FREE FLIGHT DOWN UNDER

NEWSLETTER OF THE AUSTRALIAN FREE FLIGHT SOCIETY INC

VOLUME 55 NUMBER 3

SPRING 2023

2023 FREE FLIGHT WORLD CHAMPIONSHIPS FRANCE

AUSSIE WINS USA CLG AT MUNCIE NATIONALS

WHAT WAS THE EATON BRAY MODEL SPORTSDROME?

TRANS-TASMAN SCALE AT RICHMOND

WAZZATRONICS – ELECTRONIC PROJECTS IN ANNA BAY

AUSTRALIAN FREE FLIGHT SOCIETY Inc.

FRONT COVER: Team Manager Gary Goodwin and F1B flyer Bruce Hao have their eyes firmly on Bruce's model during one flight of his superb performance at the 2023 Free Flight World Championships. Bruce placed 13th and the F1B team placed 3rd overall, our best ever team performance.

Free Flight Down Under

Spring 2023

Volume 55, Number 3

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

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

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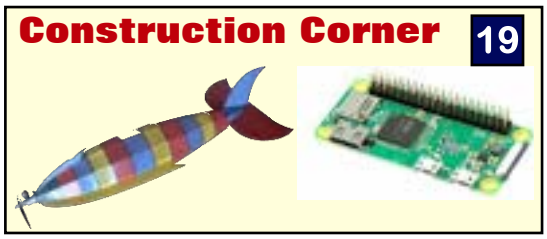
CONTRIBUTORS

Mike Pettigrew
Roy Summersby
Vin Morgan
Matt Hannaford
Gary Pope
Gary Goodwin
Warren Leadbeatter
Angela Mahoney
Len Surtees
Ken Bauer

THANK YOU!

Your name could also be here!



PRESIDENT'S REPORT

The 2023 world championships for F1 A, B and C have been run and won and from comments made by our returning team members, a good time was had by all.

Amongst all the results, we were pleased to see that our F1B team took out third place in the teams event and we offer our hearty congratulations to Bruce, Craig and Vin as well as all involved in assisting them on the day.

The report of the events included in this edition of FFDU will no doubt cover the champs in more detail. There has been much subsequent debate, as most of our readers would be aware, regarding the use of altimeters to track and time flights and this has led to the ever ongoing debate about model performance compared to field sizes. For what my opinion is worth, I don't believe that a successful formula exists that would satisfactorily reduce model performance and I'd go so far as to suggest that any attempt to do so would have people abandoning the sport rather than trash their models.

I guess time will tell……

Looking ahead to 2024, the AFFS committee is starting to plan the Championships to held in the Autumn of 2024 and this, of course, all starts with selecting suitable dates. More to follow over the coming months.

It's a quiet time for free flight at this time of the year with not much going on other than a few postal competitions with the next event on the calendar being the West Wyalong event at the end of October with a focus on Scale, but it's promoted also as a gathering where you can fly what you want. Let us hope the weather is OK.

Mike Pettigrew

FROM THE EDITOR

FREE FLIGHT DOWN UNDER

After a bumper Winter edition where all the major events are covered, FFDU for Spring can be a bit lean on. But this year was the first Free Flight World Champs for four years.

We had a capable team of flyers and a few have supplied stories of their time at Moncontour in France.

I was at Lake Macquarie when the World Champs were run and it didn't do much for my sleep. With real-time online updating of each event, it was possible to see how everyone was going, possibly sooner than they could! With France nine hours behind us, this meant a lot of lost sleep as I woke every one or two hours to see the race to the fly off. It was actually quite exciting. So many maxes too.

Thanks to Vin Morgan, Matt Hannaford, Roy Summersby, Gary Goodwin and Gary Pope, the adventures of our Australian Team make interesting reading.

Roy also supplied details of the Richmond Scale Rally and Len Surtees told us all about his amazing achievement at Muncie USA.

Learn all about Roy's new SE5a and an inherited F 86 Sabre jet. Warren Leadbeatter takes us inside his electronics laboratory and Maris Dislers has more on the LEJ25.

And there's Air bags, RF chokes and Postals to read about, and another fascinating story from our past by Mike Pettigrew.

Gee, there's something for everyone.

Malcolm Campbell

WINTER FFDU CORRECTION: The information re the AFFS Combined Vintage in FFDU is incorrect. You had Ian as 2nd and myself as 3rd. If you look at the score sheet, you will see that it was myself 2nd and Ian Haigh 3rd. If you look at the scores, Ian's first round was 118, not 178. You can see in the math and the results that it was myself 2nd. I hope this did not affect the C of C result.

WAZZA

Australia at the 2023 FF World Championships

Report and photos by Vin Morgan

Five events entered, six maxouts in the World Championships, F1B Team in third place, Australia 6th overall, two cars broken, 34 bottles of wine consumed.

The 2023 Free Flight World Championships for F1A, F1B and F1C were once again held near the town of Moncontour in western France. This is the same area as was used for the 2013 W/Ch which were notable - for us Australians anyway - because Roy Summersby won F1C. This time we didn't have any outstanding individual results however in F1B the Team came third - which meant that the F1B flyers and the Team Manager all collected FAI medals – and the other Teams also did pretty well with two maxouts in F1C and one in F1A giving Australia sixth in the overall World Championship F1 Challenge.

The competition was well organized, principally by the Moncontour Club who were helped by the good condition of the fields (apart from the sunflowers which were unpleasant and difficult for retrieval) and the brilliant weather for the whole six days of the competition as well as for the preceding events. There was quite a lot of competition. If you arrived early enough you could take in the Hispano and the Louis Dupuis 2-minute on August 5 & 6, the Trophy Belge (F1A, B & C) on August 7 & 8 and the famous Journees International du Poitou on August 9 & 10.

Most of the Australians arrived around August 5 to acclimatize and do a bit of practice. Gary Goodwin was Team Manager and therefore wasn't flying in the W/Chs so he flew in both the Trophy Belge and Poitou. Craig Hemsworth and Vin Morgan also flew Poitou. Craig and Gary dropped but Vin got through which meant that instead of us all being able to go home for dinner at the end of the rounds at 5pm we had to stay for the flyoff in the dusk at 8:30.

It was a taste of how the W/Chs would run; days started at 06:00 and ran through to 9pm in the evening. Fortunately, in a wonderful piece of programming the World Championships for juniors were interleaved with the senior competition, F1A senior, F1A Junior, F1B senior, F1B junior and so on. The sleep-in on the days between the senior competitions was a major factor in the survival of the Australian Team.

We stayed in two small villages about 9km apart, six in a pleasant gite (hotel/B&B) in the tiny village of Leugny a few km from the slightly larger village of St. Jean de Sauves (population 2000) which was about 5km from the flying field and four a bit further away in Marnes near Moncontour. Matt Hannaford stayed in the camping ground at the field. We all took evening meals at Leugny because they were enjoyable, including plenty of wine and beer and there was a nice outdoor table. It all worked well. You can see the pictures.

As noted, the weather was outstandingly good for the whole time. For the first few days it was quite cool, cold even, early in the morning. It was warmer for F1C but not hot just very pleasant. Models were mostly going about a km or less. Some flyoff flights maybe 2 km or a bit more.

Nowadays in F1A, B and C at World Championships hardly any of the competitors actually build their own models. The competition is a technological/sporting exercise like motorcar or sailboat racing where a successful competitor has to understand the model and (especially in FF) be able to adjust it and then be able to fly it. Constructing modern models requires workshops with appropriate equipment. You can't make moulded carbon wings and useful front ends on a board on the kitchen table. Perhaps it's a pity but it is a fact.

The competitions were dominated by models produced by Anton Gorskiy in the case of F1A https://www.gorskiyfavionics.com, Alex Andriukov in F1B http://www.andriukov.com, and Artem Babenko for F1C.

Roy Summersby has distributed a lot of Babenko models since the invasion of Ukraine including the one used by the new (to F1C) flyer Walt Ghio to place 4th.

The new models have exceptional performance; too good for most flying fields and too good for timing in any sort of wind by a timekeeper simply equipped with a pair of binoculars. Altimeters, which were introduced a little while ago for use in altitude flyoffs (where the altitude at some predetermined time determines the winner) are now being used in some circumstances to determine flight times when the time of landing cannot be determined accurately by the timekeeper. There are obviously a number of problems with this, apart from the legal problem of regulations requiring the model to be seen throughout its flight. There was a lot of discussion at the W/Chs and there is still a lot going on. Some of this appears in SEN (SCAT Electronic News). You can subscribe to SEN at: http://eepurl.com/crOnvj or at the SEN website: https://sen.faifreeflight.org.

You can look at the results of the Championships on Ian Keynes' Free Flight News page: https://www.freeflightnews.org.uk/champs/ch23/ff23.htm (note that you need to use Ctrl plus click to bring up the websites).

ED: *Vin supplied a number of very good photos and, to do justice to his work, they all appear together on the next three pages ……..*

The tourists had some time to spare after flying in. They visited Le Bourget, the original Paris Airport, which is now an aircraft museum. Everything from a Bleriot to space craft.

Opening Ceremony; the walk through the main street of Moncontour

Opening Ceremony. Australian Team, from left to right (with extra person).

Craig Hemsworth, Vin Morgan, Bruce Hao, Ian Haigh, Kris Best, Matt Hannaford, Andrew Linwood, Gary Goodwin, Roy Summersby, and Albert Fathers. The extra (British Team shirt) is Kris Best who is an Australian living in the UK. She flew glider.

2023 Free Flight World Championships

Happy Vegemites at dinner on day 1

The screw shop. Eury Blazevitch's table.

F1C Flightline

Artem Babenko's table. Artem flew F1C in the competition. At the same time, he ran a repair service on other competitors' Babenko models

Retrieval crew, F1C day. It was slow trudging across the rough fields. The hired bike was a huge help.

AUS F1B Team

F1A results — 114 flew

1	Lauri Malila	SUI
2	Robert Hellgren	SWE
3	Alejandro Arigos	ARG
34	Ian Haigh	AUS
52	Matt Hannaford	AUS
79	Albert Fathers	AUS

Team results — 38 teams

14 Australia

F1B results — 109 flew

1	Bozo Grubic	SRB
2	Jes Nyhegn	DEN
3	Dominik Andrist	SUI
13	Bruce Hao	AUS
31	Craig Hemsworth	AUS
34	Vin Morgan	AUS

Team results — 38 teams

3 Australia

F1C results — 70 flew

1	Darijo Jermol	CRO
2	Ezra Shemesh	ISR
3	Viacheslav Alexsandrov	UKR
12	Gary Pope	AUS
29	Roy Summersby	AUS
64	Andrew Linwood	AUS

Team results — 25 teams

14 Australia

Team Challenge (combined A,B, C results)

6 Australia — 41 teams

Chateau De Wheels Circa 2023

A different slant on a world champs report

Report and photos by Matt Hannaford

My World Champs experience was amazing. It involved a lot of travel, five flights, four train trips, accommodation and car hire.

After many permutations and hours on the internet, I came up with a plan! Flights were sorted. Plummet Airways had a special deal for a round the world trip SYD to CDG, via HKG, CDG, DOA, BKK, and SYD airports, Local and fast trains, TGV got me from here to there but there was a gap? Hire car and accommodation.

Why not combine both? Accommodation as well as a hire car and my love of camping and of course "Doing it on the cheap!"

At the time of looking and booking, the Australian team and the rest of the world had booked out a 50 km radius of all possible accommodation around Moncontour. I had a bit of light bulb moment and here I present to you the VW Transporter, my home for the next two weeks.

The Sixt hire car team set me up with a commercial vehicle. Brand new, no back seats and lined with some sort of craft wood interior. Blacked out windows and this little diesel-powered bread box did 130 kph on the motorway drinking 8.4 L/100.

A trip to the local camping store and I was set up with mattress, double sleeping bag, table, chairs, gas stove and a simple cooler bag. I had the basics.

Next stop was the biggest super market I have ever seen. The creme fromage isle was bigger than our local deli. A towel, pillows, kitchen stuff

and of course food and drinks. I was ready.

It was a relief to hit the open road after self-navigating the narrow streets in a foreign country driving a LHD vehicle on the other side of the road. It wasn't long until I found the World Champs field, the rest of the team and finally my camp ground in Moncontour next to a beautiful lake for the next four nights. Then off to the camping ground at the W/C site for another seven before heading back to Moncontour for the closing ceremony next to the concert site for the final night.

It's also not a bad taxi service for the "Flash as a rat with a gold tooth hire car mob" that shall remain nameless, after Roy and Andrew's fancy Mercedes stopped working and they got a similar deal to me!

I may have missed out of a lot of teams talk and dinners at local accommodation, but this wasn't an option at the time. I did visit often and thank them for the free WiFi from the driveway to conduct business emails back home. I made up for it with training sessions and networking with people from all over the world and formed many long-lasting friendships along the way.

It wasn't long till I was into a routine with only minor refinements along the way.

All this for about $750 AUD plus camping fees, camping gear, diesel and food.

The weather was perfect, a few cool nights some hot days, sunrise at 6 am and dusk at 9.30 pm. Only once did rain delay a practice session.

I was surprised to find the local villages didn't have a "servo" or much of a local store. I did run up a lot of km's sourcing supplies and ice to keep the cooler cold, but this also showed me a lot of the local countryside and small villages. Many historic buildings and of course the selfies next to the many sunflower crops, wind turbine, local streams or old Abby.

It was my plan to off-load all the gear before I left, but it is hard to sell camping gear to campers from all over Europe that have also travelled there. But I made a few deals here and there. I ended up giving away what was left over to Yuri and Artem from the Ukraine as I was leaving.

It was truly an experience of a lifetime for me and to be on the field at the crack of dawn until sunset and to see the results published on the big scoreboard late at night. The Junior European champs were held every second day and it was great to see so

many participants from all over the world in the one place at the same time with their love of the sport .

Many a yarn around the beer tent. Stories of the one that got away got bigger as the night went on.

The female teams all got a prize.

The German team certainly had us all dancing.

The Hungarian's cleaned up with the Juniors etc.

But most of all, I am very proud to be a part of the team and I thank you all as individuals in our sport.

Matthew Hannaford AUS 111154

Gary Pope's Perspective of the 2023 Free World Championships

Moncontour France – August 2023

Introduction

It seems fitting to begin with thanks to those people who assisted me in getting to Moncontour;

- Shannon Tolmie who due to family & works priorities, gave up his well-earned place on the team, allowing me to take his spot.
- Shannon & Shayne who assisted me with a myriad of small but important bits and pieces plus know how as I worked on improving my models & improving my flying performances before going to Moncontour.
- Geoff Potter who did a wonderful job on my new Slava wings for my brand new model.
- Terry Bond for his spare wings and bits & pieces for my ill fated 4th model.
- Andrew Linwood & Vin Morgan who between them led me on a path to an excellent travel plan with Vietnam Airlines (via Colin Hood at hikebike.com.au)

By the time I had packed my bags I was confident I had 3 very good models, the supporting bits & pieces plus a recent history of the good practice necessary to fly well in F1C in the WC's. I felt confident the team was very strong & I was keen to be a good team member in that strong team.

Travel to CDG

All good. Vietnam Airlines Business Class was very, very good

Travel to Marnes

Bruce and I found each other at one of the IBIS hotels at CDG. We picked up the hire car but got lost when heading back to the IBIS to pick up our luggage. A 5 minute drive became a 1 hour mystery tour. Annoying but no big deal. The drive south west to Moncontour was going very well on the motorways but things took a bad turn almost as soon as we got onto the village roads. Yours truly clipped a kerb. Not a big hit but enough to damage the RHF tyre. There was no spare, just a puncture kit that proved useless. To cut a long storey short, the car rental firm (Budget) were useless but we were saved by a receptionist at a local Garage. Nicolina was a South African lady who spoke both French & English fluently. She organised overnight accommodation and a tilt tray tow truck to a tyre place at Chinon. The next day we were on our way a day late, with 2 new tyres and over 300 Euro lighter in the pocket. We arrived at Marnes, found Andrew & Gary G, settled in at our Gite & got on with life in France.

Welcome, Processing & Practice

Not much to report here. It all went well. The models were stamped and some good practice was had.

F1A Day -

Things went OK for the F1A boys. Gary G had the recovery teams working well. There were some problems with radios but not a complete breakdown. Gary Goodwin's very positive & very calm approach kept us all in a reasonable frame of mind. We were pleased to find out that Ian Haigh had maxed out and

was in the Fly-off. Great result for a novice in this class at the WC's level. Well done to our 3 competitors & a big congratulations to Ian for his max-out. The Australian team result was 14th out of 39 countries.

F1B Day

Things went extremely well for the F1B boys. The recovery teams were working well, even better than yesterday. The radio problems remained but we coped a bit better after yesterday's experiences. Again, Gary Goodwin's very positive & very calm approach kept us all in a reasonable frame of mind. At the end of the day, we were delighted to find out that all three flyers had maxed out and were in the fly-off. Bruce, Craig & Vin had delivered an unprecedented performance for an Australian Team at an F1 World Champs. Top score was as Bruce who came 13th while Craig was 31st and Vin was 34th.

The Australian team result was an outstanding 3rd out of 38 countries. The Australian F1B Team were on the podium. A wonderful Team result.

F1C day

It was my turn to go from retrieval to flying. Roy, Andrew & I had good models & we were flying well. We were confident. The day began well & we were rolling along nicely. By the end of the 4th round we each had a clean sheet. I was very pleased with my model & my flying. The model was a fairly fresh Slava traditional folder with built up wings. The engine in this model was very strong. In fact, this was the engine I had used 10 years ago in my first foray into F1C World Champs in this very same field. In those 10 years I had learned enough to fit out & assemble a good model and to fly it consistently in good company. Things continued to go well for Roy & I but Andrew experienced problems with his model which misbehaved. Andrew's flying was quite good but the model let him down in the 5th & 6th rounds. To his credit he finished with a max in the 7th round.

My goal at the outset was to be a good team member and get to the fly-off. Anything beyond that would be a bonus. When I achieved this goal after the 7th round I had the realisation that the model & I might be good enough to win this contest! Things had progressed from being solid to being very interesting! In the first fly-off things went very well. The motor was superb (31k to 32k on the ground, 35k at the top of the climb). The model was climbing & transitioning superbly and the glide was a good as anybody else's. The model easily made the 6 minute max. I was in the 2nd fly-off! Yippee!

I was confident going to the line in the 2th fly-off. However, when I fired up my model it would not settle down and run cleanly and consistently. Was it the fuel? Was it the glow plug? Was it a bit of both? In a 7 minute window there is no spare time. I decided to put that model to one side & use my almost identical spare model. However it too had issues with inconsistent rev's, but it settled down a bit so I launched. The engine stumbled on the way up & it got to no more than half its normal height. It would take a miracle to win from here. All we could do was wait & watch for a miracle. It did not arrive. I ended the day with the worst flight since I arrived in France.

I consoled myself with the fact that I had overachieved my initial goal. I had come 12th in fact, the best result for any on the team in any class. Our team result was not too shabby either, we came 14th out of 25 countries. The fact that there were some very good F1C flyers at home bodes well for the future of F1C in Australia.

I must express thanks to

- Gary Goodwin who was very supportive & encouraging on the line all day for all three of us.
- Bruce Hao who was a wonderful companion during the competition.
- The retrieval team who all day delivered our models

back to us in good order, in good time and in good humour.

- Andrew Linwood who was most helpful & encouraging all day but especially in the fly-offs.

Banquet & trip home

Not much to report here. The food at the banquet was good but having so many people in an auditorium that was not air conditioned was a bit of a challenge. C'est la vie.

The trip home was OK but the 20 hour layover in Hanoi was a bit of a drag.

Conclusion

In addition to the thanks already expressed to our Team Manager, our Team Members and various individuals, I would like to express my thanks to the MAAA for its significant financial support of our efforts as competitors in a World Sporting Championship.

Postscript

While I did not get ill during the trip nor on my return, it did take me over 2 weeks to overcome the jet lag AND the let down that was inevitable after a big sporting trip to France.

Gary Pope

F1C World Championships France 2023

My thoughts only

Roy Summersby

We three F1C flyers from NSW were reasonable prepared for France, all models were going quite strong. Myself and Andrew were going to be there quite early as Gary Goodwin had entered the Poitou cup. We were travelling together, same flight and sharing a car.

Knowing we were getting there early I had arranged to have some fuel for practice brought over from England, this was in addition to what I had ordered from the organizers. Practicing on both these fuels was giving good results, engines were performing as they do here in OZ. We were happy and were expecting good results from all three of us. We didn't fly in the Poitou Cup, but we watched most of the comp and checked out our opposition.

Our big day had arrived, we were ready to do our best against the other 65 competitors. We had set up half way along the flight line which meant we had engines running near us most of the time, maybe next time a bit further back might be a good idea.

The supplied fuel on the flight line which you have to use, was seeming to us, as well as others, like a problem. I along with others were having trouble trying to tune our engines. The engine would go lean and at times one would have to open the needle ¾ turn to bring it on song. I very rarely have to adjust my engines once they are set, ¾ turn is just unheard of. I was also blowing plugs as well, and I mean one per flight, I never blow plugs only change them because I think it's time I should. I did witness Ken Faux launching his model only to grab it as it was leaving his hand as the engine was suddenly dying, it was a brilliant catch and saved the model.

After four rounds, we as a team were looking good but then Andrew had a wing problem and dropped. Myself and Gary managed to make the fly off, and this is where I came unstuck with the engine going right off and getting less than half height. Gary made the six minutes and in the next fly off had engine trouble.

After the competition talking to most flyers the answer was the same, the fuel was sh--t.

What was wrong with it, I guess we will never know, but it was sad to see models destroyed, and bad climbs because of fuel that hadn't been tried. Why was the fuel that I had bought from the organizers which you assume to be the one you are going to use in the competition so different from what we had to use? Was there water in it? It should have been the same.

Gary Pope

Andrew Linwood

Roy Summersby

Team Manager's Report

2023 Free Flight World Championships
Moncontour/Saint-Jean-de Sauves, France

The Free Flight World Championships has been run and won for another two years. The French organizers did a commendable job, considering the venue constraints and large numbers in the fly-offs! All of the Australian Team members were well prepared and practiced, so we were confident of some good results. With forty-two countries competing, we saw flight lines in F1A and F1B of forty four and forty eight pole positions respectively! Pole positions in the F1A (Glider) event had to be reduced in spacing to fit the flight line on the available paddock. Even with this reduction, the line was over four hundred metres in length! Knowing that the flyoff conditions even at 8.30pm in the evening would be very buoyant, the organizers tried to be inclusive with regards to the available altimeter and timing software on most models. Even if systems were not FAI approved you still had the opportunity to utilize it in a flyoff situation.

This decision was decisive, as both the F1A and F1B winners were confirmed with altimeter and

onboard timing systems. This was after a great number of flyoff flights went out of sight, in the fading evening light!

Although the Australian Team did not have any top ten individual placings in F1 A, B, or C, our overall team results were excellent in all three classes. Our flyers flew consistently well on all three contest days and backed up with great retrieval efforts on the days they weren't competing. With temperatures in the mid-thirties and eighteen hour long days, we were all worn out by the end of the champs, both physically and mentally! Most retrievals were at least two kilometres into high sunflower crops, which surrounded the flying site. With only limited push bike use possible, our team covered a lot of kilometres after seven rounds and twenty-one individual team flights on each contest day! I was proud of the effort that everyone put in, under difficult conditions.

All of this effort certainly paid off, for Team Australia. Ian Haigh made it into the first F1A flyoff, all three of our F1B flyers made it into the six-minute flyoff and Roy Summersby and Gary Pope into the FIC six minute flyoff. Both Gary Pope in F1C and Bruce Hao in F1B placed in the top twenty flyers after their respective eight-minute flyoffs. Gary being our highest individual placing at twelfth and Bruce at thirteenth respectively. Even more satisfying from my perspective as team manager, was our bronze team medal in the F1B Class! All our F1B flyers flew exceptionally well, but the whole team effort, throughout the champs, ensured that models got back to the flight line on time and in one piece, which was a massive psychological advantage for all of our flyers. The rewards kept coming from all of these great efforts, with Australia placing sixth in the overall team point score for the championships, out of forty-two competing countries! For a small country with a relatively small group of free flight flyers, who compete at international level, we certainly punched above our weight. The comradery within the team was excellent throughout the whole trip, and our results reflected this.

Although we did not achieve high individual results in each class, I feel that the overall team performance confirms that we are more than competitive on the world stage. Unfortunately, at this high level of competition, luck is certainly a factor when it comes to large flyoff numbers and very long flight lines. With only seven minutes to launch in a flyoff, and a four hundred plus metre long line, you had to be in a lucky spot to get good air. Or, in the case of glider, no line tangles or interference from other flyers! Circle towing was certainly risky with the numbers of competitors and the site restrictions.

It was a pleasure to manage such a talented group of flyers that were the Australian Free Flight Team. We have cemented our position as one of the best nations in the World, at international F1 Free Flight Flying. Well done men and women!

Gary Goodwin
Team Manager 2023

AUS 3rd in F1B and 6th overall

More photos from the 2023 World Free Flight Championships

Look closely, this the flight line, most likely F1A or F1B

There are many more photos of the World Champs on the various Facebook pages, including the NSWFFS. Here are a few that I found of our team.

Opening Ceremony Parade

F1B day - Vin Morgan on the flight line

F1B day - Team AUS maxes out

Roberta Gordon waves the flag

Craig Hemsworth on F1A day

Gary Pope feels the air

Gary G & Bruce Hao, F1B

Ian Haigh retrieves

Albert Fathers on the binos

Vin Morgan waits his turn

Ian Haigh surveys the scene

Closing Ceremony entertainment

2023 Outdoor National Free Flight Championships Muncie USA

Report and photos by Len Surtees

One week before departure to USA the long-range weather forecast for Muncie showed rain every day for the duration of FF Championship. To go or not to go?? Well, the answer was simple, fortune favours the brave so I packed my gear and off to Muncie we go. My good friend Jan Langelius picked me up from the Indiana International Airport, as Jan was heading for Muncie from Texas. Both Jan and I stayed at same motel so I was given a lift to and from the flying field, about a 10-minute drive each day.

The Muncie flying field was in excellent condition, lush green mown grass, room to hold several events around the flying site, super friendly AMA and NFFS staff and contest directors making a very enjoyable experience. Oh, and it didn't rain during the contest for the 6 days I was there. It was close to perfect weather so all who participated could not complain. I had registered to fly in CLG and HLG and was quietly confident of my STING MK2 18" glider performing well.

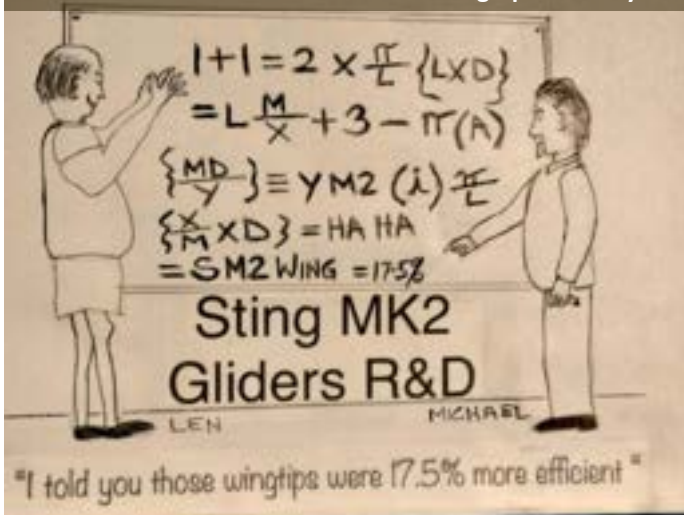
Muncie Nats STING MK2 18" CLG winner sporting Michael Towell's wingtips.

After watching the old timer glider event the day before having 9 rounds I unwittingly thought CLG was also 9 rounds. I was first to fly in the "pen", we call it a "box". I flew early with my 16" Black Magic with no DT, hoping to catch some early buoyant air. A max in America is 90 seconds, ours is 60 seconds. Flight 1 was 38 sec, flight 2 was 43 sec, and flight 3 was 49 sec. When I reported my scores to the CD, I was informed that I only had 3 flights left. Ouch!

For me to progress onto the fly off I had to max my last 3 remaining flights. "No pressure, right?" So, I re-trimmed my 16" glider and flight 4 maxed and continued happily thermalling until it eventually disappeared, never to be seen again. Time for the big guns and out came my trusty STING MK2 18" glider with Michael Towell designed wingtips. I maxed flights 5 and 6, so am now able to progress. I managed one more max followed by a 64 sec flight. So, my total gave me first place beating Jan by 25 seconds and Brian Van Nest into third place. I was the only one to string 4 consecutive max's and I was congratulated by some of the all-time greats like Stan Buddenbohm, Tim Batiuk, Josh Finn, Don DeLoach, Bruce Kimball, Kurt Kremptz and Jan Langelius, to name a few. There were 23 that flew in CLG.

My observations comparing my STING MK2 18" with a full lifting wing coupled with Michael Towell's wing tips to the more rounded common wingtips showed my glider was more stable and gave those few extra seconds in duration. Michael says his wing tips give 17.5% more efficiency.

How Michael convinced Len on the wing tip efficiency.



Next day HLG and I was not confident due to no flying practice for 3 months leading up to Muncie. HLG whether javelin launched or wing tip launch require almost perfect launches which can only be replicated by practice and more practice. My aluminium gold 32" wing if launched consistently could have been on the podium. Of my 6

Len's new 32" TLG with radio DT

flights I only had one good launch which maxed easily being a 2-minute max. The rest of my launches were poor, resulting in poor results. Mmm, maybe return next year fully prepared as I regard HLG as the main event. Josh Finn won with persistent high launches into good air followed by the best in the business Tim Batiuk.

As a foot note, I was the only one retrieving my gliders, both CLG and HLG, on foot. Every other competitor had either a motor bike or golf buggy which saves time and tiredness from long walks.

Len Surtees stingmk2gliders.com

USA Nationals held at Muncie USA July 2023

CLG RESULTS

1	Surtees, Len	Tin Can Bay, Queensland	424
2	Langelius, Jan	Haslet, TX	399
3	Van Nest, Brian	Bishop, CA	396
4	Deloach, Don	Colorado Springs, CO	333
5	Ulm, Gene	Fairfax, VA	322
6	Dalecki, George	Paw Paw, MI	316
7	Batiuk, Tim	Menifee, CA	302
7	Kimball, Bruce	Seattle, WA	302
9	Stalick, Tom	Longview, WA	263
10	Buddenbohm, Stan	Boulevard, CA	249
11	Tomasch, Andrew	Northville, MI	242
12	Finn, Joshua	Mauk, GA	240
13	Shah, Malav	Washington, NJ	238
14	Mattson, Hailey	North Olmsted, OH	234
15	Reuter, Jon	Cleveland, OH	203
16	Schultz, Ben	Fairfield, CT	197
17	Krempetz, Kurt	Elgin, IL	186
18	James, Jon	Sebastopol, CA	183
19	Wrigley, Steven	Coatesville, PA	160
20	Allen, James	Las Vegas, NV	88
20	Finn, Hope	Mauk, GA	88
22	Krystosek, Randall	Evansville, IN	87
23	Bays, Kit	Winterville, NC	40

HE CAME, HE CONQUERED

Who is HE? You know him as Len Surtees, glider man extraordinaire . Len made the very long, very expensive trip to the US Nationals held in Muncie, Indiana. Normally hot and humid for this contest, the conditions were actually pretty pleasant. On Monday, after watching Len practice with his great catapult glider, I told my friends, Tim Batiuk and Kurt Krempetz, that Len might win the Cat event. There was plenty of drama, but Len flew in an excellent manner and sure enough, HE WON.

Well deserved,

Stan Buddenbohm

Trans-Tasman Scale

Richmond 1st- 2nd July 2023

Report by Roy Summersby, photos by Angela Mahoney

I think it was Tahn Stowe that originally spoke to the weather goods and they told him to make the Trans-Tasman competition on the first weekend of July. Since its conception, I think we have only lost one weekend to weather. This year was a little different, instead of just the mornings being dead calm it was totally dead calm, all day, on all three days.

The flying field at Richmond is in what one would call in a geographical depression, it is low lying and misses out on most winds until about 11.00am. In the middle of winter, it can get cold in the early mornings, in fact, very cold and frosty. This was the case for the three days this year. Jackets and beanies were certainly worn by most.

Come 9.00am it was sunny calm and the most enjoyable flying conditions one can encounter for free flight. The weather was as perfect as it could possibly be, and flying was in full swing by 7.30am. The little diesels were a bit reluctant to get going; it was more than a first flick start until they warmed up a little.

There was a huge variety of models on the field which included, power, rubber, CO_2 and electric. Most of the judging was done on the Friday and quite a few modelers did some flight testing ready for Saturday. Kit rubber scale was by far the most popular and some of these put in very fine flights. The static judges were kept very busy with over twenty models to be judged. On the big flying day, the flying judges had a line up waiting, some with wound motors, to put in an official flight.

Some flyers didn't bother entering, they were just happy to be there and fly. Most of the day, there would have been three models in the sky at once, just fantastic.

Sadly, the New Zealanders couldn't join us this year, but they have promised to come in force next year.

Maris Dislers' Luton Minor

Roy Summersby's ABC Robin

Roy Summersby's Lavochkin la15

Left to right: Maris Dislers, Roy Summersby, Reg Towell, Phil Warren , Peter Scott, Wally Bolliger and Keith Murray

Both mornings started below zero, with frost

4 yo Lachlan Booth launches Aaron's Tiger Moth

Peter Jackson launches his SE5a

Roy Summersby's Focke Wulf FW152 climbs away

Keith Murray's Taylorcraft cruises by

Phil Warren launches his Fokker D VII

Peter Norrie launches his Rearwin Speedster

Phil Warren launches his bizarre Payen PA22

Richmond Scale Results

F4A

Name	Model	Static	Flying	Total
1st Maris Dislers	Luton Minor	Static 948.8	Flying 611.2	Total 1560
2nd Roy Summersby	ABC Robin	887.7	556	1443.7
Roy Summersby	Lavochkin la15	477	480	957
Maris Dislers	Eastbourne Monoplane	956.3	0	956.3
Reg Jude Trophy for Rubber				
1st Phil Warren	Peyret Taupin	Static 930.9	Flying 613.7	Total 1544.6
Phil Warren	Bellanca Aircruiser	945.6	441	1386.6
Phil Warren	Payen PA22	932.4	447.6	1380
2nd Roy Summersby	Focke Wulf FW152	881	465	1346

Kit Scale

1st Phil Warren	Taylor Cub	Static 98	Flying 55	Total 153
2nd Maris Dislers	Cessna Bird Dog	100	45	145
3rd Peter Norrie	Rearwin Speedster	90	53.5	143.5
Phil Warren	Fokker D VII	92	42	134
Aaron Booth	Tiger Moth	85	41	126
Roy Summersby	SESA	90	35	125
Terry Bond	P38	60	41	101
Roy Summersby	Westland Widgeon	85	14	99
Terry Bond	Jodel	46	51	97
Keith Murray	Taylorcraft	46	48.5	94.5
Maris Dislers	Thomas Morse	52		52
Stephen Bojec	Neuport 27		41	41
Terry Bond	Gee Bee	36		36

RF Chokes

By Ken Bauer USA

Source of problem:

Whenever any radio device transmits energy on an antenna there is an equal amount of radio energy present in the ground wire of the device and in most any wires connected to the device. This means the wires going to the battery will be soaked with radio waves during transmissions unless there is significant filtering built into the device. Our GPS devices are transmitting much more energy than traditional radio beacons due to the nature of the signal which exacerbates the problem. When this energy enters either the timer or the servo or both the high frequencies are rectified into interference at levels that can cause unpredictable glitches and anomalies.

Solution options:

Best solution is to run the GPS off of a separate battery so there are no shared wires. Note that problems can still occur with the radio signal coupling from the GPS antenna to the wires in the timer or servo or any other antennas in the model, and it is good practice to separate the GPS antenna from the other systems but this level should be much less than the case of shared wiring. But having said that I'm a big proponent of simple and minimal systems with shared power…

When the battery is shared the use of ferrite beads is the best solution as has been discussed and practiced. These are simply short pieces of wire surrounded by ferrite or magnetic material that allow the DC currents to pass unimpeded but suppress high frequencies starting at anywhere from about 10 to 100MHz. Note that adding these to servo signal wires should be fine as servo signals are well below these frequencies but caution should be used to make sure servo performance is not affected.

The best way to solve RF problems is to kill the energy at the source, so the best location for the ferrites would be right at the GPS device on both the positive and negative battery wires. But in practice placing the ferrites anywhere between the GPS source and the servo may work, but it is nice to keep the interference out of the timer as well as the servo. It doesn't hurt to put the ferrites everywhere, say at the GPS device, near the timer, and on the servo to really make sure the pesky radio waves are controlled. Capacitors can also be used in places to enhance filtering as well but that is another topic. Suffice it to say that enough ferrites in the right places should solve most of our problems.

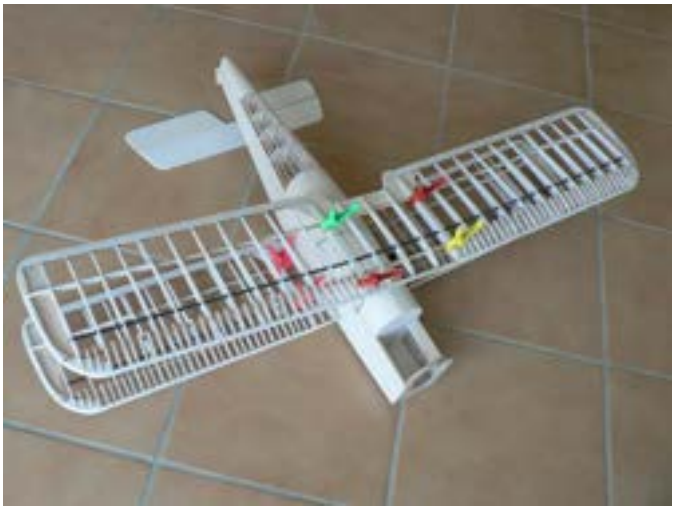
If anyone knows of connectorized ferrite bead solutions or ready to use RF filters or chokes with our commonly used battery connectors these could be very convenient ways for people to add filtering without soldering or cutting wires. There might be a market for tiny devices with male and female connectors on each end and ferrites in between, but not something I have time for at the moment.

-Ken

Construction Corner

New Post-World Champs Project

Report and photos by Roy Summersby



What to build next is always a problem, there is just so much to choose from. Back from the world champs and a clear bench - I had to make a start on something. I have had in the back of my mind a bigger SE5a. My small one at 26" fly's so well, so why not a bigger one. Being bigger, means you can get a lot more detail on the model. The SE5a has a lot going for it as a free flight model, long nose with plenty of room for any engine, reasonable scale dihedral, and good tail area.

There is a host of plans to pick from and an endless amount of information available. I ended up selecting the Aeromodeller plan by Bill Dinnis which was a free plan back in the 1983 July issue. Bill's plan has a span of 832mm and is for 1.00cc motors. I wanted it a little bigger as I am planning on using the 1.25cc SAM engine with throttle so I enlarged the plan to a neat 1/9th scale, making it 900mm span (1/8th scale was just getting too big).

I am not planning on changing much else, just a few mods like wing attachment's and a removable undercarriage. In hind sight (how I wish I had some) I would have made the wire cabane removable or at least had it so it could be fitted after the finishing of the fuselage. Covering will be silk over laminating film as I did on the ABC Robin.

More of this model on Page 19 and in the next FFDU.

John Corby's F86 Sabre

With John having to give up flying he passed on to NSWFFS most of his models. Most of these have been distributed and hopefully will get used. One model, his Sabre F86, he had built from a Veron kit way back in the late 50s or early 60s. He had built it as per plan and had the ply plate in it ready for an Allbon Dart. I don't think it ever had an engine installed in it and the model just sat around for sixty years. John must have seen my Lavochkin fly at Richmond and I guess it inspired him to drag out his Sabre. John made a conversion to ducted fan but his fan unit wasn't big enough and the battery he had installed was not up to the job. He was disappointed with it and we didn't see it again till he was parting with his models.

Seeing the model, I thought, can I get this going? With all my experience with ducted fan models (one only) did I have a chance? My aim is, if I can get it to fly, to have both models launched together. My conversion started, get rid of the large plywood mount, not that easy as it was built into the sides of the fuselage. Install a bigger fan unit well back in the tube add the associated electrics, and a battery big enough to make it all work. Results are the CG, and the incidence are as per the plan. The model seems heavy, it will have to fly fast and the power which the new fan puts out it should do just that. All we need now is some long grass for testing.

Another Bag of Fun

Building the Windbag Mk2

Roy Summersby

I built my first Windbag from the Model Aircraft plan; it was a fun build as it was completely different from anything else I had built. The tail section is a bit confusing and one has to get around it the best way you can. I was surprised as everyone else, that it actually flew. With this in mind, I thought it would be a good club fun model, so a plan was formed.

I talked Ray Harvey into making six kits, these were sold through the NSW shop very quickly which encouraged me to get Ray to make another batch. I am calling this batch Mk2, as he made a few modifications making the whole model a little easier and better.

As I didn't build one from the first batch of kits, and thinking two Windbags has got to be twice as much fun as one, I thought why not build one from one of Ray's kits. Ray told me the improvements he had made in the Mk2 and, as with the Mk1, there is a 10mm hole in the formers to line it up. A 10mm aluminum rod from Bunnings works well here, and it is used right up to sticking the front plywood former on. I must admit I had trouble with the first one as an eight-sided cone shaped fuselage rolls all over the place. Rays' front former comes complete with set bolts installed ready for the Cox engine.

Ray has redesigned the rear end and it is a big improvement, there are instructions where to put the parts solving what was a bit of a "do it yourself", problem. The kit is just so easy to put together, it all just sits in place waiting for the glue. Andrew Linwood saw mine in the early stage and said that I should put some bracing in it, well once I started, I got carried away. With all that bracing it seemed a shame to hide it so I have covered it in light transparent Profilm.

As normal with this type of fuselage it has to be covered in strips front to back, and again using the rod makes the job much easier.

More about Roy's SE5a

Roy has removed the clothes peg rigging, as seen on page 18, replacing them with permanent glue and adding a beautiful little Redfin motor on a metal plate. Zoom in, it's going to be a tough little model with all that black carbon stuff. And it's a beautiful build too.

LEJ 25

2.5cc Engine

By Maris Dislers

Knowing my interest in Australian model engines, Tahn Stowe sent an LEJ 25 for review and performance testing. This amateur build by three former members of Southern Cross MFC (all now passed on) emerged from Barry Lee's garage in Liverpool NSW. He was Secretary, Registrar for several decades and one of only two life members of NSW FFS, and the "L" in this caper. The "E" was Allan Edwards, another lifetime modeller. He flew Wakefield for Australia at several World Champs, was a mechanical engineer, worked for GKN Sankey-Benson (mag wheels etc) amongst others. Built his own wind tunnel, also a Victa lawnmower engine powered ultra-light etc. Co-organiser of the 1983 FF World Champs in Goulburn NSW. Also started Free Flight Down Under with Barry Lee. The "J" was for Brian Jones, Control Line flyer from the late 50s to mid-70s. Bios aside, Tahn has no more information.

Mat Oxley's terrific book "Stealing Speed" (ISBN 978 1 84425 975 5) tells how engineer Walter Kaaden revolutionised small two-stroke motorcycle engine technology and how that got to mainstream Japanese motorcycle builders. A further step when American F2A Speed flyers dramatically introduced that to model aircraft engines. Essentially making existing stuff "old hat" for competition work. And fostering "specials" seeking a competitive edge. The LEJ 25 was most likely made in the late 1960s to beat the dominant Super Tigre G-15 in F1C free flight work. Perhaps the new FAI Combat class also. Many Aussies simply made smaller versions of then-current, fast glow-powered "open combat" models – powered by G-15s for F2D – rather than follow the British diesel formula.

Missing prop driver, NVA, venturi insert and head gasket, it otherwise looks OK. Handsome crankcase and back plate castings, probably shell moulded, with carefully cored intake aperture. The offset venturi idea copied from Super Tigre's G-15 and aiming for rapid opening/closing of the rectangular rotary intake port with matching inlet for optimal flow. The upper crankcase, more easily machined from aluminium bar stock. The two-piece design simplifies forming of three bypass passages – by hand in this instance. Rear-facing exhaust for neater cowling in an F1C model.

Limited availability of suitable ball races perhaps dictated the slender 9mm crankshaft main journal diameter. Gas passage drilled 17/64 inch (6.7mm). Front journal threaded M5, probably to accommodate a Super Tigre spinner assembly. Nicely counterbalanced crank web, hollow crank pin, sensibly timed rectangular valve port. Shaft is unhardened, surface finish adequate, fits well into crankcase, spins freely. OK so far.

The hand-shaped aluminium conrod connects to the no-frills cast iron piston. The steel cylinder has two adjacent ovoid exhaust ports, leaving a retaining bridge for the floating wrist pin. Three pairs of drilled holes, steeply inclined upward for mixture transfer. Which of course would not provide the hoped-for superior Schnuerle loop scavenging advantage any more than a Mk 2 ED Bee. And drill deflection against the curved outer cylinder had caused them to go awry. One so far off, that there is no material at the bore surface separating its edge from that of the adjacent exhaust port. Four long screws retain the upper cylinder and head, with its almost flat bowl combustion chamber. Regular 15/14mm bore to stroke numbers.

One cylinder retaining screw thread is stripped. Now here's a hack worth remembering. If the remaining thread is not too wrecked, form a strip of thin brass shim stock (width 1/4 – 1/3 inner hole circumference) around a drill bit/nail/wire to sit neatly against the inner wall. Insert in hole, followed by the screw (its end ground to a slight lead-in taper). The shim pushes the screw into the opposite remaining thread. Held well enough this time for adequate head to cylinder flange seal. Piston fit evidently aimed at eliminating friction and taking full advantage of castor oil's superior viscous seal potential (read slack).

With 3:1 methanol/castor fuel, the LEJ 25 would run out a wet prime OK but attempts at sustained running in bladder feed failed. Mainly due to the short unrestricted rectangular intake. Its 50 sq mm choke area about double what this engine could possibly need. Fuel delivery utterly haphazard. The engine would speed up from very rich and die lean, despite great care with needle setting.

Persevering, our impromptu venturi insert from dense rubber foam, leaving a modest aperture, enabled running on suction feed. Still could not be adjusted even close to clean 2-cycle running. While much fuel escaped via the front ball race. RPM checks on several propellers too embarrassing to record here. An object lesson in the importance of accurately formed 2-stroke engine ports. Jaures "Mr Super Tigre" Garofali's sleep would not have been disturbed by LEJ 25's initial test runs. The undrilled mounting lugs suggest it never took to the air, likely remaining a heroic one-off failure. Now an interesting conversation piece.

MARIS DISLERS

The VFFS are having another "Postal"

"Two Minutes"

The third VFFS postal competition will be for models that conventionally fly to a two-minute maximum. Coupe d'Hiver (F1G), A1 glider (F1H), Small Power (F1J), Australian Class 1 power*, P-30, E-36, Oz Diesel.

The competition will comprise three flights and, if three maximums are obtained, flyoff flights incrementing by half a minute; 2 ½, 3, 3 ½, 4 minutes, etc may be made until the time is not achieved.

The competition will be flown through September, October and November of 2023. Scores (copies of scorecards initialled by the timekeeper) should be sent to the VFFS Secretary (Sean O'Connor, sean-oc@netspace.net.au) by December 15.

Multiple entries. Flyers may make multiple entries however the alternate entries must be made with a model of a different class. Re-entry in the same class is not allowed.

The aim is to provide a competition, which is easy to fly on a small "local" field (although flying on any field is allowed). There are not very many people currently flying Free Flight competition but those that are often have models flyable in several classes. Permitting multiple entries opens the event to more entries.

Old style F1J or Class 1 power models. Plain bearing motors of displacement less than 1 cc, and with no moving surfaces except tail for DT, are permitted an 8 second motor run.

Electronics Projects

by Warren Leadbeatter

I have recently started playing with the Raspberry Pi, a single board computer system. I heard of these in 2012 when they first came out but I didn't have any use for it then. IT savvy people were using them for media centres, network attached storage, 3D printer control and other DIY projects.

Today it is the world's most popular computing platform for DIY electronics. It is a low cost, credit-card sized computer that plugs into a computer monitor or TV, and uses a standard USB keyboard and mouse.

It is a capable little device that enables people of all ages to explore computing, and to learn how to program in languages like Basic, C, Scratch and Python. Raspberry Pi was developed in the UK and the first generation was released in February 2012.

The current Model is the 4 B which is the 4th generation. It uses a Broadcom BCM2711B0 System on Chip (SoC) which contains an ARM compatible central processing unit CPU, random access memory RAM and a graphics processing unit GPU. (An ARM processor is a reduced instruction set computer (RISC) chipset produced by Arm Limited for things like Nintendo computer games, Apple mobile phones and tablets etc.)

The Raspberry Pi uses a MicroSD card for the operating system and file storage. It also has a 40 pin General Purpose Input/Output (GPIO) connector which can be used to read inputs and control outputs. It can take 2 x displays via it's 2 x HDMI ports and it also has 4 USB ports, 2 of which are Hi Speed USB 3.0 a 100Mbit Ethernet port, 5.8 GHz WiFi and Bluetooth. All this for under $100. It can also run many different operating systems, eg Raspberry PI OS, Linux, Windows 10, DosBox and others. With the Raspberry Pi OS which is free you get a full graphical user interface, similar to Windows but with all the other programs you need all included.

In 2015 a half size version was released called the Raspberry Pi Zero for $5US and in 2021 a new model was released (Zero 2) with WiFi and Bluetooth and had basically the same power as the 3rd generation full size Raspberry Pi. This one only has one HDMI and 1 x USB port but you can use a hub to get more.

In Jan 2021 the Raspberry Pi Pico was also released. This is a single chip microcontroller. It has 256K RAM, 2MB flash memory, WiFi and Bluetooth onboard. It is very small 51mm x 21mm, weighs about 5g and can be powered by a 1 cell Lipo battery.

Can you see where I am going with this? All of the sudden these things are now getting small enough to use in my hobby. So to start off with I purchased a bunch of boards and peripheral bits and pieces and went on a steep learning curve to bring myself up to speed.

This could be used for all sorts of things like LED lighting control, automatic control of under carriage, controlling servos, altitude warnings and limiting, to name a few.

For my first project I decided to make a temperature monitor with graph plotter to show the temperature over time. I started off with a full Raspberry Pi for development and testing before switching to the Raspberry Pi Pico. My development unit measures Temperature, Humidity, Barometric Pressure and Air quality, but I only need temperature for out in the field trying to detect thermals.

So with a little extra hardware added to the Pico, ie Battery input with a charging circuit and a display I was able to construct a simple temperature measuring device with a OLED temperature graph.

The temperature sensor needs to be protected from direct sunlight but needs to be able to access the airflow so a “Stevenson” screen is required. I didn’t know what this was until I saw it, then a visit to my daughter to borrow her 3D printer was needed to make one. You can buy them, but it was easier and cheaper for me to use my daughter’s 3D printer to make one.

The Python code for this is very simple. From the provided code examples, I was able add some customisation to suit my needs. You need to initialise the sensor and the OLED display, then you read from the sensor and write to the display in a programming loop. The plotting of the graph is a bit more complicated as you need to work out temperature ranges and what to do if the temperature plot line goes off the screen. i.e. re-calibrate it.

The program is downloaded to the Pico flash memory using a program called Thonny and is saved as “main.py” via a simple USB connection like a flash drive. This filename contains the Python program, is automatically loaded and run when the Pico turned on. The interface board also has a buzzer and some buttons so I have added some beeps for temperature rising quickly and a button to turn the sounds on and off.

This is still a work in progress as I haven’t done much in field testing with it yet but it definitely has potential and it has been a fun learning experience.

My next project for the Raspberry Pi was setting up an ADS-B Receiver to monitor real aircraft around my area where I live at Williamtown. I had read about this before purchasing the Raspberry Pi and thought it sounded pretty cool for an aircraft enthusiast like myself. The setup process is a fairly straight forward process if you follow the instructions provided by FlightAware, RadarBox or FlightRadar24 on their websites. You need to buy a SDR (Software Defined Radio) USB Dongle and an outdoor 1090Mhz antenna which you can get on eBay. By setting this up and sending the data you receive to these Aircraft tracking websites, they in turn give you a free Business account with full access to their website free of charge with no advertising. I set it all up and almost immediately I was granted full access to all 3 above sites plus PlaneFinder.

Once I set this up, I wanted to know when any aircraft was low flying near me, so I proceeded to set up another Raspberry Pi with a program to do this. There wasn’t one available so over the next couple of weeks I worked out how to write a Python program to read the live ADS-B data coming in and plot it on a radar screen if an aeroplane was below 5000 feet and within 5 miles of my home. I also had a beeper on this to attract attention, but I had to unplug it as someone complained about the noise it made. :-)

At first I just had it setup to do live tracking, but when I got home from work I wondered if anything had been flying over while I was away, so I changed it to leave bread crumbs, this way I could see what I had missed quite easily.

I am continuously finding new uses for these, e.g. Christmas lights controller, watering system control, retro games and a whole lot more, the possibilities seem to be endless.

Warren Leadbeatter

Thank you for the FFDU. I always love reading this. I’m sending my latest build, its the 1928 Buhl Airsedan Sport and powered by a Pee Wee .020 Cox. Wing span is 39" inches.

Brad LeVine USA

EATON BRAY MODEL SPORTSDROME
A MODELLING MECCA OF YESTERYEAR.

Eaton Bray Model Sportsdrome in the south of Bedfordshire was the brainchild of Douglas Arthur Russell, a gentleman many will remember as the one time owner and managing editor of Aeromodeller magazine. The Sportsdrome, which existed only briefly, was, I suggest, conceptually ahead of its time and had the potential to be an interesting example of vertical integration in the development of the business broadly described as the "Aeromodeller Magazine Business".

D. A. Russell, **M. I. Mech. E**, whom we might call DAR for short, was clearly a man with a wide view of things, and he also appears to have been somewhat energetic in his efforts to develop the business empire he created under the publishing umbrella of The Model Aeronautical Press Ltd (MAP). Not all of DAR's partnerships and business were controlled or owned by MAP, and that is difficult to discern in detail all these years later, but in any version of it, DAR and his businesses certainly did much to develop and promote the model aircraft hobby that was the forerunner of the free flight sport we enjoy today.

Companies owned by DAR published a multitude of magazines and books, some of which he wrote himself, and all of which were intended to inform people about modelling hobbies and to teach them how to design and construct all sorts of models ranging from model aircraft, to tethered model cars and boats of various types. DAR enhanced that enterprise with the development of the Eaton Bray Sportsdrome, which he achieved by forming a company to purchase part of an old pre-war civilian airfield in the vicinity of Eaton Bray and set about turning it into a place for hobbyists to gravitate so they could fly, float, and run the models they'd constructed. Here was vertical integration of a business enterprise at work…….

Those using the site could also camp there and were offered lavatory and washing facilities, car parking, and even catering arrangements were included on scheduled event days.

While at Eaton Bray, hobbyists could attend one of the various instructional camps covering all aspects of their chosen hobby, attend the occasional trade display, buy relevant magazines, model plans, photographs, model car kits and parts, and even purchase a non-flying model made by one of his subsidiary companies, DAGRA Engineering starting at £25 each, and if that wasn't enough, if you owned a motorcycle you could also run it around a grass racetrack!

The photograph nearby shows one of the DAGRA scale models with the E building facilities in the background.

Promotional leaflets were prepared and circulated and these included a rather ambitious list of potential activities available at the venue. As well as those identified above, they also claimed you could enjoy cheap flights in full-size aircraft during the flying season as there were, apparently, landing facilities for full size aircraft including gliders, club Galas were planned to be held and they advertised that a fully stocked model shop was on site. They also had P.A systems and a control tower as well as facilities for clubs to hold regular club meetings.

Fees were payable to use the facility as well as camping fees and it was intended that the venue should be able to support itself financially and this may lead us eventually to part of the reason behind its demise.

To further develop the attendance at the Eaton Bray Facility, the organisers ran and promoted events to be conducted during the traditional British flying season of April to August. These events were held almost weekly and included competition events as well as general flying days. In addition to the promotion of Eaton Bray in Aeromodeller, they also promoted it in local printed media.

When was all this you ask? Answer: In the immediate post-war period. Eaton Bray was first advertised in mid- 1945 which one would certainly say was the immediate post-war era given that the war in Europe ended in May 1945, and some of us older flyers, even those of us in Australia, who were active back then will well remember the hype surrounding the creation of this dedicated venue for hobbyists to operate their creations.

Model flying had been banned during the war for obvious reasons and it is known that during the war many hobbyists turned their attention to running tethered model cars and, I presume, tethered boats to lesser degree as these weren't banned and still provided an outlet for their pursuit of a hobby. Those that read my article on the Veron Kit manufacturer will pick-up the edge of this situation from it as the article describes the owner of Veron deciding to run tethered cars on his front terrace. Yes, a big terrace, but he wasn't exactly short of money and lived on a nice property.

Eaton Bray certainly played a big part in the re-awakening of model flying and tethered car racing immediately after the war.

I take this time to acknowledge the valuable assistance I found during my research of this subject from the website known as "On the Wire" which is a website dedicated to Tethered cars and Hydroplanes. I trust they will not begrudge me for my use of some of the facts they had gathered as I developed this little article. It all goes towards developing our common interests in the history of our chosen aspect of modelling. I recommend visiting the On the Wire website to read the excellent article written about D. A. Russell as I'm sure you will find it most interesting indeed. It goes into a lot of detail, and out of respect for that fine piece of work, I've tried to avoid blatantly copying parts of it directly into this story.

So where was the Eaton Bray flying field and what was there?

Well, first of all, the site pretty much exists in the same form now as it did then, apart from re-development of the area once occupied by the “E Building”, the meaning of which I’ll explain later.

In my research on this subject, I found that a number of people had attempted to describe the field’s location in various articles, but unfortunately they weren’t all correct. I guess the construction of A505 in the 1990’s will have made it more difficult, but to clarify its actual location; the site of the Eaton Bray Sportsdrome was on Stanbridge Road, pretty much three quarters of the way in a direct line from Stanbridge towards Billington in Bedfordshire, in the UK. To be more precise, it can be found at the following coordinates: 51° 53’ 40.37”N / 0° 37’ 04.5”W and these would have put you roughly at the main entrance to the site, or more correctly, in the middle of E building. Today, it will put you in the middle of a trailer manufacturer’s workshop. The adjacent satellite view shows the location of the site outlined in red. North-South is directly up and down the page.

There were three concrete circles positioned down towards the south corner, roughly adjacent to each other, one of which was said to be 72 feet in diameter, and the described use of these circles was “take-off areas”. I’m aware that the largest one also served as a tethered car circle. The next image is a photo of a model of the field that had been used for promotional purposes and it shows the shape of the field and includes the three concrete circles and E building.

Here’s a photo taken recently from the road looking over the top of the Hawthorn hedge towards Dunstable downs. The entrance and some buildings are located to the right just out of frame.

While this may look like a vast area, in reality the site was only 72 acres and measures, it was claimed, approximately 600 yards along each of the four boundaries. It is irregular in shape so that’s not entirely correct, and with those dimensions, it appears to be too small to be a present day flying field when we consider the performance of the free flight aircraft in use these days. One could even argue that it was marginal in size in 1945……

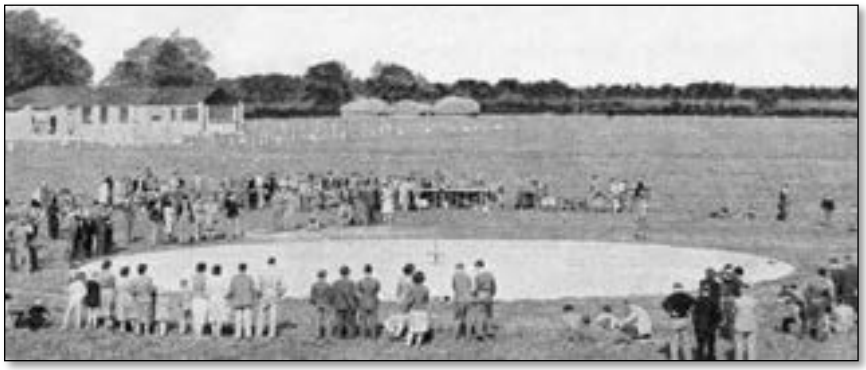
So, what was “E” building? Well, DAR decided to relocate his offices to this site, including the DAGRA model making workshop, so he went to the local council to seek permission to build the offices and working spaces he needed but his request was rejected because of the shortage of building materials in the post war period. He was advised that the priority was for construction of housing because of the loss of so much housing accommodation during the blitz, but DAR went

ahead anyway and scrounged various concrete columns and metal objects that had served as invasion deterrents and re-purposed them and other items of timber and cladding into materials from which he would build his offices. The MAP staff were "asked" to assist in the construction of their new facilities and eventually the building was completed. DAR set himself up as the architect, engineer and builder of this structure and he decided for whatever reason that it should take the shape of the letter 'E' hence the name "E Building".

The construction had not been approved and this later became the subject of litigation between DAR and the local council, but DAR was apparently allowed to keep his building and use it the way he wanted. I understand it was demolished some 20 or 30 years later, by which time it was no longer used in the manner intended.

The Eaton Bray Sportsdrome first saw modelling action on 15 September 1945 where a reasonably sized crowd attended its baptism in not entirely pleasant conditions. Eddie Keil of Keil Kraft fame made the first ever official model flight at that venue.

The official opening of Eaton Bray was during the Easter of 1946 and this was in the form of a three-Day model aircraft meeting and included model cars in the action as well. Many local dignitaries were in attendance and the event attracted a good crowd, part of which is shown in the adjacent photo.



Eaton Bray was developed on a grand scale and the intentions were indeed all encompassing, but they would be difficult to fund and sustain in this modern era and were even less so in Britain in the second half of the 1940's.

Regular flying meetings were conducted through 1946 and one of the early international meetings held in the summer of 1946 attracted entrants from 7 countries with 77 international attendees. A second international meeting held the following year boasted even greater numbers of participants.

Tethered cars were a regular and well supported feature of the events at Eaton Bray and the attendance by model car enthusiasts did much to support Eaton Bray over the years as initially, DAR appeared to have become a central figure in that aspect of modelling. The fact that a commercial interest was in a position to control the tethered car hobby led, I understand, to a breakaway group being formed with the result that it eventually took over as the "protector" of the interests of the tethered car scene. Eaton Bray subsequently ceased to be so relevant to the car enthusiasts.

As intended by DAR and perhaps as a continuation of pre-war use of the site, full size aircraft were encouraged to use the Eaton Bray field and there were aircraft movements recorded from 1947 onwards including one non-fatal crash of a Puss Moth.

Eaton Bray eventually held full-size aircraft gala events and they conducted a number of displays styled along the lines of barnstorming and included, of course, paid joy flights. The first such display event was held, I understand, in the summer of 1949. The Zlin 24 glider shown nearby was involved that day and apparently it still exists today. The next photograph shows a Fairchild Argus partly obscuring E building while in the background is a Miles Messenger being used for joy flights.

Eaton Bray had always struggled for survival but DAR's troubles at Eaton Bray really ramped-up when the local council finally took him to court over the illegal construction work he had undertaken on the site, mainly the E building and the entrance roadways. Over the succeeding months DAR fought the council in court but eventually lost his case and was fined a substantial sum (around £180,000 in today's figures) but the problem was DAR was in no position to pay the fine and to add to his woes, MAP was in debt as well. All of these financial issues were driven to some degree, by the austerity of the period following the end of the war, but it is fair to say that the financial condition of MAP and Eaton Bray was certainly not helped at all by the somewhat lavish lifestyle DAR enjoyed.

To raise funds, DAR sold MAP to Argus Press, but included in that arrangement a provision that he would stay on as managing director of the magazine. The magazine still operated out of E building, for which rent was being charged, and this provided some form of income for DAR over and above his wages as managing director of MAP. None of it however, saved him from the necessity of selling his house and moving to alternative accommodation.

Meanwhile Eaton Bray continued to struggle financially and DAR attempted other means of bolstering income including additional motorcycle race meetings, the construction of budget motor cars, or more correctly, mini cars for sale – of which 8 only were sold, and then with typical flamboyance, DAR introduced horse racing to the site in 1950 which caused him to remove the word "Model" from the name of the Eaton Bray facility leaving it called Eaton Bray Sportsdrome.

The horse races and also the other equestrian events he promoted at Eaton Bray were unlicensed events and the facility was destined to never become the home of equestrian endeavours he hoped it might be. By 1951 the tethered car people had moved elsewhere and Eaton Bray continued to struggle for survival.

In March 1952 Argus Press moved out of E building without notice and abandoned DAR altogether, leaving him with no part to play in MAP and no rental income from E building. The entire Sportsdrome enterprise soon went into receivership and so ended the brief but precarious life and times of the Eaton Bray Model Sportsdrome.

Eaton Bray Model Sportsdrome was a dream too soon, and while some may criticize DAR for going for too much too soon and for living too grand a lifestyle, you would surely agree that he did much for modelling hobbies generally and deserves credit for what he achieved, and also for what he tried to achieve but failed. The Sportsdrome was a significant venture in the world of modelling in Britain and is most certainly worthy of a secure place in the history of aircraft modelling, especially because it occurred during the difficult post-war era in Britain which was struggling to rise out of the effects of the second World War.

Mike Pettigrew. June 2023.

The Dusty Cardboard Box

PART ONE

There's a steel shipping container parked neatly in the machinery shed at the West Wyalong flying field and it houses some bits and pieces of the Model Aircraft Association of Australia's (MAAA) records and history. There are two actually, but the one we're interested in at the moment is the one that had this box in it.

There is no physical MAAA office in this modern day and age, it's a virtual office with nothing but a website, phone numbers, some computer memory/storage and some people working from home. That makes sense, as it helps keep costs under control, but the lack of a physical space to store things has led to a set of circumstances that might trouble those with a strong sense of Australian aeromodelling history.

So, I guess it troubles me……

Australian aeromodelling history is precious and we therefore need to be clever about keeping track of our past by preserving physical history as well as the written word; things like the no longer handed-out perpetual trophies, the framed photographs of the Hall of Fame recipients, as well as sundry, but not insignificant amounts of memorabilia of times gone by that is often handed-over to the MAAA thinking it will be in safe keeping. It is reasonable for someone to expect when they find what appears to be something of historical importance in Australian aeromodelling, to hand it over to the MAAA as our "managing body" but it seems that they have nowhere to put it or display it. One must applaud the AMA over in the USA in regard to their sense of history as they have, or had when I last looked, a permanent site where models and articles of historical value are on display to anyone that wants to see them.

For us, our history is in a container in a machinery shed in the middle of nowhere.

As part of the move of the MAAA container to West Wyalong there was the usual clean-up of unwanted items to make sure nothing unwanted wasn't transported to the new storage facility when it would have been easier to dump it rather than cart it.

Here's the part where we come across the dusty cardboard box as it somehow made the cut and was taken to West Wyalong: I'll issue a spoiler alert at this moment to warn readers that this is about aeromodelling history and in fact makes no reference to free flight models, so if that's "not your cup of tea", I won't be offended if you move to the next article…….

The dusty box could well have been thrown-out because it was nondescript, it rattled when you shook it and it could easily have been nothing but a box of rubbish or some unwanted lost property.

Well, it wasn't rubbish and it didn't have a pair of old runners in it: Blow off the dust, open the lid and there lies an old, 1950's style Class 'C' control line speed model in well-used but neat condition, together with a redwood "California Chocolates" box, a couple of speed record certificates issued by the Victorian Model Aircraft Association in 1951, and a few photographs.

The redwood box had a number of neatly folded, mostly handwritten, letters in it plus some odds and sods of price lists and the like.

I'd consider all of that to be a bit of history to be treasured!

The record certificates were written out in favour of a Mr H. Henke – presumably a modeller from the State of Victoria, a person long forgotten by the modelling fraternity except for his legacy in this dusty cardboard box.

These are Mr. Henke's two record certificates. One of which, I notice, was signed by Monty Tyrrell a very well-known control line flyer and one-time travelling companion of Adrian Bryant when they spent time flying in England. Monty later became involved in RC and was a wonderful source of information for me about the early days of modelling in Australia. He's not with us now, I'm sad to say.

There's an element of mystery around the origin of the dusty box; how did it find its way into the hands of the MAAA? Was it handed-in by a family member? Or by a friend after the passing of the owner of the model, Mr Henke?

We probably won't get an answer to that one but I remember a similar box being handed to Tom Prosser, a modeller well known to some, and I recall him showing it to me some years ago saying that someone gave it to him as an item of historical value and asking him if, "he could pass it on to the MAAA?" I don't recall if it's the same box or not, but it's the same sort of deal…….

So anyhow, who was Mr. H. Henke?

His name was Herbert Henke, Victorian registration No. V48 and he belonged to the Eastern Suburbs Model Aircraft Club (ESMAC). That's Herb in the overalls holding the model and the gentleman beside him appears, from what we see in some other photos, to be his pilot and I suggest that this person bears a very strong resemblance to Keith Hearn of Hearn's Hobbies fame. Maybe we'll call him Keith Hearn until someone with more knowledge of the time can set me straight?

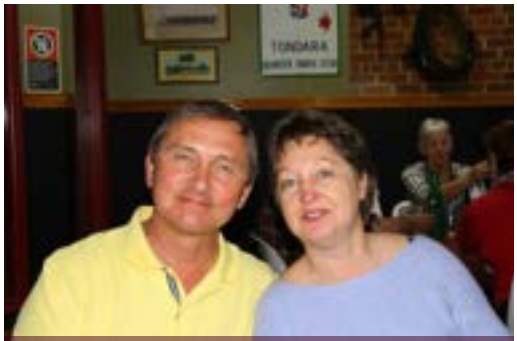
He also looks a bit like Ira Pepperell, but why would Ira be there at Surry Park when he lived in New Zealand? We'll stick with Keith Hearn for the moment.

I've found nothing to suggest that Herb actually flew his speed models himself – someone else did and the next photo shows Herb starting one of them while the gentleman we're calling Keith Hearn, is standing in the centre with the handle in his hand.

This interesting article from Mike Pettigrew will conclude in the December edition of Free Flight Down Under

A BACKWARD GLANCE
Narrandera 2016

2016 saw the Southern Cross Cup events run back to back with the AFFS Champs. We packed up from Narrandera and drove to West Wyalong for the SCC. Being an even dated year, there were no World Champs so we saw an influx of international competitors, from China, USA, Indonesia and New Zealand. They weather was kind although there were a few retrieves over the road at WW. Alex Andriukov cleaned up in F1B.


Alex and Tatiana Andriukov


Brian Van Nest


Nanmik Nofianti was 1 of 2 women in F1H


Phil Mitchell at his billabong camp


Socialising at the Narrandera caravan park


Charlie Jones talking rubber at the Morundah Pub


Charlie launches Brian's F1A


Kathy maxed out in F1H along with Phil and Brian


Hong Lu winds in F1B


Leigh Morgan wins, & beats Vin by 1 sec!


Nanmik Nofianti's sun protection


Father & son, 2 Hannafords in Scramble


The "youngster's" table at the pub dinner


AFFS F1B - 2. Vin, 1. Alex & 3. Hong


A star in the making - Bruce Hao & wife


Terry Bond retrieves at West Wyalong


Jackie Wang ran to the field each day!


Alex had a little On Field shop


Matt Hannaford waits in F1B


Roger Morrell & Charlie Jones watch Brian Van Nest hook up


Is this Bruce Hao's path to later fame?


Xin Pu Sheng AKA "Long Legs"


Alex took home the two major prizes

JOKES PAGE

Yesterday my husband thought he saw a cockroach in the kitchen. He sprayed everything down and cleaned thoroughly. Today I'm putting the cockroach in the bathroom.

You know how they throw the ball into the crowd after they win the game? That's not allowed in bowling. I know that now.

I don't know if Facebook has ever caused the lame to walk but it has sure caused the dumb to speak.

Some jumper cables walk into a bar. The bartender says, "You can come in, but don't start anything."

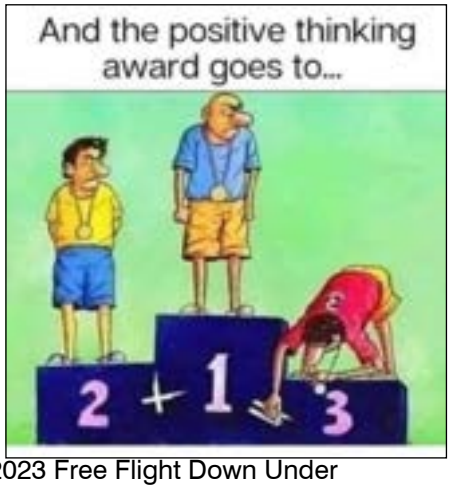
When older people say, "Enjoy them while they are young." They are talking about your knees and hips not your kids.

Once I went to a party with my husband, full of people he knew (from work) but I didn't. A guy came up to us, turned to me and said "You must be his wife." I turned to my husband and said "You have a WIFE?" Should've seen the guy's face!

We live in a time where intelligent people are being silenced so that stupid people won't be offended.

My wife asked if she could have a little peace and quiet while she cooked dinner...

So I took the battery out of the smoke alarm!



I arrived early at the Restaurant last night. The Manager said "Do you mind waiting for a bit?" I said "Not at all" He said "Great, take these drinks to Table 9"

Free Flight Calendars for what's left of 2023

NEW SOUTH WALES

Sep 10	½ Hour Walking Scramble + Fun Fly B-B-Q Lunch	Richmond BYO Food	7:00am – 1:00pm	John Corby
Sep 15	Annual General Meeting	Dundas Sport	7:30 pm	
Sep 24	Combined ¾ 5 flights + E36	Richmond	7.00am - 1.00	Peter Scott
Oct 1	Combined ¾ Multiple Entries	Richmond	7:00am – 1:00	Gary Goodwin
Nov 3-4-5	Wings Over West Wyalong. All Disciplines Scale Rally. Plus General Flying of all types of models	W. Wyalong A.B. Field	7.00am-Till Dark	Plenty of Room for ALL
Nov 12	Scale Rally +Fun Fly	Richmond	7:00am 1:00pm	Peter Jackson
Nov 17	General meeting	Dundas Sport	7.30 pm	
[illegible] 27 - 29	Friday Xmas Party ½ Hour Scramble. Combined Vintage with SAMS & Fun Fly.	Richmond Richmond BBQ Xmas	7.00am - 1.00 7:00am – 1:00pm Lunch BYO	Terry & Lyn Aaron Booth FOOD

QUEENSLAND

September	CP	Sun 10th	8-1pm	P30 State Champs (3 flights) and Club 2 min class (3 flights)	Coominya
		Sun 17th	8-1pm	Reserve Day	Coominya
	F	Sun 24th	8-1pm	HLG, TLG & CLG State Champs + fun fly and testing	Coominya
October	F	Sun 8th	7-1pm	Col's Vintage Rally (Fun Fly any Vintage model)	Coominya
	CP	Sun 15th	7-1pm	100 g coupe and A1 Glider (3 flights each)	Coominya
		Sun 22nd	7-1pm	Scale State Champs, P20 (3 flights) + 112 hr Scramble	Coominya
	CP	Sun 29th	7-1pm	Open Rubber State Champs & Club 2 min class (both 3 flights)	Coominya
November		Sun 5th	7-1pm	Reserve Day	Coominya
		Sun 12th	7-1pm	Reserve Day	Coominya
	F	Sun 19th		Club **glider model** fun & testing day incl CLG & RC Gliders	Coominya
December		Sat 2nd	12-4pm	Xmas party & prize presentation	John's place

WESTERN AUSTRALIA

10 Sep		Tomboy IC/Electric	Club	Beverley
01 Oct		OT Glider	Club	Beverley

AustralianFreeFlightSocietyInc

A Special Interest Group of the Model Aircraft Association of Australia

2022-23 COMMITTEE MEMBERS AFFS INC

PRESIDENT
Mike Pettigrew: 0419 509 013
mike2.pettigrew@gmail.com

VICE PRESIDENT
Shayne McDonald: 0428 805 724
shayne7@live.com.au

SECRETARY
Shannon Tolmie: 0419 237 203
smtolmie@hotmail.com

TREASURER
Gary Goodwin 0414 292 050
newlook3@gmail.com

PUBLIC OFFICER
Shannon Tolmie: 0419 237 203
smtolmie@hotmail.com

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

We really need articles for each edition of Free Flight Down Under

SUGGESTED TOPICS FOR COMING EDITIONS:

1. Show us your workbench
2. What is your favourite motor, with photo
3. Send in your aeromodelling profile, with photos
4. Recent builds or repairs
5. Competition reports
6. Handy Hints
7. New products, useful supply outlets
8. What's good about free flight, and what's not
9. Anything about electricity in free flight
10. Wanted and For Sale items

It would be wonderful to expand our list of regular contributors

FREE FLIGHT DOWN UNDER

DEADLINES

CUT-OFF DATES

- Last day of February for the March edition
- Last day of May for the June edition
- Last day of August for the September edition
- Last day of November for the December edition

Don't wait until the last day, sometimes we close off early.