

FREE FLIGHT

DOWN UNDER

NEWSLETTER OF THE AUSTRALIAN FREE FLIGHT SOCIETY INC

VOLUME 46 NUMBER 3

SPRING 2014



**WEST
WYALONG**
GRAND OPENING

F4A TRANS TASMAN

**AN INEXPENSIVE
ALTIMETER**

NEW AUSSIE TIMER



FRONT COVER: What free flight is all about. A big noisy model on a big field. Here's Howard Gostelow at the 2014 Springhurst Nationals hurling his battle weary model skywards, with both thumbs intact!

Free Flight Down Under

Spring 2014

Volume 46, Number 3

This edition of **Free Flight Down Under** is edited by Malcolm Campbell, 1 Rex Street, Aspley 4034 Australia
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.

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

Contents

President's Report.....	3
Words from the Editor.....	4
We went to Mongolia.....	5
West Wyalong Grand Opening....	12
F4A Trans Tasman.....	20
West Australia Team Trials.....	25
Construction Corner ALTIMETER. 	26
New Oz electronic timer.....	28
A Visit to Joe Supercool.....	31
Malmstrom Madness WA style... 	34
New Zealand Snippets.....	36
Calendars.....	37



PRESIDENT'S REPORT



There have been a couple of major events since my last report. A very significant one has been finalising the purchase of the field at West Wyalong by the NSWFFS, and trying out conditions there with a couple of events, as reported in the last issue of FFDU. In addition to ensuring that NSW has a field available for club events, this also provides a backup for Narrandera (and vice-versa) should conditions at either field be unsuitable.

The other major event since my last report has been the Asian-Pacific Championships held recently in Mongolia. While there will probably be a more complete report on this event elsewhere, I would like to congratulate the team on a creditable performance, in particular Phil Mitchell who took out the Mix men competition (F1A, B & C

combined) and was second in F1A in the championship, Vin Morgan who was third in F1B in the championship and Roy Summersby who got a fourth in F1C. The Australian team was second in F1B though not quite so well placed in F1A and F1C. Now that we are more aware of the likely numbers taking part it would seem to be quite feasible to hold the next in the series in Australia and I am sure that this will be given serious consideration.

I was interested to read a report from Leigh Morgan on these Championships in SEN News. I understand that this was specifically requested of her to provide some info for the other females who might be contemplating going to the World Championships there in 2015. One thing that really caught my eye was her comment that *"At the prize giving dinner, they gave a special presentation to all the competitors over 60. We were a team of six people and five of our team stood up and two Chinese"*. This really brought home to me the parlous state of free flight in Australia, with very few younger people taking part who might carry it into the future. I am afraid that I am bereft of ideas to change this situation. Over here in WA Roy Farren ran a schools program for many years in which students built and learned to fly a basic glider. This caused a lot of interest and wonderment at the time but produced little (i.e. no) flow through into aero modelling as far as I am aware. Richard Blackam has

argued that this is the wrong approach and that modern tech-savvy kids should be introduced to high tech models with all the electronic wizardry to compete with their iPhones etc. However, I haven't heard of this being tried and having any more success. Maybe there are just too many issues with free flight (lack of parental and/or peer interest, too far to flying fields, high cost of entry for top models, no public profile) and the age of free flight is just doomed. It would be sad if there were indeed the case. Does anybody have any practical suggestions of how we could reverse the situation? What about overseas practice?

Finally, on a bureaucratic note, the MAAA has now abolished all the Tech Sub-committees, with their roles being taken over by the National Special Interest Groups, which in the case of free flight is the AFFS. We are greatly indebted to Graham Maynard for chairing the free flight TSC for many years and also the various members who have served on it. Fortunately, all of the tidying up we have been doing in recent time with regard to the team selection process, role of team manager, etc. means that we are completely prepared for this role. A benefit of the change is removal of much of the duplication in communication with MAAA, bolstered by a more rigorous approach to considering matters at the AFFS AGM before they are passed on.

Happy Flying,

Paul Rossiter

OLD TIMERS CONTEST

For every problem I had he had one to match, so the scores were even. When old modellers meet, health is the topic discussed. Recoveries are now of a different kind.

Further down the flight line was another old bloke. We wandered over, *"How are you doing old fellow?"*

"Do you really want to know?" he replied. *"I think my knee replacement came from a kangaroo, an old one. My hip replacement, from Lord knows where, I've had a carbuncle removed from my neck. I've yet to see the results of my cataract operation. When I thought the worst was over I had an ingrown toe nail removed. But I can't stop and talk, I have to get this flight in."*

As he limped off to the flight line, we saw the registration on his wing ----- VH 34.

as reported by Adrian

Page3



FROM THE EDITOR

I was told it would be hard to beat the last FFDU for size, and that is true. Our Winter edition was a bumper one and so the Spring one looked like it would be much smaller. Thankfully two "big ticket" items have just finished. I received an excellent article written by our chief wordsmith Vin Morgan who brought the Australian team's experiences in Mongolia to life with a colourful day to day story extracted from the Morgan diary. Phil Mitchell did particularly well in F1A returning with a wallet full of Euros, and Vin flew the flag high for F1B. It was also good preparatory work for the World Champs in twelve months time.

The Grand Opening of West Wyalong went like clockwork. The weather was perfect, models were continually in the sky, people were happy and the Saturday evening BBQ was great. I've seen the field three times and flown on it twice - and it keeps getting better. We now have a field that will get regular use and develop in time to a world class venue. We all have Adrian Bryant and the NSWFFS management team to thank for their forward thinking and "never say never" attitude.

Finally, the altimeter and timer articles should interest many; thank you Paul Rossiter and Harry Sokol for your excellent contributions.



Cheers, Malcolm Campbell

WORDS FROM JON FLETCHER

GEORGE FRENCH 1925-2014

With sadness we learn that George passed away peacefully in April 2014 at the age of 89 years. He will be well remembered in the UK and by many overseas flyers, as a pioneer in the 1960's of the Variable Incidence Tail. He proved its success through his model's performance in national and international competition. This note is not strictly an obituary, but records some details of his model, the Night Train. This is the Mk II 1960 FAI model produced as a plan in 2005. This note is offered now in his memory by Martyn Pressnell.

NIGHT TRAIN MkII

GEORGE FRENCH'S 1960 FAI POWER DURATION MODEL



George with Night Train Mk II in 2005 on the farm where he regularly runs his engines.

"I flew against George a few times back in the UK. I certainly remember him from the early 1960's. George used to turn up to fly wearing a chequered sports coat, white shirt and tie, light coloured trousers and gum boots. Then he'd get them all blasted with a fine coating of castor oil.

John O'Donnell used to go to mass on the way to a contest and on the field always appeared in a charcoal suit, white shirt and black tie - and a grey PVC plastic

mac, torn and held around his tubby waist with a bit of string.

When the late Dennis Pepperell, one of my 1/2A power flying friends met up with John again, after a 30 year break he said, "I see you haven't changed a bit, including the ripped plastic mac!"

Whilst trying to find something to wear that will go over my plastered up (broken) left hand, I found my UK flying Anorak from

1976. Being dark blue, it suits working in the paddocks clearing up after Rosemary. At least I got some exercise in today and didn't fall over. Made in Finland it is about 40 years old, I even managed to get the ladies in the local sewing repairs shop to put a new zip in for \$10.00! I told them it had sentimental value.....

There just isn't that class of dress on the flying field nowadays.....!"



We went to Mongolia!

*a report by Vin Morgan
photos by Vin, Terry and Albert*

We went to Mongolia. A small Team of six Australians – Phil Mitchell and Albert Fathers in F1A, Vin Morgan, Terry Bond and Leigh Morgan in F1B and Roy Summersby and Terry Bond in F1C. Terry trying to repeat his double maxout in F1B and F1C at last year's World Championships.

We all met in Sydney and flew to Ulaan Bataar via Beijing on Air China. Not too bad, the long leg, Sydney to Beijing is only 12 hours and overnight. At UB we were met by the Mongolian F1A flyer Chimed Ganzorig (Ganzo) and introduced to our Driver whose name is close enough to Tiger not to matter. We piled all our boxes and ourselves into Tiger's bus and set off for our booked accommodation - Khaan Jims Camp Hotel. It took about 2 hours to do the 50 odd km, 15 out of UB, the 40 km on the highway and 5 km on the (very) unmade road into Khaan Jims. Khaan Jims had our booking but with no-one, including Tiger speaking any English a certain amount of arm waving was necessary.

Khaan Jims however was in a beautiful location next to the river, had comfortable rooms – some were gers with attached facilities and served tasty and interesting Mongolian meals.

Next day (Saturday) we went out for a quick look at the field. It took a bit of time to find but is as per the pictures – short grass that goes forever. Windy!!

Sunday

We took the models out but it was very windy and only the North Koreans were flying gliders under the firm direction of their coach. They crashed a couple, not entirely surprising as circling an in 8m/s is a bit tough. The forecast was for much less wind the following days.

The opening ceremony held at the Chinggis Khaan monument (Google it) which is not far from the field. Pleasantly short speeches and some Mongolian throat singing. The quadcopter was first noticed at the opening, buzzing round filming.

Monday. Mongolia Cup F1H

There had been a bit of rain during the last couple of days and since we couldn't talk to any of Khaan Jims' staff we didn't get the message about the river. On Monday morning it was 70cm over the footbridge and running fast. Khan Jims is actually on an island between two branches of the river and now there were several separate islands. One for the Hotel and another for the gers. Phil, Albert, Roy and Terry waded from their gers to the hotel for breakfast (eggs, meat, bread, milk rice, coffee). We got out, Tiger carrying model boxes and Leigh and me (we Melbournians know how to use porters - although it did remind me uncomfortably of the Ascent of Rumdoodle). All our clothes etc. stayed in the hotel.

We got to the field at 0830 in time for Phil to fly Mongolia Cup F1H. Conditions were excellent, calm and sunny. A bit of wind came up at 11:00. Phil dropped the last round to come



Khaan Jims was in a beautiful location next to the river



MAAA Secretary, Kevin Dodd, speaking at the Opening Ceremony

3rd. A pity but everyone was somewhat grateful as it meant we could leave the field at 2pm and go and see what was happening with our accommodation instead of having to wait around for the flyoffs at 6pm. The message was that Khaan Jims was now completely inaccessible with a metre of water over the bridge but alternative accommodation had been organized. Where it was was a bit of a mystery but after a couple of false starts Tiger got on the phone and took us to "Mandal". Mandal is a resort not very far in km from Khaan Jims but an exciting drive on unmade roads over the hills (ask Albert about the ravine).

Gengis Khan monument at the Opening Ceremony. It's big. There are people on the viewing platform on the horses head!



It's a nice field, goes on forever

At Mandal we have three gers with attached bathrooms. There is a restaurant which serves western type meals, perhaps not as interesting as Khaan Jims but quite satisfactory. Like Khaan Jims they have beer, and most usefully, the manager spoke English.

Tuesday. Mongolia Cup F1A

Like most hotels Mandal doesn't work flyers' hours so we negotiated to have some pre-made breakfasts delivered to our gers the previous evening. The salad and meat sandwiches were ok if a bit heavy first thing. All our luggage was still trapped at Khaan Jims but we had the model boxes and most of the flying



Vin Morgan placed third in the Asian Champs F1B



The little red bus took us to the field each day



Team meeting/Whiskey time in Roy and Terry's ger. Hydration looked adequate.

equipment. We set off via the short route over the hills at 0530. Phil had a migraine and didn't come out. First thing (07:00) it was very calm with the breeze coming in at around 10:00 and getting up to 6m/s for rounds 5 and 6 just before the two hour lunch break. Albert flew F1A but not too successfully and some of the flyers could not cope very well with the wind resulting in a fair amount of carnage. Ganzo however has an M&K long LDA model and did some nice launches. We made a few F1B check flights. The patterns looked OK and the models behaved. The field is 1,500m above sea level which could cost up to 10% in performance (of the models that is, not sure about the flyers). Our bus won't start. The starter motor is not working so the bus has to be roll-started or towed. But we got back in time for a scotch before dinner.

Wednesday. Mongolia Cup F1B / C

Beautiful day. Fine calm and cool on the field at 0700. Wound and threw for the first two rounds but it got harder during round 2 when the thermals started. The field is surrounded by distant mountains – a bit like that other tricky field Omarama – and the actual flying area is somewhat undulating. In the limited amount of test flying we managed to get in on Monday and Tuesday thermals seemed to be indicated by the usual lull in the breeze but in the Mongolia Cup it appeared necessary to launch well into the fill-in after a lull even if the temperature had dropped. Although I only lost 10 seconds in round three, subsequent flights included the one that got to good height in the first minute, dropped to about 20m in the second minute and held on at that altitude for another minute. The Chinese flyer Wu

Yungsheng whom we knew from the flyoff at Narrandera in 2012 said the Mongolia field was one of the most difficult he had flown on. He had been there seven times and had maxed out only twice.

Terry seemed to understand the air but was undone in round 5 by a loose timer that caused the VIT to stay in for 16s. Leigh was caught by the start of thermal (and sink) activity in round 2 and also missed the air in round 5. Roy was going well in F1C until he missed the last round with a moderate climb into poor air. No-maxouts did mean we could leave the field after round 7 and had time for a scotch before dinner.

Thursday. Asian-Oceanic Championships F1A

Usual morning procedure; up at 0430, box breakfast at 0500, depart at 0530, on the field at 0620. Calm and cloudy. The cloud cleared around 1100 and the wind came up to 3-4m/s for rounds 4 and 5. Phil easily maxed all the rounds using the long M&K LDA in the first 3, changing to the short LDA for the two rounds before lunch when the wind got up to 3-4m/s and the changing back to the long for the two rounds after lunch. Albert had latch trouble, got a zero, and then pulled a leg muscle and stopped flying.

The flyoffs started at 6pm. Phil, Ganzo and the North Korean all easily made the 5 minute in lift. At 7pm in the 7 minute Phil looked to have the



Storm clouds on the horizon, Roy prepares as Phil and Albert watch

best launch but came second to Ganzo who got 300s to Phil's 287. Phil was a bit unlucky; the models drifted over to where the field slopes upwards and his model landed on the far side of the circle on the higher ground. If it had just cleared it could have glided for another 40s following the slope downwards. We got back to Mandal around 8:30pm for a late dinner. No time for whiskey.

The quadcopter incident occurred in the afternoon while we were waiting for the flyoffs. It had been buzzing around the flight line filming and in the long break it flew up and down the line taking pictures of the waiting flyers including Roy who flapped Phil's jacket to wave it away. It did move away, climbing high in the air but then came back and taunted Roy by bouncing up and down in front of him. Roy balled up the jacket and tossed it at the quadcopter scoring a direct hit. The quadcopter fell to the ground and since it all happened very quickly the propellers were still running when it hit the ground so it rolled and touched the boom of one of Phil's models before it was shut down. Phil picked up his model to check for damage and I picked up the quadcopter. Phil's model was alright so I threw the quadcopter away. Talking about it later we both would have jumped on it if the glider had been damaged. At the time we gave Roy a win on points but when the quadcopter failed to reappear for the rest of the competitions we raised it to a TKO. Roy was a bit subdued after the incident but cheered up when Kevin Dodd, MAAA Secretary and Chairman of the FAI Jury came along and said the crowd in the control tent cheered when the quadcopter was downed.

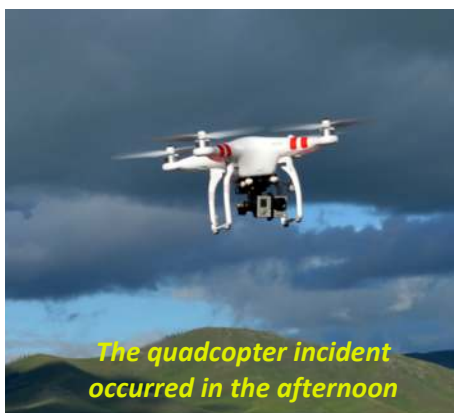
The operator had already been warned several times not to fly near the flight line to avoid distracting the flyers and timekeepers.

Friday. Asian-Oceanic Championships F1B

Good breakfast – pancakes! Same good weather. I seemed to have the conditions sorted and got all seven maxes fairly easily. Leigh was unlucky to drop 2 seconds and then some more in another flight that was somewhat mozzed by some rather intrusive close-up filming. She hit her head with the tail knocking it off (the tail that is) and on the re-fly (the first was less than 20 sec) she launched too early - well before the infill. It looked OK for a while but dropped out of lift. Terry, whom I thought was in control for the Mongolian Cup dropped a bit in the extended 1st round and then some more in round 5.

By flyoff time the wind had dropped so I wound the tail screw up to 3.45 mm, just 0.2 below the best setting for calm air. I launched first after everyone had been standing around for about 5 minutes and the thermistor showed a small warming. The motor was good but the flight was only 4:09. It turned out that I was too early, the climb and first 50 seconds of glide were in poor air with a glide sink rate 0.7 m/s. The last 3 minutes were much better with the sink rate ~0.32 m/s. The others followed my launch but the 20 or so seconds delay meant they probably spent less time in the sink.

Only Gongor from Mongolia got 5 minutes. I was originally fourth but Wu Yungsheng's model was underweight which raised me to third and the Australian Team to second.



Back at 7:30 pm, too late for scotch. The bottle of Ukrainian sparkling wine with dinner was not good (beer was better). The ice cream was OK.

Saturday. Asian-Oceanic Championships F1C

An interesting day of highly variable weather. Cloudy and cool in the morning, warmer later, with a thunderstorm and some rain at lunchtime. Fairly calm all day. Both Roy and Terry had some erratic climbs. Roy was caught in rounds 2 and 7 and Terry in rounds 2, 5 and 7. Two of the Mongolians maxed out. We left the field early. On the way back we checked the accommodation that was provided for the FAI Jury members to see if it had possibilities for next year. It has the advantage of being close to the highway, no 20 minute drive through the hills, but there were only five 2-bed cottages with bathrooms and some damp (and therefore a bit smelly) gers without bathrooms.

Sunday. Mixmen - a combined F1A, F1B, F1C competition

Nice day, calm early, windy later and calmish at the end. Leigh and Albert did not fly. The four competing Australians except Phil dropped rounds variously. As in the Mongolia Cup I couldn't pick the air (need to get the weather station working).

There was a Mongolian Barbeque lunch during the two hour lunch break. Goat!

In the contest, just three maxed out, one each in F1A, F1B and F1C. In the 5 minute round Phil and the Chinese F1B flyer Chen Shao Wen found a nice patch while the Mongolian F1C flyer dropped. In the seven minute it was still a bit breezy, Phil was limited in manoeuvrability and ended up launching upwind of Chen. Both got away in lift. For the nine minute the wind was quite a lot less. Phil moved cross-wind away from the flight line. He launched first – a perfect high launch, and Chen followed soon after.

Although Chen obviously got a bit of helpful air he only made 6:40. Phil got the nine minutes for a clear win. We used the bus to retrieve the flyoff flights. Phil flew brilliantly, towing comfortably in the wind and getting perfect, high launches in all conditions. Maybe helped by the Mongolian F1A



Phil got the nine minutes for a clear MixMen win

cheer squad in the flyoffs, F1A! F1A! F1A!

We got back to Mandal just before 9pm and ordered spaghetti bolognese all round (the restaurant closes at 9pm).

Monday

The closing ceremony was to be held on the field and a stage had been set up but the possibility of rain saw it moved into Ulaan Baatar. We didn't think it made much sense to drive into UB for the Ceremony, drive back to Mandal for one sleep and then drive back to UB the next morning so we all arranged to stay in the Bayangol Hotel (where Leigh and I had a booking for after the competition) after the Closing Ceremony.

The closing Ceremony and Banquet was held at a sort of amusement park which featured a lake and a castle. There was an outdoor area on a small

island with a stage and a bar that was just the right size for the 70 or so people. Speeches were short which was good since they all took twice as long with translations. Our own Kevin Dodd as Chairman of the FAI Jury gave a nice speech in which he thanked everyone right down to the guy who maintained the on-field toilets. There were a number of presentations for juniors – obviously a lot of juniors flying. After the trophies had been distributed and we had drunk Phil's bottle of champagne, there was a call for competitors over the age of 60 to come onto the stage. So all the Australian Team, except Phil, climbed up on the stage to be joined by just two other flyers from the Chinese team.

Tuesday

Leigh, Vin, Phil and Terry went shopping in Ulaan Baatar. Ganzo and his wife Bolormaa took us to the cashmere factory outlet. Phil bought lunch.

Wednesday

Roy, Phil, Terry and Albert left for the airport. Leigh and I had a couple of days left in UB. We walked around the city, visited a museum which had a sort of history of Mongolia (actually quite interesting) and bought a (relatively) expensive but good dinner at Azzurra.

Thursday

In UB. Found a supermarket and bought supplies for the train trip to Beijing.

Friday

The train takes 28 hours for the trip, leaving at 07:30 and arriving in Beijing at 11:40. We have a 1st class cabin to ourselves and share a washroom (basin and shower) with the next cabin. There is a toilet (clean!) at the end of the carriage and a samovar that supplies hot water for making tea, soup etc. at the other. The cabin has plenty of storage space for two model

boxes and a case. The first few hours travel are through the rolling green hills around Ulaanbaatar. Flying fields everywhere! We are heading south east towards the flatter part of Mongolia. Not really the Gobi Desert which is more to the west but still pretty dry with little vegetation. We continued the pre-dinner scotch tradition and then investigated the dining carriage. There is an extensive menu but only two choices available. We went for the chicken and had a beer. The train stopped for Mongolian passport control at 7:30, moved a few km and stopped again for Chinese PP control and the wheel exchange. Railway gauges are different in Mongolia and China so they swap the bogies. Quite a slick operation taking 3 hours.

Saturday

Comfortable sleep on the train. We breakfasted appropriately on noodle soup in our cabin. I gave the remains of the Johnnie Walker Black Label (thanks Albert) to the Mongolians in the next cabin. They seemed pleased; we had a small tot and chat before we arrived at Beijing station and they carried our model boxes up and down the stairs to where we could get a taxi. Unfortunately we ended up in a taxi with a taxi tout who when we arrived at the hotel asked for a fare that was about four times what the trip would have cost in Australia. I gave him about half and told him to piss off. He did.

Sunday

Sunday started badly as we thought that since we were not far from the Forbidden City we should go and have a look. Unfortunately, perhaps because it was Sunday, almost everyone in China seemed to also want a look. The first 200m long queue was the security check. The next queue, to buy a ticket was only 100m long and when you had a ticket there was only a minor queue to actually get in. Of course it was pretty crowded inside and there are repairs going on

so a lot of the buildings are closed. The day was stiflingly hot so we retired early and took our sweat-soaked t-shirts back to the Novotel air conditioning. It was a bit different from France last year. When I visited a technical museum (they did have

some aeroplanes) sometimes I was the only person in the room.

Things got a lot better in the evening. Huaqiang Wang had texted (via his wife whose English is good and who said her English name was Maggie) to invite us to dinner. I was expecting a pleasant snack at the

street stalls but instead Huaqiang and Yuan Gao picked us up in the Mercedes and drove us round Beijing for a while before stopping at a restaurant. We had Peking Duck, yum.

Monday

We flew home.

More photos from Mongolia



Entertainment during the Closing Ceremony



The boys wasted no time in finding the bar



Follow the yellow dirt road to the field



Australia was 2nd in the Asian Champs teams



Real French champagne for Phil's MixMen win. Kevin Dodd was not reluctant to join us



Leigh had the falcon trimmed in no time at all



WANTED

Tan2 or Super Sport rubber you are not using and wish to move it on. I'm happy to pay a fair price including postage.

Howard Gostelow thegossies@bigpond.com 0421 620 743

And Malcolm Campbell is looking for black FAI rubber, 1/4" strip preferred, with 1/8" my second choice.

actrain@ozemail.com.au or phone 07 3263 9339



NEWS FLASH



FREE FLIGHT SCALE											
POWER											
NAME & FLYING OFFICER	AIRCRAFT	FLIGHT BONUS	ROUND 1	ROUND 2	ROUND 3	ROUND 4	ROUND 5	ROUND 6	FLIGHT SCORE	STATS SCORE	TOTAL PLACE
A. HEWITT	DH6									1674	
M. KELSEY	Nieuport 21		1135	890	-		1160			1575	2735 4
J. RIMMER	DH82a Tiger Moth									1521	
W. DENNIS	REL4		1212	1825	-	190	1940	1600		1670	3110 1
G. ODGERS	ALBATROS CIII						1370			1607	2477 3
T. RIMMER	SOPWITH 1/2 STRUTTER									1566	
G. TILSTON	FOCKER EIII						1330	1200		1387	2717 5
S. MAUGER	Ausly CA Antares		672	-	-					1424	2497 6
M. SMITH	SOPWITH CUCKOO					1625				1677	3302 2
R. BOULD	AUSTER AOP 9					890				1205	2095 7
P. SMITH	LESAND BIRD DOG									1072	

GRAND OPENING

13 - 14 September 2014

WEST WYALONG FREE FLIGHT FIELD



Report and photographs by Malcolm Campbell

Four Queenslanders joined ten Victorians and a dozen New South Wales free fliers, plus a number of R/C flyers from various NSW clubs to celebrate a momentous occasion for Australian free flight - the opening of Australia's first and only free flight field owned by the flyers. Thanks to the foresight of the NSWFFS and the extreme generosity of Jo and Adrian Bryant, we no longer have to worry whether free flight will continue in Australia, as fields become unavailable or cut up for development.

The West Wyalong field is located in central west NSW, 15 hours from Brisbane, 5 hours from Sydney and 6 hours from Melbourne. It is a flat 700

acre field 1.9 km x 1.4 km, with short grass, is easy to walk or ride on and has minimal trees - in other words, an excellent free flight field. Situated in sheep country, it is not suited to cropping, and that made it affordable. Crops and free flight aren't a good mix!

FRIDAY: A dozen early arrivals made good use of perfect weather (blue skies, light winds) on Friday to trim for a weekend of low key competition. Puddles on the main road indicated recent rain but, as we were now in the middle of a big high, things looked very good for the weekend. Dave Bailey made a welcome return to free flight and showed very good form. Des, Albert, Howard, Wally, Dave and Roy

all put in some flights that showed there was plenty of lift around. Jim Christie arrived late and was the last to leave the field. Ten flyers found yet another great pub with good food on Friday night. In fact it was excellent food with \$10 meals that were both wholesome and good tasting. Wally Bolliger scored the award for the biggest meal. We will go there again!

It's the third time I've visited the West Wyalong and the field keeps getting better, and bigger! Roy, Di, Matt, Donna and Terry were down at the farm house getting ready for the opening ceremony on Saturday and several slept over, including Col Collyer from Victoria. No ghosts were sighted



A good roll up for the Grand Opening, and great weather!



Dave Bailey - Dixielander



Albert Fathers - Korda



Kevin Dodd - Hat



Dave Bailey again - Ray Malmstrom biplane

and they all looked relatively bright eyed on Saturday morning.

SATURDAY: A good role up of flyers and spectators arrived early, including MAAA secretary Kevin Dodd. Once the flight line was established, it stayed that way for the day. Two quad bikes joined the few electric bikes of those who preferred not to walk. The quads suited Matt and Terry - they can carry their chainsaws with them! Terry was pleased by the end of the day that he had his bike.

Saturday was a magnificent day with clear skies, good lift and minimal breeze from varying directions. Soon there were all sorts of models in the sky - vintage, scale, sporties, power and rubber and a few gliders. Flyers from 7 to 94 soaked up the sunshine. There were three competitions but the mix of models made it great for the spectators. A few limited function R/C models flew discretely among the F/F models including Col Collyer's magnificent 4 m R/C electric glider.

Albert scored a big 12 min 45 sec flight from his Open Rubber Waif, when the tail failed to pop on DT. Luckily it landed and he retrieved it with an easy 300 m walk! John Corby topped that with something over 20 minutes when his silly putty timer went on a "go slow" strike. His model still only landed 400 m away. Terry Bond wasn't to be outdone, putting his freshly made Stomper into big lift - and the DT failed. Terry sat back in a comfy chair, cheerfully chatting with friends as he waited for some lateral



Roy and Di - timing



Howard Gostelow - Jekyll and Hyde



Terry was glad he had a quadbike - Stomper



Col Collyer - on his way to a rare accident

movement. After 30 mins, he felt it was time to give chase on his quad bike. The Stomper finally did clear the paddock and he was forced to run to catch up with it. After the enforced exercise, he returned with a big grin and an undamaged model. Others weren't so lucky with a few spectacular crashes to keep the spectators amused. Des Slattery's Kerswap crash was the most comprehensive but Col Collyer's was the best, when a preemie DT caused the wing on his fast climbing 40 power model to fail.

From Peter Jackson's 0.24cc sport to Roy Summersby's .46 powered Playboy, the air seemed full of models and at times it was more like a gala event with lay back competitions included. Col invited me to tow up his 10 foot Mantis vintage glider. Wind direction was fickle but eventually we got away in a decent thermal. Those big models pull hard but the resulting 7 minute flight was a good reward.

The Dixielander contest was spear-headed by the fast climbing Rothwell-powered Dixies, with a Zoot Suit or two. Vin Morgan's "electronic throttle" Dixie was outfoxed by the speedy climb from Des Slattery's lightweight early OS-powered model. The Open Rubber event had some upsets - notably that of Jim Christie failing to score three maxes. Des, Leigh Morgan and Albert didn't, so they made up Sunday's fly-off trio. And Howard Gostelow was the only one to find a tree. His Senator was recovered undamaged.

Flying comps ended by 3.30 pm and we adjourned to the newly placed runway to watch some R/C and C/L flying. The runway is behind the house and, when we got there, it was just like discovering another flying field, in the "back paddock". This place is really big and most F/F flyers would be happy to fly 2 minute events from this part of the field. West Wyalong has REAL potential for development.

Come 6 pm the sun was setting, the fire was stoked and the BBQ heating up outside the farmhouse/clubhouse. Food was being readied and the drinks had started. Terry Bond officiated at the Grand Opening and the speeches



Peter Jackson - at full stretch



Malcolm Campbell - Col's 10' Mantis



Mike Glaister - Waif



The Grand Opening - and some good tucker



Adrian Bryant - Saviour of free flight



Kevin Dodd and Roy Summersby - Hall of Fame



The Big Cake - Enjoyed by all



Adrian Bryant - cutting the cake

were well received. Understandably, the biggest cheer was for Adrian Bryant who will go down in Australian Free Flight history for his extreme generosity for backing the field financially. Adrian also responded to Terry's speech and later cut the cake with his and Jo's name on it before reciting one of his many lengthy poems, this one about the back log on the fire. Kevin Dodd also awarded Roy Summersby his Hall of Fame award for his first place in the F1C world champs in France last year.

As the night cooled, we all headed to our cosy quarters, although Howard Gostelow nearly didn't get off the property getting bogged as he drove off the road to avoid a muddy puddle on the farmhouse road. Luckily "Chainsaw" Matt towed him out. The same fate befell Jim Christie on Friday but I understand that the WW council rep who attended our Saturday night function has promised to put a pipe in for us!

SUNDAY: Saturday was perfect and Sunday was "more perfect", as the flight line remained in the middle of

the paddock all day, and there was virtually no breeze all morning. The Open Rubber fly-off commenced at 7.30 am with Des Slattery putting in his best launch ever. Albert Fathers was away next getting higher than Des but the prop fold was bad, thanks to a new tight motor. This turned a 7 minute flight into something half that, as the model glided left instead of right. So Albert's model synched into a left turn close to Des's, and you could easily see the attitude and descent rate didn't look good for Albert. Leigh Morgan launched last and her glide was almost good enough, losing 13



Des Slattery - winning OR flight



Jim Christie - putting up another flight



Adrian Bryant - Lim Joon, convincing win in VR



Adrian Bryant - what a way to finish a great weekend

secs to Des and clearing Albert by a mere 2 secs. All models landed less than 300 m away.

Vintage Rubber was a surprise, with most models dropping one or more rounds. Howard Gostelow flew a Vagawock but soon moved to his more reliable Senator. Don Broughton, with his model on trim, looked good although Jim Christie rearranged the nose of his Gollywock after a spiral climb turned into a steep dive. Albert Fathers' Boxall model suffered from an "indigestion stall", as it failed to unwind a knot well behind its CG, pock marking the covering as it tried to do so. Dave Bailey's rocket climb was so impressive and threatening but the

stand-out was Adrian. With his "pit crew" of eager helpers and his chrome plated "old person's" chair, Adrian wound and launched precisely, three times. He normally only puts in one celebratory flight per competition these days but he was encouraged to endure three flights. And that he did very well, maxing all three, with two of these not even needing bonus points. It was so good to see him win, and you could see in his eyes he thought the same way!

Des Slattery and Wally Bolliger slugged it out in Open Power with models that don't often place in this event. Evenly matched, they circled in the same air with Des picking up the

prize. P30 was an anti-climax with a "no show" for both Team Hannaford and Team Morgan. Sean O'Connor and Graham Maynard chased Jim Christie but never caught him, with Jim's last flight a boomer. Matt Hannaford gave chase on his 425cc quad bike, and we all hoped he got to Jim's model before the sheep did!

By midday the contests were over and the awards were presented, so ending a superb weekend of flying and comradery.

The West Wyalong field will evolve into a premier site for southern hemisphere free flight, I'm sure of that.



Brian Allcock - 94 yo, and flew all day



Howard Gostelow - Senator



Fred Roberts- Dixielander



Roy Summersby- Dixielander



Percy Wright- Stomper



Don Broughton- Open Rubber



Leigh Morgan- Sole F1B in OR



Vin Morgan- Dixielander



Wally Boliger- it was soon to get worse



Dave Bailey- Vintage Rubber



Col Collyer- 4m electric R/C glider



John Corby - Open Rubber



Andy Luckett- FF helicopter and Oily Rag!



Howard Gostelow- Senator retrieved unharmed



Signed photo- for Adrian



And YES, there are more photos. They can be seen at:

<https://www.flickr.com/photos/motor-racing-photography/sets/72157647235955597/>

Congratulations to the New South Wales Free Flight Society for having the foresight to look for a large field for all aeromodellers to use for Free Flight, Control Line and Radio Control at West Wyalong.

A special thanks in no particular order to Tahn Stowe, Terry Bond and Roy Summersby for taking time out to find the field and all others involved. Well done for what you found. It's SENSATIONAL.

A very very special thanks to the fabulous Adrian Bryant and his late wife Jo for offering the funds to pay for the field rather than having to rely on other sources of funds. A personal THANK YOU Adrian.

It's now up us to help keep this field a viable proposition by joining in to make it happen.

Howard Gostelow AUS 956

West Wyalong

**Australian Free Flight now
has a field it can call its own**

**Thanks to those
who believed in the cause**

**JO and ADRIAN BRYANT,
and the NSWFFS**



F4A TRANS TASMAN CHALLENGE AND RICHMOND SCALE RALLY 5 - 6 July 2014



Gary Sunderland RAC BE12

Photos by Glenn Crouch and report by Tahn Stowe

The weather predictions for the weekend were not all that encouraging and the previous week had seen gale force winds lashing most of the Australian eastern seaboard. This situation did not prevent our New Zealand competitors from crossing the Tasman, for they are keen watchers of antipodean weather and had seen the 'High' which was predicted to be parked over NSW.

Our collective hopes were realized with fantastic trimming weather (almost dead calm) on the Friday with Maris Dislers and Peter Jackson not leaving the field until after 2.00pm. Saturday dawned cold with only a slight breeze and scale models were soon testing the air from hand launches or under their own power rising from the turf.

I failed to keep count of the Free Flight scale models that made the field over the weekend however the considerable crowd of spectators and flyers alike were treated to a feast of free flight scale action. A couple of "notables" amongst those who attended but did not fly, were Steve Rothwell, John Goodwin, Glenn Crouch, Eric Holland and David Bailey (who couldn't get the Bird Dog finished but came anyway.)

Phil Mitchell, taking a break from his F1A schedule (he is part of our Asia Oceanic team heading to Mongolia later this month) and training for an Iron-Man event in WA later

this year, campaigned his venerable Mills 1.3 powered Tiger Moth. The slow speed and steady flying characteristics including a smooth takeoff scoring highly. Maris Dislers made the long trek from South Australia alone this year. Unfortunately the Richmond cold managed to stifle Maris's CO2 powered Eastbourne monoplane and he had to resort to his "flatty" Mignet "Antoinette" which he also flew in the Scramble.

While all this was taking place Peter Jackson flew another sortie with his red SE 5a, a replica of Duncan Grinnell-Milne's "Schweinhund III" complete with replica DGM pilot crafted by British scale aficionado David Banks. George Fay, under the watchful eye of Ricky Bould, assaulted the air and ground repeatedly with his new Douglas Dauntless in what appeared to be a vain attempt to record an official flight. Eventually he made the mandatory 30 seconds even though the model was clearly experiencing wing failure at the dihedral break. Congratulations to George for persevering with a difficult subject, prevailing and winning the "Most Spectacular Arrival" award.

The action kept on coming, with Stan Mauger's Auster C4 making repeated flights out across the green turf, up into the cloud streaked blue. An ROG eluded him this

time, even with the near perfect pitch and restricted his flight score.

Tahn Stowe's much anticipated "JXE" night fighter liveried Hawker Hurricane had fuel tank issues and recorded a disappointing Did Not Fly despite being re-engined with a Geoff Potter rebuilt ED 3.46. His pretty bright red PM3/1, although practice-flown, had strut attachment issues and was also a DNF on the day. Both these "failures to fly" earning him the "Next Time" award.

Our thanks to the Flight judges Walter Bolliger and John Corby who were kept busy with an orderly stream of attempts coming from all points of the compass in the relatively calm conditions.

Phil Warren's much sorted Comper Swift in red, white and blue finally bettered his yellow J3 Piper Cub and Roy's Focke-Wulf, taking out the Reg Jude Rubber Scale trophy once again.

Roy Summersby flew 3 aircraft, his electric FE 8 scoring highest with its realistically long take-off runs and stable slow flights. His new 1/8th scale Sopwith Swallow, which looked very impressive with its shiny aluminium cowl (spun by Matt Hannaford) should do well once fully sorted.

The two Victorian Garys, Odgers and Sunderland campaigned several models including Gary O's Dragon emblazoned Albatross C3 which he is taking to the British Nats later this year. Gary S's Sopwith Triplane was flying exceptionally well with a remarkably shallow glide for this type.

Robert Craine travelled down by train this year and flew his new "Nancy Bird-Walton" DH 606 much to the delight of all with the word "WOMAN" as per the original painted under the bottom wing. Robert received the "People's Choice" award for his efforts.

Di Hanna and Liz Stowe were serving hot soup, as John Pennells and Geoff Potter got down to the task of static judging. Several hours later they had completed their work, our thanks to them both and good to see John at a Free Flight event after many years absence.

Phil Mitchell's Tiger Moth topped the results in F4A with Ricky Bould's Auster AOP9 in second and Gary Sunderland's Taube in third spot.

The David Hope-Cross Trophy was retained by the Australian team of Gary Odgers, Gary Sunderland and current F1C World Champion Roy Summersby, defeating the New Zealand team of Stan Mauger, Ricky Bould and George Fay.



Gary Sunderland- Etrich Taube



Gary Odgers- Gloster Gannet



Gary Odgers- Gloster Gannet



Phil Mitchell- Tiger Moth

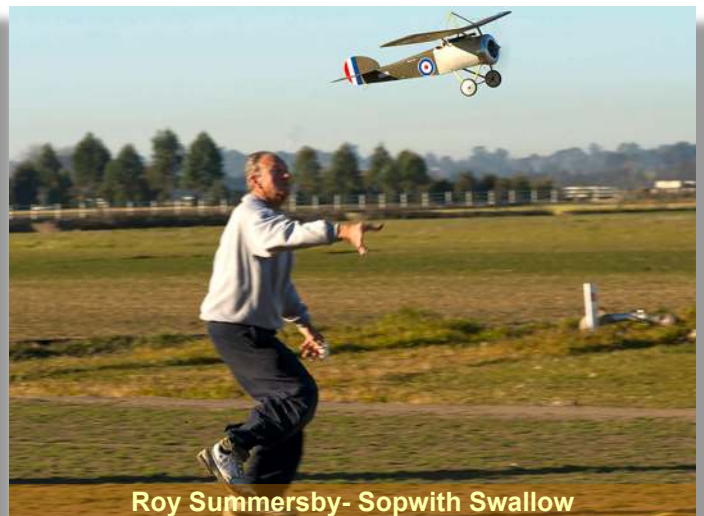
The winners were awarded prizes at a dinner at the Hawkesbury Race Club with field owners Pauline and Charlie Saliba as guests of honour. The food was excellent and our thanks go to Nicole and Ken for making it a pleasant evening, even though our projected numbers were down.

Sunday saw more flying including a 1/2 Hour Power Scramble, taken out by Andrew Heath with his carbon fibre Abdhul equipped, sign board Flying Carpet, followed by Matthew Hannaford (conventional model) and Tahn Stowe with another open structure Flying Carpet. There

you were lucky to have been a part of another wonderful Free Flight Scale Rally. If you missed it there is always next year, so start planning now and get that long awaited Free Flight Scale project finished. The next F4A Trans-Tasman Challenge will be in 2016 and the Richmond FF Scale Rally will be on the first weekend in July 2015.



Judge Walter Bolliger- Phil Warren's Comper Swift



Roy Summersby- Sopwith Swallow



Robert Crane - DH 606



Roy Summersby- Sopwith Swallow

Failure to Launch!



BE 12



Sopwith Swallow



- Luton Minor



Peter Jackson- SE 5



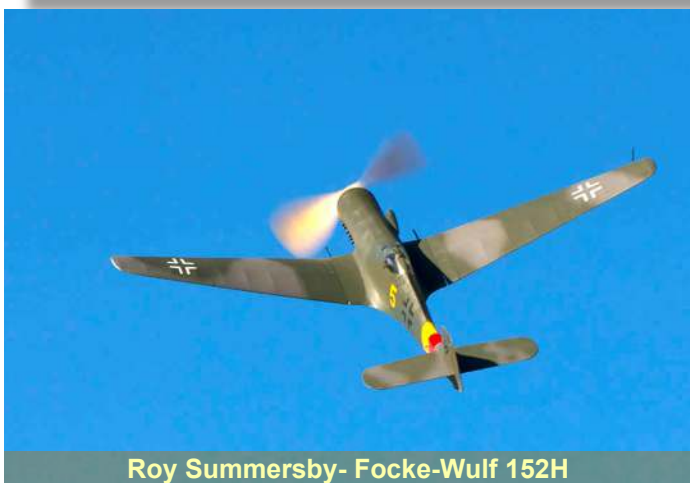
Stan Mauger- Auster C4



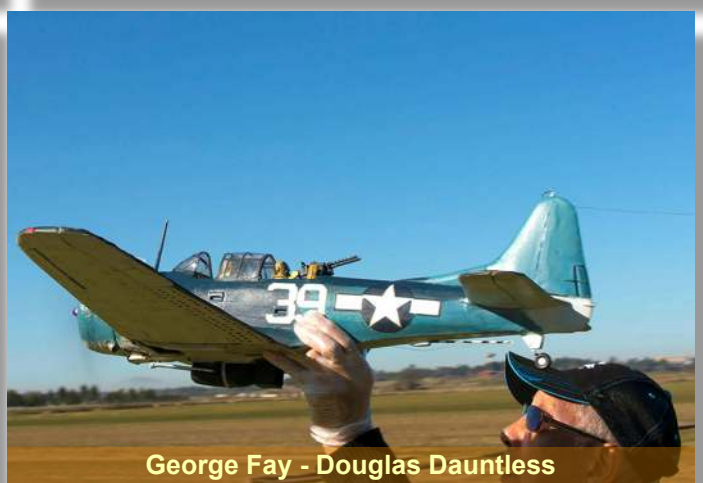
Peter Jackson- another SE 5



Phil Warren- Piper Cub



Roy Summersby- Focke-Wulf 152H



George Fay - Douglas Dauntless



Luton Minor



Tahn Stowe- Piero Magni 3/1

F4A TRANS TASMAN CHALLENGE AND RICHMOND SCALE RALLY RESULTS



F4A

Phil Mitchell		Tiger Moth DH 82A	1453.6
Ricky Bould	(NZ)	Auster AOP9	1385.7
Gary Sunderland	(AUS)	Taube	1349.5
Gary Odgers	(AUS)	Gloster Gannet	1319.4
Roy Summersby	(AUS)	FE 8	1302.6
Stan Mauger	(NZ)	Auster C4	1277.0
Robert Craine		DH 606	1017.5
George Fay	(NZ)	Douglas Dauntless	919.5

DAVID HOPE-CROSS TROPHY

Australia	3971.5
New Zealand	3582.2

RUBBER SCALE

Phil Warren	Comper Swift	1339.6
Roy Summersby	Focke - Wulf	1149.0

People's Choice

Spectacular Arrival:

Next Time:

Robert Craine	DH 606
George Fay	Dauntless
Tahn Stowe	Piero Magni 3/1

WA TEAM TRIALS, 16-17 AUGUST: CHASE THE WIND!*by Paul Rossiter*

With Colin Crowley (F1B&C) on walkabout up north, Chris Behr (F1A, B&C) working in Darwin and Neil Murray (F1A&B) now back in South Africa, there were only two starters for the WA Team Trials: myself in F1B and Neil Pollock in F1C. These were initially scheduled over two days to allow flying in more than one category, but with the absences this was not needed. So we decided to fly the trials on the Saturday and hold Open Power and P30 (that had been blown out earlier in the year) on the Sunday. Noel McMillan also showed up to trim some old timers.

As Neil has a 4 hour drive from Busselton to the field at Meckering, he stayed in the homestead accommodation, just adjacent to the field, on Friday night. However, when he got up on Saturday the field was completely shrouded in fog and in fact he only found it by following the various fence-lines! Kathy and I drove up from Perth on Sat morning, and again much of this was through fairly thick fog. However, the fog cleared by about 8.30 and the breeze started to come up from the east at 1-2 m/sec and we set up all the gear in a corner (A) of the paddock that had a lovely cover of low clover. At this stage we both put up some test flights and then got the rounds underway at about 9.00, flying alternately as we only had

Kathy as timer and for some reason she refused to time two at once.

As I needed a max-out to remain in contention for a team place, I used my trusty weather station with both the local and remote sensors

to help in picking some good air and it was a huge benefit. I was also using some quite good Jan 2014 rubber that has a high energy storage. However, it is also a bit sensitive towards the end of the wind and I had 4 motors burst during the day.

The first round was fairly easy, with thermals indicated by an obvious drop in wind, rise in temperature then the reverse with the infill. We both maxed. However, by the time we were ready for the next flights, the wind had started to shift towards the north and so we had to relocate the flight line further up the paddock (B) to avoid some trees. We both got a max from this location but the wind had come up further and the models landed in the wheat crop in the adjacent field.

The wind then dropped completely. I wound and was ready to fly but the weather station indicated just flat air. After about 10 mins of waiting and putting on the occasional hand turns, I finally did what I should have done on many previous occasions but didn't (usually to my chagrin!): let the prop run down, sit down and wait for better conditions. After 30 mins and a sandwich a slight breeze returned and I got another max after the model sniffed out some good lift. Neil also maxed but again we went into the crops.

By the time we got back the wind had gone right around to the west so we relocated again, right up to the boundary with the crops (C). So far it seemed as though we had spent more time relocating the flight line with all the paraphernalia than actually flying! For the rest of the day the breeze went east, west, and south, with the models landing variously in the stubble (that was too weathered to cause any damage), clover and crops, and finally became so slight that we were landing within a few 10's of meters of the flight line. I continued to max but Neil started having trouble with his model not getting through the bunt and stalling badly at the top of the climb, and he dropped rounds 4, 5 and 7, with a total score of 993 sec. Nevertheless, this should be sufficient to guarantee him being offered a place on the Australian team, while I am still in the hunt.

Just for interest, this was the wind data from the official met station just up the road at Cunderdin:

Time	Direction	Speed (kph)
8.30	CALM	0
9.00	E	7
9.30	E	6
10.00	E	9
10.30	E	11
11.00	E	9
11.30	ESE	2
12.00	SSW	2
12.30	WSW	4
1.00	N	2
1.30	W	6
2.00	WSW	9
2.30	WSW	4
3.00	S	2
3.30	CALM	0
4.00	CALM	0

Unfortunately, the weather cracked up at about 11.00 am on the Sunday and after just a couple of flights and two lost models, the open power and P30 events had to be abandoned once more.

Paul Rossiter

CONSTRUCTION CORNER

An Inexpensive Altimeter

by Paul Rossiter

Altimeters are becoming increasingly popular as an aid to trimming model aircraft and in this regard they allow direct assessment of how various factors such as function timing (bunt, VIT, DPR etc.), trim changes, rubber batches and so on affect flight performance. Other than that, it is also fun just to see a record of a flight to see how high it climbed or look at the glide sink rate. Accordingly, they are now included in most modern electronic timer systems fitted to many F1A and F1B models. There have also been a number of stand-alone altimeters that could be fitted to any models, such as the Altimax, nanoAlt, Lo-Lo, Ram3, Alti2, etc. but these were usually rather expensive and some are no longer available. More recently a cheaper alternative has become available from Fly-Dream (the FD-A), also sold through Hobby King (PRODUCT ID: 9333000001) for around \$30. I recently purchased one of these and did a direct comparison with a calibrated Altimax and thought that readers might be interested in my findings.



Fig 1. The Altimeter package as available from Hobby King. The Altimeter itself is the small unit shown bottom left.

The FD-A altimeter weighs only 1.3 g and will operate from 3.7 – 8.4v (<7mA). The claimed height range is -500 to 9000m with an accuracy of 0.3m! It also records the temperature from -25 to 65C with an accuracy of 1C. It normally plugs into a vacant servo socket of an RC receiver to get power and becomes active 18 seconds after the power is switched on, but for free flight use can be powered from a single 50mAh LiPo. It can be set to a sampling frequency of 1, 2, 4 or 8 samples per second and continues to record data until it is switched off. This is stored as the first record. If it is switched on again, it stores

the next set of data as record 2, 3 and so on. A total of up to 63 hours of data can be stored at the lowest sampling rate.

The data can be downloaded into a computer via a USB interface supplied with the altimeter (Fig 1) and plotted using software available from the Fly-Dream or Hobby King web sites at no cost. The data can also be downloaded into an Android device (tablet or phone) using a Bluetooth adaptor available from Hobby King for around \$10 (Fig 2) and software available free from the Google Play store. Also, as many fliers still use a Palm PDA to program their electronic timers, the altimeter can also be connected to the Palm via a simple electronic interface that I built for a few dollars (Fig 3) and using plotting software available from Tapio Linkosalo (Tapio.Linkosalo@iki.fi).

Note that the sampling frequency can only be set or the data memory cleared when the altimeter is connected to one of these devices.



Fig 2. Bluetooth adaptor for FD-A

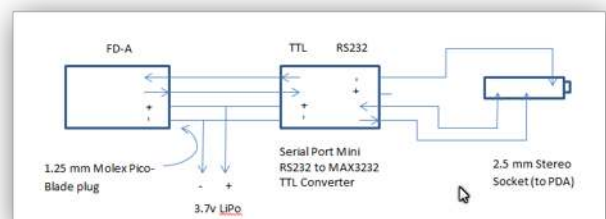


Fig 3. Palm interface. The Serial interface board is available on E-Bay for a few dollars.

As mentioned before, for free flight use the altimeter can be powered from a single 50mAh LiPo and the rather bulky servo power lead can either be shortened or replaced with a lighter version. The only catch is that the miniature 4 pin connector on the altimeter requires a 1.25mm Molex Pico-Blade plug that is only available in small quantities from suppliers such as Digikey and they sometimes have

minimum order quantities and often very high postage rates to overseas address, though some of our American friends may be able to help in this regard. The total weight of my altimeter and LiPo with shortened power lead, plugs and sockets is around 4g and I mount it either on top of the wing or in the pylon of my F1B's near the CG. However, as the altimeter works by measuring the very small changes in pressure with altitude, it should be mounted out of the airflow in fast power models or bunting F1A's.

In order to check its accuracy I fixed both the FD-A and Altimax to an F1B and recorded a flight (only a couple of hundred turns, so no great height reached, and short DT). The two plots are shown in Figures 4 and 5. There are a couple of things to note with these plots. The Altimax plot automatically determines the zero of altitude and adjusts the plot accordingly. However, the FD-A plots the absolute altitude and so can start from any height determined by the atmospheric pressure on the day and altitude of the flying field. However, there is a function in the plotting software that allows it to be reset to zero. When this is done the two plots agree to better than a meter in altitude.

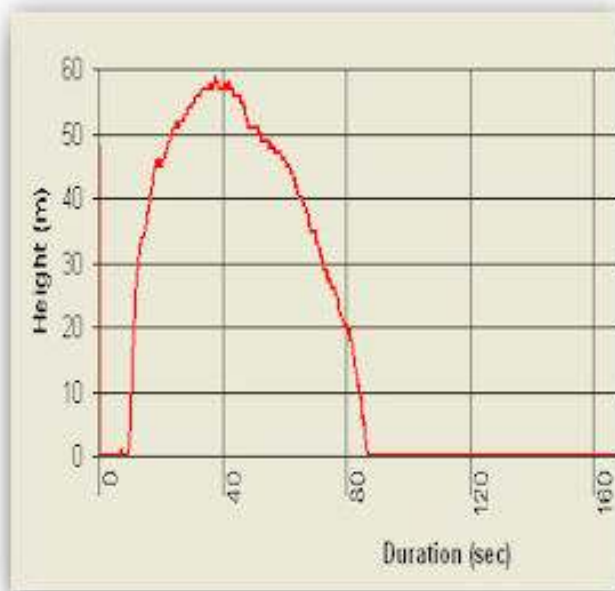


Fig 4. Altitude plot from Altimax



Fig 5. Altitude and temperature plots from FD-A

Finally a note on flight testing using altitude analysis. In order to properly assess the effects of trim changes etc. you need genuinely still air and this is hard to find, even in supposedly non-thermal conditions. Ken Bauer described the difficulty in an article in the 2009 NFFS Symposium, attributing the lack of consistency to something changing in the air to do with temperature, humidity or possibly a large mass of air moving so slowly that the model still appeared to be flying in calm, non-thermal air. I also noted the problem when I was comparing the performance of fixed and variable pitch propellers. The usual indicator of still air is a glide slope that is a straight line, any bumps or dips being a sure indicator of thermal activity. However, even then I found that while results on any particular day might be consistent, the results from different days (all dawn, supposedly pre-thermal flights) could show different climb heights and rates of sink during the glide, even though the glide slopes were completely flat. Nevertheless, this form of testing is extremely helpful in trimming for the best burst-cruise transition in F1B or bunt timings in F1A.

An example of perfection for F1B is the plot of Alex Andruikov's from the 2014 "Fab Feb" Lost Hills competition shown below (*photo by Malcolm Campbell*). Note the perfect transition at the end of the burst, climb to around 128m, and completely flat glide with a sink rate around 0.28 m/s, not to mention the "still air" flight time that would have been around 8 minutes to the ground! How do your plots compare?

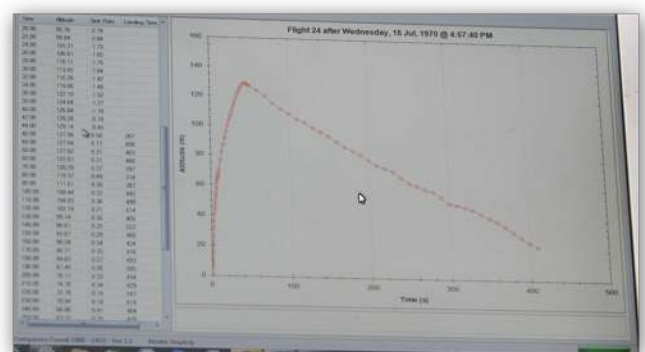


Fig 6. Plot of flight by Alex Andruikov at the 2014 "Fab Feb" Lost Hills competition.



THE ULTIMATE AUSSIE TIMER

and the path to its final form

by ace techie Harry Sokol

Development of the Dtox timer

What's in a timer? Not much, just a bit of electronics to tell the time, a servo to make things move and a battery to make everything happen. Sounds easy.

I first started to contemplate an electronic timer after I witnessed someone attempting to modify the timing on a Selig unit. Clamping the discs, moving ever so slightly the one of interest and then tightening the stack without moving their relative positions. Must admit he did it well, but I thought that it was so prone to error and the actual time adjustment was estimated by the rotation of the arm release disk with respect to the other discs. Trial and error seemed a bit of an understatement.

A servo rotating one disk to release all arms! Brilliant I thought.... and soon discovered a few others had had similar brilliant ideas (the Internet is a wonderful place to discover that someone has done it before).

Not daunted, my mind plodded on with the conceptual design. Small servo rotating a disc which releases arms, controlled not by an analogue timing circuit but by a micro-controller. A method of programming the actual times required that did not involve pressing a button in peculiar patterns and a method of quickly determining the current timing values. I also considered that 'it' should be a simple replacement for the popular Selig and self contained.

Should be straightforward I thought... how hard can it be... I can program computers, I can build 'stuff' and I've even played a lot with a soldering iron and circuit boards.

The first attempt was a proof of concept on perf board using a PIC16F84a processor and a small servo I had lying around. It worked! Good start I thought, but how will I change the times? Reprogramming the chip every change isn't really an option. Another voyage on the Internet and I discovered the Palm Pilot, as used by other electronic timers. This seemed a much better idea than button pushing and counting blinking lights. I then spent a load of my spare time sourcing the software development tools for Palm Pilots, now a legacy device. It's actually quite interesting how quickly stuff disappears off the Internet, almost as fast as it appears at times. A development environment was created on my trusty PC and a program was soon forthcoming for the Palm device. Suddenly, I had a 'programmable' timer. Wonders never cease.

Several iterations of both the timer hardware and firmware (the program inside the timer) and the Palm application and I thought things were really going well. Servo rotates correctly, timer behaves correctly. All I have to do now is actually make the arms and disc. Oh, did I mention I have a lathe? :) Yup, I can make discs! That was relatively easy, the arms were another matter. Just a bit of wire ... but how do I hold them on to the front (so they won't come off) and not have them look like bits of wobbly spaghetti. Eventually, all design and production problems were solved, sort of, and the first timer emerged, albeit with only two function arms, only to be sent back to the laboratory. Batteries need charging plus the small NiCads were really heavy. Enter the LiPo battery era! But LiPos need special charging... better add some charging circuitry so simple chargers can be used.

By this stage the PIC chip seemed a bit large physically (and small in capacity) so a change was required... and contrary to all norms, I elected to go with Atmel stuff instead of just moving up the PIC range. So now we have an Atmel ATMEGA88 in charge of proceedings, plus some circuitry to manage battery charging, throw in some bits to protect the battery from abuse (over-discharge) and the circuit board is starting to look messy. So redesign required, and while I'm at it I'll throw in an altimeter (just because I found one on the web that looked cheap and useable) and some stuff to cut power to the servo to make the battery last longer. Some memory to hold altimeter data might be a good idea as well.

More redesign, and make it a 4 arm timer! All is looking good, I even learnt how to make silicon moulds and cast the front plate in epoxy! I had abandoned the carbon fibre laminate that was being used because it was really stuffing the cutting tools and was a pain to work with. Pity really, it looked so 'techie'. Building a prototype to make the mould from styrene was just like building a 1/72 plastic model, except I had to make the pieces as well. There I was feeling exceptionally pleased, having learnt new skills and reviving old ones.

So, as I was about to enter 'production', and make my mark in the world of electronic timers.... the altimeter modules disappear, with no substitutes available. The battery protection IC suddenly becomes 'unavailable' in Australia (manufacturers embargo, nothing to do with any Government). More rethinking and some devious purchase

channels investigated. The circuit board was redesigned and all major components placed on the 'inside', making the rear of the timer cleaner.

Almost as suddenly, 3D printing is here ... I can do 3D stuff on a computer (another of my past occupations)... so further redesign and I'll use a 3D printed master to make the moulds! By now I still wasn't rich from sales so a further trip to the design studio to revamp the 'product'.

A new, readily available, altimeter was selected and after not much thought it was decided to use 3D printing to make the actual faceplate with integral arm supports. Sure did beat casting epoxy. Make some jigs and bending tools and the arms begin to look regular, instead of a mixed bag.

I should mention also, that somewhere in the stream of events listed above, an onboard optical tachometer came and went, and a buzzer. Funny thing with that buzzer, sounded (sic) like a good idea for model recovery in long grass etc., but during development I couldn't get it loud enough. The rest of the family found it infuriating (another secret revealed, it appears I've lost some of my hearing ability, right about the frequency of the transducers I was using :)). If I can't hear it, it's no use! And we had to move up the Atmel range to an ATMEGA328, sometimes you just need more program and storage space.

The ultimate timer finally arrived! The P type. 4 arms, onboard battery charging and protection circuitry, onboard recording altimeter. Only it had to be expanded... what's the use of an altimeter if you're only going to record altitude? So throw in a couple of gimmicks... ceiling altitude d/t to keep CASA happy, launch error detection (when you forget to push the start (trigger) button) and because there was still some program space available, due to the 328 upgrade, some funky altimeter calculations to bring the model down if it's in a boomer!

That's it I thought, done ... can't be improved, so I turned my attention back to the Palm application and streamlined the messy interface. So we now stand at version 4 of the Palm application, version 10.1 of the firmware on the timer and we're set to go.... Hang on, I can now get the faceplates in colour!!! Red, blue, white as well as black, with more colours to follow.

STOP! I said enough for now, let the world absorb it's wonders as is, before we advance to the next model.

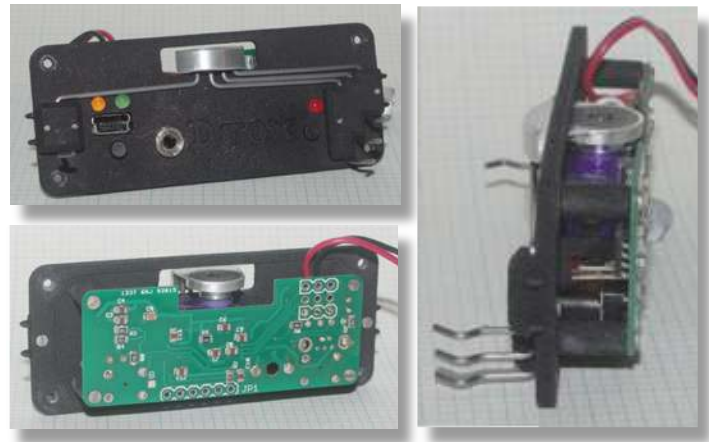
So, now formally announced, is the DTox P type timer.... and have I mentioned, it's a direct drop in replacement for a good old Selig.

I can't stop ... next in line is a functional replacement for the PST timer and possibly a servo sequencer for automating functions/actions on a FF model. I've also noted that the BlueBird servos have a PIC microprocessor

inside, just add couple of buttons and a servo/timer appears. The possibilities are endless, but I really should build another model :)

Dtox timers - P series

Continuous field trials and input from existing users has been incorporated into the latest offering from DTox. The type P timer is smaller, lighter and has advanced functionality unseen in previous models.



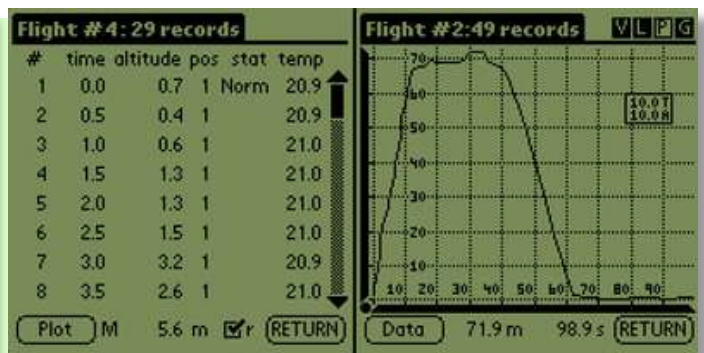
Details

The P timer provides 4 arm functions and features a recording altimeter enabling additional flight functions. The additional functions include launch error detection, ceiling altitude D/T plus the ability to record flight altitude profiles. As with previous versions, provision is made for RCDT input. Up to 64 flights, with a maximum total of 8192 altimeter readings, can be stored on the timer for extraction by the configuration utility. As in previous timer versions, all timing, servo and altimeter parameters can be easily modified by the user.

Faceplate:	70mm x 29mm
cutout required:	55mm x 22mm
depth required:	11mm
weight:	17gm
battery:	Single cell LiPo 130mAh, 3.8gm
Ready to fly weight:	21gm

Sample screens from the PalmPilot configuration utility are shown on the following page.

STATUS DTax-P		EDIT Action Times		Altimeter configuration	
Motor 4.0 <input checked="" type="checkbox"/> Altmtr Bunt 5.0 <input type="checkbox"/> Failsafe Glide 6.0 <input type="checkbox"/> RDT D/T 9.0 <input type="checkbox"/> FIQ Altitude -78.7 m Temp 19.4 c RDT input Battery 4.19 v [EDIT] [READ] [RETURN]		Inc Arms ESC Motor 4.0 4.0 Bunt 1.0 5.0 5.0 Glide 1.0 6.0 6.0 D/T Locked 9.0 9.0 link <input type="checkbox"/> eval <input checked="" type="checkbox"/> Altmtr <input type="checkbox"/> Failsafe <input type="checkbox"/> FIQ <input type="checkbox"/> RDT [UPDATE] [READ] [RETURN]		<input checked="" type="checkbox"/> Use Altimeter <input checked="" type="checkbox"/> Ceiling Altitude 1000 m <input checked="" type="checkbox"/> Failsafe Altitude 15 m Sample rate 5.0 sec <input checked="" type="checkbox"/> Flight Recorder Min time 15 sec Max time D/T + 60 sec Power 0.5 sec Glide 2.0 sec Post D/T 5.0 sec Sample rate [UPDATE] [Revert] [RETURN]	
SERVO calibration		HARDWARE		Flight Index	
Arm Release Servo0/ESC Park Rdy #2 #3 #4 #5 1800 1600 1350 1250 1050 950 maxCW 2100 maxCCW 900 [ACTIVATE SERVO] [UPDATE] [Revert] [RETURN]		Serial 005001 Firmware V9.50 Model # 500 Power cycles 55 Alt Max 11.1 Batt 4.19 Config updated 12 times, last at 10:59 on 22 March 2014 Reverse buttons <input type="checkbox"/> Arms #1 M B I G #2 M B I G #3 M B I G #4 D/T [UPDATE] [READ] [RETURN]		# Records Base Alt Max Alt <input checked="" type="checkbox"/> r 1 29 4.6 1.0 2 49 5.5 71.9 3 24 5.6 3.8 4 29 4.9 1.3 [Display Flight] [RETURN]	



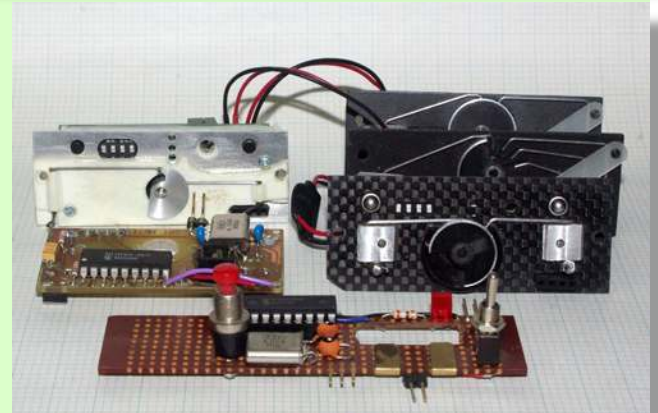
Can you help?



Rob Wallace is looking for plans or drawings of a towline tester.

Can you help him?

Contact Rob at ffonzrjw@xnet.co.nz



Dtox timer - P series

The cost of the timer is \$135 (AUD). Postage and packing are additional costs.

Visit www.4dfx.com.au/DTax for full details.



Jon Fletcher has been doing some anodising, red, black & green so far and he has dyes to do blue, gold etc. He made the Allbon Dart head (right) from scratch.

Jon can make any part for any engine. He has also found a gifted al. alloy TIG welder who lives in Q'ld. and will be known to many flyers... Welsh surname back ground..... Any guesses?

On the Taipan 2.5 D Mk 5, I had the over drilled and broken out lugs TIG welded then machined them back to standard including adding in the "as cast" draft angles. Finally glass bead blasted to finish. Along with rebore, new con rod, prop. driver and back plate and re anodised head, the engine is ready for further service.

Contact Jon at jonfletcher@optusnet.com.au or phone 02 6653 4548



SUPERCool RACING PROPELLERS

A Short Visit to Supercool

by Roy Summersby

Being in Perth with a few days to spare, I thought a short visit to my old flying mate Stuart Sherlock was in order. Stuart moved to the west many years ago, so naturally we don't see much of each other. As most of you would know, Stuart (Jo Supercool) is the man behind Supercool Racing Propellers www.supercoolprops.com. Stuart has spent the last 31 years researching, developing, and designing props for all types of internal combustion engines. Naturally his main interest is in the very top end of the high performance events such as F2A, F2C, F3D etc. No doubt producing the perfect prop (if there is one) can be very frustrating and time consuming, as there are so many factors involved.

My visit, I must admit was two-fold. I had a prop problem and I also wanted to see my old flying competitor mate. I flew against Stuart in control line, my combat days, as well as against him in F1C. Yes, Stuart flew F1C and in fact he represented Australia in the world champs in 1983.

I told Stuart of my propeller problems, hoping that he could come up with an easy answer. This was not to be; all

I did was to give him something to think about, and no doubt he will have some sleepless nights trying to find the answer. If an answer can be found, I am sure Stuart will find it.

In the meantime I was keen to see how he produces his range of props. As I said Stuart produces props for modellers at the very top end of performance in all modelling classes, so they have to be very, very, good. The props are carbon and are made in machined aluminium moulds. The prop shape is designed in the computer then the mould is made in a Bridgeport C&C mill. When the machining is done, the mould is then polished by hand. On the shelf there are dozens and dozens of moulds representing 1,000s of hours work. I won't try to describe Stuart's procedure and method of making a propeller, as I would no doubt get it wrong, but what I can tell you is that a lot of care goes into each prop, and the finished product is extremely good. Just ask some of the world champs that use them.



Now THAT'S a Mass Launch!

1994 Mass Launch-The European FF SAM Championships at Middle Wallop organised by David Baker and SAM 1066



... suddenly there appeared a wing fashioned from light ...

Paolo Montesi



DO YOU KNOW THIS PERSON?

I grew up in Germany during and after the war when all those minicars came out. Before engineering school I was an apprentice at Daimler-Benz in Stuttgart when they were producing the 300SL Gullwing. After 3 motorcycles my first car was a T400 Goggomobil (see the picture). Not the standard with a 250cc engine but the one with 400cc, it drove like a gokart. Then I had 2 Citroen 2CV.

Before that time I was already into model airplanes, mostly with Diesel engines. At the 1961 World Champs in Leutkirch I was a time keeper for the GBR and USA team. Since 1972 when I was sent by my employer to America I've had 3 Mustang convertibles with 61 or 51 engines - a 1967, a 1971 and a 1987. My dream cars were always the Lotus Super 7 or a Morgan +4 but I never wanted to invest that much money.

Answer on the final page

ENGLISH IS A FUNNY LANGUAGE

An oxymoron is usually defined as a phrase in which two words of contradictory meaning are brought together:

- | | |
|--------------------------|---------------------|
| 1. Clearly misunderstood | 7. Pretty Ugly |
| 2. Exact estimate | 8. Seriously funny |
| 3. Small crowd | 9. Only choice |
| 4. Act naturally | 10. Original copies |
| 5. Found missing | 11. Happily married |
| 6. Fully empty | |

The George Car Page - a few words from George

The words on these pages came from the Peterborough MFC newsletters - this may be worth pointing out, as some FFDU readers may like to browse their newsletters, as they have lots of content on FF topics, Bowden Trophy, electric small models, P20 etc. The club has some well-known members.

For Peterborough MFC newsletters, go to <http://www.peterboroughmfc.org/>

Law of Mechanical Repairs:- "As soon as your hands become coated with grease, your nose will begin to itch and you'll have to pee".

Law of Gravity:- "Any tool, nut, bolt or screw, when dropped will roll to the least accessible corner".

Law of Probability:- "The probability of being watched is directly proportional to the stupidity of your act".

Law of Random Numbers:- "If you ring a wrong number, you never get a busy signal. Someone always answers".

Law of the Alibi - "If you tell your boss that you were late for work because you had a puncture, the very next morning you will have a puncture".

Law of the Bath:- "When the body is fully immersed in water, the telephone will ring".

First Law: To finish first, you must first turn up

Breaking in rubber for P30 and Coupe

Stretch the motor to three times its rest length and hold for five minutes. While stretched, work some lube into the rubber with the fingers. (I use Silicon lubricant bought from Wickes. It is used for lubricating guttering joints.) Leave the rubber to rest for 30 minutes then stretch it to four or five times its rest length and hold for ten minutes.

Tests I have carried out on a 10gramme P.30 motor:

One eighth rubber brand new will take 800 turns before destruction. After breaking in I can take it up to 1000 turns. Expect the rubber to break between 1000 and 1030 turns. **Ed:** *What length motor? A 4 strand 1/8" P30 motor will take 2,000 turns.*

Tests on a 10 gramme Coupe d'Hiver motor:

Three sixteenth rubber brand new will take 350 turns untreated. After breaking in as described above it will take 500 turns. It will break between 500 and 550.

Ed: *Some of you may remember an interesting article on rubber stretching from Adrian Bryant?*

A husband went to the police station to file a "missing person" report for his missing wife. The interview follows:

Husband: *I've lost my wife; she went shopping & hasn't come home.*

Inspector: *What is her height?*

Husband: *Not sure exactly. Maybe like between 5 and 6 feet tall.*

Inspector: *Slim? Healthy?*

Husband: *Not slim, she can be healthy.*

Inspector: *Colour of eyes?*

Husband: *Not really sure - blue, maybe brown, or maybe kind of green-ish.*

Inspector: *Colour of hair?*

Husband: *Changes according to season.*

Inspector: *What was she wearing?*

Husband: *Phew - huhh. It may have been a dress or could be a suit - or pants maybe.*

Inspector: *Was she driving?*

Husband: *Yes.*

Inspector: *Tell me the type & colour of the car?*

Husband: *A black Audi A8 with supercharged 3.0 litre V6 engine generating 333 horse power teamed with an eight-speed Tiptronic automatic transmission with manual mode.*

It has full LED headlights, and uses light emitting diodes for all light functions.

It has a very thin scratch on the front left door.....and then the husband started crying...

Inspector: *Don't worry sir. We will find your car.*

Malmstrom Madness (WA style) in March 2014

I have misplaced the author of this - please advise and I will offer my apology!



Malmstrom lineup - also Ted Prince with a rubber job

With the long, hot and baking-dry summer seeming never to end, the last Sunday of March threatened to disallow the traditional pancakes and orange juice brekkie for the Madness this year (due to fire risk) – fortunately saved by the first shower of the season the previous evening. Indeed, Sunday itself was the first really Free-Flight flyable day this year, with cool temperatures very light breeze, a few thermals – and even a couple of rain squalls just to remind ex-pat poms exactly why they emigrated here in the first place!

A few fliers down from last year, at least the models were trimmed at last and all (save one) put up many flights in the practice session prior to the mass launch at 10:30.

All flew, except for Chris Edwards' 1.5 times Step-Up powered by a lovely ED Cadet – still pristine, as Chris hadn't got the CG even remotely close....

Choosing the winner was hard for judge Ang, as the longest flight (Jaime's Skyrida) was clearly cheating having fitted RC electric, highest flyer this year (Dicko's Mimi) was a possibility but Dicko wins everything anyway, while last year's highest flyer (George's Brigadyr) was skilfully batted out of the sky upon launch by last year's winner, Gary 'the Great' Dickens. (Gary also discovered his Sky Gypsy flies much better FF, having taken out the single channel gear). But having to retrieve his model from the neighbouring paddock was probably what gave Mike Butcher the cup this year (*it's all speculation, as Ang won't reveal decision making....*).



Watch your step! Line up of sports models on the cow paddock.



Masterful Mike Butcher, winner of the Malmström Madness Cup, 2014, being congratulated by the incorruptible Judge Ang (no matter how many pancakes were offered.....)



Special mention must be made of Ted Prince, who brought along his open rubber model, having heard of the event during the week. Bear in mind, Ted thought free flight had ceased in these parts in the 1980s, so was pleasantly surprised to be able to dust off his models – even though the black FAI rubber he has can't take more than ¼ turns without shedding strands..... Thus encouraged however, he vowed he will be back!

Great fun (and some pancakes) had by all, with a vow to do it all again next year – but in the meantime, all agreed to get ready for the Ebenezer mass launch on April 20th, and scramble on May 5th

Chris Edwards with an ED "bicycle spoke" 100 in a Madcap, and Adrian Dyson with his Mills 0.75 powered mini Simplex getting a bit of practice for the Scramble in May.

Remembering Ray Malmstrom, of course, for his delightful designs –and especially remember, it's for

"Flying Friendship and Fun"

Ed: Some may have noticed this was a March event in WA. I forgot to include it. It still makes good reading!

Everyone's entitled to their opinion

Bob Hatschek originally published this in "Aircraft Modeller" - March 1972. This is his opinion, but I thought you would like to read it if you have not seen it before.

RC is Dullsville! That's right. Flying radio controlled models just plain lacks excitement. And RC competition flying is a bore-almost as big a bore as control-line speed or stunt.

Now that everybody's awake, alert and probably mad as blazes, let me step out of the conventional constraint of the editorial "we" and stress that the above statements are highly personal. This is your free flight power correspondent talking, and no one else.

There's a point to be made: Free flight especially free-flight competition-is the most exciting, the most intellectually stimulating, the most challenging, and the most satisfying phase of the model aviation sport. It is also the most diversified and educational and requires the highest degree of skill and craftsmanship. It is the fountainhead from

which all other phases have sprung; it has produced the highest type of sportsmen in the world.

Before you non-free flighters dismiss this as the rantings of a completely closed mind, let me state that in my 35 years of modelling I have built and flown both control line and RC. But after a few years of each, the boredom set in and I went back to the thrills of free flight.

What got me angry was the following statement in the Official Program for the RC World Championship: "Radio control is the most exotic of all categories of aeromodeling and possibly the most fascinating of any hobby-sport. "

As a free flighter, I object to the arrogance of this statement. About a dozen years ago, when RC enthusiasts were just beginning to get interested in the idea of international competition and I had just returned from the free flight world championships with a Russian model I had swapped mine for, I was invited to speak on the subject of

international aeromodeling before a local RC group. They were a good audience and asked many intelligent questions. Afterwards, one of them flatteringly asked me why, since I already knew all about free flight, I didn't step up to RC. I explained to him that I didn't understand as much as I wanted to about hand-launched gliders (the simplest type of free flight I could think of). I didn't tell him I had already quit RC because it was too dull. Despite the innocence, good will, and flattering nature of the question, it was another manifestation of the same arrogance.

As a free flighter, I'm tired of being looked down upon from an over elevated RC nose. I do my thing because that's what I like, not because I'm incapable or can't afford to do something else. I'm tired of people who couldn't fly a model without continuous control, derogating as inferior what is to me the most perfect form of model aviation.

Backing off to a point of more rational perspective, each phase of this hobby is great-if it's your thing. Stamp collecting,

model railroading, and even painting by numbers all have their attractions as well. Just don't knock it if you don't understand it. Remember, in the outside world where

they know nothing of the beauties of RC, control line or free flight, they all too often consider a model airplane to be a child's

toy. We know better, so let's have a little more consideration for the other fellow.

Bob Hatschek – "Aircraft Modeller" - March 1972



Vintage aviator have displays that are not widely publicised so it's really intimate - a couple of hundred people. Amazing.

I went to the ANZAC day display a couple of years ago. see photos above - Gene de Marco (chief pilot for Sir Peter Jackson) kindly let me take some photos of my model with the original restored aircraft (an amazing pilot, not the slightest bit interested in aeromodelling).

The collection is based a few miles from where we fly so we often have them practicing above us.

Antony Koerbin

2015 NORTH ISLAND FREE FLIGHT CHAMPS Carterton, New Zealand 13 - 15 March 2015

Friday 13th March 8.00am to 4.00pm

Open Rubber, Open Power, Simple Open Glider (straight tow) 3 x 180 sec
Vintage Duration Combined 3 x 180 sec

Saturday 14th March 8.00am to 4.00pm

Kiwi Power 3 x 120 sec
Nostalgia Duration Combined 3 x 180 sec
Kennedy Precision 3 x 120 sec
P30 3 x 120 sec

Sunday 15th March 8.00am to 2.00pm

Combined Catapult / HLG / TLG 6 x 60 sec
Mini Combined (Coupe, 1/2A Power, A/1) 3 x 120 sec
Classic Duration Combined 3 x 180 sec
Vintage Precision Combined 3 x 90 sec

Entry Fee \$10 per day

Awards. An on-field prize giving will be held each day 15 minutes after contest finish. Hand written certificates and awards for first place (3 or more entries) will be distributed. Laser printed certificate duplicates may be obtained by handing or sending the organiser a stamped, self-addressed, A5 envelope. (for return of the certificate)

Note re d/t fuses. Fuses will be banned if a general fire ban is in existence or the farmer stipulates. Check each day with control to ascertain the status of fuses.

NZMAA membership will be required for all competitors and casual fliers. Present your membership card if requested to do so. (does not apply to any overseas visitors)

This is a CPMAA sanctioned meeting. For more information contact Antony Koerbin
Phone +64 4 527 9386 or koerbinnz@gmail.com



The North Island Free Flight Champs

is a low key fun event. Its well attended by New Zealanders and we hold it in March to get the best weather opportunity.

If any of your Australian FFers happens to be touring NZ or indeed wants to come for the event they would be most welcome to come and watch or fly.

We don't generally combine it with FAI as it gives the FAI fliers a chance to fly other events but if several people indicated interest I could hold a low key F1A F1B event the couple of days before.

Australian Team Trials - The Scores So Far

	Aus Nats	Kiwi	Pan Am	Max Men	Vic St Ch	Kotuku Cup	SCC	AFFS	QLD St Ch	WA St Ch	NSW St Ch	Mongolia Cup	WA Trial	Qld Trial	Sum of best 3	Sum of best 4	Sum of best 5
	Dec 28- Jan 3	Feb 8	Feb 11	Feb 14, 15	Apr 20-22	Apr 24, 25	Apr 25, 26	Apr 28-30	Jun 21	May 31-Jun 2	Jun 7-8	July 22, 23	Aug 17, 18	Oct 23, 24			
F1A																	
Phil Mitchell		x1080	x1260	1260		1198	1260	1139	1260						3780	4978	
Malcolm Campbell	1231	x899	x1260	1260		1089	1134	1050	1236		1260				3756		
Vin Morgan	1234					1216	716				1217				3667		
Albert Fathers	1157	x798		962		748	1177	276	1205		897	503			3539		
Tahn Stowe	1169					1175	641	1142			1117				3486		
F1B																	
Vin Morgan	1260	x1069	x1260	1260	1260	1256	1260	1260			1260	1250			3780	5040	6300
Richard Blackam	1260				848	1260	1260	1260							3780	5040	5888
Paul Rossiter		1260	x1110	x1242		1185	1125	1199		1260			1260		3780	4979	
Craig Hemsworth					1070	1245	1260	1260							3765		
Ted Burfein						1258	1218	1147	336		1244				3720		
Terry Bond	1183				1123	1143	1155	1260			1259	1176			3702		
Leigh Morgan	1200				540	1078	1199	969			1177	1155			3576		
Donna Gray						1209	1057	1206			1133				3548		
Matt Hannaford	1079					1092	1260	1137			1125				3522		
F1C															0		
Roy Summersby	683	x1080	x1260	1260		750	1254	754			540	1237			3751		
Terry Bond	1161					725	871	1242			900				3303		
Neil Pollock							1078	1177					993		3248		
Gary Pope	473					10	816				699				1988		
x	Under the trials rules one overseas event can be counted. An x before the score indicates an overseas score not used.																
	OS	OS	OS	OS													
	For brevity, only the top scores have been included																

W A N T E D T O B U Y

Thermistor type thermal detector. Please contact Neil Pollock.

scottaussie@live.com





BRISBANE FREE FLIGHT SOCIETY



MONTH	DATE	START	EVENT	LOCATION
February	Saturday 15 th	12pm – 4pm	Club meeting plus “show and tell”	John’s Place
	Sunday 23 rd	8am-1pm	Dale’s Fun and Friend’s day (P-20,CLG and special ladies event, sport and limited RC)	Coominya
March	Sunday 9 th	8am-1pm	2 Minute Class models – “All in” Club Contest (3 flights)	Coominya
	Saturday 29 th	7am-12pm	F1A State Champs (5 rounds + 2 for team selection)	Dalby
	Sunday 30 th	7am-12pm	F1H State Champs (5 flights)	Dalby
April	Saturday 5 th	3pm-6pm	Indoor (IHLG/ICLG State Champs)	BSHS
	Saturday 12 th	7am-12pm	F1C State Champs (5 rounds + 2 for team selection)	Dalby
		1pm-4pm	Open Power (3 flights)	Dalby
	Sunday 13 th	7am-12pm	F1J State Champs (5 flights)	Dalby
	Friday 25 th –		Southern Cross and AFFS	Narrandera
May	Friday 2 nd		Southern Cross and AFFS	Narrandera
	Saturday 3 rd	3pm-6pm	Indoor (F1L/MiniStick/Delta Dart Club Events)	BSHS
	Saturday 17 th	7am-12pm	F1B State Champs (5 rounds + 2 for team selection)	Dalby
	Sunday 18 th	7am-12pm	F1G State Champs (5 flights)	Dalby
	Sunday 25 th	8am-1pm	Scale, HLG & CLG	Coominya
June	Saturday 7 th	3pm-6pm	Indoor (Frog Event)	BSHS
	Sunday 8 th	8am–12pm	P-30 (3 flights 120sec max)	Coominya
	Sunday 22 nd	8am–12pm	A1 Sailplane (3 flights)	Coominya
	Saturday 28 th	12pm – 4pm	AGM	John’s Place
July	Saturday 5 th	3pm-6pm	Indoor (P-18 State Champs)	BSHS
	Sunday 13 th	8am–12pm	100gm coupe (3 flights)	Coominya
	Sunday 27 th	8am - 1pm	Dale’s Fun and Friend’s day (P-20,CLG and special ladies event, sport and limited RC)	Coominya
August	Saturday 2 nd	3pm-6pm	Indoor (Peanut Scale State Champs)	BSHS
	Sunday 10 th	8am–12pm	1/2A Power (3 flights)	Coominya
	Sunday 24 th	8am–12pm	QDP (3 flights)	Coominya
September	Saturday 6 th	3pm-6pm	Indoor (General Indoor Flying)	BSHS
	Sunday 7 th	8am–1pm	Col’s Vintage Rally	Coominya
	Sunday 21 st	8am–1pm	Combined % (3 flights)	Coominya
October	Sunday 5 th	8am-1pm	Vic Smeed and KKK	Coominya
	Thursday 23 rd	7am-2pm	F1A & F1C Team Selection Trial (7 rounds)	Dalby
	Friday 24 th	7am-2pm	F1B Team Selection Trial (7 rounds)	Dalby
	Saturday 25 th	7am-9am	LSq/100 (3 rounds)	Dalby
		9am-12pm	Open Rubber State Champs (3 flights – flyoff 7am Sun)	Dalby
	Sunday 26 th	8am – 12pm	No Frills Wakefield (3 flights)	Dalby
November	Sunday 2 nd	8am – 12pm	Frog rally and P-20 (3 flights 60sec)	Coominya
	Sunday 9 th	8am-12pm	Club reserve day (general flying)	Coominya
	Saturday 22 nd	12 noon	Xmas party and presentation	TBA

CONTACTS:

► John Lewis 3848 4280 ► Malcolm Campbell 3263 9339 ► Albert Fathers 0755 343490

2014 CALENDAR

New South Wales Free Flight Society

Contest & Fixture Calendar 2014

Date	Event	Venue	Time	C/D
Dec28-3/1	Nationals	Springhurst	See Nat's	Program
Jan 17	General Meeting	Harris Park	7:30pm	
Jan 19	Scramble, Scale Rally, HLG/CG	Richmond	7.00am – 1.00pm	Terry Bond
Feb 9	State Champ, P30.+ Comb Vintage	Richmond	7:00am – 1:00pm	Gary Pope
Feb 23	Combined %	Richmond	7.00am --1.00pm	Tahn Stowe
Mar 1-2	Hunter Valley Champs	Muswellbrook		
Mar 8-10	Victorian State Champs	Springhurst		
Mar 16	Combined %	Richmond	7:00am – 1:00pm	Jim Christie
Mar 17-18	MAAA Conference			
Mar 21	General Meeting	Harris Park	7.30pm	
April 6	State Champs HLG/CG. Rocket Glider , Plus Combined Vintage	Richmond	7.00-1.00	Roy Summersby
April 23 to May 1	Kiwi Cup, Southern Cross Cup, AFFS Champs	Narrandera	See AFFS Program	SCC. T.B.A.
May 3-4	Veterans Gathering	Muswellbrook		
May 11	State Champs Scramble, Combined % , Control Line flying BBQ Lunch	Richmond	7:00am – 1:00pm	Roy Summersby
May 16	General Meeting	Harris Park	7.30 pm	
May 25	P30, Diesel Duration, + Comb Open	Richmond	7:00am – 1:00pm	Terry Bond
June 7-8	NSW State Champs F1A,B,C	Narrandera	8.00am--3.00pm	Jim Christie
June 15	Combined Vintage, HLG/CG, P30	Richmond	7:00am – 1:00pm	Gary Pope
June 22	Russell Forth Scramble	Illawarra		
July 5-6	Scale Rally Weekend. Sun 6th ½ Hour scramble, Fun Fly C/L flying & BBQ Lunch	Richmond	7.00am	Tahn Stowe Roy Summersby
July 18	General Meeting	Harris Park		
July 20	Combined %	Richmond	7:00am – 1:00pm	Jim Christie
Aug 10	Combined %, Multiple Entries.	Richmond	7.00am- 1.00pm	Terry Bond
Aug 24	Scale Rally, P 30, Combined Vintage	Richmond	7:00am – 1:00pm	Tahn Stowe
Sep 7	½ Hour Scramble + Tomboy Mass Launch. Fuller Day, Stomper Dixielander, Zoot Suit. B-B-Q Lunch	Richmond	7:00am – 1:00pm	Chris Dudley
Sep 19	Annual General Meeting	Harris Park	7:30 pm	
Sep 28	State Champs F1G,H,J Combined	Richmond	7.00am--1.00pm	Jim Christie
Oct 12	Diesel Duration, P30, HLG/CG	Richmond		Tahn Stowe
Oct 26	State Champs Combined Vintage, ½ Hour Scramble, BBQ Lunch	Richmond	7:00am – 1:00pm	Gary Pope
Nov 9	Combined % Multiple entries	Richmond	7.00am- 1.00pm	Roy Summersby
Nov 16	Mills Trophy Scramble	Illawarra		
Nov 21	General Meeting	Harris Park	7:30 pm	
Nov 30	F1G, H J,(Combined)	Richmond	7:00am – 1:00pm	Gary Pope
Dec 14	½ Hour Scramble, Combined Vintage with SAMS + Fun Fly. BBQ Xmas Lunch	Richmond	7:00am – 1:00pm	Terry Bond
Note	All scrambles start as close to	8.00 am as	possible	

West Australian 2014 Free Flight Contest Calendar

DATE	CONTEST CLASS	LOCATION	TIME	CONTACT
28 th Dec to 6 th Jan	67th Australian nationals	Springhurst		
2 nd March	Combined Open	Meckering	9.00 am	Chris Behr – 9448 9922
16 th March	WAFFS Free Flight Cup	Meckering	9.00 am	Paul Rossiter – 9316 0250
13 th April	Open Rubber State Championships	Meckering	9.00 am	TBA
As above	SLOP State Championships	As above	9.00 am	TBA
25 th – 26 th April	Southern Cross Cup (TT)	Narrandera		
27 th April 1 st May	AFFS Championships (TT)	Narrandera		
4 th May	HLG/CLG State Championships	TBA	TBA	George Car – 6161 9381
As above	Power Scramble State Championships	TBA	TBA	George Car – 6161 9381
18 th May	P30 State Champs / FIG Cup	Meckering	9.00 am	Rod McDonald - 9316 2762
as above	Combined Open / Free Flight Cup	as above	as above	
31 st May– 2 nd June	F1A, F1B and F1C State Championships (TT)	Meckering	9.00 am	Phil Letchford - 9295 2161
as above	Combined Open / Free Flight Cup	as above	as above	
22 rd June	Escargot Trophy	Meckering	9.00 am	Adrian Dyson – 9295 4418
As above	WAMAC Cup	as above	9.00 am	
as above	Combined Open / Free Flight Cup	as above	as above	
6 th July	Open Power State Championships	Meckering	9.00 am	TBA
as above	F1B Crowley Cup	as above	as above	
as above	Combined Open / Free Flight Cup	as above	as above	
20 st July	Fuller, Nostalgia and F1Q	Meckering	9.00 am	Paul Rossiter – 9316 0250
As above	Combined Open / Free Flight Cup	as above	as above	
17 th – 18 th August	FIA Team trials F1A, F1B and F1C (TT)	Meckering	9.00 am	Chris Behr – 94448 9922
as above	Combined Open / Free Flight Cup	Meckering	9.00 am	

- 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; 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 7 rounds.
9. All competition events are 5 flights except FIA events which are flown in rounds.

H:\WAFFS\Contest Calendar\2014 Free Flight Calendar.doc

The mystery flyer on page 37 is none other than Peter Brocks, expert F1E flyer, F1A and f1G flyer from Arizona USA.