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F5J & E-RES POSTALS (please open attachment in body of email for spreadsheets). No changes this month in F5J as Bill Kent continues to romp home despite worst round now being dropped. Other placing's mainly determined by persistence over the year rather than high scores. Bob Hickman is back with a perfect score in E-RES whilst Pine and Gillott have less than perfect scores. One worst round to drop yet but nobody will catch Bill Kent. QUOTES:

We seem to be having a shower of some sort every 24 hours here in Wangaratta. There should be a one second flight score for those who want to fly but can't to indicate interest (!?). *John Quigley*
The weather was interesting. There were storms about with patches of blue sky and fairly light winds between them. Not surprisingly, it was very convective at times and I was glad that I had 2 large spoilers on my ERES model. I needed these on my second ERES flight as the model appeared to be sucked towards an approaching dark cloud. *Bob Hickman*.

It's not just the troublesome weather: At about 20 m height our troublesome magpie attacked tail of Phil Stevenson's aircraft and it was a very short flight with vertical flight into terrain. Just one more month to go. Go on, have a final fling!

Monthly Glider Postal events , Reports, Promo's and other stuff from the **Australian Electric Flight Association.** # 5. Oct 2022

POSTAL 2023 — All new for next year.

Thank you to all of you who helped with the format for next years F5J and E-RES postal comps. And I am particularly grateful to Gerry Carter for making it work.

The attached Draft Rules (see email) are a result of much input and changes from many people. Let's give them a go.

You could call the rules more serious and formal than before—all designed to more closely emulate an actual competition. The grand aim being to improve the standards in Australia, after all we are sending a team to the Bulgaria Worlds next July.

Do read the proposed rules, which apply to both F5J and E-RES and are very briefly summarised as:

A maximum of 3 flights may be submitted each month. The flights must be made one after the other in one flying session on one day.

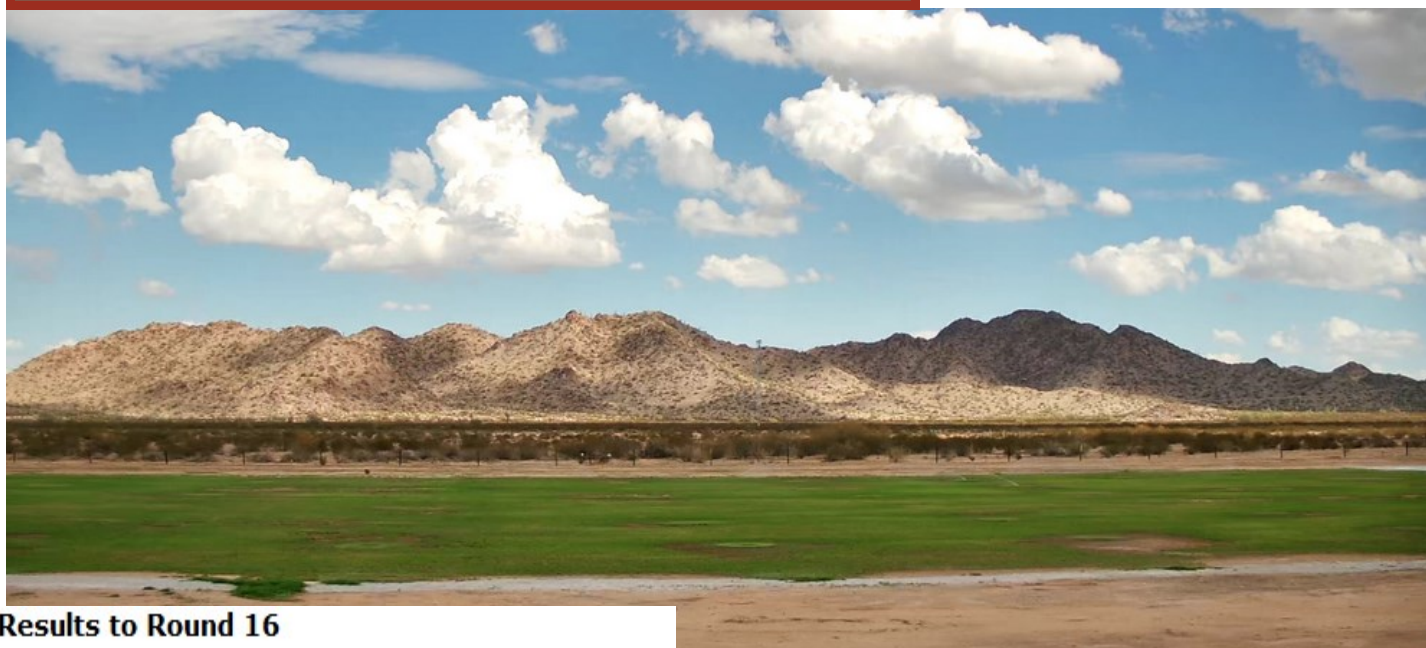
Then enter your 3 scores into Glider score on your device.

I will still take comments until the Rules are finalised and published in the next emf, last one for 2022



Field for USA F5J WC team selection Oct 26—30th 2022.
 Silent Wings Ranch, AZ. Entries included Joe Wurts, Bob McGowan, Chip Hyde— -.

F5J WORLD CHAMPS TEAM SELECTION—USA



Results to Round 16

#	Name	Ctry	Score	Pcnt	RawScore
1	Smith, Mike	USA	14861.00	100.00	15760.82
2	Wurts, Joe	NZL	14829.95	99.79	15550.30
3	Kiesling, Thomas	USA	14767.66	99.37	15051.20
4	McCaethy, Jim	USA	14707.82	98.97	15295.47
5	Khani, Ali	USA	14562.18	97.99	15365.66
6	Willcox, Jr	USA	14330.31	96.43	14545.56
7	McGowan, Bob	USA	14318.60	96.35	14702.24
8	Golovidov, Oleg	USA	14208.12	95.61	14208.12
9	Lovins, John	USA	14108.49	94.94	14889.54
10	Miller, Skip	USA	13853.86	93.22	13853.86
11	Butler, John	USA	13669.29	91.98	13712.54
12	Traver, Tim	USA	13522.11	90.99	13522.11
13	Baggs, Brady	USA	13518.57	90.97	14074.80
14	Dougherty, Joseph	USA	13507.75	90.89	13507.75
15	Cooke, Thomas	USA	13122.01	88.30	13122.01
16	Estingoy, Daniel	USA	13112.41	88.23	13467.11
17	Summers, Sean	USA	12989.32	87.41	13435.44
18	Roberts, Reid	USA	12914.34	86.90	12914.34
19	Hauff, John	USA	12790.72	86.07	13200.88
20	Padilla, John	USA	12769.69	85.93	12769.69
21	Morris, Charlie	USA	12754.42	85.82	12945.56
22	Day, Warren	USA	12687.57	85.37	12918.71
23	Keer, Lenny	USA	12678.34	85.31	12678.34
24	Plummer, Sean	USA	12551.32	84.46	12847.46
25	Jonke, John	USA	12524.65	84.28	12524.65
26	West, Randy	USA	12246.56	82.41	12546.30
27	Dumas, Edward	USA	12151.58	81.77	12402.25
28	Molnar, Jerry	USA	12077.07	81.27	12286.70
29	Carr, Jeffrey	USA	11861.65	79.82	12238.12
30	Hyde, Chip	USA	11851.47	79.75	11851.47

57 entries. Top 30 shown.

←

Extract from fly-off raw scores.

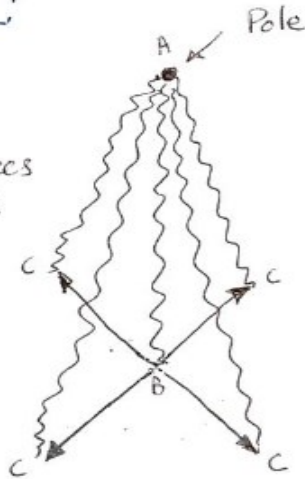
↓

Round 15	Ctry	Time	LndgPts	Height	HtPty	>75m	Points	Score
Group 1 ReFlight 0								
Padilla, John	USA	14:57	50	50	25.0	-	922.0	1000.00
McCaethy, Jim	USA	14:57	50	50	25.0	-	922.0	1000.00
Le, Tuan	USA	14:58	50	71	35.5	-	912.5	989.69
Kiesling, Thomas	USA	14:58	50	85	42.5	-	905.5	982.10
Wurts, Joe	NZL	14:58	50	95	47.5	-	900.5	976.68
Estingoy, Daniel	USA	14:54	45	89	44.5	-	894.5	970.17
Stanton, Steve	USA	14:55	50	157	78.5	-	866.5	939.80
Immanuel, David	USA	14:59	0	133	66.5	-	832.5	902.92
Keer, Lenny	USA	12:51	50	61	30.5	-	790.5	857.37
Burson, Robert	USA	10:23	45	76	38.0	-	630.0	683.29
Trussell, Gavin	USA	0	0	0	0.0	Yes	0.0	0.00
Freund, Joshua	USA	0	0	0	0.0	-	0.0	0.00
Group 2 ReFlight 0								
West, Randy	USA	14:57	45	30	15.0	-	927.0	1000.00
Khani, Ali	USA	14:57	50	52	26.0	-	921.0	993.52
Hyde, Chip	USA	14:58	45	45	22.5	-	920.5	992.98
Morris, Charlie	USA	14:58	40	50	25.0	-	913.0	984.89
Johnson, Tim	USA	14:56	50	83	41.5	-	904.5	975.72
Baggs, Brady	USA	14:56	50	86	43.0	-	903.0	974.11
Wilmunder, Aric	USA	14:58	45	104	52.0	-	891.0	961.16
Monaco, Jim	USA	14:51	35	77	38.5	-	887.5	957.38
Summers, Sean	USA	14:54	50	174	87.0	-	857.0	924.48
Olstinske, Dale	USA	11:29	40	176	88.0	-	641.0	691.47
Armstrong, John	USA	0	0	0	0.0	Yes	0.0	0.00
Young, Dustin	USA	0	0	0	0.0	-	0.0	0.00

The F5J World Championships will be held in Bulgaria during July 2023.
 Oz team selection held at Milang, south of Adelaide on 11—13th March 2023

BASIC CONCEPT:

Thermal here
Wind speed reduces
and moves left.



Thermal here.
Wind speed reduces
and moves right

Thermal here
Wind speed increases
and moves left

Thermal here
Wind speed increases
and moves right.

- If the thermal is in front of you the wind decreases. If the thermal is behind you the wind increases.

In summary:

- If the 3rd Vector is large then the thermal is large or very close.
- If the 3rd Vector is small then the lift is weak or it is a long way away.
- If the 3rd Vector changes rapidly then the thermal is close.
- If the 3rd Vector changes slowly then the thermal is far away.

Therefore between the size/strength of the wind shift and the rate/speed the wind shift changes, you can calculate where the lift is. This takes significant practice (a year or more), but once mastered it is a very powerful tool and gives you a big advantage in a competition.

3. Weather Conditions

I think of the air as having 4 basic types of thermal conditions and being aware of them can change the way you fly in them.

1. Classic column thermals – These are the easiest to pick and you should be aggressive in searching for them and aggressive to punch through the sink on the return leg.
2. Corridors of air – These are more common when it is windy and are caused when the thermal is blown over into horizontal lift downwind from a thermal source. Move sideways to find the lift corridor, sit in the lift for a period of time (sometimes without circling) until it decays (watch closely). Then move sideways to find the next corridor of lift. Sometimes the next corridor can be only 100-200m away and sometimes a lot further (500m+). I call this the Jon Day waffle (multiple peaks and troughs) theory because you actively move from one piece of lift (peak) to the next.
3. Light lift or buoyant air. This is more common on light winters days (like Jerilderie) where you can see planes 'holding' better than others. Do not lose height racing to this patch of air because you typically don't make back the height you lost getting there. Move slowly to the buoyant air, conserving altitude or just move downwind of the plane in buoyant air. The air can often be good at height, but non-existent at lower levels.
4. Inversion layer. This is more common on calmer winter days (like Jerilderie), but not always. This can be where you launch and there is no lift, but when you get to a certain height (e.g. 50m) and then you encounter little bubbles of lift. Be careful not to circle in bumps above the inversion layer (they are typically not lift) and then be prepared to work lift when you get below the inversion layer. Also, if your bubble disappears do not waste time finding it again because it has most likely hit the inversion layer and dissipated. Immediately look for other lift as there are often more bubbles of lift a short distance away.

THERMAL TRAINING NOTES, Marcus Stent. Part 2

EMF

Cont. next
issue





43rd Annual Armidale Sailplane Expo

Friday January 27th - Sunday January 29th 2023

Hosted by New England Model Aircraft Club

When:-	Friday 27th to Sunday 29th 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				
E-Res				

Event:-	ENTRY	Radio frequency		
		Preferred	Alternate (if using other than 2.4GHz)	
F5J	\$20			
E-Res	\$10			

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

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:-

1. Models of <2m projected span. Rudder, Elevator, Spoiler and motor control only. Flying wings, elevons, spoiler, motor only.
2. Models of predominantly wood construction preferred. Existing Millenium Cup models are suitable except for fully moulded models.
3. Electric launch to 100m or 30 sec motor run whichever comes first. Height limiting devices will be available for loan if required.
4. The task will be 5 minutes flight in 5min 30 sec window. The 5 minutes will include motor run time.
5. A landing score of 20 points will be added to flight time is landing is within 10m of spot.
6. Have fun.

Details of the Limited F5J class:-

1. For models up to 3 m span
2. Building details as per AEFA guidelines (see attachment or <https://www.aefanet.com/aeifa-rules-library>)



A GOOD WOOD "FILE" –

comes from the ladies beauty supply business. Those emery boards used for filing nails do an excellent job of sanding in tight places. Fingernails are usually a little harder than the wood we use. The boards come with separate grits on each side, or in some cases four grits, at two/side. The material used seems to be of higher quality and sharper edged than most common sand papers. Don't buy the cheap versions as sold in packages of several each at the drugstore. Go to a beauty shop supply house, or to a beauty shop itself. The beauticians will usually sell you one or more at their price. Resist the urge to flirt and become a laughing-stock as you leave. Or if you find the whole thing embarrassing, send a lady in your place.

MILLENNIUM CUP (NSW) DETAILS.

HSL Round 16 OCT

A very good day's flying at Maddens Plains, Sth of Sydney. The rain forecast all week vanished and we had varying winds and varying lift all day. Worthy winners and good friendships. Good to see the new people from Richmond, and Steve Keep proved too good for us all on the day. 27 entries and 7 rounds is almost 200 flights so it was a busy day.

All the scores attached along with the year's point totals. Thanks to Jack Murphy for all the computer work on the day and last night to make these available.

Rule Changes for 2023:

The committee has finalised changes for 2023. To make it easier for the many flying ERES models in MC, we have decided to change the height cut off to 100m, and the flight time to 5 minutes. So no need to reprogram the logger. We decided not to make any other changes. So we keep the more challenging F5J landing scores, ban on spoiler use and unrestricted model build rules. (The spoiler ban does require that the spoiler/elevator mix on ERES models is disabled for model safety). We decided minimum changes was the way to go and this seemed popular with the flying group yesterday. The existing rules are also in the FB files library (along with historical results and flying site locations) and we will make the changes before new year.

Program for 2023:

Next year we will have a new venue at Richmond RAAF base, thanks to Steve Keep and his club. Lake George is still flooded and the weekend away at Coota has lost favour. I have drafted a program with the Appin, Goulburn and Shoalhaven rounds at traditional times plus two rounds at both HSL and at Richmond either side of the July/August winter break, making 7 days flying again, but all Sundays and a day trip from Sydney.

We are massaging the exact dates around other events and will publish the final calendar later.

Phil Stevenson, for the MC Committee. (and congratulations to you, Phil—Ed)

MILLENNIUM CUP 2022				< Scores - Original >< Worst			
Rank	Name	Best 4 Scores	Pcnt	16/01/2022	20/02/2022	8/08/2022	16/10/2022
				Millennium Cup 2022 Rnd	Millennium Cup Rnd 2 20	Millennium Cup 2022	Millennium Cup Rnd 4 20
				APPIN	Goulburn	Appin	HSL
1	Stevenson, Phil	3724	100	873	914	997	940
2	Bland, Bill	3612	97	845	1000	782	985
3	Watson, Rob	3604	97	758	922	962	962
4	Murphy, Jack	3339	90	800	808	782	949
5	Wadeson, Dave	3323	89	714	786	888	935
6	Smith, Trevor	3027	81	780	851	612	784
7	Hemming, Ty	2964	80	801	738	706	719
8	Stromberg, Ivar	2963	80	767	832	729	635
9	Farrar, Don	2911	78	932	0	980	999
10	Budniak, Robert	2886	78	663	787	763	673
11	Weatherstone, Stephen	2522	68	759	0	912	851
12	Cohen, Nick	2469	66	808	774	0	887
13	Burke, Barry	2324	62	791	864	0	669
14	Clifford, Tom	2311	62	725	748	0	838
15	Nutman, Bob	2237	60	664	0	744	829
16	Funke, Rob	2212	59	642	414	637	519
17	Safarik, Les	2210	59	742	488	0	980
18	Ceo, Marc	2111	57	598	833	680	0
19	Woodward, Colin	2000	54	1000	0	1000	0
20	Whitehouse, Phillip	1869	50	476	753	640	0
21	Gillott, Mel	1578	42	728	850	0	0
22	Sbrana, Carlo	1558	42	640	0	0	918
23	Metzger, Klaus	1522	41	772	0	0	750
24	Weston, Kevin	1417	38	652	0	0	765
25	Lacey, Doug	1390	37	609	0	781	0
26	Woodward, Ken	1329	36	0	0	633	696
27	Keep, Steve	1000	27	0	0	0	1000
28	Moore, David	974	26	0	974	0	0
29	Mcdonald, Heath	971	26	0	0	0	971
30	McDonald, Doug	924	25	0	924	0	0
31	Bradley, Martin	886	24	0	0	886	0
32	Malherbe, Mike	853	23	853	0	0	0
33	Andrews, Gary	811	22	0	0	0	811
34	Manwaering, Grant	804	22	0	804	0	0
35	Randle, Jeremy	802	22	0	0	0	802
36	Vanajuk, Jason	787	21	0	0	0	787
37	Harris, Wayne	786	21	0	786	0	0
38	Moers, Norbert	709	19	0	0	709	0
39	Gouw, Andre	450	12	0	0	0	450
=40	Sterrett, Ron	0	0	0	0	0	0
=40	Smith, Peter	0	0	0	0	0	0
=40	Ryan, Larry	0	0	0	0	0	0

Further to the above, thanks to Jack we have the final points. Consistency rules when all 4 rounds count. We will have 6 rounds next year weather permitting and best 4 still count. Weather man promises better for 2023. Thanks for competing and making this event so good.

Amend the program by deleting the march round at Richmond, it clashed with the Heathcote Cup. Sydney area Gliding program is very full for next year. HSL program will be out shortly showing all events.

Thanks to our loose committee of Kevin Weston, Jack Murphy, Barry Burke, Colin Woodward and myself. If anyone else wants to contribute we could have a couple of extra voices. Just let me know.

Phil S

Millennium Cup Program 2023 Draft 1

Appin	Jan 15
Goulburn	Feb 19
Richmond	March 28
Maddens	May 7
Richmond	June 18
Maddens	Sept 24
Appin	Oct 15
Nowra	Nov 5



ASW28 by Claus Grimm. 5.5m wing-span, 9kg weight, Scorpion 4025-520 motor on 6S swinging a 14x8" prop. That's Mrs Grimm holding and they live in Jimboomba, SW of Brisbane.

F5J Electric Glider (recap, & for newbies)

In 2011 the FAI approved provisional rules for a new electric glider competition that does not require a fast climb; it puts the emphasis on finding thermals and staying in them. You do not need hi-tech equipment or big dollars to participate and be competitive. In fact a simple ready built foam glider such as the Radian 2 metre has done well in F5J comps.

The rules of this event are simple. Fly for 10 minutes then land near a spot as close to 10 minutes as you can. Only a gentle climb will often suffice since you are penalised for every metre of altitude when you cut the motor.

The event is scored on the total flight time, less the penalty for how high you climbed, plus a spot-landing bonus. In practice, the length of the flight is the most critical aspect, the height you climbed is a secondary consideration, and the event is certainly not decided by spot landings. A true Thermal event.

Full rules may be found on the Australian Electric Flyers Association web page at www.aefanet.com along with other interesting info.

So, how do we know what height you achieve in your climb? You fit your glider with a height limiting devices and data logger. Several are available commercially.

The AEFA promotes the event by freely handing out a collection of these devices, so that fliers can come to an event without a device and still take part.

The AEFA also runs a monthly postal competition where fliers log their own flights and submit the results to a central point and a winner for the year is declared. Great for practicing and self-improvement.

You launch your aircraft as the hooter sounds the beginning of the 10-minute window. You can switch off at any time up to 30 seconds in to the flight. Some brave fliers have even tried switching off under 50m when they perceive thermal activity! If you keep running your motor, it will be automatically stopped by the device after 30 seconds and if you start it again the flight is void.

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





RCGA FINAL CALENDAR 2022/23

27/11/22		OT 2				Open Thermal	Diggers Rest	RCGA
4/12/22								
11/12/22						F5J4	Diggers Rest	RCGA
18/12/22								
25/12/22						Christmas		
1/1/23								
8/1/23								
15/1/23			F3K2	Fun	eRES2	eRES in the AM, 3K/5K in the PM	Diggers Rest	RCGA
22/1/23						Armidale Expo - Date to be confirmed	Armidale	New England
29/1/23		OT 3		Fun		Open Thermal	Diggers Rest	RCGA
5/2/23								
12/2/23						F5J5 F5J	Diggers Rest	RCGA
19/2/23								
26/2/23			F3K3	Fun	eRES3	eRES in the AM, 3K/5K in the PM	Diggers Rest	RCGA
5/3/23						Airshow 2023		
11 - 13/3/23						F5J6 F5J - Milang (Sat, Sun, Mon)	Milang S.A.	SSL
14 - 19/3/23						GPS racing - Milang (Tues-Sun)	Milang S.A.	SSL
26/3/23								
2/4/23			F3K4	Fun	eRES4	eRES in the AM, 3K/5K in the PM	Diggers Rest	RCGA
9/4/23						Easter		
16/4/23						F5J7 F5J	Diggers Rest	RCGA
23/4/23								
29 - 30/04/23						F5J8 Horsham (Sat, Sun)	Horsham	RCGA

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.