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F5J & E-RES POSTALS (please open attachment in body of email for spreadsheets). Both F5J and E-RES Postal competitions have ended for the year and the old format now had its day. See right .

That leaves an undisputed winner in both events to claim the honour's for 2022. No surprises as Bill Kent from SA has led both events for most of the year. **Congratulations William!** Here's a little surprise to honour the wins:
"I have since flown the model with battery pack left fitted on the slope in winds of 25 knots and found it equally pleasant to fly. — I was enjoying the flying so much that at the end of sessions totaling over two hours the battery went flat and you know the rest. After climbing down to the beach— " Bill Kent, Airborne #36, Dec 1979. Bill also wrote the SIGNALS RC electronics column in Airborne early eighties.

I came down from a good height using flaps only to run into sink. Then I mucked up the landing and missed the tape. Honesty from Ken Woodward. Well that's it for me for the year. It has been fun and very challenging for me to put in a fair score each month. This Postal has required me to go out a fly when I would probably have not bothered on occasions, so one of the main reasons for the comp has succeeded for me. Bill Kent has the last word.

Monthly Glider Postal events , Reports, Promo's and other stuff from the **Australian Electric Flight Association.** # 6. Nov/Dec 2022

POSTALS 2023 — All new & ready for next year.

Attached to your email is the final Rules for this competition with a How-To now tagged on the end.

For those who have already competed in a comp. using their phone to register scores this is a no-brainer. For the rest it's relatively simple and intuitive.

First thing to do—send me a quick email to register your interest in F5J or E-RES or both. Then you will get a QR code for the first round in Jan/Feb.

Do three consecutive flights, the best you can then scan the code with the reader on your mobile and enter the three flights.

Basically it's as easy as that. Full instructions sent with your QR code email—in case you need them.

Each monthly round will become active on the first day of the month from March through November. Except the February round starts mid Jan. A shorter emf e-mag will be sent out around mid January as another reminder. The codes will become active shortly after. Those participating in the Armidale Expo can submit their first three flights if they want. This is a new, innovative and exciting comp and anyone anywhere can fly in it anywhere. So let's give it a try.

Postal winner Bill Kent with his Simitri at Wentworth, SA



For options 1 and 2 be more in tune with the 3rd vector, be more aggressive and search for air.

For options 3 and 4 be more conservative and do not isolate yourself too far away from the pack as they can be very good lift indicators.

Always assessing the conditions and being able to 'change gears' depending on these changes (often a few times a day) is critical to consistent flights and competition success.

There are also other thermal signs (heat sources, trees, birds, clouds, other planes, etc.) to look for when flying so keep assessing the conditions at all times. When searching for lift you should

be spending almost as much time assessing the environment around you as you are watching your plane. Joe Wurts and Carl Strautins are good examples of this and are always intently looking around more than they are looking at their plane. This is a good thing to practice.

THERMAL TRAINING NOTES, Marcus Stent. Part 3. Weather, continued—

4. Plane Signs.

Let's say you have launched your plane and are now following the 3rd Vector (or other indicators) towards the thermal, but you still don't know exactly where the lift is. This is when the plane signs become the most important indicators to finding the thermal and now override ALL other indicators. Here is what to do:

1. Fly in a dead straight line with absolutely minimal inputs. This way you can see any effects on the plane. You can not see the effects on the plane when you are constantly moving the sticks. Just like feeling the wind shifts on your body or seeing them on the streamer, you can see the effects of the wind shifts (from a thermal) on your plane.
2. Do NOT turn when you think you are at the lift, wait for the plane to indicate lift. Human depth perception is terrible and cannot be trusted. This is the number 1 mistake most pilots make. Wait for the plane to tell you it is in lift or close to lift.
3. If you fly directly away (or towards) yourself and you see the plane crab sideways (the whole plane moves rather than turns) then it can indicate lift close by. Turn in the same direction as the plane starts to move because the plane gets pulled towards the lift, just like a streamer gets pulled towards the lift on the ground. This is my favourite plane sign for finding lift and is highly under rated. Once practiced, you can soon tell the difference between turbulence and lift.
4. If the plane speeds up (or slows down) it can indicate lift is in front (or behind) the plane.
5. If the plane speeds up and gets positive to control, it can be in lift (the lift acts on the tail and lifts the tail because the plane rotates about the C.G and therefore speeds up).

5. Thermalling

Once you have used the combination of ground signs, air signs and plane signs to find the thermal, you now need to optimise your climb rate in the thermal. Generally I start circling as soon as I encounter the lift (this is a Hand Launch hangover because you are often not high enough to explore the thermal) and then I optimise my position in the thermal from there. Sometimes I find exploring the size of a weak thermal can cause me to lose contact with the thermal, especially down low.

To optimise your position in the thermal you must do a constant speed, constant bank circle and watch which side of the circle the plane rises the most. You can then extend the circle slightly in the direction the plane rose on, and then keep circling. I tend to only move half a circle size at a time to avoid the risk of losing contact with the thermal. You want to hunt the core of the thermal over a number of circles.

If you do not do a constant speed, constant bank circle (and it is more like a rollercoaster) then it is impossible to see which side of the circle the thermal is strongest.

Cont. next issue



43rd Annual Armidale Sailplane Expo

Friday January 27th - Sunday January 29th 2023

Hosted by New England Model Aircraft Club

When:- Friday 27 th to Sunday 29 th January 2023
Where:- Varrane Rd, Armidale, NSW 2350 Map Co-ordinates 30°26'39.3"S 151°31'07.3"E

Personal details :-

Name:

Address:

Phone: FAI/MAAA

email:

Your email address is useful. We can keep you aware of what's happening.

Junior (under 18) Septagenarian (at least 71st)

Events :-

F5J:- As per current FAI rules. **9:30 Friday January 27 to 13:00 Sunday January 29. A limited class may be flown in the normal draw.**

E-Res:- As per AEFA Rules. 3 rounds will be flown on Friday and 3 rounds on Saturday

Both F5J and E-Res will use teams of up 4.

Your team :-	Team Manager	Member 2	Member 3	Member 4
F5J	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
E-Res	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Event:-		Radio frequency		
		ENTRY	Preferred	Alternate (if using other than 2.4GHz)
F5J	\$20	<input type="text"/>	<input type="text"/>	<input type="text"/>
E-Res	\$10	<input type="text"/>	<input type="text"/>	<input type="text"/>
Admin and services	\$10	\$10.00		

Late Entries are not encour **Entries close on January 20 2023.**

MAAA Membership require Current MAAA Membership card to be produced upon request

Any Covid or other infectious disease rules in force at the time as determined by NSW State Government will be adhered to.

PAYMENT DETAILS 5

Please pay by direct deposit (preferred) to the following account

account name: **Sailplane Expo Trust**

BSB No: **012510**

Account No: **2.7E+08**

Item Name: **"Your Name" Expo Fee**

or e-mail: vhoddy@gmail.com for other options

Reference sites:

MAAA Website - www.maaa.asn.au (International rules for F5J)

AEFA: <http://www.aefanet.com> (rules for eRES, and guidelines for limited F5J)

vhoddy@gmail.com or phone :- 0425 285 751

- Details of the E-Res Event:-**
- Models of <2m projected span. Rudder, Elevator, Spoiler and motor control only. Flying wings, elevons, spoiler, motor only.
 - Models of predominantly wood construction preferred. Existing Millenium Cup models are suitable except for fully moulded models.
 - Electric launch to 100m or 30 sec motor run whichever comes first. Height limiting devices will be available for loan if required.
 - The task will be 5 minutes flight in 5min 30 sec window. The 5 minutes will include motor run time.
 - A landing score of 20 points will be added to flight time is landing is within 10m of spot.
 - Have fun.
- Details of the Limited F5J class:-**
- For models up to 3 m span
 - Building details as per AEFA guidelines (see attachment or <https://www.aefanet.com/aeafa-rules-library>)

Next major event is the long-standing and popular Sailplane Expo at Armidale.

For F5J and E-RES. It's a bit cooler in Armidale but a good warm-up for the F5J International and team selection in March, in SA.

Enter now!



WORLD CHAMPIONSHIPS F5J.

From Trevor Smith

I have done a follow-up with the CIAM on the dates for the 2023 F5J World Championships to be held in Bulgaria. The dates I previously provided have been brought forward one week due to the F3K World Championships.

The dates are now:

11th – 12th August 2023 F5J World Cup event. Practice event for the World Championships.

13th – 19th August 2023 F5J World Championship event.

These dates were confirmed at a CIAM Bureau meeting. Hopefully, these dates will hit the CIAM event calendar soon.

As mentioned previously, these events will be held at the field used for the 2015 F3J European Championships and the 2018 F5J European Championships. This field is located outside of Dupnitsa (Dupnica), about 60km south of Sofia, Bulgaria's capital. Location of the field is 42°17'48.62"N 23°9'29.69"E. Pop these coordinates into Google Maps and check out the satellite view and street view. The following YouTube video is of the 2018 F5J EU Championships. If you watch the first 4 minutes you will get a 360 deg view of the field and a description. <https://youtu.be/jgolgeh22EY>

MAGNUS - Made in China (part1). Phil Bird.

A few months back on yet another rainy day in NSW I was wasting time on the computer looking at model shop websites. A model caught my eye or rather the price did, on Hyperflights UK site. The model in question was called "Magnus". This is a 1.5m all moulded hotliner, 6 channel (no rudder).

Although large moulded F5J gliders are my main passion I also like flying fast aerobatic models such as vintage pattern models that bore large holes in the sky. After convincing myself this Magnus model could be fun (didn't really need much convincing, the boredom because of all the rain was the main reason) I investigated further. The Magnus was originally designed by an English guy as a slope soarer and the manufacturing and sales were put out to a company in China called TJIRC. If it wasn't for the price as soon as China was mentioned I wouldn't have gone any further.

There are a couple of builders groups for this model along with a Facebook page; I could not find any negative comments in fact all were very positive. TJIRC modified the original slope soarer with a different fuselage that could take a motor, that also involved adding a pocket behind the wing to house the elevator servo. The Magnus is available in glass or carbon versions, I ordered glass.

So I paid my money, freight charge wasn't too bad as the shipping box was less than 1 metre long. I already had spare servos and an ESC I could use, 8mm thick DS843 on the ailerons, 10mm BMS126 on the flaps and elevator and a YGE 60amp esc, all I needed was a motor. I don't know much about electric motors other than they have wires going to them instead of fuel tubing so Ecalc helped. Again with cost at the top of the list I figured a 1400 KV Turnigy Gliderdrive motor running on 3s would be a good compromise. Then what came up on RC trader a 1400 Gliderdrive motor for \$30, perfect.

Until this point in time I would not have used the words China and Quality models in the same sentence. On opening the box I was impressed at the workmanship, not perfect but very good. Lots of carbon used for reinforcement. The flap and aileron gap seals are particularly well done. Minor negatives are excess resin used in the fuselage and the ailerons and flaps are not perfectly straight, perhaps being taken out of the mould too soon.

I had no problems with the equipment installation. Checked the motor with a 10X6 prop I had, amps a little more than recommended but that was stationary and the motor was not going to be on all the time. Flying weight is 1250 grams so it's no lightweight with a wing loading over 18oz/sq ft.

Now to the good bit, flying. I got someone to launch it for me on the first launch just in case but that was a non-event, the model tracked straight and reasonably fast, vertical rolls with no sign of slowing down. Two things quickly became apparent. The elevator is very powerful, try to turn too tight and the model would snap roll very quickly. The other being the flaps, they slow the model nicely, however closing them too quickly causes the model to fall out of the sky until airspeed has built back up, so care is needed on a landing approach. This model also thermals very well, I have had a couple of 18 minute flights. Thermal turns are not great as there is no rudder.

I have had one bad arrival due to lack of concentration on my part where I turned too tight, to low and flicked rolled in. A strong model and very soft ground because of all the rain saved the day. Moving the CofG back (yes) and reducing the elevator throw have helped things.

For \$420 this model is a bargain. It's not hard to fly but certainly not a beginners model as things happen very quickly.

(Photo's next page)

Get it for LEG! Ed.



PERFORMANCE MODELS

OZeRES - 2m RES electric glider kit \$325
E-Medina - 2m RES electric glider ARF \$655
Medina - 2m RES glider ARF \$655
Avanti - 3m REAS electric glider kit, glass fuselage \$640
Avanti - 3m REAS electric glider kit, built up fuselage \$470
Vinco TR - 4m F5J moulded glider \$3,220
Fury - 1.5m electric moulded glider \$1,290
BAMF 2 - 1.5m moulded DLG \$1,290
ASW 12 - 6.3m Scale GPS racer POA

www.performancemodels.com.au

MAGNUS 1.5M moulded Hotliner



Very thin wing, supplied servo covers only just clear the arms. (And a good view of Phil's man cave! - Ed)



Nicely molded
gap seals



Substantial carbon
joiner. The
1800mAh battery
lives under the
joiner, pushed
right back because
of 140g motor.

EMF



Philip Kolb, F5J INTERNATIONAL AND WORLD CHAMPS TEAM SELECTION.

The MAAA and LSF Australia have arranged for Philip Kolb from Germany to visit Australia in March 2023.

Philip has enormous experience in the construction and design of radio-controlled gliders from 2 meter balsa models to large scale GPS racing gliders. Philip is also a highly successful competition pilot, having been part of winning teams at World and European Championships, and an individual champion at European and World Championships.

Philip will attend Southern Soaring League's 50th Anniversary event in Milang, South Australia from March 11 to 19. There will be a 3-day F5J event that includes the Team Selection Trial for the 2023 World Championships, and a week-long scale glider and GPS Triangle rally. Philip will give talks on F5J and GPS and also run a training camp for GPS pilots.

Click the link to download an entry form for the Southern Soaring League event. [Open F5J International – Southern Soaring League](#), or contact them via email for details on the training

camp: southernsoaringleague@gmail.com

Philip will then travel to Brisbane from March 22 to 27 where he will be hosted by the Moreton Region Sports Soaring Association. Philip will give a talk and host flying sessions during his visit. For more information contact club president Brian Ford via

mail: bananaman@bigpond.com

OSPREY 2 is new, top shelf F5J model at reasonable price from <https://www.flightech.co.uk/product/osprey-2/>



Philip Kolb on left. Some flying field!



*Next Year emf will feature Electric Old Timer.
But what's going on here?!*

THE SOARING EMUS EVENT

The Soaring Emus are a small bunch who get to West Wyalong over the Australia Day weekend for a second year now for LSF SAP & ESAP objectives. It has been confirmed by Mike O'Reiley that SAM eligible type OT model contests and models can be used for LSF objectives.

Also it is no longer a requirement to make an application to join the LSF system to start, just do it. Again Mike O'Reiley instigated this some time ago to negate unnecessary red tape.

We know this will clash with Armidale but not all pilots like the F5J style of competition gliding. So to those pilots we invite then to join us at West Wyalong this coming Australia Day Weekend. Arrive 25th Jan leave about the 30th.

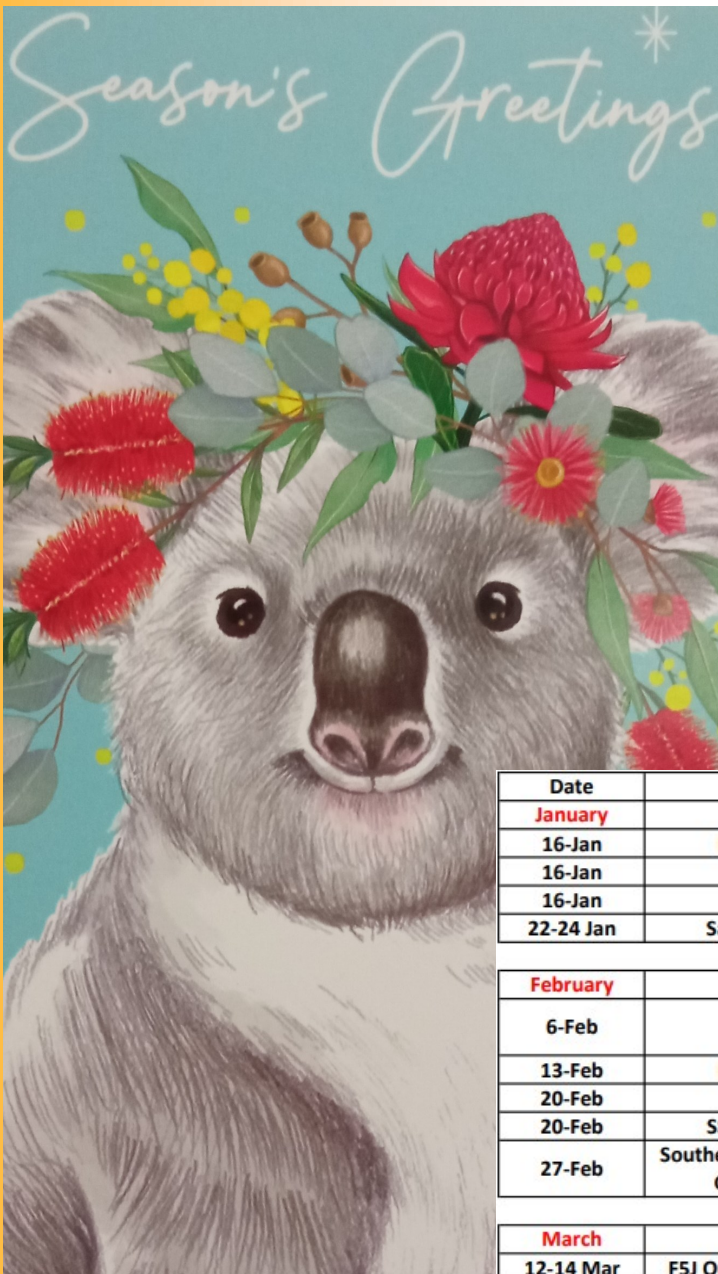
Go to the WEB site below and click on LSF Levels for forms, descriptions and flying objectives. Thermal and Electric gliding models only. Fly when you like and how you like.

<https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.lsfaustralia.org.au%2F&data=05%7C01%7C%7Caa90d047c10e4f8884bd08dad994237f%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638061527561993707%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6Ikl1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&data=qSAYsBdRs0oedbeo29FFbe0fmaj3Q718yV6e4t8rZB8%3D&reserved=0>

Field GPS: 33D 49m 1274S South 147D 17M 30.39s EAST.
Camping / caravan \$10 per person per day this includes Electricity, hot water storage showers and flushing toilets.
All fees go the NSW Free Flight Society, managers of the Adrian Bryant Field.
Contact John Quigley email above for further information. Barry Burke is away until Jan 1 2023.
Take care jq.



NEFR Programme 2023			
Cootamundra			Version 3
		Colour Code	
Friday April 7th	11.30am	Welcome and CD briefings	E-RES
	Lunch Break		LEG
	12.15pm	Scale Stand Off judging and Flying	F5J
	1.45pm	F5J Rounds 1 & 2	
	3.30pm	Electric scramble.	
	4.30pm	Electric Old Timer flights	
			Scramble 45 minutes flying time. 3 heats per rd E-RES 11 rounds - 20 minutes+/round 3 heats per rd F5J 10 rounds - 40 minutes+/round 3 heats per rd LEG - 8 rounds - 20 minutes+ per round Stand Off Scale - 90 minutes of flying time
Saturday April 8th	9.00am	LEG Rounds 1, 2, & 3	
	10.15am	E-RES Rounds 1, 2, 3, 4, & 5	
	Lunch break		
	1.00pm	F5J Rounds 3, 4 & 5	
	4.00pm	Probable latest Finish	
		Electric Old Timer could be flown after F5J	
	6.00pm?	Dinner and AGM at Field	
			Omitted is Pylon, which could fit in on the Friday if needed. E-RES & LEG on mornings and F5J in the afternoon as requested. EOT contestants fly their qualifying flights at leisure during the weekend, before 9.00am, during other events, or after flying on the day. An extra 2 rounds of LEG will be flown if there are less than 5 entries in Scramble.
Sunday April 9th	9.00am	LEG Rounds 4, 5, & 6	
	10.15am	E-RES Rounds 6, 7, 8, 9 & 10	
	Lunch break		
	1.00pm	F5J Rounds 6, 7, & 8	
	4.00pm	Probable latest Finish	
		Electric Old Timer could be flown after F5J	
Monday April 10th	9.00am	LEG Rounds 7 & 8	
	10.15am	F5J Rounds 9, 10, & 11	
	12.30pm	Electric Old Timer Flyoffs.	
	Lunch break and packup.		
	2.00pm	Presentations	



Next issue includes Repairing a carbon fibre fuselage boom, by Robert Budniak.

Also a comprehensive, but controversial article on charging lithium batteries.



AEFA CALENDAR 2023

Date		Flying Events	Notes
January			
16-Jan	RCGA Event	F5J Glider	Diggers Rest
16-Jan	SSL Event	F5J Glider	Milang
16-Jan		Millennium Cup	Appin
22-24 Jan	Sailplane Expo	F5J & E-RES- 2.5 days	Armidale
February			
6-Feb	HSL Event	HSL Summer Club Competition	HSL Maddens Plains
13-Feb	RCGA Event	F5J Glider	Diggers Rest
20-Feb		Millennium Cup	Goulburn
20-Feb	SSL Club Event	F5J Glider	Milang
27-Feb	Southern Region Electric Glider Group	ALES 200m/30 secs	Cooma Call (0497) 875 538
March			
12-14 Mar	F5J Open International	SSL Milang - F5J only	Milang, SA
19-20 Mar		QLD F5J Series 2022 Round 1	Dalby
13-Mar	HSL Event	Heathcote Cup F5J	Maddens Plains
27-Mar	Southern Region Electric Glider Group	ALES 200m/30 secs	Cooma Call (0497) 875 538
April			
10-Apr	RCGA Event	F5J Glider	Diggers Rest
10-Apr		Millennium Cup	Lake George
15-18 April	AEFA National Electric Flight Rally	Jamboree of Electric Events including F5J	Cootamundra State Field

All contributions, including free Classifieds, welcome. Send to editor Mel Gillott at reshifxyz@hotmail.com

** Electro Motive Force . The emf magazine, including all back-issues is also available on the AEFA website. Thanks Ralph Dephoff.

1. a) $E=W/Q$. b) *Inside* a source of emf that is open-circuited, the conservative electrostatic field created by separation of charge exactly cancels the forces producing the emf. c) Electromotive force is the characteristic of any energy source capable of driving electric charge around a circuit.
2. A force, metabolizing as a passion to get airborne in a more environmentally responsible way without unduly disturbing other humans or the wildlife by using only the power of electro (not Max Dillon) and nature.
3. A catchy name for an electric model binary transmitted memory of interesting clutter. John Quigley.