Monthly Glider Postal events , Reports, Promo's and other stuff from the **Australian Electric Flight Association**. # 8. FEB 2023

CONTENTS

THE ARIJAN WAY

With assistance from our Les Safarik, champion Croatian flyer Arijan Hutcaljuk was brought to Australia and flew in the recent Glider Expo at Armidale.

Now, there are a number of very good F5J flyers in Australia but I have never witnessed competition flights of such skill and daring as those of Arijan at the Expo.

I watched and was entertained by Arijan in round 9: at less than full throttle and a few seconds after launch his model executed a 180 degree turn and flew between the end of the flightline and the pits to the near downwind paddock. There he proceeded to perform several tight pirouettes on edge with the lower wingtip less than two metres from the ground. Finally he cut the motor and GliderScore shows a height recording of 14 metres.

There's more. Working the weak thermal(s) and drifting downwind he was then caught at not much over large-tree height with the model just a speck and beyond the trees near the entrance to the field.

Apparently Arijan has super hero eyesight.

Most of us would then head home and hope we could make it. But champions are made of sterner stuff. Arijan continued to calmly work the air at maximum range just above treetops. Several weak thermals helped him to maintain height but finally a stronger updraft enabled him to gain enough height to work the model home. His score was 9.58, 45, 14. Motto—never, ever give up!

And this wasn't even his best score. This was 9.59, 50, 7. Yes 7M cut-off height!

However, in a 14 round competition there is one other very important ingredient—***consistency.*** Arijan's other scores were: 9.59, 50, 8, and 9.58, 50, 30 and 9.59, 50, 33 and 9.59, 50, 57 and 9.59, 50, 129 plus seven other scores which were all ***zero*** due to landing over 75M away.

So, the application of skills and courage only paid-off half the time and Arijan finished 13th out of 26th competitors.

Congratulations to Arijan for the entertainment and to first place getters Jamie Cannon (F5J) and Marcus Stent (E-RES). Arijan was second in E-RES.

Expo results P3

POSTAL COMPETITION NOW LIVE

The F5J and E-RES Postal comp is now active for February. You have until the last day of the month to participate with three consecutive flights for each class. Lodge results on your 'phone in Gliderscore. It's not hard, just email reshiftxyz@hotmail.com to get your QR code and instructions.

The Electric Old Timer Postal is also active with all details as before. Send your max's, or close calls to kenwoody6@gmail.com

See also page 5 for more on EOT.

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.

Generally when I am thermal:

1. I don't change the direction I am turning in the thermal.
2. I rarely move in a thermal to follow other pilots and just rely on the above technique to centre my thermal.
3. Often, the less pilot interference is in the process the better. Sometime, I just do a constant speed and constant bank circle and let the thermal pull me into the core. This then lets me concentrate on where I am going to go next.

To get a constant bank, constant speed circle you need to set your plane up properly. This takes practice and makes a huge difference to being able to optimise or stay in a thermal.
I modulate the Aileron stick to control my bank angle (as needed) and Elevator stick to modulate the speed. By keeping the speed constant, it means I pull harder on the Elevator (and use more camber) in strong lift and I use less Elevator in weak lift. This optimises my climb rate while keeping my plane at its optimal flying speed for best efficiency.

6. Plane setup

Start with CG.

CG primarily determines the stability of the plane. This means how much a gust, turbulence, trim, speed change or stick input effects the plane. The optimal point is between having the plane unstable enough to show lift without losing efficiency from too many control inputs.

First I use the dive test to determine the level of stability I want. Trim the plane for normal slow flight and then dive the plane at 30 degrees and let go of the stick. You want the plane to do a loooong slow pull out. If it pulls out quickly then it is too stable. If it does not pull out it is unstable.

I like a plane more on the unstable side than the stable side of the dive test. I move my C.G. slowly back to the unstable point (no pullout in the dive test) and then move it forward slightly. I like to know how far back unstable is (and measure it), then I can get a good mental picture of how stable I am relative to this point.

Make sure you adjust your Elevator throw with C.G. change. This is often overlooked and I have heard pilots say they cannot control their plane at a rearward C.G. only to find they have huge Elevator throws from when their C.G. was too far forward. Drop you Elevator rates as your C.G. goes back. Other settings such as Aileron differential and A-R mix may need to be re-assessed with large C.G. changes.

I then fine tune my cg over a few months by experimenting. Basically I want my C.G as far back as I can get but the plane still returns from a long way down wind in windy turbulent conditions without being unstable (e.g. stays stable when flown fast from downwind). You want a hands off (trimmed) return from downwind with minimal input (e.g. I use 60% of my Elevator throw in speed mode when compared to my thermal mode to prevent my control inputs making the plane look unstable). Having a plane fly smoothly in this phase of the flight can add significant time to your flight.

Also, I don't change my c.g. for different conditions once I find a nice position. This way I always get the same response to lift no matter how windy or calm it is. Also, ballast does not change my C.G. If my C.G. is too far forward in the wind then I lose feel for the thermal and I'm not sure if I'm in lift or

Note: I have changed my view on C.G. since writing this back in 2016. I now like to run a more forward C.G. in the wind and this can be anywhere from 5 - 10mm for an F5J and 2 - 4mm for an F3K model, compared to my no wind C.G. Make sure you perform your own trials, as this will depend on your own starting C.G.. The key indicator is to be able to return smoothly from downwind in strong wind.

6

Cont. next issue

2023 Jan 27 - Expo F5J 2023 (Armidale)

Flight Scores | Results

Round 14 | Update Rounds List | Refresh Result

Results To Round 14

#	Name	CTry	Score	Pcnt	RawScore
1	Cannon, Jamie	-	11994.2	100.00	11994.2
2	Blackburn, Hugh	-	10204.4	85.08	10486.2
3	Meyer, Andrew	-	9681.5	80.72	9681.5
4	Woodward, Colin	-	9435.0	78.66	9435.0
5	Warman, Clive	-	9200.2	76.71	9200.2
6	Houdalakis, Jim	-	8955.4	74.66	8955.4
7	Leitch, David	-	8712.6	72.64	8915.1
8	Knack, Karl	-	8027.8	66.93	8027.8
9	Weston, Kevin	-	7830.4	65.28	7830.4
10	Metzger, Klaus	-	7750.0	64.61	7750.0
11	Bengtson, Evan	-	7475.8	62.33	7475.8
12	Spain, David	-	7402.3	61.72	7402.3
13	Hutcaljuk, Arijan	-	7000.0	58.36	7000.0
14	Stent, Marcus	-	6827.4	56.92	6827.4
15	Oddy, Hutton	-	6755.3	56.32	6755.3
16	Safarik, Ladislav	-	6640.3	55.36	6640.3
17	Johnson, Scott	-	6302.0	52.54	6302.0
18	Murphy, Jack	-	6236.4	52.00	6236.4
19	Lowe, Matt	-	4885.8	40.73	4885.8
20	Fox, Ken	-	4525.9	37.73	4525.9
21	Clifford, Tom	-	3799.2	31.68	3799.2
22	Smith, Trevor	-	3743.6	31.21	3743.6
23	Pember, Victor	-	3320.4	27.68	3320.4
24	Gillott, Mel	-	2971.0	24.77	2971.0
25	Vels, David	-	2572.1	21.44	2572.1
26	Budniak, Robert	-	0.0	0.00	0.0

2023 Jan 27 - Expo eRes 2023 (Armidale)

Flight Scores | Results

Round 9 | Update Rounds List | Refresh Results

Results To Round 9

#	Name	CTry	Score	Pcnt	RawScore
1	Stent, Marcus	-	8000	100.00	8991
2	Hutcaljuk, Arijan	-	7441	93.01	7869
3	Blackburn, Hugh	-	7422	92.78	7898
4	Woodward, Colin	-	7358	91.97	8070
5	Meyer, Andrew	-	7240	90.50	7601
6	Safarik, Ladislav	-	7145	89.31	7636
7	Weston, Kevin	-	6570	82.13	7094
8	Metzger, Klaus	-	6565	82.06	7117
9	Houdalakis, Jim	-	6463	80.79	7003
10	Ash, Bob	-	6199	77.49	6574
11	Pine, Peter	-	6065	75.81	6553
12	Spain, David	-	5975	74.69	5975
13	Whitten, Garry	-	5848	73.10	6209
14	Clifford, Tom	-	5617	70.21	6089
15	Murphy, Jack	-	5571	69.64	5571
16	Fox, Ken	-	4029	50.36	4029
17	Gillott, Mel	-	3997	49.96	3997
18	Smith, Trevor	-	3907	48.84	3907
19	Vels, David	-	3902	48.78	3902
20	Pember, Victor	-	3702	46.28	3702
21	Budniak, Robert	-	3680	46.00	3680
22	Oddy, Hutton	-	1000	12.50	1000
=23	Warman, Clive	-	0	0.00	0
=23	Cannon, Jamie	-	0	0.00	0

Not exactly an award wining photo but it does show the vast flying field at Armidale. Small area of pits shown. Warm to hot and breezy for this years Glider Expo.

E-RES leaders. L—R Arijan, Marcus, Hugh

emf

ENERGY EFFICIENCIES

Petrol (Gas) Engine	25%
Automotive Diesel Engine	45% which is why you get lower fuel consumption
Gas Turbine Using Kerosene	60%
Electricity Generation	35% depending on process used
Electricity Supply System (UK)	77% though varies a lot world wide (97% to 29% in 2014)
Human Muscle	20% though varies a lot with fitness
Electric Motor	90%
Filament Lamp Bulb	10% and could be much less
Fluorescent Lamp Bulb	60%
Light Emitting Diode	90%
Loudspeaker	5% approximately
Lightweight Road Bicycle	95% but remember muscle losses
Electric Convector Heater	Nearly 100% but note losses in generation and supply
Gas Condensing Boiler (Furnace)	95%
Oil Condensing	90%

(credit: Composite RC Gliders)

This new switch from Composite RC Gliders is a clean and easy way to turn on your model — just place the magnet adjacent to the switch for three seconds. Typically it's mounted inside of the fuselage, out of the air stream, and the magnet will easily activate the switch from outside. No more fumbling for little external switches or plugging in awkward connectors.

Now here is something to get some readers excited. EOT

Imagine an event that combines the low-key atmosphere of a "fun-fly" (without the attrition rate) with the easy to build and fly features of a simple glider event with the nostalgia of a free-flight event of the forties but without the orienteering course after most flights. Phew!

That's EOT, Electric Old Timer. An event within the reach of anyone that can build reasonably in balsa (or who wants to) and then control it safely and easily by RC.

It's like electric glider with character. Like E-RES with bigger models and a vast array to choose from.

This Year emf features Electric Old Timer.

It's cheap too. Using aircraft with no exotic materials, simple motors and a three channel radio is enough.

And the models have a built-in leveler that prevents even the most expert flyers from having an advantage, and that is the aircraft itself. Everyone is stuck with a wonderfully "obsolete" design which cannot be "improved" upon under the rules. **

Why am I telling you this?

EMF will henceforth include results and details of the Electric Old Timer Postal competition. This event, actually featuring five competitions has been going for some years and is currently administered by Ken Woodward. Ken will now send me details and results for publication in this mag.

Each comp consists of sending Ken your best time for the month to kenwoody6@gmail.com .

Rules highlights from the AEFA website are:

Electric Old Timer

Duration – 7 minute flight. Motor can be stopped and restarted up to a maximum of 25 sec. Battery capacity is based on aircraft wing area.
Texaco – 10 minute flight. Motor can be stopped and restarted. Battery allowance is based on aircraft weight.
1/2A Texaco – same as for Texaco (10 minutes flight) but for smaller aircraft (less than 450 sq in wing area) with 2S 460 or 3S 310 mAhr LiPo battery. These are ***maximum*** capacities.
Height Limited OT – 7 minute flight. Single motor run with an electronic plug-in device limiting motor run time and aircraft height under power.
Vintage Glider - 7 minute flight. Single motor run with an electronic plug-in device limiting motor run time and aircraft height under power.

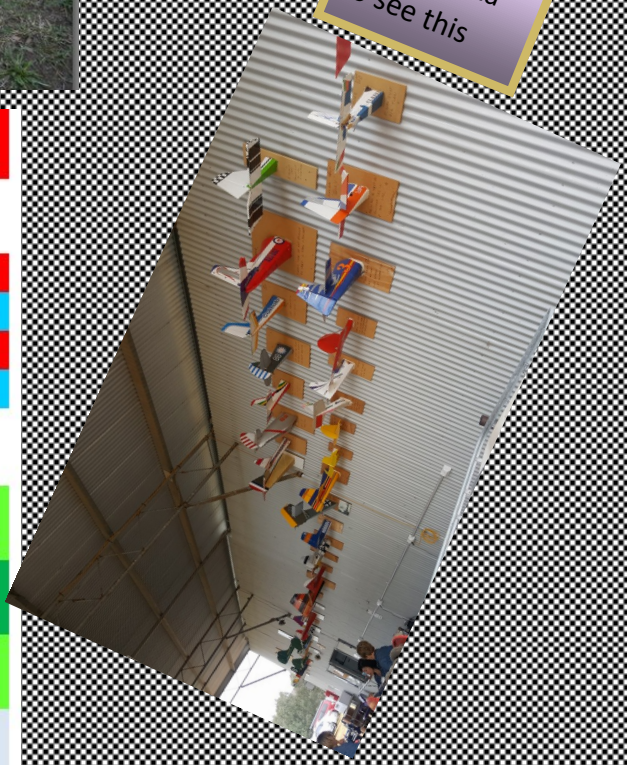
Full rules go to https://www.aefanet.com/aefa-rules-library or contact Ken.

Give it some thought. EOT really is the ultimate gentlemanly event.

emf

NEFR Programme 2023 Cootamundra

Friday April 7th	11.30am	Welcome and CD briefings	
	Lunch Break		
	12.30pm	E-RES Rounds 1, 2, 3, 4, 5 6	3.30pm
	4.00pm	Electric scramble.	5.00pm
Saturday April 8th			
	9.00am	E-RES Rounds 7, 8, 9, 10	11.00am
	11.30am	LEG Rounds 1, 2, 3, 4	1.00pm
	Lunch break		
	2.00pm	F5J Rounds 1, 2, 3, 4	5.00pm
	6.30pm?	Dinner and AGM at Field eRES and Scramble presentation at dinner	



Sunday April 9th	9.00am	F5J Rounds 5, 6, 7, 8, 9	12.30pm
	Lunch break		
	1.30pm	F5J Rounds 10 , 11, 12	3.30pm
	4.00pm	LEG Rounds 5, 6, 7	5.00pm
	5.30pm	F5J presentation	
	5.30pm	LEG presentation	
Monday April 10th	9.00am	Electric Old Timer HL and VG (4 rounds)	10.00am
	10.30am	Scale Stand Off judging and Flying	11.30am
	12.00pm	Texaco & 1/2A Texaco (15 minute flight X 2)	1.00pm
	Lunch break and packup.		
	2.00pm ????	Presentations	

THE FUTURE THE ΦYTYPE

With assistance from the MAAA and LSF, **Philip Kolb** will travel to **Brisbane** after the Milang event and be hosted by the **Moreton Region Sports Soaring Association**. Philip will give a **talk** on F5J model design, GPS Racing and flying strategies on **Wednesday 22 March** 7pm to 10pm at the Grange Community Hall, 185 Wilston Rd, Newmarket QLD 4051
Light refreshments will be available. A **flying day** is scheduled from 10am on **Saturday 25th March** (with Sun 26th as the bad weather alternate) This will be held at the MRSSA Munbilla Field. Check out the map at this link, noting "No right turns to enter the property" https://mrssa.net/

QLD F5J 2023
Round 1 - 25/26 March - MUNBILLA (Philip Kolb attending)
Round 2 - 27/28 May - DALBY
Round 3 - 22/23 July - MONTO (TBC)
Round 4 - 9/10 September - DALBY
Round 5 - 18/19 November - MUNBILLA

The annual **Easter LSF Scale Glider Rally** will be held on the **Jerilderie Racecourse** from **Friday 7th April to Monday 10th April**. Note that our CASA Area Approval for operation over 400 feet is only valid for this period. An online Registration Form will be available shortly. We will notify everyone via email and there will be a link on the LSF Australia website.

- **F5J, Open Thermal and E-RES** return to the **Jerilderie Racecourse** for what is now the King's Birthday long weekend. Competition Flying will take place on Saturday, Sunday, Monday **10/11/12 June**. Friday 9th June will be a designated practice day with appropriate height clearance. More details will be available after Easter but save the dates and make travel plans.

LSF Australia Committee

emf

** Adapted from article in Mels Focus on RC, Airborne mag, 1981.

Al contributions, including free Classifieds, welcome. Send to editor Mel Gillott at reshiftxyz@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.