

FREE FLIGHT DOWN UNDER

NEWSLETTER OF THE AUSTRALIAN FREE FLIGHT SOCIETY INC

VOLUME 48 NUMBER 4

SUMMER 2016

WINGS OVER
WEST WYALONG

NSW STATE CHAMPS
BUILD A WINNING
OPEN RUBBER MODEL

BUILD A YAGI FOR
CHRISTMAS

FINAL TT RESULTS
2017 FF CALENDARS



FRONT COVER: Kathy Burford launches Albert Fathers' F1A. When Kathy isn't helping Malcolm or flying F1H, CLG, or Vintage Glider herself, she is often called to launch gliders for others. She's good, and doesn't charge too much.

Free Flight Down Under

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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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	A	B	C
1	35	Kiwi	North American
2		6/2/16	10/2/16
3	F1A		
4	Phil Mitchell	x838	x960
5	Vin Morgan		
6	Malcolm Campbell	868	x814
7	Albert Fathers	x908	x916
Final Team Trial Results			



PRESIDENT'S REPORT

We have come to the end of a difficult Team Selection Year. Rescheduling of events because of inclement weather has created difficulty for those travelling interstate. By the time you get this Newsletter the MAAA will have been advised of who should be offered a place in the team for the August World Championships in Hungary.

There will be no team selection next year however there will be a full program of events including three World Cup contests.

CIAM is wrestling with rule change proposals for FAI events to be considered in the New Year. The issues include changes to the number of rounds in contest, large fly-off proposals and there has been much discussion on the use of altimeters and flashers for more accurate flight timing. Australia has submitted the consensus view of our FAI flyers on the proposals.

A reminder that there is an opportunity to submit proposals to introduce new rules or amend current MAAA Rules before the next MAAA Council meeting. Proposals

need to be submitted early in the New Year to the AFFS Committee.

I would like to see 2017 as year where we look critically at AFFS and see if we are meeting the needs of Australian Free-Flight flyers. Are we adapting to the changes that age and infirmity impose on our members, especially those who still enjoy free flight but find FAI events too demanding? We need to be inclusive.

I shall end by wishing you all a Merry Christmas and a Happy New Year and ask that you formulate your ideas on how we may do better.

Happy flying

Graham Maynard
President, AFFS

FROM THE EDITOR

It's been a busy few months for me. The Queensland Team Trials seemed doomed from the start, being washed out at Dalby and then being blown out at West Wyalong.

Well actually they really became superfluous at WW as the final team members had been selected by the time the NSW State Champs had ended.

In the name of Free Flight, Kathy and I have racked up 11,000 km in road miles after a trip to Narrandera, a trip to Richmond and 3 trips to West Wyalong. We also flew in California and New Zealand. There must be a award for such effort?

The NSWFFS also is in need of an award as they strive to improve the Adrian Bryant field.

Each time I visit this field there have been noticeable improvements, whether it be road repairs, missing trees, RC field improvements or creature comforts in the "clubhouse". It's a lot of work for a small band of enthusiasts so we should always support them.

Wings Over West Wyalong was a success as a "shake down" event and will improve in coming years. And thanks to my contributors, Vin Morgan, Chris Birch, Phil Mitchell, Dave Ackery, Howard Gostelow, Don Boughton and Ken Bauer.

So, with Christmas fast approaching I'd like to wish you all a Merry Christmas and a healthy, happy and winning New Year. See you all on the flying fields in 2017.



Cheers, Malcolm Campbell

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

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WINGS OVER WEST WYALONG and the NSW STATE CHAMPIONSHIPS



Wings over WW nearly was Water over WW as the September floodwaters stubbornly remained. Photo of the Newell Highway just north of WW, taken by Bland Shire's Jeff Stein on 16 October, less than two weeks before the event!

Kathy and I left Brisbane early Wednesday morning, knowing a diversion was in place at Forbes to skirt around severe highway damage from the floods 6 weeks earlier. This was to add 2 hours to our trip although, after taking this diversion, another surprise awaited us as we re-joined the highway 15 minutes north of West Wyalong. Traffic was at a standstill, people were milling all over the road, and we were told the highway would be closed for 5 hours because of a major traffic accident on the E39 (Newell Highway). We made two fortunate stops before this – one to buy some crockery for the motel stay and another for morning tea. Missing either or both of these stops would have put us much closer to the accident. These are the “joys” of motoring on busy highways. Albert had come through earlier in the day, missing the mayhem.

Mike Pettigrew, Adrian and Joanne Bryant and Vin and Leigh Morgan were at our motel. Albert and Elly

Fathers and Tahn Stowe were across the road. So we had ample chance for socialising. Apart from Jim Christie I think everyone else stayed at the house on the field. The camp ground was certainly filling when we visited the field on Thursday afternoon, and the grass was definitely greener and taller than usual. The sheep will have plenty of feed once this is cut and bailed.

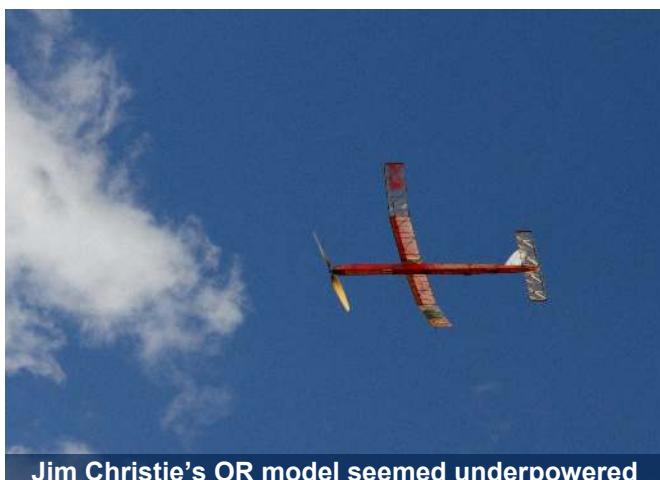
During the Nationals earlier in the year, the next door farmer worked day and night to plant his crop and that crop was canola, relatively short in height but incredibly hard to walk through. It was now ready to harvest. If the winds blew from any sort of easterly direction, the canola would come into play, running for a kilometre along the north western boundary! We learnt about this when we arrived at the field, after the F1B and Open Rubber had been flown.

THURSDAY

F1B State Champs: Vin Morgan only managed one flight, DT'ing high

at 4 minutes. With the model nestling snugly in the canola a minute later, it would take him 2.5 hours to retrieve it, so missing two rounds. Compounding his woes, as he struggled out with his model, he stumbled damaging a wing tip and root rib. Terry Bond fared a little better. He flew two rounds, the second one landing deep in the canola and he never made it back for R3. Gary Goodwin somehow managed to avoid the crop altogether and he completed all 5 rounds to win.

Combined Vintage: Adrian Bryant put up his customary single flight with his Thermalizer to have a score on the board. Jim Christie found the canola with his Bilgri and was missing for some time. He was seen above the canola then he'd dip down and be gone for 30 seconds before coming up for air. What he was doing was throwing his model forward then burrowing through the canola. It was a tough time for Jim so he only flew one flight. Roy was luckier with his



Jim Christie's OR model seemed underpowered



Tahn Stowe goes electric, Albert Fathers launches



The BBQs at the Mayfair Motel were popular



Roy Summersby made short work of the flyoff

Swiss Miss, avoiding the difficult crop and getting two maxes on the board to easily win.

Those at the Mayfair Motel that night (the Morgans, Mike Pettigrew, the Bryants, Kathy and Malcolm) had a pleasant BBQ to end the day.

FRIDAY

Open Rubber: The battle started early for Jim Christie and Leigh Morgan, both maxing their first flights. Vin was also flying in F1A so Leigh was always chasing Jim. Leigh's model had an amazing rate of climb and constantly started the glide way, way up. Leigh continued to fine-tune the climb which was steep with minimal turn. Jim's model also flew consistently, putting its nose up for about two minutes, until the prop folded. On one retrieve Jim scored a lift back with Malcolm but he left his tracker on the ground as he loaded the car. He later drove back himself, and found it!

Adrian put in one flight and Gary Goodwin started badly with his first flight refusing to climb. He then went on to record two maxes. At the end

of the day, two were in a fly-off. Jim put in some practice flights afterwards, and this revealed a shallow climb. This problem was to revisit him in the fly-off.

F1A State Champs: With the wind direction still towards the canola and an afternoon direction and intensity change forecast for the afternoon, the event was put on hold until 1 pm. Tahn, Albert and Malcolm put in some practise flights. Tahn had the morning to prepare his WHobby F1A and, with a group of helpers, started to come to grips with electronics that had troubled him for 3 years. He put up three very reasonable flights and the model looked promising.

At 1 pm, the wind had dropped and changed direction as predicted so we set up in the centre of the field. We then decided to move up to the NW corner near the canola, but the wind sometimes blew towards the canola so we moved back to the centre, finally starting the event at 1.30 pm. Winds were light and variable with many wind direction changes making towing difficult. Sometimes it was

still, and the flies drove us mad. Tahn's new model behaved quite well but he still managed to tow in on each round, thanks to the varying winds. But he was getting plenty of practice as the 3 servos chewed away at his NiMH battery, causing him to finish his final flight with his old mechanical model when his volts ran out.

Albert towed in once and put in one low score. His other flights were good with his model DT'ing from a good height. His R5 flight could have been a max, but he DT'ed early fearing it was over the canola crop. Malcolm was the only one with 4 maxes, his model consistently DT'ing high in the sky. In R5, he launched in a gusty thermal and almost got away with it. The model was hurled around for nearly 2 minutes before it was dumped out of the sky, a possible 1st place becoming 3rd.

Vin Morgan flew effortlessly finding good air in all rounds although he did drop 7 secs in R3. One flight DT'ed so high it was not down for 10 minutes, putting him well into the easily navigated wheat/barley field. Vehicle



Jim Christie winds for the OR flyoff



Tahn is back, with new F1As



Adrian Bryant, Patron of the weekend



Roy and Terry seem to have mastered the Ebenezer class

retrievals were a godsend as Vin was also helping Leigh in Open Rubber. Vin was the last to put in a R5 flight and maxed to secure a worthy win. Albert placed second.

F1C State Champs: This was the biggest field with 6 eager competitors. Being an afternoon comp, the 4 minute round was R5. Gary Pope and Roy Summersby performed faultlessly in the rounds although Gary did have some anxious moments. Terry Bond only dropped one flight but it was a big drop. Mike Pettigrew put in the spectacular flight of the day when his timer failed to start (he didn't hold the button long enough) and his model carved a large inverted arc across the sky before incurring some damage on landing. It was a long and hot day for all of us and it got to Mike. On his third flight a VIT malfunction had the model diving in vertically after the motor stopped. Mike forgot he had his RDT on his arm as his model descended into the long grass. The damage was not great but Mike was unhappy with the day's proceedings.

Shannon fell out of contention with a bad launch and transition in R4 and went on to compound the problem with a big drop in R5. Shayne Macdonald started R1 badly with his engine leaning out mid-distance producing no height for the glide. He then went on to max all remaining rounds, including the 4 minute one. He even had a big retrieve out of the canola in R4, meaning a late start in

R5. He then lost the model overnight in the barley but found it the next day, thanks to his Morgan tracker.

Most modellers complained of various degrees of tiredness on Friday, probably due to poor hydration. The flies and mosquitoes from the recent rain certainly didn't help.

Albert, Elly and Tahn visited us for another BBQ at the Mayfair Motel and we all had a good time. John Quigley and his wife joined Mike Pettigrew, Kathy, Malcolm, the Morgans and the Bryants to mull over the day's activities, consuming several bottles of wine.

SATURDAY

F1C fly-off: Gary was first away. He decided to wind up the stab a little from the previous day's trim and his model developed a stall be down in 1 min 30 secs, after a 3.6 sec engine run. Roy went up after Gary with a great transition and superb glide over the trees near the house and into the smaller north western paddock.



Gary realises "wrong trim"

When it was safe to do so, he pressed the button to be down in 3 m 21 secs.

Open Rubber fly-off: Albert Fathers saved the day for Leigh Morgan, over a steak at the Mayfair Motel BBQ. He offered her a new motor for the fly-off, as she had used up all of hers. Modified to suit the length of her model this motor really performed and took the model to great height. Vin noted it could have done better as it was gliding fast. It landed at 5 min 41 sec. Jim Christie's first launch had no power. The model flew into the ground for an attempt. Jim wound on more turns and still the climb was mediocre. The glide was good but the height was not and he handed the win to Leigh after a 3 min 20 sec flight.

Saturday also heralded the start of **Wings Over West Wyalong** and it would be the best day weather-wise. There were a surprising number of tents and caravans in the camping area and many models were



Leigh Morgan claims OR victory



Tent City - so many tents in the shade of the trees



Some big models flew



assembled and on display. There were no real competitions scheduled as this was set up more as a gala event. Not many flew but there always seemed to be a model in the air, whether a sporty RC, an Old Timer or an electric glider. The bungee flyers set up in a corner of the big paddock and their gliders looked quite majestic in the air, particularly Col Collyer's 125% Kane. I did see a solitary control line model fly, although others had them in their cars. Many flyers seemed happy just to sit and chat.

As Sunday was to be much windier, I spent some time Saturday afternoon trimming my Scramble model for a

tight turn. This proved unnecessary as it was too windy the next day. The lunch-time sausage sizzle was well received, the sausages sourced from Roy's central coast butcher were expertly cooked by Matt Hannaford. Many came back for seconds.

At 4 pm, seven models were ready for the **Ebenezer Mass Launch** but only six were launched. A variety of designs darted around the sky. The first launch was the best; subsequent attempts were not as coordinated. Tahn Stowe nearly took my head off when his model strayed close to my lens. Roy, of course, aimed directly at me from close range. He nearly succeeded. Tahn and a couple of

others managed an ROG from the astro turf runway.

The mayor of Bland Shire and his daughter paid us a visit and were entertained by Mickey Towell's electric RC helicopter. About 5 pm Kathy and I rushed back to the motel to prepare for the evening camp oven meal. Chris Bush was preparing the fires and was getting ready to weave his magic on the bush tucker. Gary Goodwin and Di busied themselves peeling 17 kg of potatoes.

Col Collyer was flying his Radian RC electric foam glider when we returned and it was in really good air. Someone suggested he land it on the old tennis court. Now the court still



Some of the RC models getting ready to fly on Saturday



Roy Sommersby nearly got me!



Ebenezer Mass Launch - six in the air and no collisions



Tahn Stowe also tried to sneak up on me



Bland Shire Mayor and his daughter watch Mickey fly

had the 2m high wire netting fence around it, but there was an 80 cm high gap in the netting between two fence poles, and these lined up with two trees just outside the court. Col said nothing but obviously heard and liked the challenge. A short time later, he circled over the big shed that contained the toilets and showers, brought the model down to brush over the shed before he swooped down low over the cars to place the model inside the fence and on the court! Sadly a little glue will be

needed as I heard a crack as it made its spectacular landing.

The bush tucker started on sunset and everyone had a full plate. Some/many went back for seconds. Chris Bush cooks a great meal and no one complained. There were 3 lambs on the spit and 17 kg of potatoes as well as pumpkin and carrots for the hungry hoard of about fifty. The Albon Merlin raffle prize was won by Julie Booth and Adrian Bryant was enticed to recite a poem. This was so well received he was encouraged to recite for a second time.



Mickey Towell's RC helicopter



Cook Chris Bush & his new shirt



Part of the crowd at the Saturday evening bush tucker meal



Adrian Bryant kept us amused

Matt Hannaford enthralled the crowd with an aerobatic display from his RC electric delta. Flying in the dark with the aid of eery lime green LEDs, Matt performed silent manoeuvres against a backdrop of stars. His only mistake was letting Mickey Towell have a go. Mickey did say he thought he was flying 3 models so handing him the controls may have been a rash decision. Anyway, he did place it in one of the trees which, in his defence, was exceedingly hard to see. Some heavy-handed throttle extracted it and Matt finished his welcome display.

The evening wrapped up about 10 pm for us and we retired back to the Morgan's motel room for some Bailey's and Whisky. Vin said he didn't want to take the bottles home. Kathy said she felt a little seedy next morning, but she had a great time.

SUNDAY

A half hour **Walking Scramble** had been planned but, by 8 am, the winds were gusting up to about 8 m/sec. No takers. The sausage sizzle breakfast, managed by Roy, Gary Goodwin and Matt was in full swing and Maris Disler and Peter Scott were running up motors to an admiring crowd. Peter's were noisy whereas Maris's were French and well behaved. Tents were starting to be pulled down as the winds were going to be with us all day.

Vin had done the sums on the progressive team trial scores and it was declared that running the Queensland team trials for F1A, B and C on Monday and Tuesday would not change the current standing so, after discussion with the flyers, it was decided to cancel these trials. This enabled people to leave earlier than

planned; flying another comp may have been fun and good practice but it was a good decision. Winds were 5.5 m/sec towards the canola on Monday with a better direction on Tuesday and 4.5 – 5 m/sec.

Wings Over West Wyalong has real potential when combined with some free flight competition. This time it was a shake-down that was unfortunately handicapped by the outcome of the extraordinary rain event in September. Six weeks later this gave us excessive grass growth, lots of flies and mosquitoes and, of course, the canola, perhaps unrelated. The September rain was a 1 in a 100 occurrence that is unlikely to reoccur. After positive feedback from this who attended, Roy is already considering running WoWW earlier next year.

We headed back home on Monday morning, stopping at the Dubbo Zoo to see what had changed since my last visit 30 years ago. Only a few stayed on at the farmhouse until Tuesday.



Another classic WW sunset

RESULTS OF THE NSW STATE CHAMPS

F1C

Roy Summersby	180	180	180	180	240	960	201
Gary Pope	180	180	180	180	240	960	90
Terry Bond	180	129	180	180	240	909	
Shayne McDonald	78	180	180	180	240	858	
Shannon Tolmie	180	180	180	105	144	789	
Mike Pettigrew	180	180	140			500	

OR

Leigh Morgan	180	180	180			540	341
Jim Christie	180	180	180			540	200
Gary Goodwin	47	180	180			407	
Adrian Bryant	145					145	

F1A

Vin Morgan	180	180	173	180	240	953	
Albert Fathers	180	180	88	180	229	857	
Malcolm Campbell	180	180	180	180	117	837	
Tahn Stowe	163	180	180	180	129	832	

F1B

Gary Goodwin	240	180	180	167	118	885	
Terry Bond	240	180				420	
Vin Morgan	240					240	
Leigh Morgan	152					152	
Adrian Bryant	25		50	23		98	

Vintage

Roy Summersby	Swiss Miss		180	180	360
Jim Christie	Bilgri	1955	180		180
Adrian Bryant	Thermalizer		145		145



Tahn reaches for the sky



Tahn again, electric F1A



The Newell Highway becomes Duck Island

We went to West Wyalong

We went to West Wyalong October 26 to 30 for the twice postponed NSW State Champs and the Wings Over West Wyalong gathering. Queensland had scheduled their Team Trial for October 31 and November 1 but we scarpered back to Melbourne on Sunday 30 so we could take in the ACO concert on Monday night. It turned out to be a good call because Sunday and Monday were unflyable due to wind and the Trial didn't happen. The concert was fabulous. Slava Grigoryan played the Rodrigo Concerto.

Willy Weather had predicted wind up to 5m/s on Thursday 27th but better on Friday. In the event Thursday was quite good temperature and wind strength-wise but the wind direction meant a lot of flights went into the adjacent property. Last time I was in there the field had a fairly benign wheat crop but this time there was canola. The canola was waist-high and the 10mm diameter stalks were more than a metre long and intertwined. It took a minute to push through 30m after which time you needed to rest before tackling the next 30m. I set a New-World-Record for a short-distance, relatively straightforward retrieve in the 1st round of 2h 30min. It was all walking time since I had a direction signal from the model at the flight line. Unfortunately the flight went nearly across the field and I didn't go in from the far side. Since the contest was nearly over after retrieving round 1, we retired to the House for a coffee (it's really nice being able to do this).

On Thursday evening during the BBQ at the Mayfair (Motel) there was some scurrilous discussion about whether the F1C guys would play in the predicted wind of the next morning or whether it would be better to delay and fly in the predicted calm of the afternoon. Malcolm actually asked about this during the afternoon but the beer had

been flowing and there was no mood for contest planning.

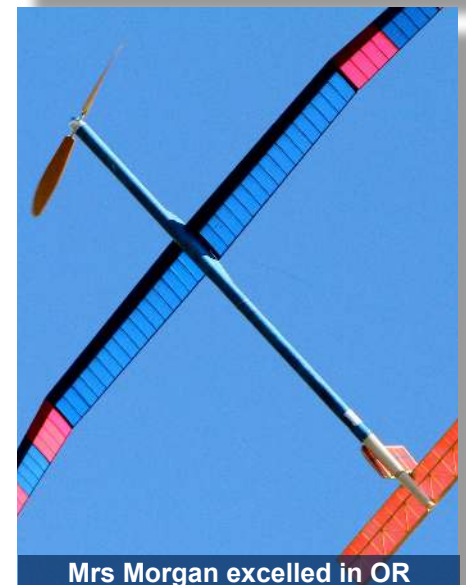
So early on Friday, the Motel-stayers arrived at the field to find a gaggle of flyers leaning into the wind and pondering on the benefits of starting at 13:00. The forecast for the afternoon was for reasonably light wind from a more favourable direction. On re-convening at 13:00 a caravan of cars set out and explored several sides of the field before sensibly stopping in the middle. The wind was every which way but it was also quite light so few flights landed outside the field. It was almost too calm for comfortable F1A towing and the variable direction kept the flyers on their toes. The warm afternoon did produce some huge thermals. I did 8 minutes in round 1 (4 on DT) and 10 in round 2 - which resulted in a walk through the oats - but not through the canola. Leigh flew Open Rubber which was held at the same time as F1A and F1C. She had to change the motor after each flight because the December 09 rubber that had been rejected for Wakefield use was breaking a lot of strands on quite moderate winds. That evening at the dinner BBQ Leigh mentioned that she only had one motor left and it was full of knots. Albert said he had some good open rubber motors so after dinner he called round and produced a large braided hank of rubber. We shared a Baileys and whisky with Albert while unravelling the motor and reducing it to the required 26 strands.

Saturday morning was, as predicted, the best weather of the weekend. There were flyoffs for F1C and Open Rubber. In F1C, Gary Pope had a short run of just 3.6s and stalled all the way down giving F1C to Roy Summersby and in OR Jim Christie had an attempt followed by a short flight giving OR to Leigh Morgan. Information on Leigh's model is in this FFDU. It was a fine morning, tempting to fly except for the

report by Vin Morgan



Mr Morgan excelled in F1A



Mrs Morgan excelled in OR

mosquitos. Due to all the recent rain they had been around all the time but the wind of the previous days had kept them in check. On Saturday a random clap would score several.

The Saturday lamb roast was up to the usual standard. All in all a pleasant long weekend apart from the mozzies and the canola. The field is looking larger and I understand it has grown a bit more since Sunday. In the past the outfield has been quite friendly for retrieval but this time with the fully-grown canola crop it certainly wasn't. We probably could have flown from a better location and avoided the crop but when the flight-line was set up no-one realized just how difficult it would be.

Vin Morgan

WINGS OVER WEST WYALONG - AN RC PERSPECTIVE29-30 October 2016 *report by Craig Thornton, Parkes Model Aero Club*

Darren Lydford from Dubbo and myself headed down to West Wyalong Friday arvo to meet up with Andy, Ian and Jacko for a two night camp out and some good flying. The trip is normally only a 150 km from Parkes but the floods added a few more km.

We arrived and there were plenty of people already setting up camp and the normal squatters were in the house. There was also some flying happening at the northern end of the 700 acre field. We called into the house and said some Hellos to the squatters. Jacko was over in the big machinery shed with his stash of motors so we hi-tailed it over there for the engine expo. Well they were like

bees around a honey pot, us included, and at one stage we didn't know if we would be able to afford to fly or eat over the weekend. I am sure Jacko's engine expo was the highlight of the weekend for many.

After all that excitement we set up camp and said some more Hellos. We are pretty new to the FF scene and find you guys a great bunch of people, willing to help out wherever you can.

Saturday

Darren was up early to fly his new model and the rest of us eventually went out for a fly until we needed some breakfast about 11 am.

We had a look around the field facilities and we were surprised how much work you have done to the house, setting up of the amenities and the camp kitchen etc. All I could think of is you live so far away from the field and what a great effort has been put in by all involved.

We got to do some more flying at the RC field and some more FF in the still of the evening and, due to Andy's long search for his lost FF model, the flying overlapped into the evening meal of roast veggies and lamb. This was an awesome meal cooked by the ladies and gents and the highlight of the night was Adrian's poems. Well done all. After a good yarn it was back to the shed for some more BS and storytelling until late.

Sunday

Up early but the wind had started and just kept building up so flying was out. Never mind.

We had a great time and think it will build into a good size event in the coming years but feel it needs to be held earlier in the year, as it can get very hot in October, but I am sure you guys are onto sorting it for the future events already.

All in all a great effort and we will be back next year!

**Ted Burfein has the following items for sale**

All prices AUD, postage extra

**Babenko F1C Parts - All new**

2 x Fin Assemblies - \$50 each

2 x Bunt mechanisms - \$25 each

2 x Mechanical timers, clock works, no arms - \$25 each

2 x Wing joiners - \$10 each

Profi F1C motor, approx 2000 make, unrun - \$200**Bendigo Commerative Motor NIB** - \$400

Invine 40 R, pipe timed, RIRE - \$150

MA 104" span conventional F1C model, includes geared late model (unrun) Nelson engine, with Sidus electronic timer (no timer board, battery or controller), model used but in good condition - \$1100

Babenko 6 panel conventional F1C model, no motor or pan, mechanical timer but with servo for RDT installed. Fuse in good condition, wings have been repaired but still sound - \$600

Doug Galbraith new machined pan and connector ring for F1C Nelson Hummer - \$100

Enquires to either 0419163900 or chuck_e_bear@hotmail.com

**Ted is also looking for a Cooney F1B e-timer**



southern cross cup

1 - 2 May 2017
West Wyalong NSW



World Cup - Open International for F1A, F1B and F1C also Open Power and Open Rubber

PROGRAM AND VENUE DETAILS

Monday 1 st May	<i>F1B</i> <i>Open Power</i>	<i>5 x 1 hour rounds</i> <i>3 flights</i>	<i>0800 - 1300</i> <i>0800 - 1300</i>
Tuesday 2 nd May	<i>Flyoffs for F1B and Open Power</i> <i>F1A</i> <i>F1C</i> <i>Open Rubber</i>	<i>5 x 1 hour rounds</i> <i>5 x 1 hour rounds</i> <i>3 flights</i>	<i>0730</i> <i>0800 - 1300</i> <i>0800 - 1300</i> <i>0800 - 1300</i>
Wednesday 3 rd May	<i>Flyoffs for F1A , F1C and Open Rubber</i>		<i>0730</i>

NSWFFS Adrian Bryant Field is located at 1390 Clear Ridge Road West Wyalong and will be signposted

Information

1. WORLD CUP EVENTS - are flown from a flight line in five one hour rounds. Please assist by volunteering to time keep.
2. Flyoffs will be organized after the event (start time, CD and timekeepers) but held the following morning. Durations for F1A, B & C will be 10 minutes. For other events unlimited (conditions permitting).
3. OPEN EVENTS - are 3 flights to a 3 minute max with no rounds and one unlimited flyoff the next day.
4. Radio Dethermalization (RDT) is allowed in all events.
5. PLACEGETTERS models, lines, motors etc. may be processed. There will be spot checks and check timekeeping on the field.
6. All Competitors must be in possession of a current MAAA/FAI licence.
7. Motorized retrieval by car, motorcycle, pedal and electric bicycle is allowed. Smoking on the field is not allowed. If you smoke in a car the doors have to be closed.
8. Camping is allowed on the field with prior notification.
9. Sunrise at West Wyalong on May 1 is at 06:36. Sunset 17:31.



40th Australian Free Flight Society Championships and Dave Anderson Memorial Narrandera 2017



P R O G R A M

Dave Anderson Memorial (DAM) (World Cup Event)

Thursday 04 May	F1A# & F1C #	5 x 1 hour rounds	0800 - 1300
Friday 05 May	F1A & F1C Fly-offs from Thursday F1B #	5 x 1 hour rounds	0700 - 0730 0800 - 1300

AFFS Championships 2017 (World Cup Event)

Saturday 06 May	DAM F1B Fly-off from Friday Start AFFS	0700 - 0730
	Combined % open 3 flights	0730 - 1200
	F1G* 5 x 1 hour rounds*	0800 - 1300
	F1H* 5 x 1 hour rounds*	0800 - 1300
	F1J* 5 x 1 hour rounds*	0800 - 1300
	Evening AFFS AGM (Narrandera Club)	1930
Sunday 07 May	Rest Day/Reserve Weather Day (No Flyoffs)	
Monday 08 May	% Open Fly off from Saturday	0700 - 0710
	F1A # 5 x 1 hour rounds	0800 - 1300
	F1C # 5 x 1 hour rounds	0800 - 1300
	P30 3 flights, 120s max	0800 - 1300
	Open Rubber (P.Twiss Memorial) 3 flights	0800 - 1300
Tuesday 09 May	F1A, F1C, P30 Fly off from Monday	0700 - 0730
	F1B # 5 x 1 hour rounds	0800 - 1300
	Open Power 3 flights	0800 - 1300
	Combined/HLG/CLG/TLG	0800 - 1200
Wednesday 10 May	Fly offs from Monday: Open Rubber	0700 - 0730
	Fly offs from Tuesday F1B & Open Power	0700 - 0730
	Combined Vintage 3 flights	0730 - 1200
	Oz Diesel 3 flights	0730 - 1200
	Scramble	0830 - 0930
Wednesday 10 May	Evening. Presentation Dinner for AFFS & DAM Venue: Morundah Hotel. Bus from Narrandera provided.	1900 for 1930

* **F1G, F1H & F1J** First Round will be "High Time" and must be flown before 0800 (6 min max first round only. NB time above 2 min max will only be used to resolve ties)

F1A, F1B & F1C First round duration will be 4 minutes (weather permitting) CD to determine duration of round 5 (5 minute max weather permitting) . F1C engine run 4 seconds.



The Tui Cup
New Zealand World Cup event
Narrandera 2017



PROGRAM

Friday 12 May

F1A, F1B and F1C

5 x 1 hour rounds

0800 - 1300

ENTRY FORMS

Southern Cross Cup, Dave Anderson Memorial,
AFFS Championships and Tui Cup entry forms
will appear in the March 2017 edition
of Free Flight Down Under.

Please contact me via actrain@ozemail.com.au if you want one earlier



***Please send me more articles, and
I'll stop putting in all these silly fillers!***

WE VISITED THE NORTH ISLAND OF NEW ZEALAND

Report and photos by Malcolm Campbell

Kathy and I decently visited New Zealand for a touring holiday. At Richmond in July I casually mentioned to Ricky Bould that we'd be crossing "The Ditch" in October for a few weeks. He contacted me on his return to Auckland advising me of an Indoor FF event at Morrinsville, an hour south of Auckland during the time we would be driving around. Suggesting we spend a couple of days with him, I planned our circuit of the island to be in Auckland at that time. There was a Hangar Rat event that he said we should fly in and promptly organised a couple of loaner Rats for Kathy and I.

That was good enough but he went further, asking us to be Guests of Honour at their regular scale get-together evening dinner. Well, we did and it was a superb meal with beautiful food for a dozen modellers and their wives/partners. We left Stan Mauger's home at midnight after an excellent time dining and socialising.

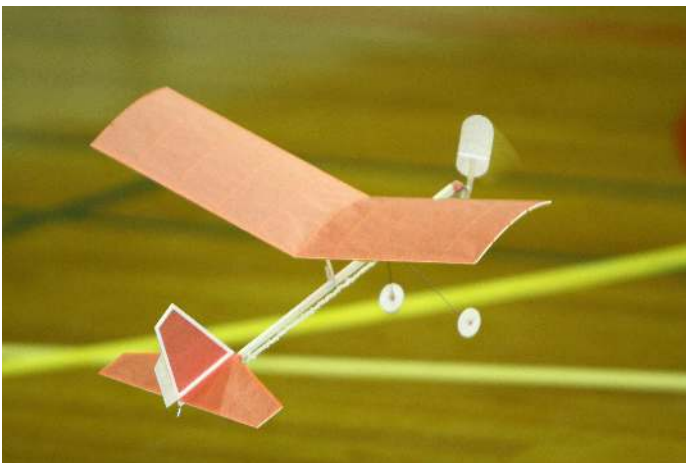
The Morrinsville event was very successful. Hangar Rat was well supported and my loaner Rat scored me third place out of twelve flyers. Kathy's lost some packing and failed to come on tune in time. Peanut Scale was also well contested and the build quality of many models was truly excellent. Rob Wallace, Rex Bain and Bill McGarvey were also there. And I once again caught up with John Henson, a scale modeller I first met at Stew Cox's place 6 years earlier. Kathy and I headed to Rotorua that afternoon to continue our 3,500 km tour.

Later on, we called in on Rob Wallace at Hastings for a cuppa and then caught up with Paul Squires at Masterton to join the local MG Car Club who were visiting the Hood Aerodrome to see the Vintage Aviator museum, a Peter Jackson (Lord of the Rings) initiative. I have never seen WWI aircraft in such pristine condition, and they were all flyable. More outstanding is the fact that

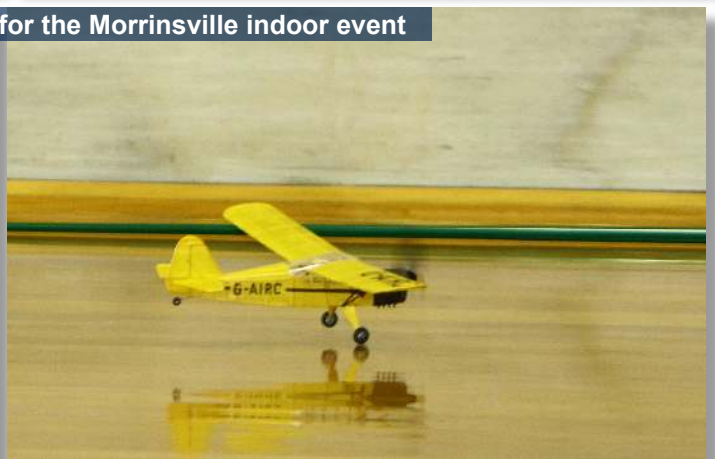
many are reconstructions not restorations, being built from the plans of the day using the materials of the day, and they are all flown by a group of very experienced pilots. These aircraft look like the day they left the factory in 1914 – 1918.

One of these pilots took us through the hangar and was quite happy to spend two hours with us telling us in an encyclopedic way all about the aircraft of the time. Hearing the technique required for flying and landing the rotary engine aircraft made me realise how deadly the experience could be for the hastily prepared flyers of the period. Paul Squires told me that the free flight flyers at Carterton just down the road regularly see two or three of these aircraft in the air while they are flying. That must be a surreal experience.

Leaving Masterton, we drove on to Antony Koerbin's place where we spent a wonderful three nights with him and his wife Laraine. On the first



There was an excellent roll-up for the Morrinsville indoor event





The Vintage Aviator display at Masterton was amazing



morning Antony and I drove back to Carterton where we caught up with Paul Squires, his daughter Ashley and John Malkin. Paul and Antony flew their F1Bs maxing 5 rounds for their team selection process, and John put up some Open Rubber models. The picturesque field had emerald green grass and was back-dropped by snow-capped mountains. Antony said the weather wasn't always as perfect as I experienced.

While in Wellington, I dropped in on Stew Cox at the Mets Office, catching up on the few years since I last saw him at Omarama in 2010.

We then absorbed ourselves in our tour until we returned to Auckland for the last two days before we flew home. Once again a meal had been organised for us to attend. This was at Mike Mulholland's country residence, 45 minutes south of Auckland, for the same group of friends that we met two weeks

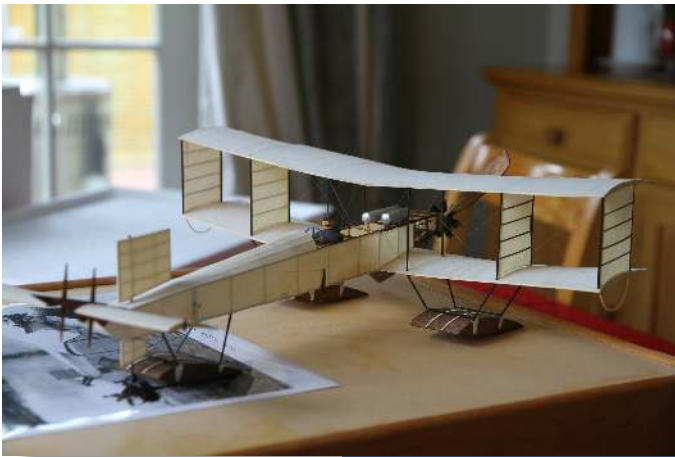
earlier. Mike's BBQ was great – chicken and steak cooked on a Weber and smoked with manuka wood chips. Unfortunately the Bledisloe Cup rugby union was playing on the TV in the background. Luckily they were not football enthusiasts, but it was a truly inspiring display of powerhouse All Blacks rugby. Another late night and thank goodness for the GPS, as it successfully led us back from the country to our city-side Parnell accommodation.



Paul Squires and Antony Koerbin launch their F1Bs



Veteran FF flyer John Malkin launches his OR model



Two of Antony Koerbin's beautiful indoor models



The Auckland FF group really looked after us

I came away with good memories of NZ free flighters, and some nice gifts from Ricky Bould – a book on WWII fighters and some Pirelli black rubber for our CLGs. I also purchased a laser-cut Tiger Moth kit from Avetek. This is a NZ company

(<http://aveteknz.com/>) run by an Auckland modeller Gwyn Avenell.

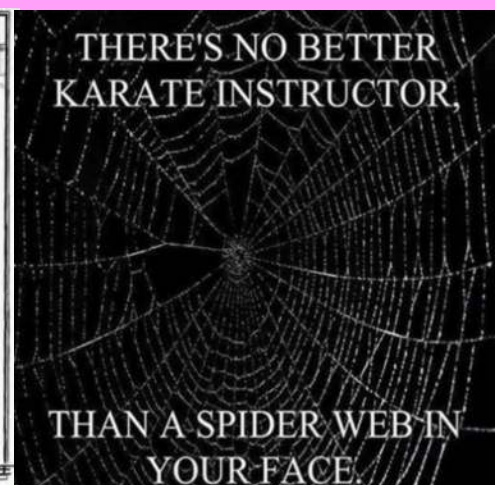
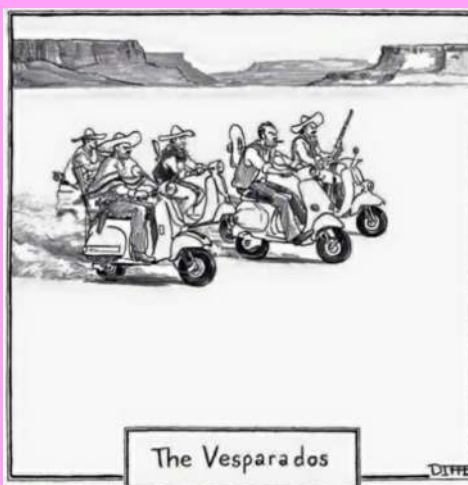
Avetek produces superbly packaged kits of many popular aircraft. My one regret is that I had to pass up on an invitation to see a fully restored DH Mosquito fly. I'd

promised Kathy a seafood lunch on the Auckland Wharf that day, and I'd already had my fair share of aircraft activities!

The Kiwis did an exceptional job of making us feel welcome. We really appreciated it.



Please send me more articles, and I'll stop putting in all these silly fillers!



CONSTRUCTION CORNER

Open Rubber



Open Rubber is a nice class to fly. A lot less demanding than Wakefield but with at least as good performance and in Australia quite a lot of contests.

Report and plan by Vin Morgan

Most meetings have an Open Rubber event and since you can fly any sort of rubber model there is generally a reasonable turnout and a variety of models. The Victorian State Championships Open Rubber event has one of Australia's best trophies - the Shaw Cup (see FFDU 44/4, 2012-4).

This article describes how you can cobble together an OR model that is rugged and easy to fly but which still has a lot of performance. Perhaps not quite as much as one of those huge, lightweight jobs but stronger and more reliable. And since most of the parts are obtained by the BBB method (beg, borrow or buy) it doesn't take too long to put together.

The model uses F1B type wings. Preferably reasonably modern ones with carbon D-boxes but this is not essential and older ones might be lighter. In the case of Leigh's model

described here the wings are borrowed from one of my Vivchar F1Bs. Leigh did buy a set of F1B wings from Terry at the Nationals Swap-Shop (quite good condition, \$20) with the thought of giving my wings back but the necessary modifications for these haven't been done yet.

A small disadvantage of modern F1B wings is that the built-in warps will be in the wrong direction (see discussion on trimming). You can get around this by offsetting the centres but it is a little messy.

Open Rubber models are flown with less decalage and a more rearward CG than is usual for a modern F1B. This means that without VIT the model will not be too loopy in the climb and the glide can be trimmed up close to the stall without needing carefully adjusted reverse warps. The CG position means that for stability a larger tail is needed. An F1A (A2) sized

tail is about right and there are often a few of these lying around. Choose a light one if possible. If you have to build one the carbon tube spar as shown on the plan is a good way to get lightness and warp resistance.

You'll have to make a fin. The carbon tube through the ribs works well here too. I went for a rubber-banded-on fin because it doesn't get knocked off when the fuselage is rolling about in the car (it's too big to fit in a box). The fin shown on the plan is quite large but only weighs 2.1g.

Propeller and front end. This is important. By extracting more thrust from a given motor an efficient propeller allows a thinner motor that will take more turns and give a longer run. A pair of Russian/Ukrainian F1B blades is just the ticket especially if they come fitted to a simple hub with a Montreal stop. A Montreal stop (as opposed to a tension stop) avoids the

necessity of carefully adjusting motor length, allows a tight motor (which you need anyway to hold the front end in) and avoids bunching of the rubber that can move the CG and spoil the glide.

The fuselage is a rolled tube of 1mm balsa with tissue on the inside and 25g/sq. m glasscloth and tissue on the outside. The fibreglass is doped on. The ¾ oz (25 g/sq m) glasscloth is hard to handle in the raw state but if it is sized with dope it becomes stiff like tissue and is easy to cut to shape and dope on. A long time ago I sized a large piece of cloth by spraying it with dope (on the kitchen table covered with polythene). It's been handy ever since.

Only one timer function (DT) is required so Harry's D-Tox M is ideal. See:

<http://4dfx.com.au/DTox/index.html>

Setup and trimming. Before gluing on the pylon you need to put it all together – complete with a motor – and adjust the position of the pylon so the CG is at about 70-75% of the root chord.

I fly rubber models R-L, a right hand turn on the climb and a left turn for the glide. With a non-gadget (no wing wiggler) model this is the only

way I see of allowing optimisation of the climb. It also results in the preferred warps for glide.

In the climb the turn is speed sensitive with the left rudder more effective at high speed and the right thrust most effective at low speed. This allows the model to be adjusted to climb as strongly as possible (using up/down thrustline and decalage adjustment) and still be stable. If the model starts to climb too steeply it will slow down but a power stall is avoided because as the model slows the right-thrust becomes more effective than the left rudder and pulls the model over into a tighter right turn. If the model turns too much to the right it will dive and speed up making the left rudder more effective and opening up the turn – auto stability!

As far as the wing warps (or differential incidence) is concerned, in the climb it is beneficial to have the right wing (if turning right) washed in a degree or two compared to the left wing. These “conventional warps” help to hold the right wing up and reduce spiralling tendencies under power.

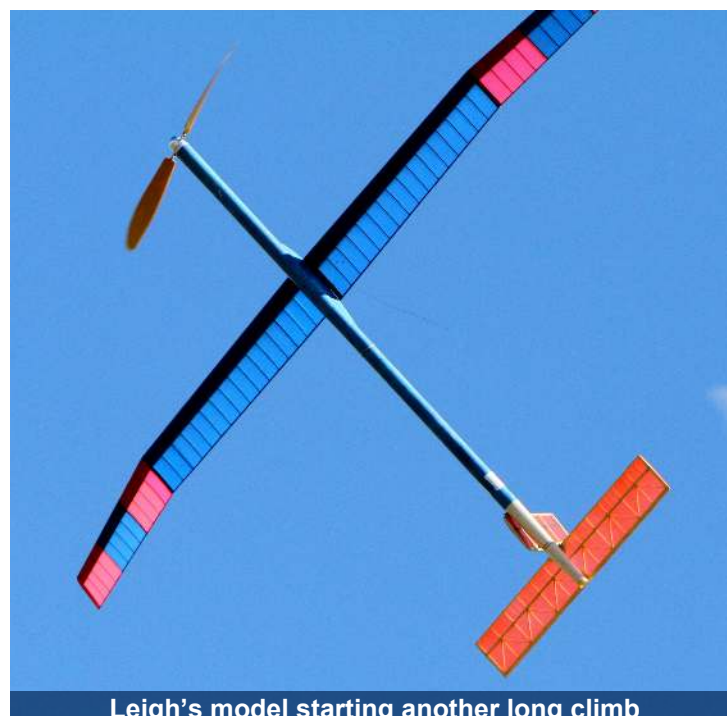
However conventional warps are not desirable in the glide (which is why modern Wakefields that fly R-R

have a wing wiggler that changes the incidence of one wing at the end of the motor run. They fly with conventional warps in the climb and change to reverse warps – less incidence for the wing on the inside of the turn – for the glide). Reverse warps allow the model to be trimmed closer to the stall which, apart from reducing the sink rate seems to help thermalling (which is another discussion but thermalling requires the model to be gliding close to the stall).

For the OR model with a rearward CG and a large tail the warps are not so critical. About 1 degree more incidence at the dihedral break of the right wing is probably ok. Unfortunately Wakefield wings will most likely have built-in twist to give a R-R model reverse warps i.e. less incidence for the right wing. This means you have to set up with the centre sections about 2 degrees out of alignment. It looks ugly but it works.

The plan says the model uses a 28 strand (1/8th) motor. This was necessary with some rather poor December 2009 rubber but with better rubber 26 strands would allow more turns and a longer run.

Vin Morgan



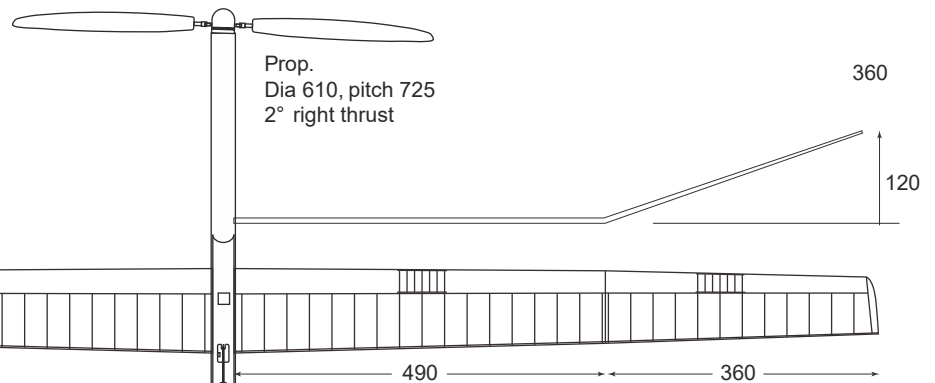
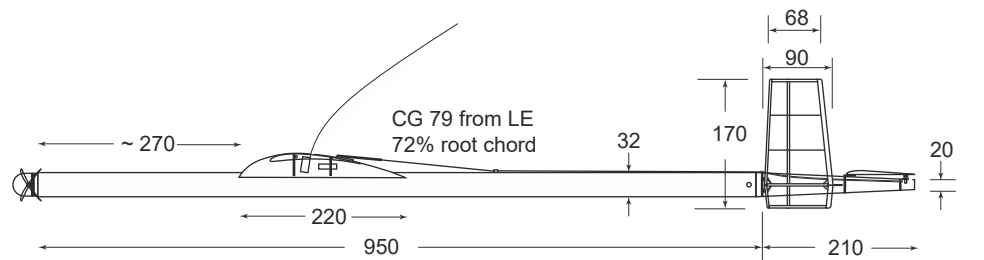
Leigh's model starting another long climb

COBBLED UP - an Open Rubber model

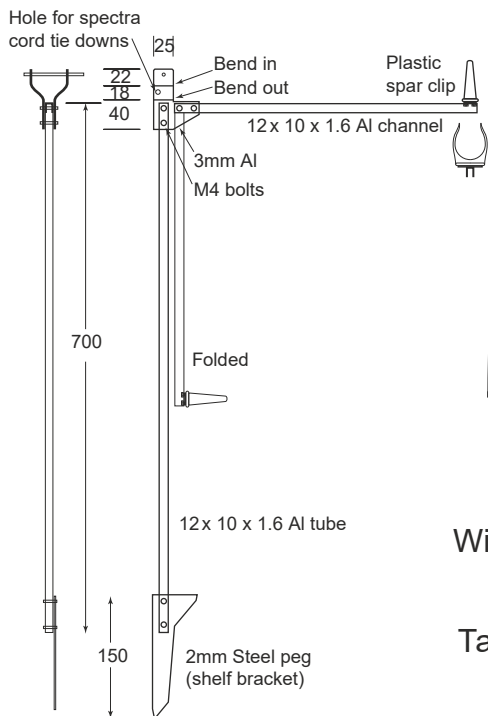
Designed by Vin Morgan

Wings (Vivchar F1B type)	58.8g
Tail (ex F1A)	7.0
Vivchar simple front end with Vivchar blades	43.3
Fuselage	47.8
Timer (DTox - M), battery	4.0
Fin	2.1
Tracker	3.4
Total airframe	166.4

Motor:
 28 strands of 1/8, 800 long 75.0g
 Flying weight 241.4g



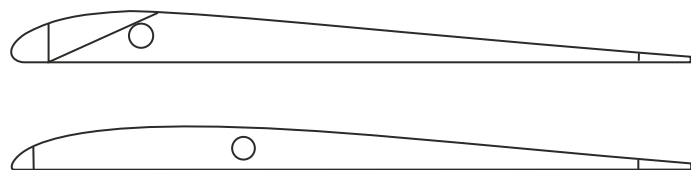
Stooge



Wing



Tail





Howard launches his Jekyll and Hyde at the 2013 Nationals, held at Narrandera. (T Bond photo)



Waiting for lift at West Wyalong Opening Sep 2014



Howard says, "Never dismiss the good old Senator"

JEKYLL and HYDE for Open Rubber and Vintage – an Oldie but a Goodie

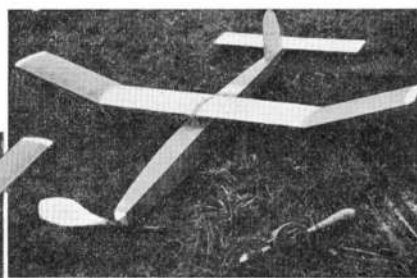
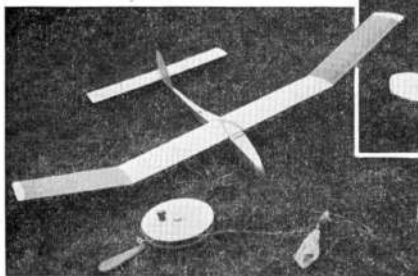
A report and plan by
Howard Gostelow

July, 1954

363

AERO
MODELLER

Dr. Jekyll



... and Mr. Hyde

A dual purpose design by P. Gasson

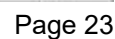
Howard Gostelow has successfully flown this model for 14 years. He tells me:

"The Jeckyll & Hyde from July 1954 Aeromodeller is a fast build, flies brilliantly and is good for both Open and Vintage rubber. I've had two of them as you would know, from 2002, both fly the same and will max out as long as brain fade does not set in by the flier."

You will remember at the 2005 Nats at Richmond mid-winter in

dead calm conditions with no lift mine did almost 300 on only 800 turns, as I had not made a blast tube for it. Either of my models has won or placed in many Open and Vintage comps, if you check the old newsletters. I have kept a list, dates etc written on the box in which they live!

Also, never dismiss the good old Senator. It's maxed out and won Vintage rubber at our Nats twice.....Dave Simons as well as me at Ballarat so, built well, it's a great small Open Rubber machine. FWIW, my Senator won the world wide Senator postal competition for 2014-2015."



Building my first Open Power model *report and photos by Chris Birch*



Chris Birch's brand new Eliminator

After going to Narrandera for the Australian Free Flight Championships, I came back knowing all about different free flight models. At Narrandera I helped out Mike Pettigrew with retrieving his F1C, because of his bad foot. Without me knowing, Roy and Mike spoke together about getting me into flying open power models, Mike came up with the idea of setting me up with an engine and a timer to say "thank you", for helping him win the F1C event. Roy suggested that I should build the free flight Eliminator, so I could compete in open power, vintage and oz diesel events, and he would supply the balsa, and guide me through the build.

When I was told this news, I was so excited and couldn't wait to start. The next week I spoke to Roy about going to his house and getting started. I ended up catching the train one morning. Roy picked me up from the station and we went back to his house, and got started.

Roy started by cutting two plywood rib templates out for the wing and tailplane. We used the templates for a guide to cut out all the ribs. After Roy showed me, I had the job of cutting the rest of the ribs out, and then we put two pins through the two sets of ribs, and sanded them so they would be all the same size. We then slotted

the ribs for the spars to fit in. Roy pulled out a tool that he used to file a slot into the trailing edge, to allow the ribs to go in. I slotted the trailing edges for the wing and tailplane, and then we started building the wing using white glue. While the wing was drying we put the tailplane together and cut the fin out. We then cut out the wing tips and mounted them on to the wing and tailplane. We got all four pieces to the wing and started to put the wing dihedral together, followed by three wing dihedral braces and gussets.

I then sanded the wing and tailplane so it was ready to be covered. Next I cut out the fuselage formers, two sides and glued the formers onto the two side sheets. We marked out the fuselage base and then glued that on and glued the plywood firewall in. We got a small tube for the DT line and ran it to the back of the fuselage, cut a hole for the timer and fitted a box for a tracker to go in.

Then we fitted a tank, and made the pylon and fitted that in. We sheeted the top of the fuselage, and around the side of the pylon, and glued on a balsa platform for the tailplane to sit on. We sanded everything again, and gave the wing, tailplane and fuselage two coats of dope, and gave them a little sanding to get the rough edges off. We cut the tissue to size and ran

dope around the edges of the airframe and laid the tissue on top. We brushed more dope around the airframe to hold the tissue down. Once the dope had dried we used the iron to tighten the covering, and then I could apply two or three coats of dope all over. We used the same technique to cover the tailplane.

For the fuselage we used coloured tissue and we just applied the dope and laid the covering on, and brushed a layer of dope over the top. After we covered the fuselage we applied a clear coat. We screwed all the finishing bits on like the timer, engine, engine mount, fuel cut-off mechanism, and the DT line.

After we finished building the plane I met Roy down at Richmond on a calm sunny Sunday morning. We got the engine going and started trimming. We had a test glide and it seemed to be gliding very well. We put up the first flight with the engine on low power and the plane flew straight, increasing in height. When the engine cut it went into a perfect glide. For the next flight we put a trim tab on the rudder and a little piece of packing under the stab. On take-off the model climbed to the right gaining height and when the engine cut it went into a perfect glide. For the next couple of flights we increased the engine speed and it flew beautifully.

Roy and I were very pleased with how the Eliminator flew, so I put the model away ready to fly in the upcoming events. I would personally like to thank Mike for supplying the engine and timer for the model, Bruce for making FAI numbers, and Roy for providing all the balsa and guiding me through the build.



Chris Birch



Firstly, the incidence settings combined with the large fin offset make these models fly "Off the Board" if:

1. The wing and tailplane are warp-free; if not, recover.
2. You move the undercarriage forward from its design location to achieve the correct C of G, do not use blue tack
3. The paddle pop propeller has the correct and the same pitch on the blades (About 35°)
4. All outline corners on the wing and tailplane are gusseted (a durability issue)
5. Ribs sliced from sheet eventually fail in the cross-grain. Laminate two pieces of 1mm soft sheet, 20mm wide, between blocks shaped to the wing section. Slice ribs along the grain (1mm wide)
6. Check porosity of tissue before covering, use only Esaki (Jap) tissue – attach with non-shrinking cement such as UHU blue or slightly thinned PVA - do not shrink or dope
7. Use aluminium tube for prop bearing, not strip, holes will elongate with use and flights will become erratic – bind and cement the tube to the fuselage stick – 2° to 3° side thrust - left or right – it doesn't seem to matter, it just determines the direction of turn.
8. When attaching wing struts do not use shrinking cement - try 5 min. Araldite or PVA glue. Shrinkage here will undo all the careful work in covering

9. Rubber width – 2mm for a 7gm model. This is sufficient for basketball halls – 3/32" for higher ceilings
10. Target weight for a Hangar Rat should be 6 to 7 gm.
11. The paddle pop props may look very crude, but in practice, they work very well. I have made helically pitched blades and conducted A-B tests on the same model over several flights. The paddle pop prop outperformed the seemingly better helical props. I made two helical props 7" x 8" and 7" x 10". The latter showed some promise with a 2 min flight after taxiing around for 5 laps, so perhaps a little more trimming will reverse this conclusion – anyway carved props are "illegal"
12. To improve the prop and make it more crash-resistant, use some 1/8" square Spruce or Bamboo for the hub, then add fiberglass or several layers of tissue over the blade/hub attachment – Hangar Rats have an affinity for walls and slide down to the floor, the prop still rotating and the blade taking all the punishment, resulting in the hub/prop shaft hole being elongated in the process despite the application of Cyano. (While this affinity with walls and ceilings also holds true for the lightweights - F1Ds, Ls and Ms, - these tend to bounce back into "play" on first contact – not so the heavier and higher wing loading Hangar Rats).

Don Boughton

Mike Glaister's Note: Don is well placed to expand on this subject, as he surprised us all down at Sandringham when he walked in with three near-identical Hangar Rats – Don always seems to make models in clutches of three! - After overcoming some initial difficulties, mainly sorting out the size of the rubber motor, Don soon had all three exceeding two minutes. Don Bladier and I have been trying to exceed the "two minute barrier" for longer than we care to remember. Don Boughton's achievements have spawned a rash of Hangar Rat building with Don Bladier currently in the lead.



ED: According to Jim Fullarton, "There is no such thing as a "good" Hangar Rat".

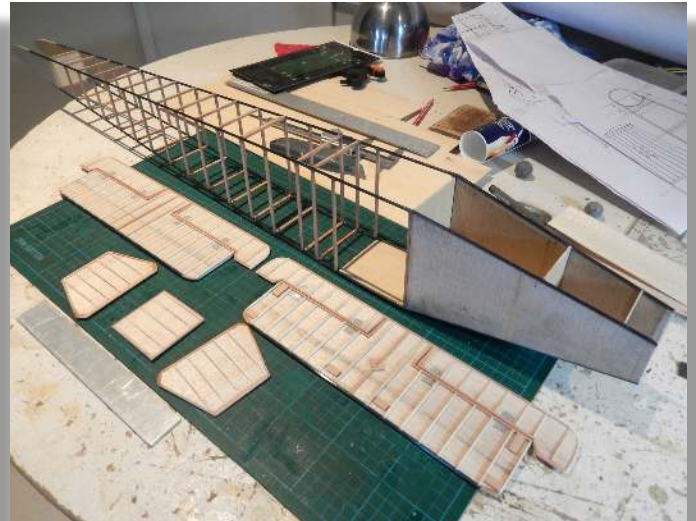
And Dr Koerbin in NZ adds: "Warfarin is the usual prescription to kill rats. In this case a bottle of 50 glued to either wing tip would be a good start."



We haven't seen it fly yet but Roy Summersby's Oliver Tiger Mk 3 powered Dream Weaver looks very nice.



Roy's Father's Day present to himself. A gorgeous Oliver Tiger 0.25 cc. That's a \$2 coin next to it! (2 cm in diameter)



My latest project - the mighty Handley Page 0/400

Background

They called them "*The Giants of WW1*" with a wingspan of 100 feet (that's around the wingspan of today's Boeing 737!) and capable of delivering a 1,650 lb bomb on the Kaiser, the HP 0/400 aptly earned the nickname "*The Bloody Paralyser*".

As mentioned in my previous "Roundtoit" articles, with my passion for WW1 aircraft and in particular biplanes, I thought it time to bite the bullet and tackle the big one.

Following research on the various roles performed by the 0/400, I was excited to learn that HP 0/400 serial number C9681 was selected in May 1918 to fly to Egypt and then onwards to Palestine.

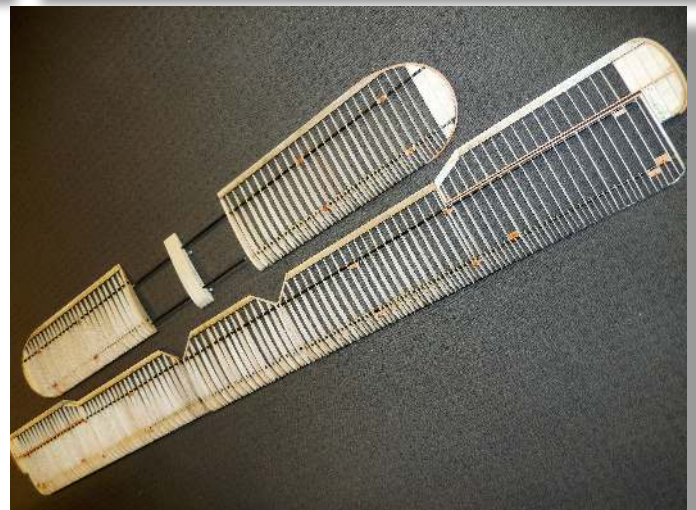
On the 29 August, C9681 arrived at Ramleh to serve with No. 1 Squadron Australian Flying Corp (AFC) piloted by Captain Ross Smith. The arrival of the giant Handley Page amazed the Arab forces who had

never seen anything like it before – and certainly gave them a morale boost after coming under aerial attack from Ottoman forces.

Of note, the commanding officer in the area at the time was Colonel Thomas Edward Lawrence "*Lawrence of Arabia*" who was reported to take several flights in C9681 during its stay in The Middle East. C9861, under the command of Capt. Smith AFC, was attributed with helping to speed up the British and Arab forces on their road to Damascus which resulted in the Ottomans surrendering on 31 October 1918. *

Construction

After firstly a phone call to Gary Odgers (he built one some 20 years ago) and then Fred Roberts who now has Gary's plan, I obtained a copy of the Bill Dennis 68" plan of the HP 0/400. Further detail was supplied by Tahn Stowe from Ivor's aircraft folder library. Construction of the model is actually well



documented in an R/C Model Builder article by Bill Dennis dated March 1981.

I used centrally placed carbon fibre tube spars for the wings and carbon fibre longerons for the fuselage. These "modern materials" certainly (as mentioned in previous articles) well suit the structural requirements of WW1 scale models. The only challenging aspect of the

0/400 construction (apart from there being two of nearly everything, 3 fins and approx. 140 ribs and riblets!) was attaching the two engine nacelles. I used some temporary carbon fibre tubes carefully drilled through the fuselage as jigs on which to assemble the nacelle structures.

Once again, I've gone to the "dark side" with small brushless electric motors

and Morrell "Black Magic" to do the smarts control. With a twin such as the 0/400 it's pivotal to have engine revs and cut out synchronised to avoid disaster!

Flying

Well.... not quite yet.....motors are now tested and the 0/400 is ready for trimming prior to her first bombing mission. Oh, and yes, I have carved 4-bladers and

will install a crew for scale judging.

Phil Mitchell

**Ref. "Bloody Paralyser"
Rob Langham 2016*

ED: Look back to the previous page. Phil has an old Shell poster mounted on the wall above his work bench. The aircraft shown flying in formation are all Handley Page 0/400s. Was this the catalyst for his latest project?

Expanding Foam? Call the Gorilla

report by Ken Bauer (as posted in SEN)

I recently discovered that an F1A wing panel was twisting too much under load due to a broken rib inside the carbon D-box apparently from a nasty landing. As I starting thinking and discussing with friends how to attempt the repair my thoughts turned to the cans of expanding foam available at Home Depot for filling in gaps in home repairs or for insulation around windows and doors, etc. This is polyurethane based stuff that squirts out of a narrow tube and quickly expands into a lightweight solid foam.

But I worried about getting too much inside the D-box which might make it balloon up or explode making my problem much worse. I remembered that polyurethane glue has some of these same characteristics so I started experimenting and came up with a great solution. I had some Gorilla Glue which is polyurethane and tried mixing it with water and found that it expands into foam at a very nice slow controllable rate of about 15 minutes to end up at many times the original volume.

Here's the method I came up with:

1. Get some gorilla glue and a syringe designed for glue with an outlet round 1mm diameter.
2. Drill a hole about 2mm diameter in the D-box near the damage as the injection point.
3. Squirt a couple inches of the glue onto a paper card just like you were going to mix epoxy. Then spray a little water into it two or three times while mixing with a stick, again just like mixing epoxy. After a minute it turns to a creamy white colour which means it is ready.
4. Stuff the goop into the syringe and then inject into the D-box.
5. Any excess foam will expand out of the injection hole as the stuff expands and cures inside. Just trim off the excess and cover the hole with a carbon cloth patch and the job is complete.

I ended up injecting this stuff at several spots I thought were weak and the problem was fixed. The D-box feels very firm and stiff wherever the foam has filled it up. I recommend just mixing some of this stuff up and watching it expand as the first step in getting familiar with it. It could also be useful for many other repairs such as holes in solid balsa glider wings or even to mold small foam parts.

Hope this is useful, Ken

http://gorillaglu.com.au/eng/home/?site_id=1

**Available at Masters while open!!!
59mm \$7.16 and 236 mm \$15.96**

Roy Summersby used expanding foam to repair "Dianna" last year.





Build a yagi for Christmas



152 MHz 3 Element Yagi Antenna

Design by Vin Morgan

January 2007

For locating model aeroplanes the main requirement of an antenna is convenience and gain. Searching is done by closing in on the transmitter so it is not necessary to have very sharp directionality. It is however, necessary to be able to hear the signal so an antenna that has some gain is useful!

At 150 MHz a 3 element yagi is a good compromise between gain and portability. Yagis also have the advantage of simple disassembly because a connection only has to be made to one element. The yagi has a broad maximum in sensitivity at the front which is good for initially finding the signal. The deep nulls on either side are good for getting direction.

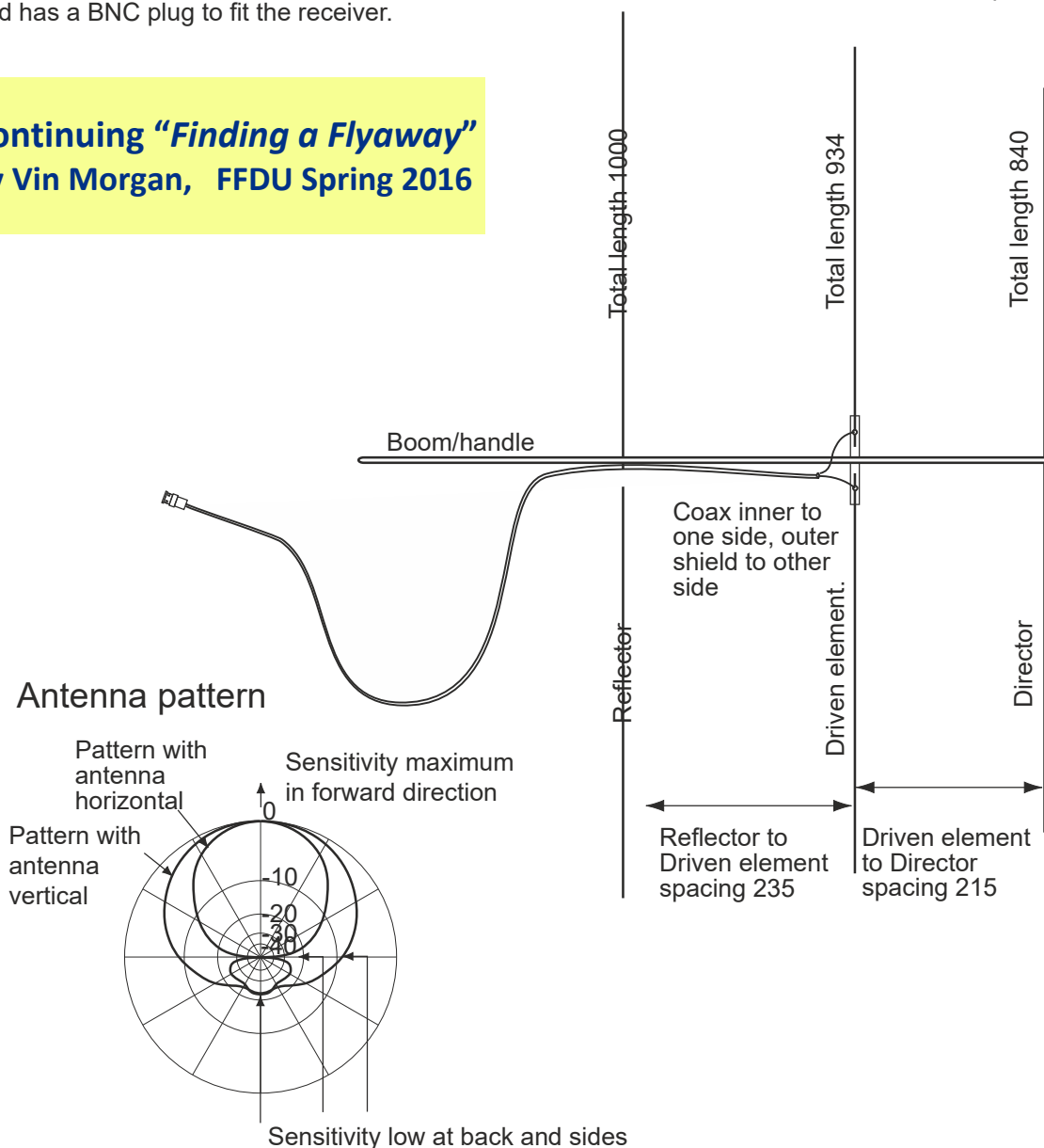
In this design the elements are 3.2 mm (1/8") diameter aluminium tube or rod. Aluminium tube is light but fragile. Aluminium welding rod is more rugged but heavier.

In the drawing the front element and the back element are shown as simple lengths of rod. If they are made in two pieces e.g. for ease of transport it is necessary to have a good electrical connection in the centre.

The centre element is in two pieces with the coaxial cable shield joined to one side and the coax centre wire joined to the other. The two halves do not have to be exactly in line. They could be extended so each half passes through the boom spaced about 1 cm apart (the boom must be insulating).

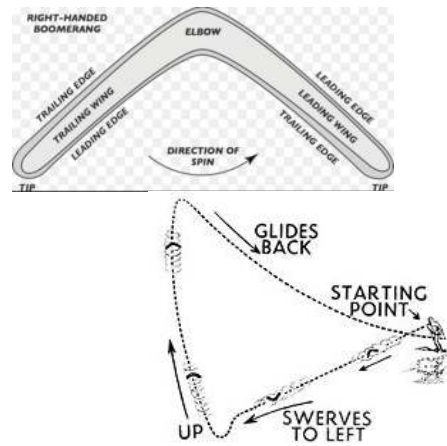
The coax cable should be about 1 m long so the antenna can be held up as high as you can reach. Raising the antenna from waist height to overhead makes a large difference to range. Note that in general the antenna should be held so the elements are vertical. The cable is RG58 or an equivalent and has a BNC plug to fit the receiver.

Continuing "*Finding a Flyaway*"
by Vin Morgan, FFDU Spring 2016





Dave Ackery



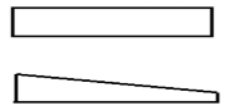
Dave has built an electric F1H during his time in the Northern Territory. Jane managed to launch it for him with just one arm. He always flew just after dawn so he wasn't surrounded by young kids! With some luck Dave hopes to attend the 2017 AFFS Champs. He's also going back to New Zealand to cool off in their 2017 Nationals in January.

Profiling carbon for a trailing edge

Carbon strip (or rod) is a great material for the trailing edges of Free Flight models, it is stiff and straight, and more stable than balsa. Many suppliers sell carbon strip in a big range of sizes, and some people cut their own strip from sheet, (this is not hard with a diamond saw and a Dremel type tool). The only problem is that the strip has a rectangular section, and for trailing edge shape we would prefer to have a taper on the thickness (a trapezoid shape). However it is not hard to add the taper we want.

- 1) On a flat board lay down a strip of double sided tape, this will hold the carbon strip while we work on it.
- 2) Lay down a steel straight edge on the tape, and then lay down the carbon strip against this. Then lift up the steel straight edge. The carbon strip should be positioned 1-2 mm from the edge of the board.
- 3) Now you can shape the strip to a taper. I find a good way is the scrape it with a heavy blade. A

big snap off knife or Stanley knife works well. The sharp edge of the blade works well but also the back of the blade if it has a good square edge. It is quite hard work but with persistence it can be done.



- 4) Then you can finish off with some wet and dry on a sanding block. W & D works **really** well if you get it wet, so consider doing this. Lift the strip off the tape, give it a light finish with some fine W&D folded over, wipe it off with a paper towel and you are done. Do not drag the strip through your fingers, tiny shards of carbon WILL get into your fingers and be difficult to get out. Re-read that last sentence.

Dave Ackery



Cloud Tramp mass launch at Epson Downs on 6 Aug 2016

Oh, what a feeling,



TOY YODA



What wonderful photographs of such a wonderful, joyous group! Thoroughly sharing the human spirit, and transcending the sport of Free Flight Modelling.

Steve Jones / Denver, Colorado / U.S.A.

Great to see so many great photos. It would be even better to have been there. Most of the flyers I think are using RTF models. Sad that most flyers are now grey nomads,

Ian McEldowney Gold Coast Queensland

Thanks for sharing, great pictures. I would like to be there next year; let's wait and see what 2017 brings.

Dave Ackery NZ

Just when I think you can't do better with your photography, you prove me wrong and come up with photos like these. I love the action shots of the flyers, but the two large photos taken at sunset with the light highlighting the wings of the planes are superb!

Elaine Hamilton, MG Car Club Q'ld

Blowing my own trumpet

Comments on the DAM, AFFS and SCC photos

Once again TOP photos; you are everywhere with that camera of yours.

Roy Summersby NSW

A very comprehensive lot of wonderful pictures for which you are to be congratulated. I particularly liked a couple of very early morning shots. Seems like a good time was had by all. One thing is very apparent though and that is the amount of grey hair in evidence, showing a definite ageing trend in the free flight community. Not many youngsters in evidence.

John Taylor Q'ld

Excellent selection of photos. Your photos must be very popular.

John Campbell Q'ld

Yes, I have been following the SEN & FB reports. The dining events sounded especially inviting.

Leeper (Lee Hines) CA USA

Once again you have put together a great collection of memories for all of us, I don't know how you have the time during the comps to take so many great pics.

Matt Hannaford NSW

Nice pics Malcolm although Leigh says too many of me launching (joke).

Vin Morgan VIC

Good shots Mal. A good precis of the events.

Col Collyer VIC

Fantastic pictures Malcolm, thank you very much. I would have loved to be there, looks so nice. Maybe next year.

Michael Seifert Malta

Well done again Malcolm, fantastic collection of shots from three great events. Love the shot of Alex A counting the dollars, some of which was mine!

Craig Hemsworth VIC

Well Malcolm you have outdone yourself as usual. The pictures are great makes us feel as if we were there. Many thanks for sending them to us and for keeping us updated with all the scores.

Dale & William Jones Q'ld

Thanks for the photos. Terrific as usual.

Howard Gostelow Q'ld

Just looked through your current crop of Oz shots - excellent as usual. I particularly liked the shot of the shredded power model and that of AA smiling at a large wedge of dollars he'd just been handed. One day I'll make it darn sarth.

CHE (Chris Edge) Scotland

Thank you for sharing the photos. They were all great. We were indeed having a good time in Australia. New experience too. Not just the competitions but the social functions as well. We hope to come back to Australia again next time.

David Gunawan Malaysia

Thank you for all those great photos.
You were really busy in addition to all
your glider flying. All the best,

Peter and Brigitte Brocks USA

Loved the photos as usual. It looks
like all had a great time. Keep up the
great work.

Ron Clydesdale Q'ld



FREE FLIGHT PHOTOS 2011 - 2016



EVENT	VIEWS	PHOTOS
Fab Feb 2012 Lost Hills California https://www.flickr.com/photos/motor-racing-photography/albums/72157629107989202	8662	248
Fab Feb 2015 Lost Hills California https://www.flickr.com/photos/motor-racing-photography/albums/72157650929326815	6689	427
Fab Feb 2014 Lost Hills California https://www.flickr.com/photos/motor-racing-photography/albums/72157641252408043	5759	381
2015 F1A, B and C World Championships Mongolia https://www.flickr.com/photos/motor-racing-photography/albums/72157656678659490	4813	378
2013 F1A, B and C World Championships France FLYING https://www.flickr.com/photos/motor-racing-photography/albums/72157635354191127	3885	246
Fab Feb 2016 Lost Hills California https://www.flickr.com/photos/motor-racing-photography/albums/72157662495661874	3849	392
Fab Feb 2013 Lost Hills California https://www.flickr.com/photos/motor-racing-photography/albums/72157632909385591	2848	194
Fab Feb 2011 Lost Hills California https://www.flickr.com/photos/motor-racing-photography/albums/72157626152135392	2574	412
Free Flight in Australia and New Zealand 2012 https://www.flickr.com/photos/motor-racing-photography/albums/72157630524067338	1841	135
Autumn Down Under Narrandera April 2014 https://www.flickr.com/photos/motor-racing-photography/albums/72157644538636054	1740	233
AFFS 2016 at Narrandera and SCC West Wyalong https://www.flickr.com/photos/motor-racing-photography/albums/72157667350212242	1435	286
2013 F1A, B and C World Championships France SOCIAL https://www.flickr.com/photos/motor-racing-photography/albums/72157635362523182	1389	193
AFFS 2015 at Narrandera and SCC West Wyalong https://www.flickr.com/photos/motor-racing-photography/albums/72157652421718205	1122	182
West Wyalong Free Flight Field Grand Opening Sep 2015 https://www.flickr.com/photos/motor-racing-photography/albums/72157647235955597	853	194
Richmond Scale Weekend July 2016 https://www.flickr.com/photos/motor-racing-photography/albums/72157667838646753	759	148
Free Flight Nationals Jan 2014 at Springhurst https://www.flickr.com/photos/motor-racing-photography/albums/72157639611187045	701	195
AFFS and SCC 2013 at Narrandera https://www.flickr.com/photos/motor-racing-photography/albums/72157633170788526	489	114
Jump Down Under April 2016 https://www.flickr.com/photos/motor-racing-photography/albums/72157663663660492	372	7
360 Degree of Narrandera Free Flight Field https://www.flickr.com/photos/motor-racing-photography/albums/72157644344486879	53	1

INSTRUCTIONS APPLY TO ONLINE VIEWERS ONLY

The hyperlinks for
each set of photos
are active.

Click on any of
these links to see
the associated
photos in Flickr.
Click on any photo
to see a larger
view or to
download it
(download arrow
is in bottom RH
corner of the
screen), choosing
the highest
resolution if you
want to print it.

Use the right
arrow (on the
right middle side
of the screen) to
continue viewing
photos at a larger
size or click "Back
to Album" (in the
top LH corner of
the screen) to look
at all the photos at
once.

To return to
reading FFDU,
click the return
arrow (< in top LH
corner of the
screen).

I have 79,000 photos in
1,100 folders taking up
270 Gb of storage!

VALE - Gary Sunderland 1934 - 2016



Gary Sunderland passed away from a heart attack on Thursday 3 November. He was apparently found alone at his local flying field.

Gary was a magnificent scale modeller. In July this year, he won the top F4A event and was also part of the team that won the Trans Tasman scale rally, both held at Richmond in NSW.

John Lamont was a dear long-term friend of Gary's and he sent me the obituary from his funeral. I have summarised this for "*Free Flight Down Under*".



Gary was a teenager in the years immediately following WWII and like many others was influenced by the rapid development of aircraft in that period. By the early 1990's Gary had retired and was deeply involved in building and flying radio controlled scale models of WWI aircraft.

Gary was a prolific builder of models and, as well as his large scale radio models, he also built and flew smaller free flight scale models and very small and delicate rubber powered indoor scale models. He travelled widely to compete with these models and was recognised as an expert in the field of scale modelling, winning many competitions at club, State and National level. In 1996 he was a member of the Australian team that competed at the World Scale Championships in France.

Gary was a very knowledgeable aviation historian with a keen interest in the progress of Australian aviation. He constructed large flying scale

models of John Duigan's homebuilt aircraft, the first powered aircraft to be built and flown in Australia, Harry Houdini's "*Voisin*" that made the first flight of a powered aircraft in Australia and a Bristol Boxkite, the first aircraft flown in Australia by pilots of the Point Cook Flying School.

Many modellers will remember Gary as the fellow who always set himself up, usually on his own, at the end of the pits where he would spend an inordinate amount of time assembling or disassembling his models. Gary was usually the first to arrive and the last to leave the flying site!

Gary was a world renowned designer of WWI model aircraft and for many years contributed working drawings and construction articles to the UK publication "*Flying Scale Models*" where his designs dominate their plan listings.

Gary never embraced computer technology and I'm sure that he

would still have used a slide rule in his work long after everyone else turned to calculators. His correspondence was always by post and hand written and his photographs were always taken using film, requiring much typing and scanning to make it usable in our computer driven age. Gary was a dedicated scratch builder who briefly flirted with more recent streamlined models, with their higher landing speeds and fragile retracting undercarriages. Such challenges finally got the better of him and he reverted back to his slow but tough WWI biplanes.

Gary was a prolific designer and builder who had his design and building procedures so honed that it enabled him to achieve any formidable task he set for himself.

Gary was the most enthusiastic modeller that I have known and will be sadly missed at future events by all who were privileged to have known him.

John Lamont

SCALE FLYING KITS FOR SALE



These kits are from Big Kev's estate. **All funds will go into West Wyalong.** These are new kits are mostly unopened. All are priced to sell, and will be listed on eBay if not sold before. Some are on eBay at present.

KIT BRAND

Dumas (Laser)

Aero graphics

Airsale

Rockytop models

Diels Engineering

Golden Age

Easy Built Models



Sterling

Physics of Flight (for Jetex)

R N Models

Scale Flight

Flair

G D

West Wings

Comet

Gillows



K Models

Model Air

???

Veron

Scientific

Dare Design (Laser cut)

Wing Leader

Ballards

Hi Flyer

TYPE

DH4

Spad X111

Avro 504, Sopwith Triplane, Fairy Swordfish, Fokker Eindecker, ME163

Fokker, Eindecker, Fairchild PT19

Junkers D1

Nakajima B5N2 (Kate)

Fokker D7

Jetex: Attacker, Panther, Sea Vixen, Venom, Mig 15

Vought Corsair, Thunderbolt, Grumman Wildcat, Kharkov R10, Beau fighter, Ryan ST, Tomahawk, Jimmie Allen BA Parasol

SE5A, Ryan ST, Bird Dog, Albatross D11-A, Curtis Jenny

Jet Provost, DH Vampire, Meteor Seahawk, F86 Sabre, Thunderjet, Supermarine Swift

Fokker D7, 1912 Leveque Flying Boat

Ryan Observation, DH Puss Moth

Spitfire

Fokker DR1

Westland Widgeon

Piper Cub, Aeronca Chief, Ryan SC, Fokker D1, Curtis Robin, Porterfield 65, Trogon

Chipmunk, Stuka, Trojan, Chipmunk, Birdog, Fairchild 24, Fokke Wulf (big), Thunderbolt (big)

Sopwith Triplane

Tempest, Stinson

Breguet L.E.

Auster, Tiger Moth, Cosmic Wind, SE5A, Aeronca C3, Piper Vagabond, Sordfish, ME109, Hurricane, Spitfire, Chilton Monoplane Minnow Spearfish

P51 Mustang, Cessna 180, P40 Warhawk, ME109

Sopwith Triplane, Fokker Triplane

Hurricane, ME109

Nieuport 1

Ryan ST



Email Roy Summersby on roydi132@optusnet.com.au for details



FREE FLIGHT DOWN UNDER "COVER GIRLS"

Over the seven years I've been producing FFDU, we've amassed a number of "Cover Girls". So to fill this page, I've reviewed the last 28 covers and here are our "Top 10". Well actually here's the complete list:

Roy Summersby	6	Des Slattery	1	William Jones	1
Terry Bond	3	Fred Roberts	1	I know what you're saying:	
Jim Christie	3	Gary Odgers	1	"It adds up to 29".	
Phil Mitchell	2	Howard Gostelow	1	Correct, but I was too lazy	
Antony Koerbin	1	Jes Nyhegn	1	to work out why.	
Artem Babenko	1	Kathy Burford	1		
Ben Lewis	1	Tahn Stowe	1		
Chris Birch	1	Viacheslav Aleksandrov	1		
Craig Hemsworth	1	Vin Morgan	1		

What is this gadget, and what does it do?

Email your answer to actrain@ozemail.com.au The correct answer will appear in FFDU, March 2017.
Multiple answers permissible. First opened correct answer will win.



It's good to see Roy even has vintage rulers

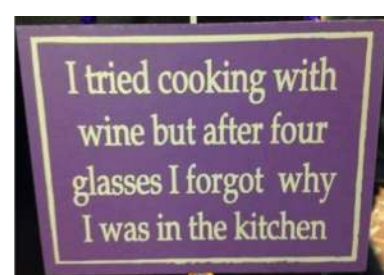


May 99 Rubber wanted. Can you help?

Alex Secara is very keen to compete in the next F1D World Champs, so this is a call out to see if anyone in competition rubber circles may still be sitting on a few metres of FAI Tan date stamped 'May 99'. Despite excellent feedback about recent year batches, the May 99 batch is still being used almost exclusively by top F1D flyers due to its long energy curve. If you have some you would be willing to sell, or can contact someone who does have some, please contact Tim by email - tim.haywardbrown@gmail.com



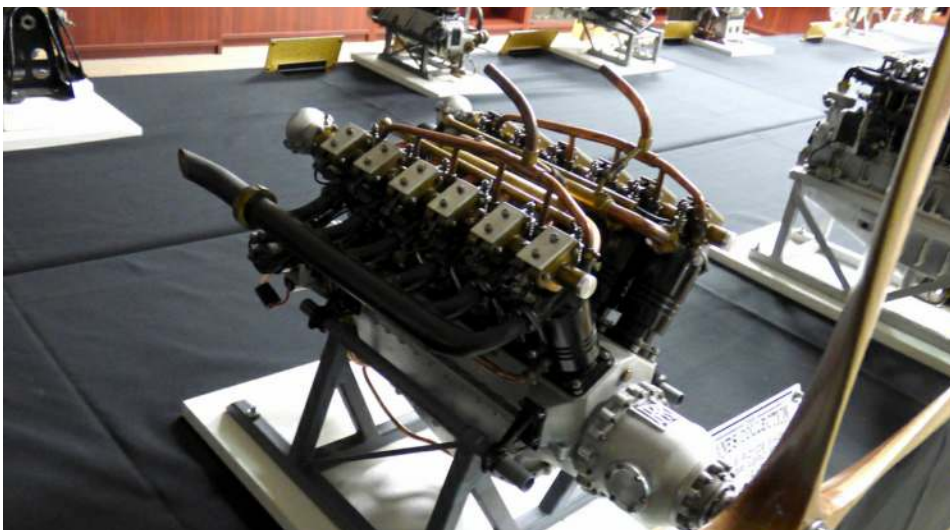
Scientists have grown human vocal chords in a Petri dish. The results speak for themselves.



FINAL TEAM TRIAL SCORES AS AT 2 NOVEMBER 2016

	Kiwi	North American	Max Men	Dave Anderson	AFFS	SCC	Vic St Ch	QLD St Ch F1A, F1B	69th Nationals	WA St Ch	WA Trials	QLD Trial	NSW St Ch	Sum of best three	Sum of best four
	6/2/16	10/2/16	12/2/16	8-9/4/16	11/4/16	16/4/16	29/4/16	14/05/16 15/5/16	28/5/16- 2/6/16	Not flown	Not flown	Not flown	27/10/16 28/10/16		
F1A															
Phil Mitchell	x838	x960	960	960	900	960		950						2880	3830
Vin Morgan				885		917			960				953	2830	
Malcolm Campbell	868	x814	x866	957	807	867		960	833				837	2785	
Albert Fathers	x908	x916	917	750	835			689	944				857	2718	
Tahn Stowe				807	805	960			792				832	2599	
Matt Hannaford				620	160				668					1448	
Mike Thomas				815	180									995	
Ben Lewis								701						701	
John Lewis								537						537	
Graham Maynard								124						124	
F1B															
Vin Morgan	960	x960	x809	928	960	960	960		960				240	2880	3840
Craig Hemsworth	960	x960	x960	750	815		960		960					2880	3695
Terry Bond				960	205	927			960				420	2847	
Gary Goodwin				787		874			906				885	2665	
Paul Rossiter				551	934	960								2445	
Leigh Morgan				767	116	825	711		829				152	2421	
Matt Hannaford				858	398	675			634					2167	
Richard Blackam							957		960					1917	
Graham Maynard					701			656						1357	
Ben Lewis								923						923	
John Lewis								883						883	
Gary Odgers					742									742	
Gary Pope				588	147									735	
Ron Munden								713						713	
Mark Armour								600						600	
F1C															
Roy Summersby	960	x960	x960	960	900	957			960				960	2880	3840
Gary Pope				750	614	858	502		960				960	2778	
Terry Bond				959	900	883			722				909	2768	
Shannon Tolmie				766	900	855							789	2544	
Mike Pettigrew				960			529		881				500	2370	
Shayne McDonald						857							858	1715	
x Under the trials rules one overseas event can be counted. An x before the score indicates an overseas score not used.															

The photos below are of working scale model aero engines made by Bill Janes. These motors have been gifted to the Classic Flyers Museum at Tauranga Airport in New Zealand.



just saw 3 people
jogging outside
& it inspired me
to get up & close
the blinds.

I wonder what my
parents did to fight
boredom before the
internet...


I asked my 17 brothers
and sisters, and they
didn't know either.

**I hate spelling
errors..**

**You mix up two
letters and your
whole post is
urined**

Major Free Flight Dates for 2017

Roy Summersby has drafted up a list of all major events for 2017. Not all is set in concrete so, if you have any corrections, additions or feedback, contact Roy on [Mail: roydi132@optusnet.com.au](mailto:roydi132@optusnet.com.au) or by phone on 02 4341 0072 or mobile 0413 588 720



News Years Bash	29 Dec to 1 Jan 2017.....	West Wyalong
Maxmen.....	11 to 19 February.....	Lost Hills CA
Vic State Champs.....	24 - 26 March.....	Marong
Q'ld State Champs, F1A and F1B.....	8 and 9 April.....	Dalby
SCC.....	1 and 2 May.....	West Wyalong
DAM, AFFS and Tui Cup.....	4 to 12 May.....	Narrandera
Q'ld State Champs F1C, OP and F1J.....	20 and 21 May.....	Dalby
NSW State champs F1A, B and C.....	3 and 4 June.....	West Wyalong
World Championships.....	6 to 13 August.....	Hungary
Cowra Oily Hand.....	26 & 27 August.....	Cowra

**At time of print, 2017
calendars had not been
received from Victoria or
West Australia.**

**These will be added to
the March 2017 FFDU.**

STOP PRESS

Memory sticks still work after going through a full wash cycle. FFDU is now squeaky clean. No not with the dishes, it went in with the clothes!



BRISBANE FREE FLIGHT SOCIETY

2017 Flying Calendar

Month		Date	Start	Event	Location
January	✂	Sat 28 th	12pm - 4pm	Club meeting plus "show and tell"	John's place
March	IND	Sat 4 th	3pm - 6pm	Delta Dart (club sponsored) State Champs	BSHS
	CP	Sun 12 th	7am - 3pm	2 min models (3 flights) + A1 (3 flights) + CLG (6 flights)	Coominya
		Sun 26 th	7am - 2pm	Dale's Fun Day (general flying and limited RC)	Coominya
April	IND	Sat 1 st	3pm - 6pm	HLG/Catapult State Champs	BSHS
	CP	Sun 2 nd	7am - 3pm	100gm coupe, P20 and E36 (3 flights each)	Coominya
	🏆	Sat 8 th	7am - 12pm	F1A State Champs (5 rounds - first Rd 4min)	Dalby
	🏆	Sun 9 th	7am - 12pm	F1B State Champs (5 rounds - first Rd 4min)	Dalby
		Sat 22 nd		F1A Reserve in case 8th blown out	Dalby
		Sun 23 rd		F1B Reserve in case 9th blown out	Dalby
	🏆	Sun 30 th	7am - 12pm	F1G State Champs (5 flights)	Coominya
May	IND	Sat 6 th	3pm - 6pm	F1L (EZB) State Champs	BSHS
	CP	Sun 7 th	7am - 12pm	All in % - multiple entries (3 flights ea)	Coominya
		Mon 1 st – Tue 2 nd		Southern Cross Cup	West Wyalong
		Thu 4 th – Fri 12 th		Dave Anderson Memorial, AFFS Champs and Tui Cup	Narrandera
	🏆	Sat 20 th	7am - 12pm	F1C State Champs (2014 rules: 5 flights and 5 secs)	Dalby
	🏆		1pm - 4pm	Open Power State Champs (3 flights)	Dalby
	🏆	Sun 21 st	7am - 12pm	F1J State Champs (5 flights)	Dalby
June	IND	Sat 3 rd	3pm - 6pm	Hanger Rat State Champs	BSHS
	🏆	Sun 11 th	8am - 3pm	F1H State Champs (5 flights) + A1 Club event (3 flights)	Coominya
	✂	Sat 24 th	12pm - 4pm	AGM plus "show and tell"	John's place
		Sun 25 th	8am - 2pm	Club Fun Day (Prizes, no points) KKK, Frog, Vic Smeed and ½ Hour Walking Scramble	Coominya
July	IND	Sat 8 th	3pm - 6pm	P18 State Champs (club sponsored)	BSHS
	🏆	Sun 9 th	8am - 2pm	Open Rubber & P30 State Champs (3 flights each)	Coominya
		Sun 23 rd	8am - 2pm	Dale's Fun Day (general flying and limited RC)	Coominya
August	IND	Sat 5 th	3pm - 6pm	Peanut Scale State Champs	BSHS
	CP	Sun 13 th	8am - 2pm	BFFS Mini Power and QDP (3 flights each)	Coominya
		Sun 25 th	8am - 2pm	Club Fun Day (Prizes, no points) Vintage, Sports models and limited RC	Coominya
September	🏆	Sun 10 th	7am - 2pm	Scale, HLG and CLG State Champs	Coominya
	CP	Sun 24 th	7am - 3pm	100gm coupe, P20 and E36 (3 flights each)	Coominya
October		Sun 8 th	7am - 3pm	Col's Vintage Rally (accumulation of points for each class)	Coominya
		Sun 22 nd	7am - 3pm	LSq/100 (3 flights), No Frills Wakefield (5 flights)	Coominya
November		Sat 11 th	12pm - 4pm	BFFS Xmas Party	Bremer Waters

🏆 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 343490



NSWFFS Contest and Fixture Calendar 2017



Date	Event	Venue	Time	CD
Dec 30 Jan 2	New Years Eve BBQ & Fun Fly No Comps Just Fun	W Wyalong	Flying anytime. If you want to go, book in	
Jan 15	New Year Recovery Day	Richmond	7.00am – 1.00pm	
Jan 20	General Meeting		7:30pm	
Jan 29	Scramble, Scale Rally, HLG/CG	Richmond	7.00am – 1.00pm	Terry Bond
Feb 12	Combined % + Scale Fun Fly	Richmond	7:00am – 1:00pm	Matt Hannaford
Feb 25-26	Hunter Valley Champs	Muswellbrook		
Mar 12	State Champs P30 + Comb Vintage	Richmond	7.00 – 1.00pm	Gary Pope
Mar 17	General Meeting		7.30pm	
Mar 26	Gary Goodwin's Hinton Day	Hinton	7.00am-- 1.00pm	0414 292 050
Mar 24 -26	Vic State Champs F1A, B, C, G,H and J O/Rubber, O/power, P30 and HLG	Marong	For program, see FFDU or phone Vin Morgan on 03 9387 2531	
Apr 9	Big Kev's Abomination Day	Richmond	7.00am – 1.00pm	Peter Jackson
May 1-2	Southern Cross Cup F1A, B, C Open Power & Open Rubber	W Wyalong	For program, see FFDU CD: Dave Thomas	
May 4-10	AFFS Champs	Narrandera	See FFDU	
May 19	General Meeting		7.30 pm	
May 21	State Champs Scramble + Combined %, Control Line flying, BBQ Lunch	Richmond BYO Food	7.00am- 1.00pm	Terry Bond
June 3-5	NSW State Champs F1A, B, C, O/Power and O/Rubber	W Wyalong	8.00am-1.00pm	Dave Thomas
June 18	Corby Starlet and Scale Practice	Richmond	7.00am-1.00pm	Jim Christie
July 1-2	Scale Rally Weekend. SAT: Scale comp SUN: ½ Hour scramble, Fun Fly, C/L flying & BBQ Lunch	Richmond BYO Food	7.00am till dark Trans Tasman CD: Tahn Stowe	
July 16	State Champs F1G, H and J (Combined)	Richmond	7.00am-1.00pm	Matt Hannaford
July 21	General Meeting		7.30 pm	
Aug 6	Combined % (multiple entries)	Richmond	7.00am- 1.00pm	Bruce Hao
Aug 20	Scale Rally, P30 and Combined Vintage	Richmond	7:00am – 1:00pm	Tahn Stowe
Aug 26-27	Cowra Oily Hand Weekend	Cowra		
Sep 10	½ Hour Scramble + Fun Fly BBQ Lunch	Richmond BYO Food	7:00am – 1:00pm	John Corby
Sep 15	Annual General Meeting		7:30 pm	
Sep 24	Combined % (5 flights)	Richmond	7.00am - 1.00pm	Matt Hannaford
Oct 8	Combined % (multiple entries)	Hinton	7:00am – 1:00pm	Gary Goodwin
Oct 21-22	Wings Over West Wyalong All Disciplines FUN FLY	W Wyalong	7.00am till dark. Plenty of room for all	
Nov 12	Brian Alcock Biplane Day ½ Hour Scramble and Scale rally	Richmond	7:00am – 1:00pm	Gary Pope
Nov 17	General meeting		7.30	
Dec 1	Friday Xmas Party	Richmond	7.00am – 1.00pm	
Dec 10	½ Hour Scramble and Combined Vintage with SAMS plus Fun Fly.	Richmond BBQ Xmas Lunch	7:00am – 1:00pm BYO FOOD	CVD: Terry Bond

- Notes
1. All scrambles start as close to 8.00 am as possible
 2. Sport FF, CL, & RC Flying welcome on Adrian Bryant Field at West Wyalong. Plenty of room.
 3. BYO FOOD, DRINK & CHAIR to ALL BBQs at RICHMOND