

FREE FLIGHT DOWN UNDER

NEWSLETTER OF THE AUSTRALIAN FREE FLIGHT SOCIETY INC

VOLUME 49 NUMBER 4

SUMMER 2017



**70TH NATIONALS PROGRAM
& ENTRY FORM**

AFFS PROGRAM & ENTRY FORM

WINGS OVER WEST WYALONG

NSW STATE CHAMPS

**COWRA OILY
HAND WEEKEND**

**100 YEAR OLD
FREE FLIGHTER**



FRONT COVER: Tahn Stowe, carpet master extraordinaire, launches one of the many flying carpets he has made. Mills-powered of course, Tahn's models are now flown annually in a competition he has organised at Lost Hills in February.

Free Flight Down Under

December 2017

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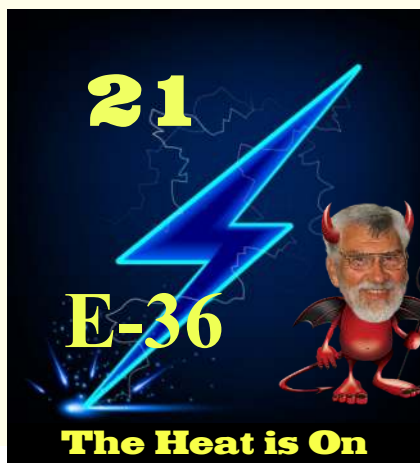
This edition of **Free Flight Down Under** is edited by Malcolm Campbell, 77 Freshwater Circuit, Forest Lake, Australia 4078. email: actrain@ozemail.com.au

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.

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PRESIDENT'S REPORT



As we are about to enter December please let me wish all members and their families a Happy Christmas. It is that time of the year when we start preparing for the next flying season and before we know it we will be travelling to Narrandera and West Wyalong. I am waiting for some replacement parts for my RDT system and I am contemplating the need for a new E36 model to match some of the improvements that my Queensland colleagues are making.

Things have not been quiet on the FAI rules front. If passed by CIAM, some will be important to us.

- The first change concerns allocation of bonus points to

World Cup flyers based on entry numbers. Australia and New Zealand have spoken on behalf of countries which have small entry numbers and pointed out that numbers may be even smaller if there is no prospect of bonus points at our World Cup events.

- There will probably be a new rule on action to be taken when a round is interrupted, mainly for weather conditions. This follows some problems at the last World Championships.
- There will be a clarification in definition of the end of a flight. In effect if a model brushes the ground in flight but continues flying the flight continues until it satisfies one of the other end of flight conditions.
- If the actual time of a flight is less than twenty seconds it is not subject to rounding up to twenty seconds. It remains an attempt.

- There is ongoing discussion on a working time of ten or fifteen minutes when there are shared timekeepers provided by organisers as in some contests in Europe. There have been complaints of some flyers in F1A taking up most of the round time, disadvantaging flyers sharing the timekeepers. I have not yet seen the final proposal. This does not occur in our contests as we usually time each other.
- There are some other proposals for F1P, F1E and timing of the publication of the Sporting Code. I am not aware of any F1P or F1E flyers in Australia so have abstained on these issues.

I look forward to seeing as many of you as possible at Narrandera and at West Wyalong where the NSWFFS will host a Nationals that is reminiscent of those "altogether" Nationals we enjoyed so much in the past.

*Happy flying, Graham Maynard
President, AFFS*

FROM THE EDITOR



Well, I've got through another four editions of Free Flight Down Under, thanks to a small band of loyal contributors. There are some I can rely on to dig deep and come up with something to help fill between the

covers but I'm sure there are others who have the skills and knowledge to pen an interesting article for this important organ that keeps free flight alive in Australia.

I've written the last seven reports on Narrandera and Lost Hills, and also covered the last three World Champs. People probably need a break from my style? I don't mind taking the photos but I'd be really happy for someone new to step up to the crease. Time flies when your having fun, I actually enjoy assembling FFDU - I now enter my eighth year as editor!

I thought I'd read some old editions for inspiration. I started in 1999 and read about 10 years worth! Several editors spread the word over that time - Vin Morgan, George Car, Jeremy Woolley and Bill East. Not

only did the variety of styles make the reading interesting but there were some very good articles submitted by local and international writers. Where are they now? Well, they're still around but don't seem to write much any more.

You should find the next page interesting as it tracks the growth of FFDU and the AFFS from its very beginning. Thanks to our historian Vin Morgan and a past conveners Jan and Dave Thomas, for supplying this view of our past.

With festive season on our doorstep, I wish you all a Merry Christmas and a Happy, Healthy and Safe New Year. I hope to see you all flying at Narrandera and West Wyalong, it's going to be great!

Cheers, Malcolm Campbell

FREE FLIGHT DOWN UNDER

Free Flight Down Under has been the voice of Australian free flight since its first issue in October 1969. In that first issue, the editor, Alan Edwards commented that printed Free Flight material in Australia is practically non-existent and that FFDU hoped to help cure the situation. In this it has undoubtedly been successful. Over the subsequent 48 years, 193 issues have provided results and reports of events, plans of models, technical articles, notices of upcoming competitions, how to do it articles and commentaries. All the information a modeller needs to keep up to date, get to competitions and have input to the aeromodelling organization.

The magazine has always been called Free Flight Down Under however it has had a variety of sub-titles. The first issues edited by Alan Edwards were published by the Southern Cross Model Airplane Club. Alan was assisted by Barry and Margaret Lee from Vol 3, No. 4 July 1971 and this partnership continued for 12 years. From June 1972 (Vol 4 No. 3) it was the Southern Cross Model Airplane Club Newsletter. In 1974 (Vol 6 No. 1) it became 'A National Free Flight Digest'. In 1976 the Australian Free Flight Society (AFFS) was established with Alan Edwards as chairman and FFDU began carrying AFFS news. In December 1983 (Vol. 15, No. 3) Dave and Jan Thomas took over as editors of FFDU and in 1984 they also became the convenors of the AFFS. This meant FFDU effectively became the AFFS Newsletter although it was not until January 1996 that "The News Sheet of the Australian Free Flight Society" appeared on the cover page.

Adrian Bryant had taken over as editor from Dave and Jan in January 1996 and while his first issue had "you mean they fly without radio?" on the cover his next one had "Australian Free Flight Society News". Adrian was editor until Feb 1999 when, following pleas for relief, the editorship was taken over by Vin Morgan and Sergio Montes and the sub-title became "Newsletter of the Australian Free Flight Society". Adrian had changed FFDU from a corner stapled news-sheet to a saddle-stitched format which greatly increased readability. This format has generally been maintained. In 2001 Sergio left to do Free Flight Quarterly. Vin Morgan continued as editor until April 2004.

Jeremy Woolley was the editor of two issues in 2004 and then George Car took over until V 39, No. 2, (Spring 2009).

Vin Morgan edited 2007 and then Bill and Pauline East did 2008/2009. George and Vin put together issues in 2009.

Malcolm Campbell took over from issue 2010/1 and has continued to this day. Malcolm has greatly enhanced the magazine with his own photographs. In 2009 the membership was surveyed as to how they would like to receive the magazine and as a result at nearly everyone receive pdf copies via email. About a dozen are posted (some who initially chose the electronic version are now requesting a paper one as well presumably because it is easier to read over breakfast or in the bath). The e-version saves a lot of money and allows coloured pictures and more pages. Malcolm's recent issues make full use of the abilities of desktop publishing and emailing with an uncluttered layout and a lot of large pictures. The readership seems pleased.

Roy Summersby, who has subscribed to every issue, wrote "Being asked to write about FFDU I found I had to go to the cupboard and take them out, yes I have every issue that has been printed. On opening Vol 1. No. 1 there I was, flying a FAI Viking. Perhaps this is why I don't throw any issues of the magazine away. Many names from the past were there. Steve Rothwell, now a very good friend winning the NSW state champs scramble and Neal Murray from South Africa winning the Strat-O-Bats postal A2 competition. Neal now lives in Australia and flew F1A in the Croatia W/Chs. Alan Edwards, Barry and Margaret Lee must have put in a tremendous amount of work into FFDU in the early days; no computers, just a typewriter. Print on a Gestetner machine and staple ready to post.

Between 1957 and 1965 Australian Model News, a commercial model magazine printed results of Free Flight and Control line competitions along with photos and articles on building. After this FFDU took over as the national Australian FF magazine. Since 1969 FFDU has had a few editors, all have been good and each with their own style. Now when it arrives on your computer at home you get to enjoy a great selection of coloured photos which, back in 1969 Alan and Barry could only have dreamed about".

Vin Morgan
12/12/2017



2017 NSW State Champs Part 2

F1A, B, C, Open Power and Open Rubber West Wyalong 3 - 5 June 2017

After such a long flying program in May, we knew this weekend would be short on numbers. For those who didn't make it, you missed what must have been the best few days that we have ever had at West Wyalong. Apart from being a bit cold in the mornings the weather was absolutely fabulous. I don't think a model went out of the field, not even in the fly-offs.

Some of the early birds were there by Thursday night ready to get some practice on Friday morning; the rest came along during Friday. We had 5 from NSW and 5 from Victoria flying free flight. We also had the pleasure of 3 NSW radio flyers with their giant scale models, all adding to a great and relaxed atmosphere. It was the first time for two of them to visit WW and they were surprised how good it was. After two solid days flying they became friends of WW and said they'd be back.

Saturday after the light mist had lifted, the competition was underway and saw max-outs in both F1C and Open Rubber; conditions were such that we flew the fly-offs in the afternoon. Sunday was much the same again; fly-offs in both F1B and Open Power, both held straight after the rounds were completed.

One 4 minute round (the 2nd) was flown in the A, B and C events. Everyone was a winner; it was just the very best weekend flying you can possibly have.

There were two highlights on the field. The first was Roy who had brought along the late Stafford Screen's old number 24. This is an OP model with a Rossi 15 on pipe. When Roy forgets to set the engine setting on the old Seelig timer, the model climbs out of sight, great stuff.

The second thing worth a mention is that HOT scones, along with home-made jam were delivered to the flight line by Matt Hannaford on his quad bike. When we had our fill, Matt took the remainder over to the RC field where the RC boys made short work of the residual scones. Thank you Matt.

NSW Free Flyer



Stafford Screen's OP model

ED: *Observant readers will realise I published a report of the NSW State Champs in the previous issue. Correct. But I didn't have the results and, while getting these, another report came to light. So you can now relive the NSW State Champs!*

Class F1C										
Family Name	Given Name	R 1	R 2	R 3	R 4	R 5	FO 1	TOTAL	Position	
Summersby	Roy	240	180	180	180	180		960	1	
Pettigrew	Mike	230	180	180	180	145		915	2	
Pope	Gary	240	180	158	155	157		890	3	

Class F1A										
Family Name	Given Name	R 1	R 2	R 3	R 4	R 5	FO 1	TOTAL	Position	
Hannaford	Matt	240						240	1	

Class Open Rubber										
Family Name	Given Name	R 1	R 2	R 3	R 4	R 5	FO 1	TOTAL	Position	
Morgan	Leigh	180	180	180				540	1	
Morgan	Vin	180	180	170				530	2	

Class F1B										
Family Name	Given Name	R 1	R 2	R 3	R 4	R 5	FO 1	TOTAL	Position	
Bond	Terry	240	180	180	180	180	237	1197	1	
Morgan	Vin	240	180	180	180	180	224	1184	2	
Goodwin	Gary	235	180	180	180	180		955	3	

Class Open Power										
Family Name	Given Name	R 1	R 2	R 3	R 4	R 5	FO 1	TOTAL	Position	
Summersby	Roy	180	180	180			209	540	1	
Pope	Gary	180	180	180			166	706	2	

Cowra Oily Hand Weekend



David Owen's Bi-Fly was the free flight model to build this year. 32 were built!

This was the 11th year the NSW Cowra club has run the Oily Hand Weekend. The Cowra boys turned it on again. It was a huge success, I am told the biggest yet, with 73 flyers making a total off around 100 people enjoying themselves over the three days (it starts on Friday). The club also caters for the hungry modeller and has available breakfast, lunch, tea and coffee.

There are some odd, or different rules, which some might find strange.

1. If you fly radio, it must be powered by a diesel

2. If you fly control line, NO mufflers are allowed
3. No electric power, this is an oily hand weekend

There are no rules for free flight as the field is really only suitable for sport models. Events programmed are RC scramble, Free Flight Scramble and Control Line plank racing (2 classes). From this the reader can gather it is a very serious weekend.

They always have two models of the meet, this year for free flight it was Dave Owen's Bi-Fly. This is a biplane using a profile fuselage and built up wings. For control line it was

the Magnum, a 2.5cc Stunt/Combat model. Thirty two Bi-Fly's and eighteen Magnums were built for the weekend (who said free flight & control line are dead). These models are entered in concourse and judged by anyone who wishes to do so. Prizes are given to all who win, for all events.

As normal with events like these, people have stuff to sell; this year was no different, plenty of tables to inspect between the cars, lots of goodies for sale from A to Z. Aero planes to Z benders.



WHAT'S THIS? Control line models in FFDU? Easy fix. Send me more FF stuff to me so I don't have to use fillers.

Wings over West Wyalong Weekend 2017

report by NSWFFS



The weeks leading up to WoWW were busy at the AB Field. We had two major competitions at the site (Southern Cross Cup and NSW State Champs). The next stage of improvements to the site had to be completed. Fifty plus lineal meters of shelving installed and our massive aero modelling archives sorted and in place! Meanwhile the MAAA funding for West Wyalong clubs new mower had been approved. The mower was ordered, delivered and put to good use for the occasion. The road was graded and improved to the homestead, camping and RC areas. A new amenities block was sourced and installed at the site as well. This work was essential for not only this event, but more importantly the coming Nationals next year, as well as large events in years to come.

Two days before the start of fun Terry Bond and Perc Wright mowed the grass on the RC field and John Quigley cut the runways for the RC gliders and the Control Line circles. All was in order for a real fun time. The place had been spit-polished, the fridges turned on and the camping ground ready to go. The new and expanded shade area (now 18 X 4 meters) had been constructed, we hope to concrete under the shade area in the future.

Friday, and there were already some keen modellers setting up in the camping and caravan areas. By mid-

morning on Saturday we had 42 registered Free Flight, Radio Control and Control Line Flyers on site. In addition to this we had fifteen helpers and spouses. Approximately twenty local kids along with their parents were also on-site ready to enjoy the flying activities. Our designated safety officers were kept on their toes all weekend and did a fantastic job. We estimate that we had over fifty local families visit the event over the two days. Many MAAA gliders given away as well as some sport rubber free flight aircraft from the "Ockerden Estate". Robert would be smiling down on us, as happy children left the AB Field with their new models.

Matt Hannaford, our public relations officer did a great job all weekend with the visitors, merchandise and sausage sizzle; a big thank you to Matt! It was pleasing to see such a wide variety of models being flown throughout the weekend. Everything was flown from large scale radio models, radio gliders and vintage models to small sport free flight and control line models. Some high tech free flight competition models were demonstrated to impress the crowds. The flying site and amenities coped well with all the increased activity over the weekend, and there are only minor improvements to be implemented before the 2018 Nationals which take place in April next year. The weather

for the weekend stayed manageable and everyone left with a smile on their face. It was a great weekend of fun flying and activities; and an excellent promotion for NSWFFS, MAAA and the 2018 Combined Nationals.

The two organised events; Ebenezer mass launch and the Scramble both held a surprise. Perc Wright's Ebenezer was sent on its way with a full tank never to be seen again and Terry Bond won Scramble with the lowest ever score.

The RC pits were full of models of all type from small home builds to mammoth scale. There would have been more RC flying but it would appear that flyers were more or less exhausted after two days of intense flying. Some flyers of note; Graham ... has not lost his touch seen flying at speed with an older model, Ross with a Stearman, Hoffo with a Tempest and Peter Scott with a SAM's model which he managed to land in a tree.

As usual the Chris Bush lamb on a spit was as successful as ever with plenty of 'Bush Tucker' food on the menu. Bush ovens were out of season this year because of the fire threat but plenty of oven-cooked veggies were available. Ed Mahoney won the evening raffle and now only needs to make a model to fit his prize of an engine.

NSWFFS

For free flight purists, I know these shots are of radio models but I tried to pick the models whose roots lay in free flight. These wonderful photos were taken at Wings over West Wyalong by Angie Mahoney.





Terry Bond and Gary Goodwin participated in a Scramble on the weekend and Chris Bush put on one of his legendary lamb roasts. My favourite shot has to be the last one in the series; grey nomad Col Collyer ponders in the embers of the fire "Where to travel to next?" Col's FB followers will know what I mean.



TARGET REACHED - ROOF COMPLETED



The idea came to me when Brian Alcock's family gave us a \$1,000 donation when Brian passed on. That was a special gesture by the family. It made me realise that the family understood the joy that Brian got from making his models, flying his models and interacting with his fellow modellers in the paddock. It made me think the donation should go to a special use. I thought if I matched the donation it might just start something.

About the same time we were facing the fact that the roof on the farmhouse at West Wyalong was in desperate need of renewing. We had worked hard to improve the interior. I thought it was not much use having it nice inside, if the roof blew off, which was certainly on the cards!

Based on my experience in the building trade, I set a target of \$25,000 knowing this would be sufficient and thinking it could take perhaps two years. We discussed with Adrian the idea of using 'crowd funding' to get money to renew the roof, but we were concerned as this was a technique we had not tried before. I remembered the old days of telethons and such, the donations were measured on a thermometer styled device. This way people could see how far we had to go at the

start, could ride along with it when it grew and get happy as it approached the target. This is what we did. Cash was collected and Gary Pope regularly produced an updated thermometer and list of contributors showing our progress with the funds. These were published in Free Flight Down Under and in the NSWFFS newsletter along with minutes of the meeting, so all in our community could see how it was going.

Much to my surprise the target was reached on 19th November 2017 just 10 months from the start!

From this total, nearly \$10,000 was donated in cash. The rest has been raised by the selling of model goods donated by members past and present. We were lucky to have the goods donated from two persons (sadly deceased, Big Kev Davis & Robert Ockerdon). Kev & Robert had a huge collection of kits between them, both free flight and radio control, as well as other goodies.

Adrian Bryant also decided, to use his words "downsize" and donated his collection of 69 engines to the fund.

There have been many other donations of modelling goods, which have all been very welcome,

but the three above were certainly the big ones.

I must admit I spent a lot of hours selling kits and engines on eBay. For those of you who have sold on eBay, you will know how much time is required to set up the advert with photos and words, follow the bidding, packing when sold ready to take to the post office. All up I think I had 230 separate auctions successfully completed. Many more sales were made outside eBay, when we had offers that were too good to refuse.

There were also cash donations from modellers from other states and these were very nice to see.

Thanks must also go to Peter Jackson, who arranged for us to have Big Kev's kits and Geoff Potter who repaired, fixed or made good some engines, so they could be sold.

In all at this date we have had a total of 36 individual donors.

The roof work is now finished, and as the photos show it has made a huge difference to the house. Once the new roof sheeting was placed it made the gables look awful so I have had them, as well as the eaves, covered in small rib coloured metal section sheeting.

[More on the next page](#)

So the new work that has been completed is:

- Gutters and pipes to tanks
- Metal battens
- Roof sheeting (light grey)
- Barges (dark green)
- Blanket insulation under sheets
- Eaves and gables (white)

These colours were selected as being as close to the original home as possible.

The feedback from those who have stayed in the house after the work was completed has been very

positive. The most common themes in the feedback are:

- Temperature in the house is better i.e. when it's warm outside it's cooler in the house and when it's cool outside it's a bit warmer inside. Previously the house was like as temperature magnifier i.e. hotter inside when it was hot outside and colder inside when it was cold outside.
- The house looks much nicer with a nice shiny and straight roof. So much nicer that the vertical exterior surfaces could do with a touch up.

If you have missed out on making a donation either in cash or goods, then don't despair. There are still plenty of good things to be done to improve our property at West Wyalong. You will be recognised in future reporting of our thermometer/cylinder

In conclusion, this was a great result for the AB Field and for NSWFFS Inc. I must admit it was a pet project for me on behalf of NSWFFS, and it has been very enjoyable. I would like to say a hearty thank you to all of you who have done your bit and contributed in any way, big or small.

Roy Summersby



MAAA 70th National Model Aircraft Championships

West Wyalong 23 April to 30 April 2018

<http://www.maaaevents.com.au>

← *Click here for latest details*

The 70th Nationals is up and running, with the launch of the website (link above) and the release of the complete Program and Entry Form.

Our thanks goes to the various Special Interest Groups for their assistance in this process.

With more than 80 events covering all 3 disciplines at 5 venues over 8 days and only 15 minutes from each other, it is set to be the best attended Nationals in many years.

Entries are already being processed by the 70th Nats Registrar (Gary Pope) and field preparations are well underway.

Interest is also coming from NZ, China, the USA and Britain, with various prospective members finalizing their plans.

Don't delay, enter today.

Tahn Stowe
70th Nats Co-ordinator

See Nats program and entry form on pages 16 and 17



41st Australian Free Flight Society Championships

Tui Cup Widgiewa Cup Narrandera 2018

Tui Cup (NZ World Cup Event)

Monday 16 April	F1A/B/C	5 x 1 hour rounds	0800 - 1300
Tuesday 17 April	Flyoffs F1A/B/C		0710 - 0800
	AFFS Combined %	3 flights no rounds	0800 - 1200

Widgiewa Cup (World Cup Event)

Wednesday 18 April	AFFS Combined % Open Fly-off		0710 - 0720
	F1A/B/C	5 x 1 hour rounds	0800 - 1300
Thursday 19 April	F1A/B/C Fly-offs from Wednesday		0710 - 0800
	AFFS F1G*	5 x 1 hour rounds*	0800 - 1300
	AFFS F1H*	5 x 1 hour rounds*	0800 - 1300
	AFFS F1J*	5 x 1 hour rounds*	0800 - 1300
	Evening AFFS AGM (Narrandera Club)		1900

AFFS Championships (World Cup Event)

Friday 20 April	F1A/B/C	5 x 1 hour rounds	0800 - 1300
Saturday 21 April	F1A/B/C Fly-offs from Friday		0715 - 0800
	AFFS Combined Vintage	3 flights no rounds*	0800 - 1200
	AFFS Combined HLG/CLG/TLG		0800 - 1200
	AFFS Russ Hammond/Ivor F Scramble		0900 - 0930

Evening. Presentation Dinner 1800
Venue: Morundah Hotel Bus from Narrandera provided.

Sunday 22 April Moving Day to West Wyalong Nationals.

General Notes/Comments:

- 1) Sunrise 16 April 2018 0708hrs Sunset 1820hrs.
- 2) *F1G/H/J - *First* Round will be "High Time"
NOTE: (6 min max *first* round only.
NB time above 2 min max will only be used to resolve ties)
- 3) # F1A,F1B & F1C - *First* round duration will be 4 minutes (Weather permitting)
CD to determine duration of round 5 (4 minute max weather permitting)
- 4) COMBINED VINTAGE - *first* flight will be "High Time" & must be launched before 0830 (6 min max first round only. NB time above 3min max will only be used to resolve ties) Entry in more than one class allowed however only 1 (best) score to count for AFFS Champion. . Note that the vintage cut-off date is 1956. Vintage classes get bonus points (2 per year pre 1956) as per MAAA rules 2009.
- 5) WORLD CUP EVENTS - are flown from a flight line in five one hour rounds.
Please assist by volunteering to time keep.
- 6) Flyoffs for F1A, F1B & F1C will be 10 minute duration.
- 7) Gliders otherwise conforming to the F1H/A1 rules will be allowed in F1H at any weight provided they are fitted with a non-latchable towhook.
- 8) Old style F1J/Class 1 Power models – restricted to a plain bearing motors of less than 1 cc and no moving surfaces except DT – will be allowed an 8 second motor run in F1J (bring out your Mini Weavers and ½ A Vikings)
- 9) COMBINED % OPEN – is 3 flights (no rounds). Score is the percentage of the max for that class. HLG and CLG are allowed but are only allowed 3 flights i.e. no discards. Two attempts are permitted for each flight (a 20 second attempt rule applies).
- 10) HLG/CLG/DLG are combined into one event. Only 1 set of scores allowed per competitor All flights from the box marked by 4 cones.
- 11) Radio Dethermalization (RDT) is allowed in all events.
- 12) PLACEGETTERS models, lines, motors etc. may be processed. There will be spot checks and check timekeeping on the field.
- 13) All Competitors must be in possession of a current MAAA/FAI licence.
- 14) AFFS Annual General Meeting. Please forward agenda items, nominations etc. to the Secretary, Phil Mitchell by 1 April 2018. PO Box 44 Terrigal or filnoels@bigpond.net.au
- 15) The Presentation Dinner will be on the evening of Saturday 21 April 2018 at the Morundah Pub. There will be a bus from Narrandera. Cost (including bus) will be \$35. We need to know numbers in advance so please make your bookings for the dinner and pay with your entry.
- 16) Motorized retrieval (car, motorcycle) is not allowed (pedal and electric bicycle retrieval is). We are not permitted motorized retrieval on the Department of Defence land.
- 17) Smoking on the field is not allowed. If you smoke in a car the doors have to be closed.
- 18) Risk/Hazard Management issues will be addressed at compulsory event briefings (see following notes).
- 19) All entrants flying in the Tui Cup must attend a compulsory Event briefing on Monday 16 April 2018 at 0745 hrs.
- 20) All entrants before flying in the Widgiewa Cup & AFFS events must attend daily compulsory event briefing(s) 17,18,19,20 & 21 April at approx. 0745 hrs.



Narrandera flight line, on sunrise



ENTRY FORM

41st Annual Australian Free Flight Society Championships World Cup - Open International F1A, F1B, F1C

Narrandera, NSW

April 2018

Name: FAI No:.....

Address: Age (if Junior).....

Phone: E-mail

Events entered

Event	Tick
1. F1A World Cup Event	
2. F1B World Cup Event	
3. F1C World Cup Event	
4. Combined % Open	
5. Scramble (Russ Hammond/Ivor F)	
6. F1G (Coupe d'Hiver, see note 2)	
7. F1H (A1 Glider, see note 2 & 7)	
8. F1J (see note 2 & 8)	
9. Combined HLG, CLG, DLG	

Event	Tick
10. Combined Vintage. (entry in more than one class allowed, see note 4)	
Dinner(s)	
AFFS sub for 2018/19	
FFDU paper copy 2018/19	

Fees:	World Cup events F1A, F1B and F1C	\$40
	Any number of other AFFS events	\$30
	Any number of WC and AFFS events	\$60
	Presentation Dinner	\$35/person
	AFFS membership including e-FFDU for 2018/19	\$30
	Posted paper copy of FFDU (in addition to membership)	\$35
	There are no fees for juniors	

Fee calculator

Select entry one entry option, membership option, dinner if attending	Fee	
World Cup events only	\$40	
AFFS events only	\$30	
World Cup and AFFS events	\$60	
Dinner	\$35/person	
AFFS membership for 2018/19 (includes electronic FFDU)	\$30	
Posted paper copy of FFDU 2018/19 (in addition to AFFS membership fee)	\$35	
Total Fee		

TO HELP THE ORGANISATION, PLEASE SEND PRE-ENTRY BY APRIL 1, 2018.
Send completed entry form with money (cheques payable to Australian Free Flight Society Inc **not** FFDU) to:
Albert Fathers, Treasurer AFFS
7 Esperance Close Elanora QLD 4221 Australia

Or by bank transfer to: Name: Australian Free Flight Society
BSB 033 174
Account No. 331732

Overseas people can pay on arrival but it would help organization if entries are returned so we know numbers – especially for the dinner. Forms or entry details can be e-mailed to:
fathersplace@smartchat.net.au



ENTRY FORM



Widgiewa Cup 2018 - Open International F1A, F1B, F1C

Narrandera, NSW

April 2018

Name:FAI No:.....

Address:Age (if Junior).....

Phone:E-mail

Events entered

Event	Tick
1. F1A World Cup Event	
2. F1B World Cup Event	
3. F1C World Cup Event	
TOTAL (any or all)	\$40

TO HELP THE ORGANISATION, PLEASE SEND PRE-ENTRY BY APRIL 1, 2018.

Send completed entry form with money (cheques payable to Australian Free Flight Society Inc **not** FFDU) to:

Albert Fathers, Treasurer AFFS
7 Esperance Close Elanora QLD 4221 Australia

Or by bank transfer to: Name: Australian Free Flight Society
BSB 033 174
Account No. 331732

Overseas people can pay on arrival but it would help organization if entries are returned so we know numbers – especially for the dinner. Forms or entry details can be e-mailed to:

fathersplace@smartchat.net.au



THE TUI CUP ENTRY FORM

Name

Address

Age (if Junior)

FAI No

Phone No

Email

Entry Fee is \$40.00 AUS for 1 event. Those wishing to enter 2 events, the entry fee is \$60 AUS total.

Entry fees to be paid in Australian Cash at Narrandera, Australia. Registration will be available on the field on 16th April.

Events entered F1A F1B F1C

Please mark events entered with an X

Please email or post completed entry forms before 31st March to:

Robert Wallace
956 Riverslea Road South
Hastings 4122 New Zealand

or email to ffonzrjw@xnet.co.nz ph +64 2743 44027



70th MAAA NATIONAL CHAMPIONSHIPS 23rd-30th APRIL, 2018. OFFICIAL PROGRAM OF EVENTS. 28/11/2017

D A T E	SOCIAL EVENTS	REGISTRATION CENTRE. FF & RC INDOOR WW STADIUM	AEROBATICS GRASS REDMAN OVAL	C/I/L SPEED, RACING WW AIRPORT	C/I/L COMBAT, RACING AB FIELD	FF OUTDOOR AB FIELD	RC OLD TIMER AB FIELD	RC HELICOPTER GUN CLUB	RC PYLON RACING WW AIRPORT F/L B	RC PATTERN & SCALE WW AIRPORT F/L C	RC GLIDER WW AIRPORT F/L A
Mon 23rd APRIL	6pm OPENING CEREMONY. 7pm Indoor RC	REGISTRATION & PROCESSING 8am - 3 pm MON-FRI*	PRACTICE	PRACTICE	PRACTICE	PRACTICE	PRACTICE			PRACTICE	PRACTICE
Tue 24th APRIL		OPEN RUBBER & PEANUT SCALE 6-9pm (practice 3-5pm) RC SCALE STATIC JUDGE 8am-3pm	F2B AEROBATICS ADV & EXP 9am-4pm	COMBINED & JET SPEED 9pm-5pm	JNR COMBAT, F2D COMBAT 8am-5pm	F1C, F1A, OPEN RUBBER 8am-2pm	1/2A TEXACO 10am-1pm, STD DURATION 1.30pm-5pm		F5B PRACTICE	PRACTICE	F3K R/C HLG, OPEN THERMAL 9am-5pm
Wed 25th APRIL	ANZAC DAY DAWN SERVICE	F1D, F1L, 6pm-9pm (practice 12-5pm) FF SCALE STATIC JUDGE 8am-12pm	F2B AEROBATICS ADV & EXP 10am-4pm	F2C T/ RACE (heats 1&2) CLASS 2 T/ RACE 9-5pm	1/2a COMBAT 8am-5pm	VINTAGE POWER, OPEN 8am-12pm	DURATION 1pm-5pm		F5B GLIDER 9am-5pm	F4C,F4H, F4G, OPEN & CLUBMAN 9am-5pm	F3K R/C HLG, OPEN THERMAL 9am-5pm
Thu 26th APRIL		IHLG, ICLG, HANGAR RAT & H/R SCRAMBLE 6pm-9pm	F2B AEROBATICS ADV & EXP 9am-4pm	F2C T/ RACE (heats 3&4) F2C FINALS, F2F T/ RACE 11am-5pm.	VINTAGE A T/ RACE 8am-11am	F4A SCALE F1B 8am-2pm	Sport/Cabin SCRAMBLE 9.30am-10am TEXACO 11am-5pm	PRACTICE	F5B GLIDER 9am-5pm	F4C,F4H, F4G, OPEN & CLUBMAN 9am-5pm	F5J GLIDER 9am-5pm
Fri 27th APRIL	SWAP MEET AUCTION INDOOR STADIUM 6pm-9pm	LAST DAY TO REGISTER. * 9.00 am-9.00pm	F2B AEROBATICS ADV & EXP. 9am-4pm	OPEN RAT RACE, SNR 2.5cc R/R Classic FAI T/ RACE 11am-5pm	JNR 2.5cc R/ RACE 8am-10am	SCRAMBLE 7.30am-8.30am HLG, CLG,DLG 9am-11am E 36 (9am-2pm)	GORDON BURFORD EVENT 10am-1pm, NOSTALGIA 1.30pm-5pm	F3C SPORTSMAN, ADVANCED, EXPERT. F3N 9am-5pm	PYLON SETUP, PYLON PRACTICE	F4C,F4H, F4G, OPEN & CLUBMAN 9am-5pm	F5J GLIDER 9am-5pm
Sat 28th APRIL	NIGHT SCRAMBLE 6pm-7pm & BBQ A B FIELD	CLOSED	CLASSIC STUNT 9am-4pm	F2A SPEED 9am-5pm	CLASSIC B T/ RACE, BENDIX 8am-5pm	P30, F1J VINTAGE RUBBER & GLIDER 8am-2pm	2cc DURATION 10am-1pm '38 ANTIQUE, 1.30pm-5pm	F3C SPORTSMAN, ADVANCED, EXPERT. F3N 9am-5pm	Q500 9am-11.30am Lunch. F3D 12pm-2.30 F400 & F3T 2.30pm-5pm	F3A PATTERN EXPERT, ADVANCED, SPORTSMAN 9am-5pm	IMAC B,S,I,A,U 9am-5pm
Sun 29th APRIL		CLOSED	VINTAGE STUNT 9am-4pm	GOODYEAR, 27/10 GOODYEAR. 9am-5pm	OPEN COMBAT 8am-5pm	F1H, F1G OZ DIESEL (8am-2pm)	OLD TIMER GLIDER 10am-2pm	F3C SPORTSMAN, ADVANCED, EXPERT. F3N 9am-5pm	Q500 9am-11.30am Lunch. F3D 12pm-2.30 F400 & F3T 2.30pm-5pm	F3A PATTERN EXPERT, ADVANCED, SPORTSMAN 9am-5pm	IMAC B,S,I,A,U 9am-5pm
Mon 30th APRIL	Celebration DINNER West Wyalong Services & Citizens Club	CLOSED	RESERVE DAY	F4B C/L SCALE 9am-1pm	VINTAGE COMBAT 8am-5pm	RESERVE DAY	RESERVE DAY	RESERVE DAY	F5D 9am-5pm	RESERVE DAY	OPEN ELECTRIC GLIDER 9am-5pm



MAAA 70th National Model Aircraft Championships
West Wyalong
23 April to 30 April 2018

PILOT / TEAM ENTRY FORM

Surname	First Name	FAI No.
Address	Town/City	P/Code
Phone H:	Mobile:	Email Address:

Team member

Event	Team Members Name	FAI No.
Email Address:		

Fees must be paid to "NSWFFS Inc 70th Nationals"

Payment Method. <input type="checkbox"/> Electronic Funds Transfer <input type="checkbox"/> Cheque.	Electronic Funds Transfer: Post a copy of the EFT transaction with your completed Application Form as proof of payment. A/C NAME: NSWFFS Inc 70th NATIONALS: BSB: 062 336 Acct#: 1040 9062 Please include your MAAA AUS number and first three letters of your Surname in the EFT transaction text
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PLEASE INDICATE EVENTS ENTERED WITH AN X ON DASH .

RADIO CONTROL

___ Gordon Burford
 ___ Old Timer Texaco
 ___ Old Timer 1/2A Texaco
 ___ Nostalgia
 ___ '38 Antique
 ___ Sport Cabin Scramble
 ___ 2cc Duration
 ___ Standard Duration
 ___ Duration
 ___ Old Timer Glider
 ___ F3C Helicopter Expert
 ___ F3C Helicopter Advanced
 ___ F3C Heli Sportsman
 ___ F3N
 ___ F3A Aerobatics
 ___ Pattern Expert
 ___ Pattern Advanced
 ___ Pattern Sportsman
 ___ F3D Pylon T
 ___ Pylon Quickie 500
 ___ Pylon F 400
 ___ F3T Pylon T
 ___ F5D Elect Pylon
 ___ Open Electric Glider
 ___ F5J
 IMAC. ___ B ___ S ___ J ___ A ___ U
 ___ F5B
 ___ Open Thermal
 ___ F3K H.L.G.
 ___ F4C Scale
 ___ F4H Scale
 ___ F4G Scale
 ___ Open Scale
 ___ Clubman Scale

CONTROL LINE

___ F2A Speed
 ___ Combined Speed & Jet
 ___ F2B Aerobatics Exp.
 ___ F2B Aerobatics Adv.
 ___ F2D Combat
 ___ Open Combat
 ___ Vintage Combat
 ___ JNR. 2.5cc Combat
 ___ 12 A Combat
 ___ F2C Team Race T
 ___ F2F Team Race T
 ___ Goodyear T
 ___ 27/10 Goodyear T
 ___ Open Rat Race T
 ___ 2.5cc Rat Race T
 ___ JNR. 2.5cc Rat Race T
 ___ Class 2 Team Race T
 ___ Vintage A T/Race T
 ___ Classic B Team Race T
 ___ Bendix T
 ___ Classic FAI T/Race T
 ___ F4B Scale
 ___ Vintage Stunt
 ___ Classic Stunt

FREE FLIGHT

___ F1A Glider
 ___ F1B Wakefield
 ___ F1C Power
 ___ F1G Coupe
 ___ F1H Glider
 ___ F1J 1/2A Power
 ___ Open Power
 ___ Open Rubber
 ___ E 36
 ___ Day Scramble
 ___ Night Scramble
 ___ Outdoor HLG
 ___ Outdoor CLG
 ___ Outdoor DLG
 ___ P 30 Rubber
 ___ Vintage Rubber
 ___ Vintage Power
 ___ Vintage Glider
 ___ OZ Diesel
 ___ F4A Scale
FF INDOOR
 ___ Open Rubber Scale
 ___ Peanut Scale
 ___ Indoor HLG
 ___ Indoor CLG
 ___ F1D microfilm
 ___ F1L
 ___ Hangar Rat & HRS

NOTE:
 1. Entrants Bag will include a Nat's Metal Badge & Decal. Caps, Brimmed hat and Nationals Polo Shirt are NOT INCLUDED, but may be purchased by forward ordering on this Entry Form.
 2. Team members need to pay Admin + Event fee of \$5.
 3. CLOSING DATE FOR ENTRIES -31st January 2018

Postal Address: 70th Nats Registrar C/- 5 Williams Rd Nth Rocks 2151 (Please do not post cash)	SOCIAL EVENTS : 1) Opening & Indoor RC 2) Swap Meet & Auction 3) Night Scramble & BBQ 4) Celebration Dinner at WW Services & Citizens Club.
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70th Nationals Opening Ceremony.
 6pm-6.30pm Monday Night 23rd April.
 Followed by RC indoor flying, for all MAAA members.
 Please indicate your intention to attend.
 Opening & Indoor RC. Number attending _____
 Night Scramble BBQ. Number attending _____
 Celebration Dinner. Number attending _____

Admin Fee (\$50) (Maximum Admin + Event Fee = \$100)
Late Administration Fee = \$100 (After 31st January 2018)

	Administration	Fee			\$50
Event Fees	\$15 per Senior	\$2 per Junior			
Number of Events Senior		x Event Fee \$15	=		
Number of Events Junior		x Event Fee \$2	=		
NO of events Team Member		x Event Fee \$5	=		
Metal Badges				x \$5	
Decals				x \$3	
Cap with Logo				x \$20	
Brimmed Hat with Logo				x \$25	
Polo Shirt with Embroidered Logo	Qty =	Size =		x \$40	
		TOTAL			

STATEMENT OF AGREEMENT:- I agree to abide by all rules laid down by the Association. I agree to compete in a Sportsman like manner & will also make myself available to assist with the running of the 70th Nationals if I am asked to help.

Signed.....

Jim Fullarton - Australia's first 100 yo free flyer

Report and photos by John Lamont



Jim's highly successful model of Samuel Pierpont Langley's "Aerodrome"



Jim's "Aerodrome" (above) is a widely admired model

Blackhawks Champion of Champions in 1933, The Australian Scale Championship in 1937 and the prestigious Wright Cup in 1938.

overseas modellers.

Jim Fullarton was born in Sydney on the 9th of November 1917 and commenced his aeromodelling career in 1930 with the Rose Bay Club where he developed his building and flying skills and also learned the art of carving propellers under the tuition of Mr. Wright, a leading modeller of the day.

Joining the Bondi Blackhawks Club in 1931 Jim's aeromodelling prowess grew as he won the

1937 and the prestigious Wright Cup in 1938.

Models in those days were rubber powered and Jim became a leading exponent of the models flown for the Wakefield Trophy a handsome piece of silverware donated by Lord Wakefield as a worldwide event. Held annually in various northern hemisphere countries the event was usually dominated by Europeans or Americans. Jim was a member of the Australian Wakefield teams of 1935 and 1938, his models being shipped abroad and proxy flown by

In 1941 Jim moved to Melbourne to take a position with the Commonwealth Aircraft Corporation and his aeromodelling ceased until the end of WWII in 1945. Resuming his aeromodelling activities at war's end Jim joined the strong Eastern Suburbs club and quickly became one of the leading figures in free flight modelling in Victoria.

In 1949 and 1951 Jim was again a member of the Australian Wakefield team, sending his models overseas to compete.

Always a dedicated free flyer, Jim did get involved with control line flying and in the early fifties produced a model of the Veco "Squaw" powered by a McCoy 19.



Jim's first high powered free flight model was powered by a "Mighty Midget" petrol engine and flew in 1939



Jim with his 1939 Wakefield design, "Hereward II"



Jim in 1934 with "Sampson" designed by Norman Lyons and displaying a fine collection of trophies.



Jim placed second to Alan King in the Wakefield event at the Camden Nationals in 1951

This was the first flapped model seen in Victoria and its performance changed forever the design of our aerobatic control line models.

Jim's aeromodelling was not entirely directed to competitions and he found time to experiment with many unorthodox approaches to flying model aircraft, producing a number of own design canard pushers

From 1949 to 1965, as a part of

his aeromodelling activities, Jim also wrote a column in "Aircraft" magazine reporting on aeromodelling events of the day.

With his outdoor free flight flying now limited by the need for assistance in reaching the flying fields and help in retrieving models Jim's aeromodelling is largely restricted to indoor flying where he is still an active competitor and a winner in duration and scale events.

Few people are able to reach the age of 100 years and to do so while still retaining the ability and desire to construct and fly model aircraft is a significant achievement.

Congratulations to Jim Fullarton our doyen of Australian aeromodelling.

**Photos and story kindly supplied by
John Lamont
Australian Model News**



Jim's modern version of an early 20th century "A-Frame" model constructed using the remnants of damaged models.



A free flight scale model of the Bristol M1



Nearing 100, Jim is still active at indoor model flying

Vin Morgan was at Jim's Birthday Bash

Jim Fullarton turned 100 on November 9, 2017. One of the celebrations was a party at the VARMS Clubhouse on Tuesday November 7. Here are some pictures.

Jim Fullarton has been a stalwart of aeromodelling in Australia for – ever. Jim started flying around 1930, aged 13 with the Rose Bay Club. He joined the Bondi Blackhawks in 1931. In 1941 he moved to Melbourne to start work at Commonwealth Aircraft Corporation and joined Eastern Suburbs Model Aircraft Club. Apart from a brief dalliance with Control-Line all his activity has been in Free Flight and Jim has been a member of the Victorian Free Flight Society for the last few decades.

Nowadays, Jim mostly attends the indoor flying meetings but he has been seen on the field at Exford in the last few years.

You can find out all about Jim at:

URL:

<http://www.ctie.monash.edu.au/hargrave/fullarton.html>

Photos on the right show part of the group and Jim cutting the delicious cake. Jim looks like he's going to enjoy it!

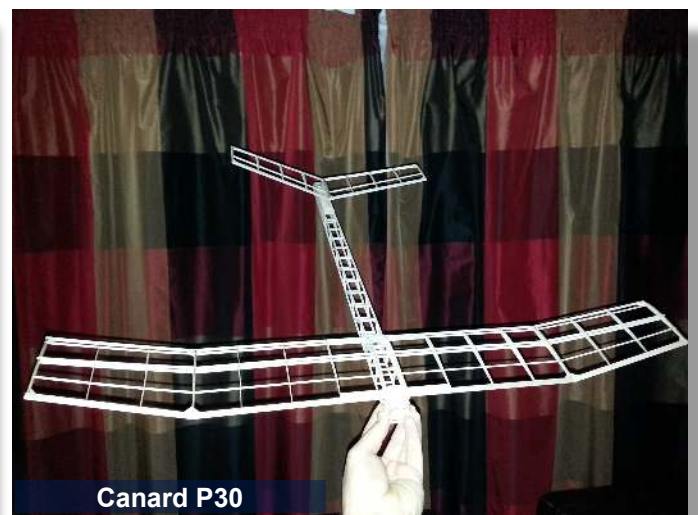


Report and photos by Vin Morgan

Dave Shackelford says "Building models is not dead"



Banshee



Canard P30



Starduster 900

Dave Shackelford has a few models on the go.

1. Banshee: Vintage Power with CS repro AMCO 3.5 PB.
2. Tail Firster: Canard P30 from BMJR Models
3. Starduster 900: Wing to go with the stab that was built in the mid-late 90's. Open Power model will have either the Fox Combat Special or a Jett .35 BSE for noise making.

Kick the tyres and light the fires

Paul Rossiter has a hot Maverick E-36



Looking for more height I have now fitted a Cobra 2203 2800Kv motor. I made up a mount so that it can be fitted into the same ring on the front bulkhead as the 1800N and Red Max. It weighs just about the same as the 1800N so there are no balance problems (see Fig 1). The best prop

Anyway, the altitude data with the Cobra and 6 x 5.5 is shown below. Nearly 150m on a 10 sec motor run and still going strong with a 325 mAh Lipo. The climb is a near vertical spiral, doing about 3 turns before a very nice transition into the glide. The glide sink rate on the graph is not

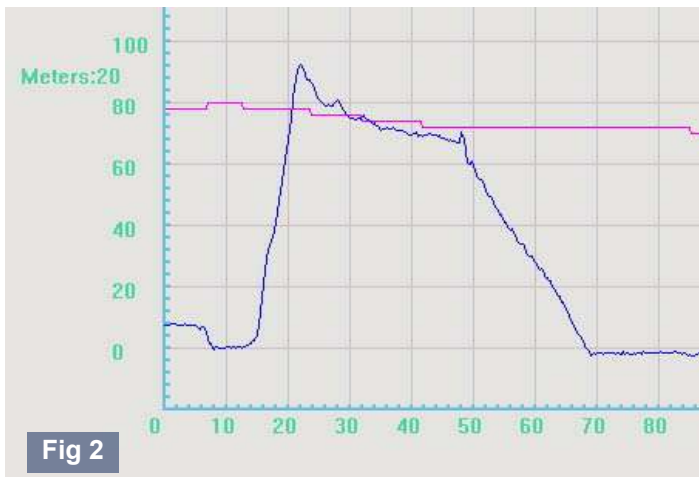
very good but this is probably a consequence of the fog (note how rapidly the temperature was dropping). It is normally around 0.5 m/sec (see Fig 3).

The wing as original built was a bit marginal with the extra power (it

This climb rate is still a bit below the top fliers overseas who are now getting around 180 m on 10 seconds, but they are using heavier gear: DYS 2205 2750 Kv motor, 500mAh high voltage Lipos.

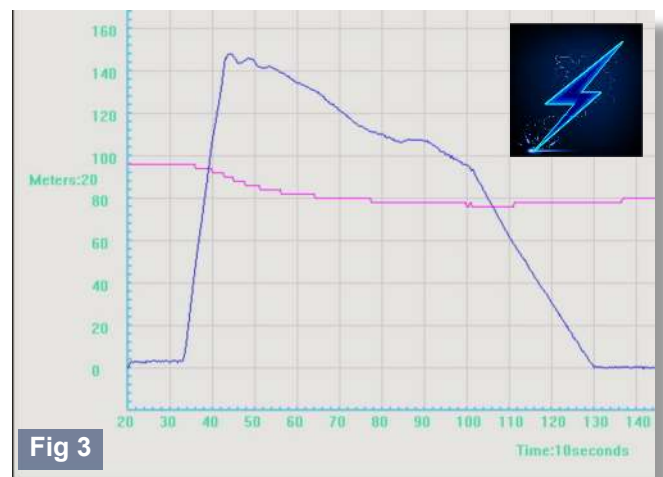
Another experiment was done over here in the Wild West by Rod McDonald who tried a milder 2050 Kv motor with a larger prop, going for greater prop efficiency. However, while the model rapidly reached the maximum speed dictated by the pitch of the propeller, with the lower pitch of the larger prop the model was climbing too slowly to reach sufficient height in the allotted time.

Finally, with such heights now



so far is 6 x 5.5 and after a couple of climbs it is still getting to over 90 meters in 6 seconds (see Fig 2).

We finally got some calm weather so I went up to Meckering to test longer motor run times, though there was a very thick fog until around 10.30 a.m. I put up the first flight at around 9.30 but the model vanished 2/3 into the climb!



started to flutter if not launched near vertical) so I extended the 0.4mm ply dihedral web brace out to nearly the polyhedral break and added 0.5mm balsa webbing on the other side of the spar. The Esaki tissue adds quite a lot of stiffness but needs to be attached to each rib (I use Clag to attach it before doping). All this increased the weight of the wing by 2.5g to 24g, but it is now completely free of any flutter.

being achieved it makes a two minute max almost a given and there must inevitably be some thought to limiting performance. Some of the options have been discussed in an article by Tapio Linkosalo in the latest NFFS Symposium. Let's hope it doesn't degenerate into a re-run of the F1Q fiasco.



SELECTING BEST RUBBER FOR CATAPULT LAUNCH GLIDER*aka Secrets from The Old Master*

Kathy Burford at Lost Hills



Author Paul Lagan at Narrandera

Secret Number One (If I live long enough this could well become a series!)

In NZ (and Australian and USA) rules we are allowed a 9 inch loop of 1/4 inch rubber (or the equivalent in thinner strip).

Naturally most flyers use the maximum allowable length in the belief that it will give maximum altitude. **This is a fallacy.**

What will give maximum altitude is a loop of rubber that contains the most energy at the length one is capable of stretching it to at launch. To figure this out for yourself you need to know your armspan – that is the distance between the top of your launching stick and the rubber hook on your model when you have stretched as far as possible. For me that is 1.50 meters (59 inches) when I am flying a model that has the nose hook 70mm (3 inches) from the bit where I hold the model.

With the scenario of using a 9 inch loop of rubber, this gives me a stretch of 59 minus 9 = 50 inches or around 5.5 times the un-stretched length of the loop.

Simple rubber testing will show that the maximum stretch/ unstretched ratio of current (Tan Super Sport) rubber is about 9.5:1 and that the good old black FAI or Champion is

about 6.5:1. So using a 9 inch loop of Super Sport will only take it to 60% and for Black FAI to 85%.

We know from a lot of very reliable rubber test data that the best (current) Super Sport energy is around 6000 ft-lb/lb and that the Black is around 3000 ft-lb/lb. Our 9 inch loops weigh around 3 grams or .007 lbs so 9 inch loop of Super Sport releases 40 ft-lbs of energy at maximum stretch and the Black about 20 ft-lbs.

Also, because of the way the tension increases rapidly near maximum stretch, the output energy at high tension doesn't increase linearly with stretch distance but roughly as distance squared. This means rubber stretched to half its maximum will not give half the energy but only ¼.

So... In my case where I can stretch a Super Sport loop to 0.6 times its limit, I can release 0.6 squared (0.36) of its potential = 0.36 x 40 = 14 ft-lbs. Conversely a Black loop stretched to 0.85 times its limit gives 0.85 squared (0.72) times 20 ft-lbs = 14.5 ft-lb.

Nothing much in it **BUT** (a big BUT), if one shortens the loops so that they hit maximum stretch at your own arm span then the picture is much different.

First lets look at the Black rubber. A 7.8" loop of Black will enable me to

hit maximum stretch at my arm span. As we now have only 7.8/9 maximum energy to play with then we will deliver 7.8/9 times 20 = 17.4 ft-lbs. A lot better than the 14.5 above.

And the Super Sport if shortened just a 5.7 inches will be at max at my arm span giving 5.7/9 times 40 = **25.3 ft-lbs ! The winner !!** Note that 25.3 will, all else being equal, put you model 70% higher than the 9 inch loop samples. That is a huge gain. It takes a 40 second model to nearly 70 seconds.

I twigged to this method when I flew CLG in UK a couple of years ago. Their rules allow just 2 grams of rubber which most use as a 6 inch loop of 1/4 rubber. Unwittingly they had produced a catapult that had far more potential (70% more) than what we all used here.

So... What I do is get the best possible Super Sport I can (a science in itself) and fix about a 7 inch loop of rubber on the launch peg so I can adjust its length. I then stretch that loop to my armspan for about a minute to run it in then give it a bit of a rest, then shorten the loop until I hit max stretch at max armspan.

Don't worry about breaking it, you will have to get to over 10 pounds of tension before that happens and very few people can stretch that hard at launch.

PHL 3 Oct 2017

Paul Lagan and Kathy Burford

Thin balsa sheets

-a neat idea for Indoor

*Written by Don Slusarczyk
Free Flight Indoor
Column*

As seen in the April 2016 issue of Model Aviation



For many years, as I razor-planed down my glider wings, I wondered if those shavings of wood could ever be reused, especially when they were from a nice piece of 1/4-inch, 4- to 5-pound C-grain balsa. Most of that great wood ended up as scrap in the garbage can. The curls of balsa were very tight and the wood was cracked, so it was not usable. This was something one simply accepted when making a glider.

Throughout the years, I saw that some people were actually successful using razor-planed wood for EZB propellers. It was not until I saw sheets cut by Jeff Hood during a local contest, and how well the sheets came out, that I decided to look into this method.

Jeff published an article about razor-planing wood in the 2009 National Free Flight Society (NFFS) Symposium. His article was well written and allowed me to successfully cut my own sheets using this method. I know some have never read this article, so I will provide a quick guide on how to use this technique.

The first item—and the most critical—is the razor plane. I use a David Combi Plane. It is difficult to find in the US, but can be purchased from sources in the United Kingdom for approximately \$12, plus postage. I suggest buying two, as well as a spare pack of blades. A quick Internet search shows the plane and spare blades can be bought from HobbyStores. The company ships to the US.

The reason for this specific razor plane is because the wood is cut at a shallow angle and does not crack as it curls.

When you have the razor plane, you need to wet-sand the bottom of the razor plane to make it smooth and flat. The David Combi Plane is made from cast aluminum and the bottom is milled, which is okay for general planing, but if you want to cut sheets down to .005- or .006-inch thick, you will need to polish the bottom of the device.

To smooth and polish the bottom, get some wet sandpaper in grits ranging from 400 to 1,500. I buy single sheets from my local Ace Hardware.

This next step will take some time, but it is worth the effort. I used a small piece of glass as my sanding base, but anything will do as long as it is smooth and



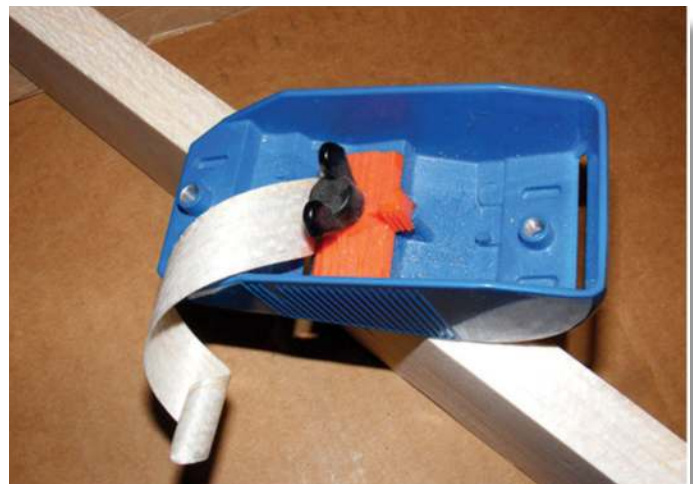
flat. The sandpaper is placed on the flat surface, then some water is added to the paper.

Lay the razor plane on top of the wet sandpaper and start sanding by moving the razor plane in a circular motion while pushing it down slightly. After a few minutes of sanding, lift the razor plane up and rinse the sandpaper with some clean water. A small container of fresh water nearby makes it easy to clean the sandpaper.

Go back to sanding. I watched a TV show while doing this to help pass the time. You will eventually see all of the machining marks disappear from the bottom of the plane. When this happens, go to the finer grit to polish and make the bottom very smooth.

Now you are ready to start making some cuts. Install the blade and set it to make a cut approximately .010-inch deep to get a feel for using the razor plane. You will want to use a balsa sheet roughly 1-inch wide or less to be able to cut a full-width sheet across the plane's blade. For practice, I used 5- to 6-pound wood approximately 1/8-inch thick.

To make your cut, skew the razor plane roughly 45° to



the sheet. Go at a slow, but steady, pace. After you make your first cut, you will need to measure the thickness to see how deep you are cutting and whether the sheet is the same thickness across the width. Make adjustments to the blade to get an even-depth cut across the width of the sheet at the thickness you want.

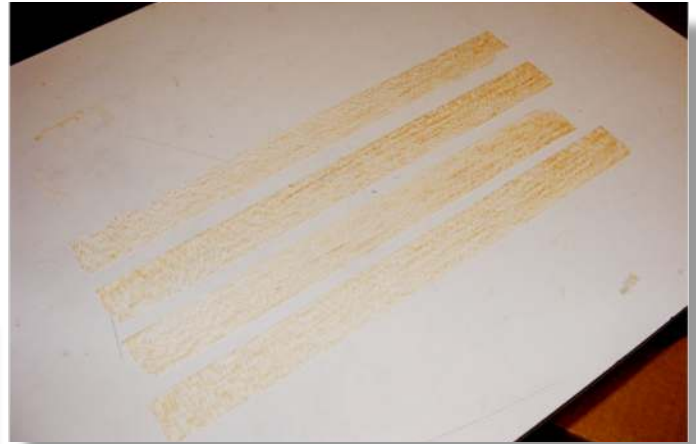
The reason I suggested getting two razor planes is that you can set them up for two different thicknesses. I have one set to make cuts approximately .006-inch thick, and one set for cuts roughly .010-inch thick. This way I do not have to readjust the blades each time because it can be time consuming. After you have it dialed in, you can start planing the good, lightweight wood.



As you start planing, you will be able to achieve one long rolled-up curl from full-length, full-width sheets. When you have cut approximately 10 of these curls, you can start to flatten them. Fill a sink with hot water

then drop the curls into the water. They will begin to uncurl and soak up the water.

After a few minutes in the warm water, carefully take out the uncurled sheets and lay them on a sheet of



glass. I run my finger along the sheets to press them to the glass, squeeze out excess water, and let them air dry overnight.

When removed from the glass, the sheets will be fairly flat and perfectly usable for making EZB or F1L propellers. The sheets can be sandwiched between larger blocks of balsa for storage, which will also help keep them flat.

Until next time, keep the weights down and the times up!

Don Slusarczyk
don@donsrc.com

The Jig is up



Nice work from Gerhard Aringer, Austrian F1A and F1C constructor/builder living in Germany





With the sole interest of promoting participation in E36 at the 2018 Nats in West Wyalong, I've recently sourced and passed on model components to a number of well-known fliers in a couple of states of Australia. As that seemed to be appreciated, I'm willing to ante-up and extend the offer to other fliers that are interested in coming out to play, but for whom the need to hunt out parts is a disincentive.

Each E36 starter package would include:

- 1 x Super Peal 222-E semi kit (from Don DeLoach in the USA)
- 1 x outrunner motor (whatever I can get my hands on from various suppliers), hardwired to
- 1 x ESC (whatever I can get my hands on from various suppliers)
- 1 x high-discharge low capacity 2s battery
- 1 x XT30 plug connectors

1 x "prop saver" propeller mount for rigid prop (If you want to go folder, you can chase that up)

Depending upon whether I can get my hands on them from suppliers, I may also be able to provide:

- 1 x carbon boom
- 1 x electronic combined motor/DT timer (most likely the Starlink/Flite Tech unit)

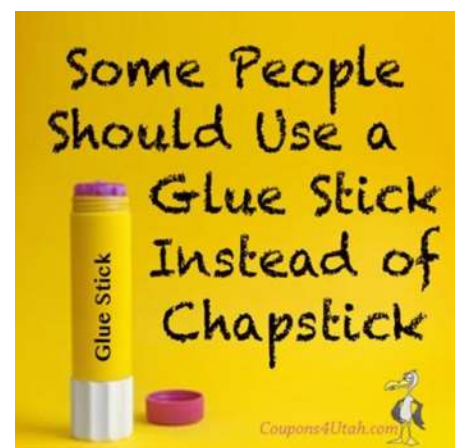
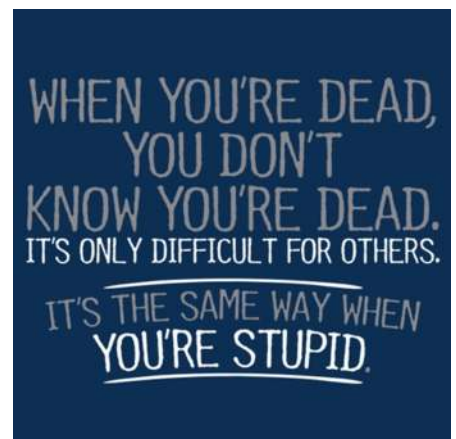
The offering is a purely cost-recovery system, so you would only pay me the amount that I will have paid out to get the parts in-hand, plus whatever Australia Post charges me for shipping to you.

If this would help you get up and come play with us in E36 at WW in April, please Email me at

[Mail: david.shackelford@monash.edu](mailto:david.shackelford@monash.edu)

ED: This link shows you how to build the Pearl E36

[Mail: http://www.modelaviation.com/superpearl](http://www.modelaviation.com/superpearl)





BFFS Christmas Party & Presentation photos



2018 Team Selection Trial Dates

DATE	EVENT	CLASSES	LOCATION	CONTACT	EMAIL
Apr 16	Tui Cup	F1A, B and C	Narrandera	Rob Wallace	ffonzrjw@xnet.co.nz
Apr 18	Widgiewa Cup	F1A, B and C	Narrandera	Phil Mitchell	filnoels@bigpond.net.au
Apr 19-21	AFFS Championships	F1A, B and C	Narrandera	Phil Mitchell	filnoels@bigpond.net.au
Apr 24-26	Nationals	F1A, B and C	West Wyalong	Tahn Stowe	stowes@ozemail.com.au
May 5	Q'ld State Champs	F1C	Dalby	Malcolm Campbell	actrain@ozemail.com.au
May 12	Q'ld State Champs	F1A	Dalby	Malcolm Campbell	actrain@ozemail.com.au
May 13	Q'ld State Champs	F1B	Dalby	Malcolm Campbell	actrain@ozemail.com.au
May 25-28	Vic State Champs	F1A, B and C	Bridgewater	Vin Morgan	vinmorgan2@gmail.com
June 9-11	NSW State Champs	F1A, B and C	West Wyalong	Roy Summersby	roydi123@optusnet.com.au
Aug 18-19	WA State Champs & Team Trial	F1A, B and C	Meckering	Paul Rossiter	paul.rossiter@ozemail.com.au
Sept 15	Q'ld Team Trials	F1A and C	Dalby	Malcolm Campbell	actrain@ozemail.com.au
Sept 16	Q'ld Team Trials	F1B	Dalby	Malcolm Campbell	actrain@ozemail.com.au

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Help keep Free Flight Down Under interesting. Send me an article!

The Practice Team Trials

Because our Team Trials system uses scores from regular competitions it runs automatically every year. This means we have scores from the eligible trials events in 2017 but as far as we know at the moment there is no championship in 2018. At the W/Chs in Hungary in August this year Buyanaa Ganzorig said there might be an Asian-Oceanic Championship in Mongolia in 2018 but despite asking around I haven't been able to get any more information. So this year's Trials, December 1, 2016 to November 30, 2017 are just a practice run.

Notable is that despite the reduction of events to 5 rounds, which one would think would make it easier to max out, only one flyer in each class managed three full scores. Perhaps they weren't trying so hard.

Trials for the next World Championships start on December 1, 2017 and run through to November 30, 2018. These Trials are for the next World Championships which will be at Lost Hills in the USA between October 1 and October 10.

The trials system which has been unaltered now for 16 years has had a small tweak. The scoring assumed a competition consisted of seven rounds of 3-minute flights. When longer flight times such as 4 minutes were used for first rounds only 180 seconds was taken for TT scores. This was because not all competitions had extended first rounds and if the full times were taken for the ones that did they would be unfairly weighted.

In 2017 FAI competitions changed to 5 rounds with extended time for round 1 (and sometimes for round 5). The idea (we understand) being that the extended round in non-thermal conditions is a better test of performance. Since we also want the added degree of difficulty included in trials it was decided that the longer first round time would be included.

We also needed to remove reference to the Trans-Tasman Competition which is no longer run and include Continental Championships for which we are eligible such as the Asian-Oceanic.

"Ranking for Australian Team places in CIAM category 1 competitions (World

and Continental Championships) is determined by the sum of the scores of the competitor's best three results in eligible competitions in the selection period. The selection period runs from December 1 of the year two years prior to the event to November 30 of the year prior to the event (this means the period is effectively the calendar year before the competition but moved forward a month to avoid problems with Nationals that may overlap two calendar years. Eligible trials events are Open Internationals held in Australia (includes, the AFFS Championships, the Southern Cross Cup, Widgiewa Cup, Tui Cup, etc.), the Australian Nationals, State Championships and Special Trial Events authorised by the MAAA. In addition, one score (only) from an overseas event may be counted. Scores are the total flight time over the 5 rounds including the mandated longer first round but not including optional extended later rounds. Flyoff times are not included.

In the event of a tie, scores from a fourth and if required a fifth competition will be considered".

Vin Morgan



Wishing you all a Merry Christmas and a Happy, Healthy and Safe New Year.

The AFFS Committee

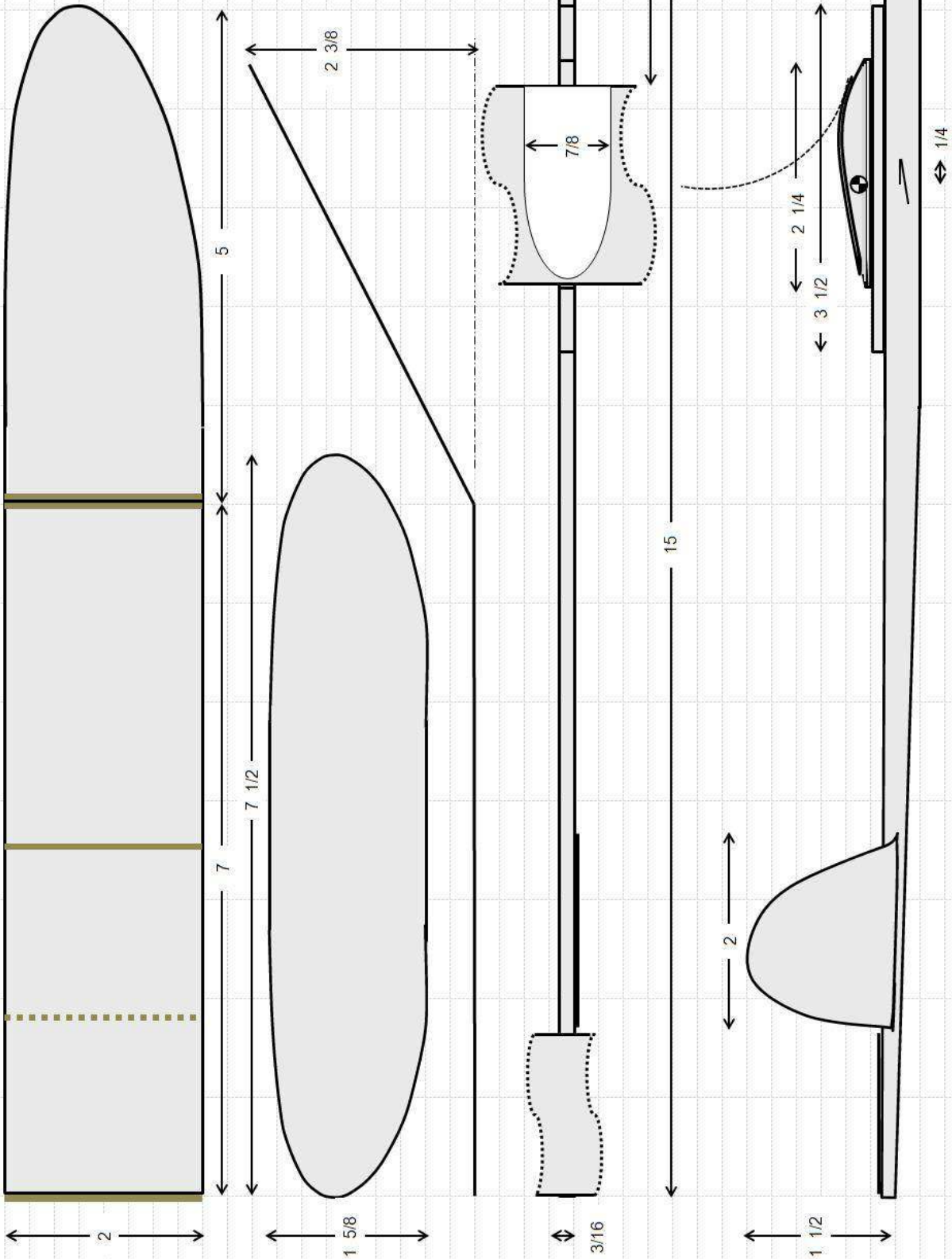
PHOTO: Tapio Hanhiammi FINLAND

FINAL TEAM TRIAL SCORES FOR 2017

	Kiwi	North American	Max Men	Vic St Ch	SCC	Dave Anderson	AFFS	Tui Cup	QLD St Ch F1A, F1B	NSW St Ch	Budapest Cup	Kotuku Cup Lost Hills	Sum of best three
F1A	11/2/17	15/2/17	19/2/17	24-26/3/17	1-2/5/17	4-5/5/17	6-10/5/17	12/5/17	8-9/4/17	3, 4/6/17	5/08/2017	7-9/10/17	
Phil Mitchell	x952	x957	960			960	938	960					2880
Malcolm Campbell	x947	x904	952		960	766	833	914	742		851		2826
Matt Hannaford					935	687	769	836			727		2540
Albert Fathers					728	927			744				2399
Tahn Stowe	914	x911	x889										914
Ted Burfein						677							677
Ben Lewis									462				462
John Lewis									418				418
Van Richards-Smith									270				270
F1B													0
Vin Morgan	x852	x960	960	881	889	960	956			960	660		2880
Craig Hemsworth	x960	x960	960	900		960	0		871		622	x960	2820
Terry Bond				897	882	737	960			960			2817
Richard Blackam				900		915	889						2704
Paul Rossiter					744	960	946						2650
Graham Maynard					633	729	798						2160
Gary Goodwin	960	x960	x911	699	960		0						1920
Gary Odgers		879							858				1578
John Lewis									847				858
Ben Lewis									737				847
Van Richards-Smith									420				737
Ron Munden													420
Albert Fathers				180									180
F1C													0
Roy Summersby	960	x960		900	931	960	960						2880
Terry Bond	960	x934			817	807	939						2716
Gary Pope					960	692	458				25		2110
Shayne McDonald						960	939						1899
Shannon Tolmie						393	873						1266
Mike Pettigrew				900									900
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												

Xmas Project for your spare balsa?

A-1/2
 A 24-inch span
 towline glider
 for fun or Classic Glider.
 by Bill Koran, 1970.





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
	🏆 Sat 12 th	7am - 12pm	F1A State Champs (5 rounds - first Rd 4min)	Dalby
	🏆 Sun 13 th	7am - 12pm	F1B State Champs (5 rounds - first Rd 4min)	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 10 th	8am - 1pm	F1H State Champs (5 flights), E36 (3 flights)	Coominya
	Sat 16 th - Sun 17 th		Reserve days if May F1A and F1B events postponed	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 Glanders	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.



Model art, or Roy's new Open Power motor?



The Master's Apprentices - Richmond June 2010