean and rewarding - you'd be mad not to try E-36. The AFFS has started a Register, not to control the rampant breeding habits of this honest little aircraft but to give you the low down on what people have built and what parts they have used. It is now an MAAA-recognised class.

So here's a peek at some of your creations. Specifications follow on later pages.

DISCLAIMER: Accuracy of my Register is in direct proportion to the way responses dribbled in over 2 months



Ben Lewis QLD - OWN DESIGN



Roy Summersby NSW - BLIZZARD 1/2A



Kathy Burford QLD - APACHE II



Malcolm Campbell QLD - JOULEBOX Mk II/III



Paul Rossiter WA - MAVERICK



Terry Bond NSW - PEARL 202



John Lewis QLD - OD based on PEARL 202



Vin & Leigh Morgan VIC - PEARL 202



Graham Maynard QLD - ELMANN 3



Des Slattery QLD - LIME - E



Larry Brownlow QLD - OD WATT's UP



Bill East NSW - PEARL 202

**Pearl 202**

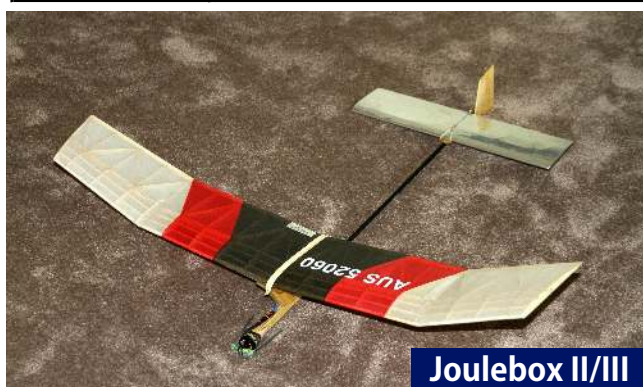
Name	Terry BOND
State	NSW
email	Karenand007@gmail.com
Model	Pearl 202
Mods	
Build details	Scratch
Supplier	
Weight RTF	121 g
Wing Covering	Mylar
Stab Covering	Mylar
Motor	Cobra
Propeller	6 x 5.5 fixed
ESC	12 amp
Battery	Nanotech
Timer	Dtox E
RDT	Yes
Building more?	Yes

**Watts Up (OD)**

Name	Larry BROWNLOW
State	QLD
email	larryatequityoptions@gmail.com
Model	Watts Up
Mods	
Build details	Scratch, own design
Supplier	
Weight RTF	135 g
Wing Covering	Polyspan
Stab Covering	Polyspan
Motor	LDPower MT1306 3100Kv
Propeller	7 x 3.5 fixed
ESC	HobbyKing 12 amp
Battery	Turnigy nano-tech 300 mah 45 -90C
Timer	Starlink Flitetech
RDT	No
Building more?	Yes

**Apache II**

Name	Kathy BURFORD
State	QLD
email	kathy.bur@bigpond.com
Model	Apache II
Mods	
Build details	Kit
Supplier	Clint Brooks Designs
Weight RTF	165 g
Wing Covering	Jap over Mylar
Stab Covering	Silver Mylar
Motor	1806N
Propeller	Graupner 7.5 x 4 folder
ESC	10 amp
Battery	Turnigy nano-tech 300 mah 45 -90C
Timer	Starlink Flitetech
RDT	Yes
Building more?	Yes

**Joulebox II/III**

Name	Malcolm CAMPBELL
State	QLD
email	actrain@ozemail.com.au
Model	Joulebox II/III
Mods	
Build details	Kit
Supplier	Clint Brooks Designs
Weight RTF	160 g
Wing Covering	Jap over Mylar
Stab Covering	Silver Mylar
Motor	Cobra
Propeller	Graupner 7.5 x 4 folder
ESC	12 amp
Battery	Rampage TP325 25R/70 (Deans plug)
Timer	Starlink Flitetech
RDT	Yes
Building more?	Yes

**Pearl 202**

Name	Bill EAST
State	NSW
email	w_east@optusnet.com.au
Model	Pearl 202
Mods	
Build details	Kit
Supplier	Don De Loach
Weight RTF	130 g
Wing Covering	Oracover Light
Stab Covering	Oracover Light
Motor	Cobra
Propeller	Graupner 7.5 x 4 folder
ESC	12 amp
Timer	Texas Timer
Battery	
RDT	Yes
Building more?	Yes

**Nu_Skool (OD)**

Name	Ben LEWIS
State	QLD
email	ben@bartleyburns.com.au
Model	Nu-Skool
Mods	
Build details	Scratch, own design
Supplier	
Weight RTF	129 g
Wing Covering	Polyspan and Lightspan
Stab Covering	Silver Mylar
Motor	Cobra
Propeller	Graupner 7.5 x 4 folder
ESC	Turnigy Plush 10 amp
Timer	Starlink Flitetech
Battery	Turnigy nano-tech 300 mah 45 -90C
RDT	Yes
Building more?	Yes

**Super Pearl**

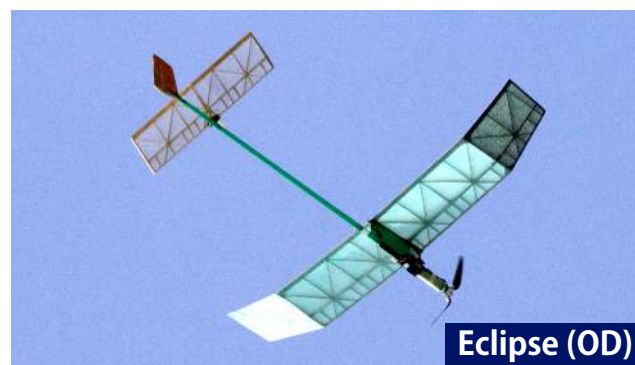
Name	John LEWIS
State	QLD
email	louiedafly@gmail.com
Model	Super Pearl
Mods	Tapered tips
Build details	Kit
Supplier	Don De Loach
Weight RTF	181 g
Wing Covering	Polyspan
Stab Covering	Mylar, Esaki Dbox
Motor	1806N
Propeller	Graupner 7.5 x 4 folder
ESC	Turnigy Plush 10 amp
Timer	Starlink Flitetech
Battery	Turnigy nano-tech 300 mah 45 -90C
RDT	Yes
Building more?	Yes, elliptical wings and Cobra

**Elmann 3**

Name	Graham MAYNARD
State	QLD
email	maynag@bigpond.com
Model	Elmann 3
Mods	No tapered wing or stab
Build details	Scratch
Supplier	
Weight RTF	130 g
Wing Covering	Jap over Mylar
Stab Covering	Mylar
Motor	Cobra
Propeller	Graupner 7.5 x 4 folder
ESC	12 amp
Timer	Dtox E
Battery	Turnigy nano-tech 300 mah 45 -90C
RDT	No
Building more?	Yes



Name	Leigh and Vin MORGAN
State	VIC
email	vinmorgan2@gmail.com
Model	Pearl 202
Mods	Some; eg prop pitch mods
Build details	Kit
Supplier	Don De Loach
Weight RTF	129 g
Wing Covering	Mylar 7.5µm
Stab Covering	Mylar
Motor	Cobra
Propeller	Graupner 7.5 x 5 folder
ESC	Turnigy Plush 12 amp
Timer	Dtox E (special)
Battery	Turnigy nano-tech 300 mah 45 -90C
RDT	Yes
Building more?	Yes



Name	Peter NASH
State	VIC
email	pnash1@dodo.com.au
Model	Eclipse
Mods	Own design
Build details	
Supplier	
Weight RTF	135 g
Wing Covering	Polyspan
Stab Covering	Mylar
Motor	1806N
Propeller	Graupner 7.5 x 5 folder
ESC	HobbyKing 10 amp
Timer	Starlink Flitetech
Battery	Turnigy nano-tech 300 mah 35 -70C
RDT	Yes
Building more?	



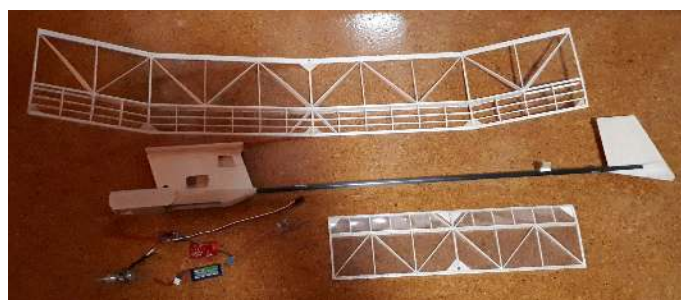
Name	Paul ROSSITER
State	WA
email	paul.rossiter@ozemail.com.au
Model	Maverick E-36
Mods	
Build details	Scratch
Supplier	
Weight RTF	125 g
Wing Covering	Esaki tissue
Stab Covering	Esaki tissue
Motor	Cobra
Propeller	6 x 6 fixed
ESC	12 amp
Timer	Own design
Battery	Hyperion 300 mah 50C
RDT	Yes
Building more?	Yes



Name	David SHACKLEFORD
State	VIC
email	david.shackleford@monsah.edu
Model	Super Pearl 202E
Mods	Mike Woodhouse boom
Build details	Kit
Supplier	Don DeLoach
Weight RTF	129 g
Wing Covering	1/3 mil clear Mylar
Stab Covering	00' Silkspan
Motor	1806N
Propeller	Graupner 7.5 x 4 folder
ESC	12 amp
Battery	Turnigy nano-tech 300 mah 45 -90C XT connect
Timer	Dtox E type
RDT	Yes
Building more?	Yes

**Lime E (OD)**

Name	Des SLATTERY
State	QLD
email	slatdn34@tpg.com.au
Model	Lime E
Mods	Limey 1/2 A design
Build details	Scratch
Supplier	
Weight RTF	181 g
Wing Covering	Polyspan
Stab Covering	Mylar
Motor	Cobra
Propeller	Graupner 7.5 x 4 folder
ESC	A & B Electric
Timer	A & B Electric
Battery	Turnigy 300 mah 35 -70C
RDT	No
Building more?	Yes

**Pearl 202**

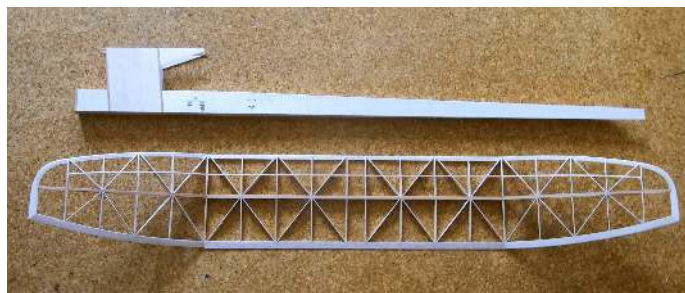
Name	Harry SOKOL
State	VIC
email	hgsokol@optusnet.com.au
Model	Pearl 202
Mods	With concealed dangly bits
Build details	Scratch
Supplier	
Weight RTF	142 G uncovered
Wing Covering	Tissue and Mylar
Stab Covering	Mylar, may add tissue
Motor	1806N
Propeller	7 x 4 fixed
ESC	Turnigy Plush 12 amp
Timer	Dtox E
Battery	Turnigy 300 mah 35 -70C
RDT	Yes
Building more?	Yes

**Blizzard**

Name	Roy SUMMERSEY
State	NSW
email	roydi132@optusnet.com.au
Model	Blizzard
Mods	From 1/2A design
Build details	Scratch
Supplier	
Weight RTF	126 g
Wing Covering	Oracover + tissue/mylar
Stab Covering	Oracover + tissue/mylar
Motor	Cobra
Propeller	6 x 6 fixed
ESC	
Timer	Dtox E
Battery	
RDT	
Building more?	

**Pearl 202**

Name	Adrian BRYANT
State	NSW
email	adrian12@norex.com.au
Model	Super Pearl 202
Mods	
Build details	Kit
Supplier	Don De Loach
Weight RTF	na
Wing Covering	na
Stab Covering	na
Motor	Texas Timers supplied
Propeller	na
ESC	na
Battery	na
Timer	Texas Timers (eMax?)
RDT	na
Building more?	na



E-Nog

Name	Sean O'CONNOR
State	Vic
email	helical@netspace.net.au
Model	E-Nog
Mods	Inspired by Tom Smith's NigNog
Build details	Scratch - own design
Supplier	
Weight RTF	120 - 130 g
Wing Covering	V.light tissue over Mylar
Stab Covering	V.light tissue over Mylar
Motor	Cobra 2203 or 2204 (depends on prop)
Propeller	Various - 6 x5 and 6, 7 x 5 and 6
ESC	20 amp
Battery	Turnigy nano-tech 300 mah 45 -90C
Timer	Texas Timers going Dtox later
RDT	Yes
Building more?	Yes 50s 1/2A replicas



BMJR Sparks

Name	John TAYLOR
State	QLD
email	
Model	Sparks
Mods	
Build details	Kit
Supplier	BMJR
Weight RTF	na
Wing Covering	na
Stab Covering	na
Motor	Turnigy T2211 2300kv
Propeller	EP 7 x 3.5 fixed
ESC	Turnigy Plush TF
Battery	Turnigy nano-tech 300 mah 35 -70C
Timer	BMJR timer, servo rudder at DT time
RDT	na
Building more?	na



Pearl 202

Name	Gary GOODWIN
State	NSW
email	newlook3@gmail.com
Model	Pearl 202
Mods	Carbon rib caps, F1B boom
Build details	Kit
Supplier	Don De Loach
Weight RTF	NA
Wing Covering	Clear Mylar, carbon tissue to main spar
Stab Covering	Clear Mylar
Motor	Texas Timers red motor
Propeller	NA
ESC	Texas Timers
Timer	DTox E type
Battery	NA
RDT	Yes
Building more?	NA



BMJR Sparks

Name	Ron Munden
State	QLD
email	
Model	Sparks
Mods	
Build details	Kit
Supplier	BMJR
Weight RTF	na
Wing Covering	na
Stab Covering	na
Motor	Turnigy T2211 2300kv
Propeller	EP 7 x 3.5 fixed
ESC	Turnigy Plush TF
Battery	Turnigy nano-tech 300 mah 35 -70C
Timer	BMJR timer, servo rudder at DT time
RDT	na
Building more?	na

Rod McDonald (WA) has probably built more E36s than anyone in Australia. WA was the first to recognise the potential (pardon the pun) of the humble little E36 and has done a lot of R & D.



OD VHTL



OD VHTL

Name	Rod McDonald
State	WA
email	rodjmcd@bigpond.com
Model	2 own Designs: One Pylon / one VHTL
Mods	
Build details	Scratch
Supplier	Clint Brooks Designs
Weight RTF	144 g / 142 g
Wing Covering	Airspan / Esaki tissue
Stab Covering	Mylar / Esaki tissue
Motor	Both Cobra
Propeller	Both 6 x 5.5 fixed
ESC	12 amp / over 12 amp
Battery	Turnigy nano-tech 300 or 450 mah
Timer	Own design
RDT	No but possible
Building more?	Maybe

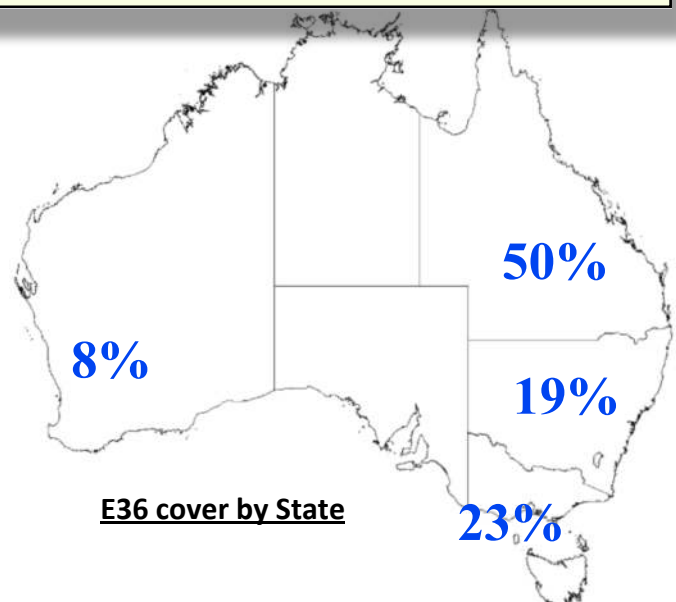
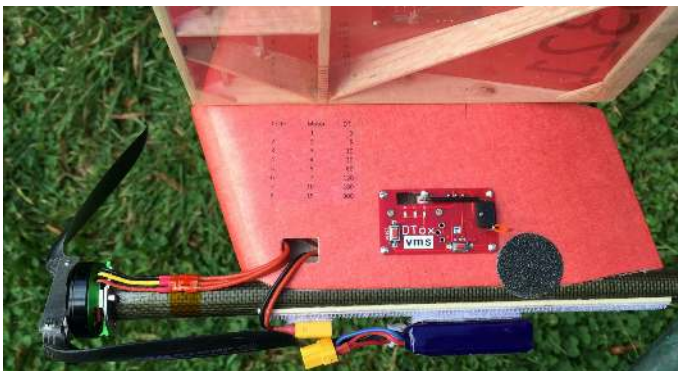


OD Pylon

West Australia pioneered E36 in Australia but Queensland then embraced it to run competitions with 6 entrants. My first E36, an Apache, shown on the front cover, won all competitions entered, and then it flew away. Its replacement, a Joulebox won the 70th Nationals first E36 event. Queensland currently owns half Australia's E-36 fleet, but I figure that won't be for long.

So the Pearl 202/222 kit is the most popular

Most people have built E36s from the Pearl 202/Super Pearl kit or based their models on that design. Have a close-up look at the excellent work in Vin Morgan's Pearl 202. No wonder it is in the sub 130 g group.

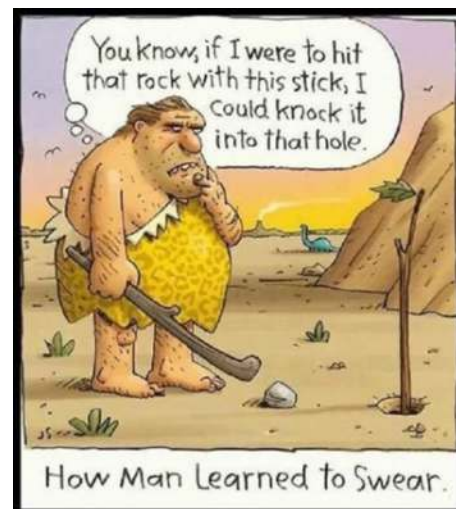


So what's hot in E36?

Based on our recent member survey

What's the most popular kit?.....	Pearl 202.....	38%
How many scratch build.....	46%	
Preferred wing covering.....	Polyspan.....	19%
.....	Jap over Mylar	12%
.....	Clear Mylar.....	12%
Preferred stab covering.....	Clear Mylar.....	35%
.....	Silver Mylar.....	12%
Preferred motor.....	Cobra.....	54%
.....	1806N.....	19%
Preferred propeller.....	7.5 x 4 folder.....	35%
.....	6 x 6 fixed.....	12%
Preferred ESC.....	12 amp.....	39%
.....	10 amp.....	23%
.....	Over 12 amp.....	8%
Preferred battery.....	Turnigy 300mah.....	58%
Preferred timer.....	Starlink.....	35%
.....	Dtox E type.....	19%
.....	Texas Timer.....	12%
RDT capable.....	Yes.....	50%
.....	No.....	19%
Are you building more.....	YES!.....	50%

Need a laugh?



Never buy a border collie when your drunk.



Wife;
"I have blisters on my hands from the broom."

Husband;
"next time take the car, silly."

E36

SALE

David Shackleford has the following kits available:

- 2 x Orbiteer E36 (Bob Holman)
- 1 x Satellite E36 (BMJR)
- 1 x Pearl 202 (Don DeLoach)
- 5 x Pearl 202 EF (Don DeLoach)
- 2 x Pearl 222 (Don DeLoach)
- 6 x tapered carbon booms (Stan Buddenbohm)

Dave Shackleford email: david.shackleford@monash.edu



OPTION FOR TISSUE-COVERED WING:
OMIT FORWARD DIAGONAL RIB AND
MOVE FALSE RIB HERE

1/16" PLY BRACES, TOP
& BOTTOM (TYP.)

1/16" VERT. GRAIN (TYP.)

1/8" x 3/16"
MEDIUM

BLOCK UP 3/32" HERE FOR WASH-IN
(DURING CONSTRUCTION)

Lend Your Weight™
nfffs
www.freeflight.org

RIB BEVEL
GUIDE

1 OZ. GLASS CLOTH AT
DHEDRAL JOINTS

DHEDRAL BRACES
1/16" PLY

2x 4x

3/32" x 3/8"
MEDIUM

RECOMMENDED COVERING: 1/3- or 1/2-MIL NYLAR

DIHEDRAL SKETCH
1/4 SCALE

2-1/8"

7/8"

1/16" PLY SHOCK MOUNT

1/32" PLY BASE

1/16" O.D. ALUM.
LINE GUIDE

ALL MATERIAL IS 4-6 LB./CU. FT. BALSA
UNLESS OTHERWISE NOTED

Laser-cut kits of this design are available.
Visit www.FreeFlight.com for ordering info,
and for more information on building and flying.

1/16" VERT. GRAIN (TYP.)

1/16" GUSSETS (TYP.)

1/16" x 3/32"

1/16" x 3/16" MEDIUM

1/16" O.D. ALUM. TUBING

1/32" PLY BASE. AFFIX AFTER COVERING
TAP FOR 2-56

2-56 NYLON SCREW

1/32" PLY BASE

12# MONOFILAMENT

1/16" SHEET
MEDIUM-LIGHT
C-GRAIN

LIGHT
COPPER
WIRE

TO GT 3/4"

7x

0 1 2 3 4 5 6
SCALE IN INCHES

MICROBALLON, CA FILLET

1/32" PLY

7 GRAM TAPERED CARBON BOOM FROM STAN BUDENBOHM (GLIDERBO@AOL.COM)

3x 1/16" PYLON RIBS

1/8" SQ. MED-HARD

3/32" SHEET WING SADDLE

SOLID BALSA FILL

1/16" x 1/8" HARD RAILS

COVER PYLON WITH TISSUE OR LIGHT GLASS CLOTH

THRUST OFFSETS:
3" LEFT, 0" DOWN

DOWEL FIREWALL IN AND EPOXY WELL!

1/16" LIGHT SHEET

9x

1-29/32"

C.G. LINE

TIMER

3/32" SCRAP

HOLE FOR WIRES

PYLON/SADDLE
CUTAWAY

.047" WIRE SKID

LOCATE PYLON LAST TO ACHIEVE 88% C.G.
WITH 1 GRAM OF CLAY ON TAIL (IMPORTANT!)

SECURE MOTOR WITH #1 OR #2 X 1/4"
PAN HEAD WOOD SCREWS

MOTOR: 1806N (2500 KV) FROM WWW.TEXASTIMERS.COM
BATTERY: THUNDER POWER GB 325 MAH, 7.4V (2S), 70C, FROM WWW.TEXASTIMERS.COM
SPEED CONTROL: 10A BRAKE "ON" FROM WWW.TEXASTIMERS.COM
PROP: GRAPNER 7.5X4 FOLDER L H/B FROM WWW.TEXASTIMERS.COM
TIMER: FROM WWW.STARLINK-FLUTEC.COM OR WWW.TEXASTIMERS.COM

Super Pearl 202-E

By Don DeLoach - August, 2011
Outrunner motor and 2-cell Li-Poly
Wing Span: 33-3/4" projected

MINI WEAVER
 1/2 A Power Design by Dare Posner

Top View: The drawing shows a top-down view of the fuselage and wing. The fuselage is a long, narrow tube with a grid of ribs. The wing is attached to the sides. The tail is at the rear. The landing gear is located under the fuselage. The engine and propeller are at the front.

Side View: The drawing shows a side view of the airplane. The wing is on the left, the fuselage is in the middle, and the tail is on the right. The landing gear is visible under the fuselage. The engine and propeller are at the front.

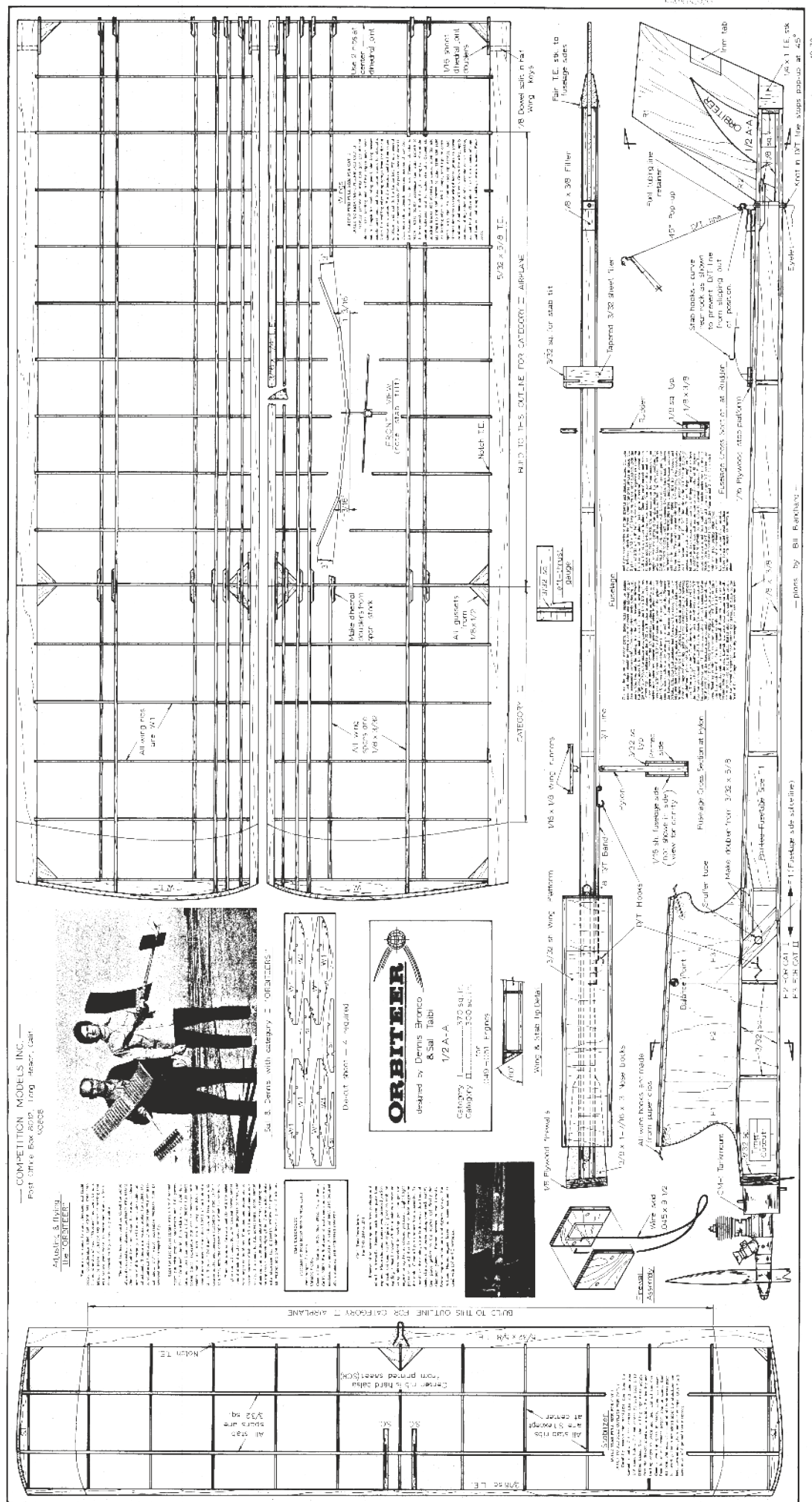
Front View: The drawing shows a front view of the airplane. The engine and propeller are at the top. The fuselage is in the middle. The landing gear is at the bottom.

Scale: 0 5 10 15 20 25 cm.

Details: The drawing includes various labels for parts and dimensions. For example, the wing is labeled 'Wing' and the tail is labeled 'Tail'. The engine is labeled 'Engine' and the propeller is labeled 'Propeller'. The landing gear is labeled 'Landing Gear'.

Notes: The drawing includes several notes and instructions. For example, 'The Landing Gear is 1/2 inch high' and 'The Engine is 1/2 inch high'. There are also notes about the materials and construction of the model.

David Shackleford built this 1/2A. The staggering glide makes it a good E36 prospect



Construction Corner

Many years ago Harry Sokol built a motor, from scratch, so then he needed a model for it. That model was "Badone", a model only its creator could love.



BADONE

In the pursuit of fun and enjoyment, with the side benefit of keeping me off the streets at night, I resolved to create a new class of competition. One in which I could have a greater chance at success. Many modellers lamented demise of the builder of the model rule. Well, here is your chance to regain the that suffering and torture with a vengeance, by doing everything yourself! Thus I have proposed the new provisional class:

F1X , "Builder of Everything".

As an example to all those that follow, I present here the first candidate for consideration... my **BADONE** , an acronym designating the **B**uilder **A**nd **D**esigner **O**f **N**early **E**verything!

Airframe: A jumble of dimensions stolen from a variety of other models, built of traditional ingredients and finished with a uniquely formulated ultra shrinking dope, applied liberally.

Powerplant: The most powerful 2.5cc motor to ever come out of the Dtox Engineering works. Hand crafted on a cheap Chinese lathe and mill, where I think I put as much effort into making the jigs and tools as was put into the engine itself.

Timer: The world famous Dtox P type, the very timer that was once fondled by the World Champion.

So, I've got a head start ... all I need now is a competitor, and a contest!

Harry Sokol



PROGRESSIVE TEAM TRIAL SCORES FOR 2018

	Kiwi Cup	North American	Max Men	Tui Cup	Widgiwa Cup	AFFS	Nats	NSW St Ch	Vic St Ch	QLD St Ch	QLD Trial	Sum of best three	Sum of best four	Sum of best five
F1A	10/2/18	14/2/18	16-17/2/18	16/4/18	18/4/18	12/5/18	24-29/4/18	11/6/18	12/6/18	16/6/18 30/6/18	15/9/18 16/9/18			
Phil Mitchell	x900	x960	960	935	960	810						2855		
Malcolm Campbell	x792	x779	937	794	896	870	821			836		2703		
Albert Fathers	x486	918		594	763	528				681		2362		
Matt Hannaford								867	784			1651		
Tahn Stowe	887	x932	x812									887		
Vin Morgan							812					812		
Van Richards-Smith							653					653		
John Lewis										607		607		
F1B														
Craig Hemsworth	x785	x867	960	960	960	960		941	960			2880	3840	4800
Richard Blackam				929	957	960	960	960	960			2880	3840	4797
Gary Goodwin				910	960	742	960	887	960	960		2880	3840	4750
Vin Morgan	x900	x960	960	921	905	931	925	942	960	960		2880	3822	
Bruce Hao				902	960	879	960	960	933	925		2880	3813	
Paul Rossiter	x900	x960	960	696	908	856						2724		
Graham Maynard				664		952	281					1897		
Ben Lewis										918		918		
John Lewis										910		910		
Gary Odgers							264					264		
F1C														
Roy Summersby	x900	x960	960	960	960	960	960	960	936			2880	3840	4800
Shayne McDonald				960	897	942	960	960	960			2880	3840	4782
Shannon Tolmie				707	833	953	941	960	953			2866		
Gary Pope	x240	912	x789	960	914	560	858	862	960			2834		
Andrew Lindwood							819		960			1779		
Neil Pollock				132	759	849						1740		
Mike Pettigrew							951					951		
x Under the trials rules one overseas event can be counted. An x before the score indicates an overseas score not used.														
1st round time to 240 counted														

Team Trials are hot this year

Maybe because the 2019 World Championships are in the US and this makes them a bit more accessible and less expensive for Australians but there are also some more flyers! Not so many in F1A but in F1B there are five flyers interested and still in the hunt for a team place and in F1C there are four flyers trying for the three places. The fierce competition has seen flyers travelling all over to attend State Championships and Special Trials. It has certainly made good competitions out of the State Championships and it also makes for very fair trials because effectively everyone is competing in the

same events and therefore against each other in the same conditions. Now, although there is only one Australian event remaining, the Queensland Trial on September 15 and 16, there are still team places up for grabs; and even after September it is possible for some who have so far only competed in Australia to get a needed maxout in either the Kotuku Cup or the Sierra Cup at Lost Hills. It is rumoured that several people are going to Lost Hills.

Vin Morgan



BRISBANE FREE FLIGHT SOCIETY

2018 Flying Calendar

Month		Date	Start	Event	Location
January	✂	Sat 27 th	12pm - 4pm	Club general meeting plus "show and tell"	John's place
March	IND	Sun 4 th	3pm - 6pm	Delta Dart State Champs (club sponsored)	BSHS
	CP	Sun 11 th	7am - 3pm	2 min models (3 flights) + CLG (6 flights)	Coominya
		Sun 25 th	7am - 2pm	Dale's Fun Day (general flying and limited RC)	Coominya
April	CP	Sun 8 th	7am - 12pm	All in % - multiple entries (3 flights ea)	Coominya
		Mon 16 th – Tue 21 st		TUI CUP, WIDGIEWA CUP and AFFS CHAMPS	NARRANDERA
		Thu 23 rd – Fri 30 th		70th NATIONALS	WEST WYALONG
	IND	Sat 28 th	3pm - 6pm	HLG/Catapult State Champs	BSHS
	🏆	Sun 29 th	7am - 12pm	F1G State Champs (5 flights), All in % - multiple entries (3 flights ea)	Coominya
May	🏆	Sat 5 th	7am - 12pm	F1C State Champs (2014 rules: 5 flights and 5 secs)	Dalby
	🏆		1pm - 4pm	Open Power State Champs (3 flights)	Dalby
	🏆	Sun 6 th	7am - 12pm	F1J State Champs (5 flights)	Dalby
	IND	Sat 19 th	3pm - 6pm	F1L (EZB) State Champs	BSHS
June	IND	Sat 2 nd	3pm - 6pm	Hanger Rat State Champs	BSHS
	🏆	Sun 3 rd	8am - 1pm	F1H State Champs (5 flights), E36 (3 flights)	Coominya
	🏆	Sat 16 th	8am - 1pm	F1A State Champs (5 rounds - first Rd 4min)	Dalby
	🏆	Sun 17 th	8am - 1pm	F1B State Champs (5 rounds - first Rd 4min)	Dalby
	✂	Sat 23 rd	12pm - 4pm	AGM with BBQ lunch	John's place
	CP	Sun 24 th	8am - 2pm	Club Fun Day KKK, Frog, and ½ Hour Walking Scramble plus Vic Smeed (Prizes, no points for V Smeed)	Coominya
July	IND	Sat 7 th	3pm - 6pm	P18 State Champs (club sponsored)	BSHS
	🏆	Sun 8 th	8am - 2pm	Open Rubber & P30 State Champs (3 flights each)	Coominya
		Sun 22 nd	8am - 2pm	Dale's Fun Day (general flying and limited RC)	Coominya
August	IND	Sun 5 th	3pm - 6pm	Peanut Scale State Champs	BSHS
	CP	Sun 12 th	8am - 2pm	BFFS Mini Power and QDP (3 flights each)	Coominya
		Sun 26 th	8am - 2pm	Club Fun Day Vintage, Sports models and Limited RC (Prizes, no points)	Coominya
September	🏆	Sun 9 th	7am - 2pm	Scale, HLG and CLG State Champs	Coominya
		Sat 15 th	7am - 12pm	F1A & F1C Team Selection Trial (5 rounds)	Dalby
		Sun 16 th	7am - 12pm	F1B Team Selection Trial (5 rounds)	Dalby
	CP	Sun 23 rd	7am - 3pm	Col's Vintage Rally (accumulation of points for each class)	Coominya
October		Sun 14 th	7am - 3 pm	LSq/100 (3 flights), No Frills Wakefield (5 flights)	Coominya
		Sun 21 th	7am - 3 pm	100gm coupe, P20 and E36 (3 flights each)	Coominya
November		Sun 18 th	12pm - 3pm	BFFS Xmas Party and prizes presentation	Malcolm & Kathy's

🏆 Outdoor State Champs IND Indoor State Champs CP Club points apply ✂ Club meetings

CONTACTS:

📞 John Lewis 07 3848 4280 📞 Malcolm Campbell 07 3278 7164 📞 Albert Fathers 0755 34 34 90



NSWFFS Contest & Fixture Calendar 2018



Date	Event	Venue	Time	C/D
Dec 30 Jan 2	New Years Eve BBQ & Fun Fly No Comps, just fun flying	West Wyalong – flying anytime. If you want to stay on the field, book in with Roy Summersby		
Jan 14	New Year Recovery Day	Richmond	7.00am – 1.00pm	
Jan 19	General Meeting	Check Newsletter	7:30pm	
Jan 28	Scramble, Scale Rally, HLG/CG	Richmond	7.00am – 1.00pm	Terry Bond
Feb 10-18	Maxmen, etc USA	Lost Hills		
Feb 11	Combined % + Scale Fun Fly	Richmond	7:00am – 1:00pm	Matt Hannaford
Feb 25	Combined F1G, H, J + P30	Richmond	7.00am – 1.00pm	Gary Pope
Mar 3-4	Hunter Valley Champs	Muswellbrook		
Mar 11	State Champs P30 + Comb Vintage	Richmond	7.00 – 1.00pm	Gary Pope
Mar 16	General Meeting	Check Newsletter	7.30pm	
Mar 18	Gary Goodwin's Hinton Day	Hinton	7.00am---1.00pm	0414 292 050
Mar 25	State Champs Scramble + Combined % Control Line flying, BBQ Lunch	Richmond BYO Food	7.00am-1.00pm	Terry Bond
Apr 8	Big Kev's Abomination Day	Richmond	7.00am – 1.00pm	Peter Jackson
Apr 16-21	AFFS Champs etc	Narrandera	See FFDU	
Apr 23-30	Nationals & Southern Cross Cup	W. Wyalong	Nats' Webpages	MAAA
May 18	General Meeting	Check Newsletter	7.30 pm	
May 19-20	Veteran's Gathering	Muswellbrook		
May 25-28	Vic State Champs F1A,B,C,G,H,J, O/Rubber O/Power, P30, HLG	Bridgewater	For program see FFDU	Vin Morgan 03 9387 2531
June 9-11	NSW State Champs F1A, B, C, O/Power + O/Rubber	W. Wyalong AB Field	8.00am-1.00pm	Dave Thomas
June 17	Scale Practice	Richmond	7.00am-1.00pm	Jim Christie
July 6-8	Scale Rally Weekend. Scale comp Sat 7 th , Sun 8 th ½ Hour scramble, Fun Fly + C/L flying	Richmond 7.00 am till dark Saturday is the Trans Tasman BBQ Lunch, BYO Food		Tahn Stowe
July 15	State Champs F1G,H,J (Combined)	Richmond	7.00am-1.00pm	Matt Hannaford
July 20	General Meeting	Check Newsletter	7.30 pm	
Aug 5	Combined %, Multiple Entries.	Richmond	7.00am- 1.00pm	Bruce Hao
Aug 19	Scale Rally, P 30, Combined Vintage	Richmond	7:00am – 1:00pm	Tahn Stowe
Aug 25-26	Cowra Oily Hand Weekend	Cowra		
Sep 9	½ Hour Scramble +Fun Fly B-B-Q Lunch	Richmond BYO Food	7:00am – 1:00pm	John Corby
Sep 14	Annual General Meeting	Check Newsletter	7:30 pm	
Sep 23	Combined % 5 flights	Richmond	7.00am - 1.00pm	Matt Hannaford
Oct 7	Combined % Multiple Entries	Hinton	7:00am – 1:00pm	Gary Goodwin
Oct 27-28	Wings Over West Wyalong All Disciplines FUN FLY	West Wyalong AB Field	7.00am-till Dark	Plenty of room for ALL
Nov 11	Brian Alcock Bi-plane Day ½ Hour Scramble + Scale Rally	Richmond	7:00am – 1:00pm	Peter Jackson
Nov 16	General Meeting	Check Newsletter	7.30	
Nov 30	Friday Xmas Party	Richmond	7.00am – 1.00pm	Terry & Lyn
Dec 9	½ Hour Scramble, Combined Vintage with SAMS & Fun Fly	Richmond BBQ Xmas	7:00am – 1:00pm Lunch BYO FOOD	Terry Bond

Notes: 1. All scrambles start as close to 8.00 am as possible
 2. Sport FF, CL & RC flying welcome on AB Field at West Wyalong. Plenty of room.
 3. BYO FOOD, DRINK & CHAIR to all BBQs at Richmond



West Australian 2018 Free Flight Contest Calendar



DATE	CONTEST CLASS	LOCATION	TIME	CONTACT
4 March	Combined Open	Meckering	9.00 am	Chris Behr – 9448 9922
18 March	Combined Open	Meckering	9.00 am	Paul Rossiter – 9316 0250
1 April	HLG/CLG State Championships Power Scramble State Championships	TBA	TBA	Greg McLure – 9457 8680
22 April	Combined Open	Meckering	9.00 am	Chris Behr – 9448 9922
13 May	P30 State Champs / Roy Farren Cup Combined Open / Free Flight Cup	Meckering	9.00 am	Paul Rossiter – 9316 0250
3 June	SLOP State Championships Mike Beilby Cup Combined Open / Free Flight Cup	Meckering	9.00 am	Phil Letchford – 9295 2161
17 June	Rubber State Championships Wamac Cup Open Glider	Meckering	9.00 am	Chris Behr – 9448 9922
8 July	Open Power State Championships Combined Open / Free Flight Cup	Meckering	9.00 am	Rod McDonald -9316 2762
29 July	Nostalgia Combined Open / Free Flight Cup	Meckering	9.00 am	Paul Rossiter – 9316 0250
18 – 19 August	F1A, F1B and F1C State Championship (TT) FIA Team trials F1A, F1B and F1C (TT) Combined Open / Free Flight Cup	Meckering	9.00 am	Paul Rossiter – 9316 0250
22 – 24 September	Free Flight Electric F1Q/E36 Old Timer Electric and Limited Height Glider	Meckering	9:00am	Paul Rossiter – 9316 0250 Chris Behr – 9448 9922

- NOTES:**
1. WAFFS Free flight Cup is a series of events for the following classes:
A/1 glider; Coupe rubber, 1/2A Power; P-30 rubber; E-30 electric; E-36 electric; CO₂; Chuck Glider (including CLG).
Competitors may fly one or many classes on each day and throughout the year. Your best scores from the nominated set of flights (normally three in number unless otherwise agreed prior to the event) on three different days, adjusted to a percentage of the perfect score using the appropriate K-factor, are combined to determine your total score for the series.
 2. Combined Open is for all classes. Competitors may fly one or many classes on each day and throughout the year. Your best scores from the nominated set of flights (normally three in number unless otherwise agreed prior to the event) on three different days, adjusted to a percentage of the perfect score using the appropriate K-factor, are combined to determine your total score for the series.
 3. Results from the specific events may be nominated in advance to count toward the combined events.
 4. Sport flying is welcome and encouraged on all competition days.
 5. E-30 to have 2 minute max.
 6. CO₂ to have 2 minute max and 3 cc tank.
 7. Chuck glider and CLG to have 3 flights, but 20 sec attempt to apply outside State Champs. CLG may use no more than a 6" loop of 1/4" rubber.
 8. All events marked (TT) are events where scores count towards the Australian Free Flight team selection. Interstate participation is encouraged. All events for Team Trials are 5 rounds, with the first round 4 minutes.

2018 COMMITTEE MEMBERS AFFS INC

PRESIDENT

Paul Rossiter: (08) 9316 0250
paul.rossiter@ozemail.com.au

VICE PRESIDENT

Graham Maynard: (07) 3286 2326
maynag@bigpond.com

SECRETARY

Phil Mitchell: (02) 4384 3217
filnoels@bigpond.net.au

TREASURER

Albert Fathers (07) 5534 3490
fathersplace@smartchat.net.au

PUBLIC OFFICER

Phil Mitchell: (02) 4384 3217
filnoels@bigpond.net.au

EDITOR –

Free Flight Down Under
 Malcolm Campbell (07) 3278 7164
actrain@ozemail.com.au

