

FREE FLIGHT news

CONTENTS

NFFS Symposium Report 2021	72	Kotuku World Cup of NZ, Lost Hills, USA, October 8-10	76
John White	73	Sierra Cup, Lost Hills, USA, Oct 9-11	76
Prista Cup, Valchitran, Bulgaria, September 10-11	74	Rana, Czech Republic, October 9-10	76
Bulgaria Cup, Valchitran, Bulgaria, September 11-12	74	Bulgaria Cup F1E, Alekovo, Bulgaria, September 18-19	77
Viktor Stamov Cup, Chemigiv, Ukraine, September 16-17	74	Prista Cup F1E, Alekovo, Bulgaria, September 17-18	77
Almaty Cup of Kazakhstan, Samara, Russia, Sept 17-19	74	11th Volare Lessini, Monti Lessini, Italy, October 3	77
Hogo Cup, Zabokreky nad Nitrou, Slovakia, September 25	74	Sierra Cup, Lost Hills, USA, October 11	77
Vol Libre Rhone-Alpes / 16th Philippe Lepage, Arzay, France, Sept 25-26	74	Max Men California Cup, Lost Hills, USA, October 5	77
Zabokreky Cup, Zabokreky nad Nitrou, Slovakia, Sept 26	75	Kotuku World Cup of NZ, Lost Hills, USA, October 12	77
Anatolian Free Flight Cup, Golbasi, Turkey, October 8-10	75	Coupe Europa, Salisbury Plain, October 9	77
KarTel Cup, Pieter de Boer Memorial, Kietrz, Poland, Oct 9	75	Southern Coupe League	78
SPZG Cup, Antoon van Eldik Memorial, Kietrz, Poland, Oct 10	75	Noticeboard	80
15th Trofeo Citta di Capannori, Capannori, Italy, Oct 9-10	76	BMFA Substitute Nationals, Salisbury Plain, September 4	81
		FFn Subscriptions	81
		Free Flight News Subscription Renewal Form 2022	82

FFn DIARY

A subscription renewal form is included at the last page of this issue

October 30-31 Mühlenthurnen, Switzerland	Eurofly. F1A F1B F1C F1Q, F1G. World Cup event. Contact: Walter Eggimann, tel +41318191784 email: walter.eggimann@belponline.ch web: http://wc-eurofly.ch	November 20 Osijek, Croatia	Indoor Open Tenja. F1N. Contact: Antun Sikic, tel +38531208262 email: asikic@gmail.com
October 30 Saturday	BMFA Midland Gala + Team Selection Reserve. F1H, F1G, 1/2A, E36, SLOP, Mini Vintage, P30, H/CLG, CO2. Contact Phil Ball 07470177947 Phil.ball@ntlworld.com	December 4-5 Slanic Prahova, Romania	Otto Hints Memorial. F1D. Contact: Ioana Dumitru, Calea Piscului nr 10, Sala Polivalenta sect.4, Romania, tel +40723620600 ioanaeu822@yahoo.com web: www.frmd.ro
November 7 North Luffenham	La Grande Coupe do Birmingham. See FFn 2109. F1G 2 flights by 12.00 then 3 rounds, Pre-1970 CdH (including Vintage pre-58 classification) 3 flights no rounds. Start 10.00, finish 15.00 then flyoffs Contact: Gavin Manion 01543 422509 gavin.manion84@gmail.com or Stuart Darmon 01858 882057 stuardarmon1a@yahoo.com	December 6-8 Slanic Prahova, Romania	2021 F1D Indoor World Championships
November 12-15 Lost Hills, California, USA	Patterson Memorial. F1A F1B F1C F1E F1P F1Q, F1G, F1H, F1J, F1S. Contact: Brian van Nest, 2346 Cheyenne Dr, Bishop, CA 93514, USA, tel: +1 760 873 5073, email: bisheatf1a@gmail.com	December 16	Negev Open F1A F1B F1C F1P F1Q. World Cup event. Contact Yair Rozi, ceo@aeroclub.org.il
		December 17	Hanukkah Open F1A F1B F1C F1P F1Q. World Cup event Contact Yair Rozi, ceo@aeroclub.org.il

7 Ashley Road, Farnborough, Hants, England GU14 7EZ

email: info@freeflightnews.org.uk

Web site address: <https://www.freeflightnews.org.uk/home.htm>

Compiled and produced by Ian Kaynes

NFFS SYMPOSIUM REPORT 2021



The 2021 NFFS Symposium Report is now available from FFN, see details at the end of this review.

This year's Report has been edited by electric-flyer Jack Murphy. His editorial opens with a comparison of free flight with birds and our poorer understanding of the air than that possessed by birds.

The first article is AIR PICKING by Tiffaney O'Dell. She reviews thermal indications and the reaction of people to the pressure of choosing when to fly. This is summarised as "Experience can make the decision of when to fly slightly less frightening. However, earning that experience can be painful."

AN ODE TO SIFLEET AND SOTICH is the Sympo author reproducing the results of a 1962 Illinois Model Aero Club contest with Charlie Sotich and Bob Sifleet figuring prominently in those results.

Bill Swift describes the development and progress of vintage FAI Power flying in VINTAGE FAI 2021. His interest was sparked as a boy by reading about the 1960 flyoff. Willamette club has run an event for over 10 years, now having a Buskell Trophy for the winner.

GOLDEN AGE 1/2A by Mike Schwartz describes the process of proposing to NFFS an event for 1/2A model from 1957 to 1969. It was to have been flown at the Nationals for the first time in 2021.

COMPETITION COMMITTEE ACTIVITY 2000 TO 2020 by Bob Mattes gives the other side of the picture, for the NFFS committee choosing the new classes to be accepted.

Bob Hanford describes setting up an equivalent to the World Cup or America Cup for AMA classes in NATIONAL CUP PROGRAM. There are 9 Cups, including a Junior Cup.

HISTORY OF THE MMAC by Dave Edmonson and edited by Rick Pangell is a description of the early history of the Minneapolis Model Airplane Club and includes reminiscences by various present-day flyers.

In DELAURIER WIND TUNNEL Brian Eggleston, James DeLaurier, and Yuri Shvedenkov describe the design and development of a new fan for the wind tunnel, to replace the existing simple 2-bladed paddle. The aim is to increase maximum speed from the present 19 m/s to 27 m/s. It was

expected to have the fan unit completed in summer 2021 and so results are not reported in this paper.

ECLECTIC ELECTRICS by Jack Murphy is the editor's contribution on new electric rules. He works from the false assumption that all people interested in F1Q are really power flyers and so there must be fast rapid climbs. That path is certainly not attractive to rubber flyers and look at the number flying F1Q in comparison to F1C in many competitions.

STABILITY AND CONTROL OF FIXED SURFACE POWER MODELS is Harry Grogan's detailed description of many aspects of stability of power models. For longitudinal stability he explains the significance during the climb of CG, thrustline, washin and rudder. Spiral stability is then similarly covered by a description of the forces involved and the effect of dihedral and fin sizes with charts of relative values. The paper concludes with example calculations for an E36 model.

DESIGNING AN INDOOR MODEL USING OPENSACAD by Roie Black gives detailed tuition on the OpenSCAD computer aided design tool. Unlike regular CAD tools, this one is described by program-like commands and allows the use of variables instead of fixed numerical values. He shows how to set up the design of a Pennyplane to draw templates for wing outline, etc, to estimate weights and design a transport box for the models. OpenSCAD is often used to produce designs for items printed on 3D printers, but Roei notes that it is not yet feasible to 3D print a competition ready indoor model.

For TIP LAUNCH GLIDER DYNAMICS, the nominal authors Ken Bauer, Kurt Krempetz, and Paul Love are aided by Mark Benns contributing a history of his developments of TLG with his 10 key criteria. Before 2005 a few people had tried tip launch gliders but Mark Benns visit to Moscow Idaho in that year demonstrated the potential by setting a record score indoor and also showing an outdoor model, both models with Y-tail. The following year Bruce Kimball won the US Nationals at Muncie with Mark's Spin-Up design. Every year since then the Nats has been won by a TLG and quite often, but not always, the Indoor Nats since 2008 have been won by a TLG. The authors review the forces acting on a TLG during launch and investigate the effect of tail configuration. The article concludes with a review of why discus launch RC models (DLG) climb higher than free flight TLGs. It is concluded that the DLG can be made larger (up to the 1.5m span limit) because with RC they can be controlled during the climb and also made to turn tighter in the glide, in contrast to large FF models having a wider turn.

F1A FLAPPER MECHANICS by Lauri Malila is actually mis-titled in the article as F1B flapper. Lauri describes the mechanism of his flap operation system, showing the machined components and related equipment.

In INDOOR SCALE TECHNIQUES George Bredehoft describes transitioning from being an outdoor scale flyer to flying indoors.

COVERING MATERIALS STRENGTHS AND TESTS is an extensive survey of the properties of 37 covering materials by Mike Kirda. One of his tests was for torsional strength of a balsa fuselage covered with the material, but he notes the significant variations of the nominally the same basic fuselages. When the coverings were ranked in terms of the torsional stiffness against weight of the material, silkspan and some tissues were at the top of the list. By contrast puncture and penetration of the coverings by dropping a mass on to them showed the heavy synthetic coverings performed best, e.g. Oracover and Icarex, but these results were absolute rather than assessed against the density of the material.

LAMINATED PROPELLER PROCESS. Having recently been building vintage Wakefields, Dean Hart describes his technique for making propellers. This includes making a mould from an X-shaped array of strips and laminating the blades from a piece of 1/32" basswood and 3 layers of 1/32" balsa.

In THE K PROP Yoshinobu Imai describes an alternative prop construction with a balsa blade covered with glass fibre on both sides and clamped to a cone.

TINY TIMERS by Bernard Guest and Liav Herskovitz describes a small electronic timer for E36 which Bernard has manufactured to a design originally produced and then developed by Liav in Israel. One version is a lightweight band-burner timer and the other has full facilities for E36. A new timer is promised for catapult gliders.

F1C AUTO/SONIC TIMER: Gil Morris describes a system for transmitting information from a power model to a timing station that automatically records the motor run. A timekeeper starts two linked stop watches simultaneously and the flight is timed on one stopwatch which he stops at the end of the flight while the other stopwatch is stopped by the motor stop indication sent from a sensor on the model. An element of this could handle motor runs to link into some future automatic timing system.

SCIENCE OLYMPIAD PARTNERSHIP by - Chuck Andrake, Brian Turnbull, Andrew Welter, Anjulie Sorbello, Josiah Rose, Monet Ramacciotti and Rachel Lee. This is an account of the link between NFFS and the American Science Olympiad programme in schools. The array of authors includes some of the SO participants and they include USA F1D Junior team members.

MODELS OF THE YEAR. Mike Fedor chaired the selection committee which has nominated the following which are each described in this section:

F1A	Yuri Grushkovsky	Long and Short LDA Flappers
F1C	Artem and Sasho Babenko	Predator
Scale Rubber		Aichi B7A2 Ryusui
NFFS articles on electrics		Harry Grogan
P-18 Indoor		Jerry Murphy
GTS G-20 E20		Sevak Malkhasyan

2021 HALL OF FAME. Faust Parker was chair of the committee which nominated:

Bill Booth – F1B flyer and known to all as the organizer of the Bob White Max Men international

Bill and Betty Bell – glider flyers and junior mentors

Blake Jensen - F1B flyer and USA team manger on many occasions

Bob Mattes - power flyer

Bruce Hannah - power and rubber flyer and supporter of vintage power and Wakefield

Leroy Cox - Started to make engines in 1949 and continued to produce acclaimed engines until he retired in 1969. He died in 1981.

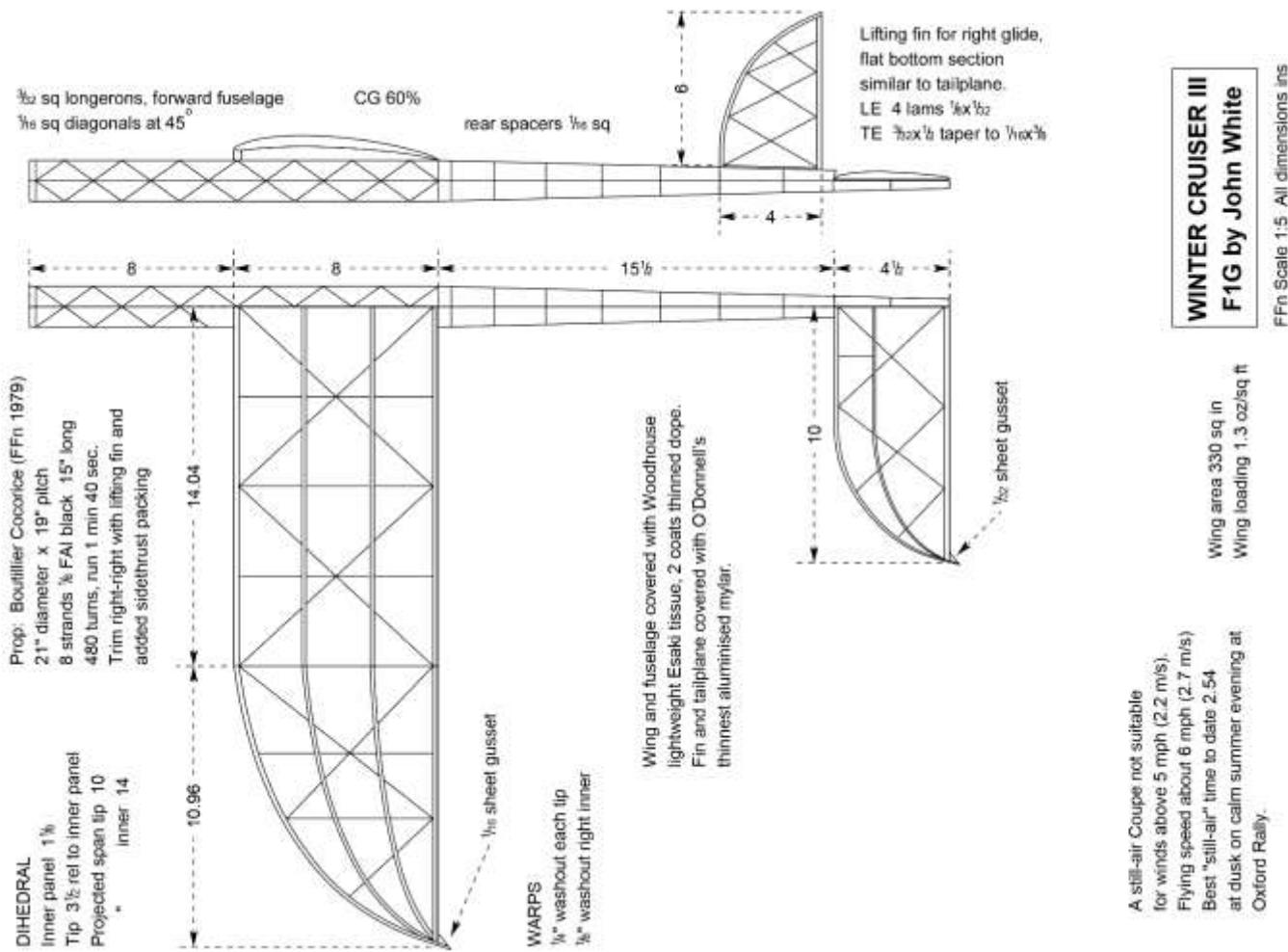
The report concludes with the President's report by David Lindley and the details of the authors and contributors.

Buying the Report from FFn

The 2021 Symposium Report is available from FFn for £36.00 including postage within UK, £43.50 with postage to the rest of Europe, or £48.00 with postage to any other countries. Orders and Paypal payments may be made at <http://www.freeflightnews.org.uk/ffnbuy.htm> Note that for countries outside Europe it is likely to be cheaper for you to purchase the report directly from NFFS.

JOHN WHITE

I regret to report that John White died in early October. Our condolences to his family. John was a Croydon member for 35 years, the last half of that time being across the water on the Isle of Wight. He characteristically had slow climbing long run rubber models as exemplified by Winter Cruiser here.



PRISTA CUP, VALCHITRAN, BULGARIA, SEPTEMBER 10-11

F1A 16 flew

1	I Szabo	HUN	960	+360
2	M Mandichev	BUL	960	+320
3	I Keskin	TUR	960	+256
4	V Hasardzhiev (J)	BUL	903	

F1A-Junior 5 flew

1	V Hasardzhiev	BUL	903	
2	L Szabo	HUN	844	

F1B 9 flew

1	I Yurtseven	TUR	960	
2	G Petrov	BUL	888	
3	O Askin	TUR	777	

F1B-Junior 3 flew

1	N Tsankova	BUL	283	
2	P Petkov	BUL	222	

F1C 3 flew

1	S Dobrev	BUL	960	
2	D Kornazov	BUL	50	

F1PJ 1 flew

1	M Karamalakov	BUL	182	
---	---------------	-----	-----	--

BULGARIA CUP, VALCHITRAN, BULGARIA, SEPTEMBER 11-12

F1A 15 flew 6 full scores

1	T Bonchev	BUL	960	+312
2	C Kargin	TUR	960	+295
3	C Nagy	HUN	960	+227
4	I Keskin	TUR	960	+210

F1A-Junior 5 flew

1	L Szabo	HUN	902	
2	D Peykov	BUL	857	

F1B 8 flew

1	I Yurtseven	TUR	960	
2	M Gurer	TUR	888	
3	I Ivanov	BUL	814	

F1B-Junior 3 flew

1	K Hristov	BUL	230	
2	N Tsankova	BUL	120	

F1C 3 flew

1	S Dobrev	BUL	898	
2	P Genchev	BUL	600	

F1PJ 1 flew

1	M Karamalakov	BUL	92	
---	---------------	-----	----	--

VIKTOR STAMOV CUP, UKRAINE, SEPTEMBER 16-17

CHEMIGIV,

F1A 7 flew

1	I Vivchar	UKR	960	
2	F Kusaiev	UKR	903	
3	A Sadovyak (J)	UKR	831	

F1B 6 flew

1	E Gorban	UKR	960	+147
2	O Ihschenko	UKR	960	+146
3	V Starostenko	UKR	910	+106

F1C 5 flew

1	V Zosymentko	UKR	960	+480
2	V Pecherytsya	UKR	960	+416
3	V Sychov	SLO	960	+390

ALMATY CUP OF KAZAKHSTAN, SAMARA, RUSSIA, SEPT 17-19

F1A 7 flew 3 full scores

1	I Butsnevich	RUS	600	+431
2	E Dremov	RUS	600	+219
3	O Diadechko	RUS	600	+79

F1B 7 flew 4 full scores

1	T Useynov	RUS	600	+492
2	A Filippov	RUS	600	+375
3	O Fedorov	RUS	600	+349

F1C 5 flew 3 full scores

1	N Rekhin	RUS	600	+485
2	O Kudryashov	RUS	600	+431

HOGO CUP, ZABOKREKY NAD NITROU, SLOVAKIA, SEPTEMBER 25

F1A 33 flew 11 full scores

1	M Mandichev	BUL	1020	+444
2	I Bezak	SVK	1020	+432
3	R Holzleitner	AUT	1020	+418
4	B Bagari	SLO	1020	+407
5	V Rossler	CZE	1020	+391
6	J Vosejpkja	CZE	1020	+384
7	A Krawiec	POL	1020	+296
8	T Hribar	SLO	1020	+303
9	D Jermol	CRO	1020	+354
10	S Bauer	HUN	985	
11	M Tomljanovic	CRO	985	

F1B 10 flew

1	V Tomljanovic	CRO	1020	+354
2	I Treger	SVK	1020	+337
3	T Hribar	SLO	1020	+303
4	A Krawiec	POL	1020	+296
5	B Silz	GER	997	
6	D Andrist	SUI	957	
7	A Andrist	SUI	937	
8	F Moreau	FRA	935	
9	B Pouzet	FRA	925	
10	C Ragot	FRA	892	

VOL LIBRE RHONE-ALPES / 16TH PHILIPPE LEPAGE, ARZAY, FRANCE, SEPT 25-26

F1A 21 flew

1	E Ragot	FRA	960	+400
2	B Trachez	FRA	960	+311
3	F Aberlenc	FRA	960	+291
4	D Echivard	FRA	960	+138
5	D Andrist	SUI	957	
6	A Andrist	SUI	937	
7	F Moreau	FRA	935	
8	B Pouzet	FRA	925	
9	C Ragot	FRA	892	
10	O Thevenon	FRA	813	

F1B 24 flew

1	M Rigault	FRA	930	+222
2	D Barberis	FRA	930	+205
3	R Nouvian	FRA	930	+186
4	S Tedeschi	FRA	918	
5	B Jacquemin	FRA	900	
6	R Nicosia	ITA	879	

F1B-Junior 6 flew

1	L Morandini	FRA	867	
2	E Rigault	FRA	865	
3	L Jacquemin	FRA	864	

F1Q 5 flew

1	F Gradi	ITA	930	
2	A Banci	ITA	897	
3	C Fabrizio	ITA	640	

ZABOKREKY CUP, ZABOKREKY NAD NITROU, SLOVAKIA, SEPT 26

F1A 29 flew 9 full scores

1	V Rossler	CZE	1020	+360	+600
2	K Huber	SWE	1020	+360	+422
3	D Fric	CZE	1020	+360	+420
4	J Vosejpk	CZE	1020	+360	+392
5	M Sliwinski	POL	1020	+360	+386
6	R Lesko	CRO	1020	+360	+323
7	P Klobusicky (J)	SVK	1020	+360	+209
8	M Hudcovic	SVK	1020	+297	

F1A-Junior 5 flew

1	P Klobusicky	SVK	1020	+360	+209
2	A Mikolasek	SVK	953		

F1B 8 flew 4 full scores

1	B Silz	GER	1020	+475	
2	V Tomljanovic	CRO	1020	+442	
3	A Krawiec	POL	1020	+307	
4	T Hribar	SLO	1020		

F1C 3 flew 3 full scores

1	D Jermol	CRO	1020	+584	
2	S Bauer	HUN	1020	+298	

ANATOLIAN FREE FLIGHT CUP, GOLBASI, TURKEY, OCTOBER 8-10

F1A 7 flew 3 full scores

1	Y Grushkovskiy	UKR	1320	+304	
2	H Olgun	TUR	1320	+265	
3	O Gurer	TUR	1320	+93	

F1B 6 flew

1	I Yurtseven	TUR	1320	+255	
2	N Bitik	TUR	1320	+210	
3	O Askin	TUR	1175		

KARTEL CUP, PIETER DE BOER MEMORIAL, KIETRZ, POLAND, OCT 9

F1A 49 flew

1	A Van Wallene	NED	840	+300	41m
2	M Snukiskis	LTU	840	+300	40m
3	K Huber	SWE	840	+300	35m +120 86m
4	J Jeziorny	POL	840	+300	35m +120 28m
5	M Sliwinski	POL	840	+300	29m
6	R Holzleitner	AUT	840	+300	28m
7	V Bezchasyny	UKR	840	+300	12m
8	T Jeziorny (J)	POL	840	+300	1m
9	A Pesic	SRB	840	+300	
10	J Jaraczewski	POL	840	+300	-2m
11	A Kirsteins	LAT	840	+294	
12	P Klobusicky (J)	SVK	840	+285	
13	D Fric	CZE	840	+267	
14	V Rossler	CZE	840	+247	
15	T Weimer	GER	840	+244	
16	F Kusaiev	UKR	833		

F1A-Junior 6 flew

1	T Jeziorny	POL	840	+300	1m
2	P Klobusicky	SVK	840	+285	
3	A Mikolasek	SVK	786		

F1B 18 flew 11 full scores

1	S Skibicki	POL	840	+300	40m
2	M Seifert	GER	840	+300	33m
3	F Jackel (J)	GER	840	+300	16m
4	D Cimochowski	POL	840	+300	7m
5	L Dag Edvard	NOR	840	+300	
5	S Stefanchuk	UKR	840	+300	
7	P Pietrzak	GBR	840	+286	

F1B-Junior 4 flew 3 full scores

1	F Jackel	GER	840	+300	16m
2	L Horak	GER	840	+114	

F1C 6 flew

1	M Gasiorowski	POL	840	+120	41m
2	E Burek	POL	840	+120	39m
3	M Roman	POL	806		

F1Q 14 flew

1	F Badylak	POL	840	+120	41m
2	A Lindner	GER	840	+120	39m
3	S Bolko	POL	840	+96	
4	I Varadine Fodor	HUN	824		
5	A Pogonowski	POL	797		
6	F Jedrysiak (J)	POL	711		
7	M Varadi	HUN	701		

F1Q-Junior 5 flew

1	F Jedrysiak	POL	711		
2	K Pogonowski	POL	594		

SPZG CUP, ANTOON VAN ELDIK MEMORIAL, KIETRZ, POLAND, OCT 10

F1A 52 flew 22 full scores

1	P Findahl	SWE	1020	+405	
2	J Valo	FIN	1020	+379	
3	J Jeziorny	POL	1020	+365	
4	K Huber	SWE	1020	+347	
5	R Holzleitner	AUT	1020	+324	
5	J Vosejpk	CZE	1020	+324	
7	D Fric	CZE	1020	+301	
8	T Drozdzinski	POL	1020	+299	
9	M Sly	POL	1020	+287	
10	M Snukiskis	LTU	1020	+283	
11	B Gablas	CZE	1020	+267	
12	D Stezalski	POL	1020	+265	
12	M Pitlanic	SVK	1020	+265	
14	P Wielosz-Halasa	POL	1020	+264	
15	T Weimer	GER	1020	+258	
16	R Wagner	POL	1020	+248	

F1A-Junior 6 flew

1	P Klobusicky	SVK	1000		
2	T Jeziorny	POL	967		
3	M Golubowski	POL	914		

F1B 17 flew 9 full scores

1	O Starov	UKR	1020	+480	
2	S Stefanchuk	UKR	1020	+467	
3	P Pietrzak	GBR	1020	+462	
4	S Skibicki	POL	1020	+432	
5	V Kochanczyk	ESP	1020	+399	
6	A Krawiec	POL	1020	+398	

F1B-Junior 3 flew

1	F Jackel	GER	970		
2	F Rudzinski	POL	913		

F1C 4 flew

1	R Marek	POL	1020		
2	N Manfred	GER	953		

F1Q 15 flew

1	M Varadi	HUN	1020	+414	
2	A Lindner	GER	1020	+387	
3	S Bolko	POL	1020	+224	
4	M Pazdzior	POL	1020	+205	
5	I Varadine Fodor	HUN	994		
6	M Tietz	GER	971		

F1Q-Junior 5 flew

1	K Pogonowski	POL	969		
2	F Jedrysiak	POL	823		

15TH TROFEO CITTA DI CAPANNORI, CAPANNORI, ITALY, OCT 9-10

F1A 8 flew

1	A Gaberscek	SLO	565
2	F Vassallo	ITA	457
3	P Ghiselli	ITA	436
4	V Brussolo	ITA	416

F1B 13 flew

1	S Tedeski	FRA	870
1	M Morandini (J)	FRA	870
1	J Bodin	FRA	870
1	M Kusterle	ITA	870
5	W Morandini	FRA	860

F1B-Junior 2 flew 1 full score

1	M Morandini	FRA	870
---	-------------	-----	-----

F1C 5 flew 2 full scores

1	J Roots	EST	450	+11
2	F Gradi	ITA	450	

F1Q 4 flew

1	F Gradi	ITA	870
2	F Ceccarini	ITA	857

KOTUKU WORLD CUP OF NZ, LOST HILLS, USA, OCTOBER 8-10

F1A 12 flew

1	J Farmer	USA	1320	+300	+330
2	M Mckeever	USA	1320	+300	+326
3	E Pecenkovic	USA	1320	+300	+292
4	J Danier	CAN	1320	+156	
5	J Parker	USA	1315		
6	B Van Nest	USA	1180		

F1B 16 flew 12 full scores

1	S Malhkasan	USA	1320	+300	+430
2	B Jensen	USA	1320	+300	+412
3	A Andriukov	USA	1320	+300	+406
4	W Ghio	USA	1320	+300	+381
5	M Davis	USA	1320	+300	+378
6	C Jones	USA	1320	+300	+371

F1C 2 flew

1	Ron McBurnett	USA	1080
---	---------------	-----	------

F1Q 4 flew 4 full scores

1	B Tarcher	USA	1320	+300	+480
2	T Ioerger	USA	1320	+300	+452

SIERRA CUP, LOST HILLS, USA, OCT 9-11

F1A 16 flew

1	J Danier	CAN	1320	+300	+420	+430
2	J Parker	USA	1320	+300	+420	+418
3	A Barron	USA	1320	+300	+420	+299
4	N Goldstein (J)	USA	1320	+300	+420	
5	P Brocks	USA	1287			
6	R Puhakka	USA	1286			

F1A-Junior 2 flew 1 full scores

1	N Goldstein	USA	1320	+300	+420
---	-------------	-----	------	------	------

F1B 18 flew 12 full scores

1	S Malkhasyan	USA	1320	+300	+420	+450
2	J Fitch	USA	1320	+300	+420	+413
3	A Andriukov	USA	1320	+300	+420	+403
4	W Ghio	USA	1320	+300	+420	+390
5	E Gorban	UKR	1320	+300	+420	+332
6	B Booth	USA	1320	+300	+390	

F1B-Junior 1 flew

1	I Kohavi	USA	1271
---	----------	-----	------

F1C 6 flew

1	D Chesson	USA	1320
2	R McBurnett	USA	1311
3	F Parker	USA	1212

F1Q 5 flew 3 full scores

1	J Parker	USA	1320	+285
2	R Sifleet	USA	1320	+195

RANA, CZECH REPUBLIC, OCTOBER 9-10

By Ian Kaynes

This was my first international contest since Lost Hills in February 2020. Plenty of things had changed for travel arrangements and papers, but it all went remarkably smoothly. Arrival at Prague airport has often been congested and has taken 20 minutes just to get through passport control. This time the airport was very quiet and covid papers and passport were checked quickly and without any queue. Even arriving back at Heathrow, where I was expecting immigration delays, was just a matter of walking up to the passport e-gates and wait in line behind one other person, in fact I had to hurry to get my passport out.

There was superb autumn weather at Rana. The first day started in flat calm and a 180 second max, a gentle breeze on to the slope lead to a 240 second max for rounds 2 to 4 and the wind increased up to 5 or 6 m/sec briefly during the afternoon. It had reduced again for the final round and with a potential flyoff of 4 people the max was increased to 300 seconds max for the final round. That was my undoing – having maxed the first 4 flights, I deduced that the wind had turned slightly and adjusted my steering accordingly but that proved unnecessary. The model flew along the ridge to the right and I was not concerned, I have often maxed close to the ridge and even when being blown over the high hill behind. However, this time the wind over the big hill was not strong enough to provide lift to take the model above the hill and after 3 and a half minutes it landed amongst the trees close to the top of the hill. This exactly repeated my performance at a recent BMFA contest with the same model – maxes until the last flight then steering too far right on the last flight, but in the UK it had been two 120s maxes, not four longer maxes.

This gave a further retrieval problem. The earlier rounds had not been easy going, with the usual flight going over an uncultivated strip with about 150m of high thistles followed by a very large field of brown sunflowers. These were typically 6 ft tall and most had stalks the size and strength of broom handles. There was a track that went part of the way up the hill but still left 300m to get to the model near the top of the hill. The first part of this was through dense thorn bush undergrowth which slowly thinned when approaching the higher trees. When the GPS indicated I was getting close to the model I was looking at the tops of the 20m trees but couldn't see anything. But I kept getting nearer to the model and the distance did not reach a minimum but kept getting smaller and when it was down to 6m I finally saw the model under the trees in a small thorn bush and within reach. Lucky!



Vacalav Levy launching to win the Saturday flyoff

The next day had a gentle breeze all day and the max each round followed the same values as Saturday. This time I dropped time on my fourth flight. I must admit that I dropped more time on the final round – inexplicably I had failed to register that the max was 300 seconds although clearly displayed on the scoreboard – must have been exhaustion after the strenuous retrievals over the two days – and DTed at 240 from a height which took 14 seconds to come down on DT and thus could have had a good chance of making the full max.



Jean-Luc Drapeau launching in the Saturday flyoff. Jean-Luc appeared to disregard comments that his rear boom was twisted to give considerable tail tilt. Perhaps that had something to do coming last in the flyoff, but at least it gave enough points to win the F1E World Cup.

Rana 1 October 9 F1E 15 flew

1	V Levy	CZE	500.00	+255
2	M Vysoka	CZE	500.00	+125
3	J Drapeau	FRA	500.00	+103
4	V Zima	CZE	492.08	
5	J Orel	CZE	487.92	
6	P Prochazka	CZE	483.75	

F1E-Junior 1 flew

1	V Kamenicky	CZE	357.36
---	-------------	-----	--------

Rana 2 October 10 F1E 13 flew

1	J Blazek	CZE	500.00	+141
2	O Vysoky	CZE	500.00	+77
3	I Treger	SVK	495.83	
4	J Drapeau	FRA	469.16	
5	V Zima	CZE	462.00	
6	I Kaynes	GBR	453.92	

F1E-Junior 1 flew

1	N Jurocko	CZE	303.42
---	-----------	-----	--------

BULGARIA CUP F1E, ALEKOVO, BULGARIA, SEPTEMBER 18-19

F1E 12 flew

1	P Eleonora	BUL	352.97
2	D Petcu	ROU	347.87
3	V Hristov	BUL	330.48

F1E-Junior 3 flew

1	V Hasardzhiev	BUL	258.84
---	---------------	-----	--------

PRISTA CUP F1E, ALEKOVO, BULGARIA, SEPTEMBER 17-18

F1E 12 flew

1	V Minev	BUL	241.67
2	D Petcu	ROU	175.96
3	E Pavlova	BUL	170.73

F1E-Junior 3 flew

1	V Hasardzhiev	BUL	39.18
---	---------------	-----	-------

11TH VOLARE LESSINI, MONTI LESSINI, ITALY, OCTOBER 3

F1E 11 flew

1	J Drapeau	FRA	500.00	+138
2	A Trachez	FRA	500.00	+91
3	M Tomazzoni	ITA	473.75	
4	R Lucchini	ITA	472.92	
5	G Berto	ITA	472.91	
6	S Trachez	FRA	444.58	

F1E-Junior 1 flew

1	E Polin	ITA	352.91
---	---------	-----	--------

SIERRA CUP, LOST HILLS, USA, OCTOBER 11

F1E 7 flew

1	E Gorban	UKR	500.00
2	T Ioeger	USA	456.00
3	P Brocks	USA	454.67
4	B Sifleet	USA	435.34

MAX MEN CALIFORNIA CUP, LOST HILLS, USA, OCTOBER 5

F1E 10 flew

1	B Sifleet	USA	550.27
2	D Parsons	USA	547.50
3	F Terzian	USA	530.77
4	P Brocks	USA	487.43
5	T Ioeger	USA	479.85

KOTUKU WORLD CUP OF NZ, LOST HILLS, USA, OCTOBER 12

F1E 8 flew

1	F Terzian	USA	486.70
2	E Gorban	UKR	486.11
3	T Ioeger	USA	414.98
4	P Brocks	USA	410.72

COUPE EUROPA, SALISBURY PLAIN, OCTOBER 9

Report by Ray Elliott

The weather forecast had been looking good for some days and fortunately this carried through to the day of the contest. We were blessed with almost perfect weather; light winds, sunshine and pleasantly warm. Another plus point was that the wind was generally from the east so we were able to fly from the trimming area. Given the superb weather and the easing of Covid restrictions turnout was a little disappointing with some notable absentees. A sign of the times I suppose.

Flying commenced at 10am with F1G to 5 flights in rounds and Vintage to 3 flights not in rounds. F1G attracted a total of 11 entries with 5 in Vintage. In the 1st round of F1G there were 9 maxes with Roy Vaughn dropping 4 seconds and Ben Hobbs scoring 1.37. The 2nd round saw 8 maxes with Martin Stagg and Richard Fryer each dropping 4 seconds whilst Jim Paton had a flight of 1.22. The 3rd round saw 7 maxes with Gavin Manion,

Jim Paton, Ben Hobbs and Don Thomson dropping flights. This was most unfortunate in Don's case as his model was involved in a mid-air collision with Alan Brocklehurst's, both models coming down locked together. Don's model had a broken wing and other damage and he elected to take the time of the flight. Alan's model was also damaged but not as severely and he decided on a re flight using another model. Round 4 resulted in 9 maxes with only Gavin and Ben failing to max. The last round saw 7 maxes which meant that 3 maxed out (messrs Brocklehurst, Chapman and Hall). The fly off took place at 4:20 with 2 taking part as Peter Hall had to leave. The winner was Chris Chapman who found a nice patch of air for a time of 3.38 whilst Alan did 2.32.

Vintage was won by Chris Redrup with a score of 5.35 (making some compensation for dropping 5 seconds in F1G). There was a fly off for second place as Gavin Manion and Brian Silcock had tied with 5.09, Gavin coming out on top with a time of 1.53 with Brian scoring 1.45. Richard Fryer was 4th with 5.06.

The Flitehook Trophy for F1G teams had 5 teams participating; the winners were Bristol and West A (messrs Chapman and Brocklehurst).

Cash prizes and bottles of wine were awarded to the top 3 in each event.

Many thanks to Roger Newman for his kind assistance.

The Croydon Club would like to thank the London Area of the BMFA for their support for this event.

F1G

1	C Chapman	10.00	+3.38
2	A Brocklehurst	10.00	+2.32
3	P Hall	10.00	
4	R Fryer	9.56	
4	M Stagg	9.56	
6	C Redrup	9.55	
7	R Vaughn	9.34	
8	G Manion	9.14	
9	J Paton	8.59	
10	D Thomson	8.20	
11	B Hobbs	6.15	

Vintage

1	C Redrup	5.35	Etienne
2	G Manion	5.09	Bagatelle
3	B Silcock	5.09	Fuit
4	R Fryer	5.06	Etienne
5	R Elliott	1.19	Etienne

SOUTHERN COUPE LEAGUE

Final Round: Coupe Europa, Salisbury Plain, October 9

The first event, La Grande Coupe de Birmingham, was a Covid victim and the league finally began with the London Gala on May 30th. My records since 2005 show a relentless deterioration in the weather but this year was exceptional with good or fair flying conditions at all seven events. Alan Brocklehurst tops the league and takes the S.C.L. cup with a dazzling record - four first places, two seconds and one sixth. Gavin Manion canters in second and Richard Fryer follows closely. Participation average is eight per event which shows coupe competition flying to be holding up very well compared to other classes in the context of free-flight decimation.

Those who sat at home on October 9th will grieve their loss when they read the Coupe Europa stories. A day to remember, even my cheese and pickle sandwich was above par. Bristol and West rode home in triumph taking first, second and joint fourth places (Chris Chapman, Alan Brocklehurst, Martin Stagg) and

the team prize. As before I asked the eleven competitors to send me a brief (100 word) account of their day -

Chris Chapman, first place with a fly-off time of 3.34 reports with a concise 100 words.

Thanks are due to Ray Elliot and his Croydon colleagues, and to my wife Marion for her help in retrieving.

We were blessed with perfect flying conditions.

My luck held especially on one flight where the model struggled to reach 50 ft or so when the prop folded. However, there was then a twitch and the model found some gentle lift to max.

The good fly-off gave me a real boost to my enthusiasm for next year.

All my Coupes have conventional balsa and tissue construction and are flown to climb to the right and glide to the left.

Alan Brocklehurst, second place with a fly-off time of 2.32v asked me to edit this but I'm not going to spoil the fun.

The weather was ideal and as the early morning mist started to clear, the Bristol and West contingent all scored maxes, as did many others. My second flight was a nice high flight which took about a minute to descend on D/T. Fellow team member Chris Chapman also maxed, while clubmate Martin Stagg dropped just 4 secs. Lovely to see the models climbing well and gliding so nicely in the warm autumn air. My third flight was another max, landing not far away. Things were going well! However, in the fourth round, I struggled a bit as I broke 2 motors in succession before I wound for a third time and got away in good air for another max. Phew! Chris and Martin also maxed. So far, so good!

On my fifth flight, I launched into some nice lift and the model climbed well. Others had also launched at the same time and as the models glided around above us, some of their paths crossed at times, initially with good altitude spacing...but, then my model, C-03, and Don Thompson's Coupe decided to try and fly in exactly the same bit of air! As they collided, the models spun round each other and locked together, and... rather like a falcon with its prey, both models descended steeply to the ground; though which was predator and which was prey was impossible to say. Unfortunately, Don's model suffered a broken wing, while mine had only minor damage to the leading edge of one wing and a slight bend to the wire arms of the prop. Both would probably have maxed, but this was declared a non-scoring attempt, so we had to fly again! I reverted to flying C-02, wound on 400, and was lucky to max with the D/T going a little early when the model wasn't all that high. Martin clocked it at 2:00.73! The results show that Don was less fortunate on his re-fly. Chris and Martin also maxed again in the nice conditions.

Since Peter (Hall) had to leave early, this left Chris and myself to compete in the fly-off. Chris launched right at the start of the fly-off period and caught the better air, drifted over the valley and was clocked off at 3:38. I followed a minute or two later, also over the horizon at the edge of the valley for a lower time of 2:32 in the now north-easterly drift. I eventually found it amongst the stalks of vegetation about 50 yards in and 50 yards to the right of where I thought it should have been, but Chris wasn't so lucky and his model is still out there somewhere.

Nice to end the season in good fashion, be part of the winning team and also be presented with the trophy for the Southern Coupe League. Many thanks to the Croydon club for running this event. Let's hope next year's event will have similar weather.

Peter Hall, third place, writes -

My v.i.t. time is 2.5 seconds, I accidentally set 10 on one flight resulting in a graceful but nail-biting bunt. My coupe 19 (2014)

seems always to get out of trouble - it found good air and maxed. The rest were nice pattern maxes and easy to retrieve. Covid seems to have affected our rubber - I've not heard so many pops and expletives. I've stopped using my thermistor and find this sharpens the senses. Gavin's streamer was helpfully talkative though. After a day like this let's celebrate the coupe formula - what could be more elegant, challenging, green and economical?

Martin Stagg, equal fourth, says -

'I was looking forward to the Coupe Europa. The weather forecast was good and there promised to be a good entry. Managed to get to the site early for once. The thick fog on the way was slightly concerning but when we got there visibility was reasonable. John Hook very kindly made space for me to squeeze in next to Alan Brocklehurst and we were joined shortly by Chris and Marion Chapman. Looked like the B & W dream team (Alan and Chris, not me!)

Although I hate flying in rounds the benign weather meant it was no real hardship. Set up, got everything ready, checked my DT timer. It deployed early. Did it again with an extra couple of clicks. 1:58, near enough with an extra click. Timed Alan for an immaculate max (what else) which went no distance. I then wound up for my first flight, added the extra click and launched. Decent climb (Not as good as Alans) but on for an easy max when it DT'd early. Shock Horror! it was down 4 secs early. Much blaspheming! From then on I put on an extra 1/4 of turn on the timer and made 4 easy maxes to end up with a total of 9;56 for equal 4th place.

Alan and Chris both maxed out, making it look easy except for a remarkable incident on Alan's 5th flight a dramatic mid-air collision. (see Alan's report above) I, and most others had never seen anything like that before. Meanwhile, others had been dropping the odd few seconds here and there, leaving Alan, Chris and Peter Hall as the only 'full houses'.

In the fly off Chris got away on the hooter and found good air. Alan delayed a little and missed it, giving Chris the win. It is good to see him flying so well again. This also meant a convincing win for B & W in the team event.

Also it meant that Alan won the Southern Coupe league again. Well done Alan.

All told a very enjoyable contest. If only the weather was always like that!'

Richard Fryer, equal fourth, reports -

The weather was really quite good for the competition, after a cloudy start there was occasional sunshine and variable winds that were never more than a gentle breeze. There was a good attendance and I counted over 20 cars. Everyone was expecting a mass fly off in modern Coupe but in fact a lot of flyers dropped flights, lift was not always easy to pick and I believe only 3 were in the flyoff? (2 - sub. ed.) from a field of quality flyers. Vintage coupe suffered the same fate with dropped flights throughout the day. I dropped my second flight in modern coupe, when seemingly fairly high on the climb the model flew out of lift, sank quickly and dropped over 20 seconds!. Despite not having an amazing day as regards results, it was still a very enjoyable day's flying.

Chris Redrup in sixth place writes -

Having not flown a coupe for some time, I met Jim Paton in the mist early on Friday at Port Meadow, to sort out two FIG models. However, problems with the prop units on both models and a broken dt line on one meant nothing was achieved so we adjourned early to the café in Whitham for bacon rolls and coffee.

Arriving early at SP next day, a couple of trim flights with my ex Dave Greaves model were encouraging and the first four rounds proved no problem, with the model's descent being sufficiently slowed by gently rising air. Despite a decent climb in the last round, it became clear on the glide that 2 minutes was going to be a challenge and a couple of stalls at the end of the flight sealed it's fate, resulting in a 1.55. To add insult to injury, two others beat me by 1 sec and knocked me down to sixth position.

In between rounds I flew my ever trusty Michel de Etienvre in vintage coupe and despite dropping the first flight, two following maxes were good enough for a win.

An excellent day with hardly any wind, gentle lift (if you could find it), sunshine and short retrieves.

Roy Vaughn, in seventh place reports -

Since the weather was calm I decided to give my new "long" model (AR 17:1) its first competition airing. The air was helpful and it reached a good height, no problem maxing I thought. Less than a minute later it was on the ground, victim to a prop fold on the wing and a slight stall. Switching to a previous generation model, the next three flights were uneventful, though the air was deceptive at times. On the last flight the air went calm and hot. I made the rookie error of launching into it, it being sink of course. The first time I did this was a Church Fenton about 20 years ago, I swore never to do it again and stuck to my promise until Sunday.

Gavin Manion in eighth place tells us -

"Everyone else will have said just how beautiful the weather was, so we'll take that as read.

Because Alan B was completely out of reach in the league I left the "same old" coupes at home and packed the Coupe-in-a-Box so I would have to fly it. It's early days and it clearly still has some trim issues but the novel (to me) two-piece fuselage is giving no cause for concern and I've yet to break the two piece wing in half so I think the structural changes I made will be repeated in the future. Less than perfect trim plus one really bad choice of air meant two drops on a day when any mistake was very costly. The SCL will have to wait 'til next year...

Plan B was to win Vintage Coupe and, after two lovely maxes with the Bagatelle, it was beginning to feel like it was my day. The third flight bought me back to reality but did bring the bonus of a fly-off for the two minor places. I was fortunate to make second place despite realising, too late, that I'd still got one of the notorious "left-handed" Gray hooks in circulation and threatening to squirm off the back of the prop loop. The offending Gray hook is now in the bin!

Thanks to the organisers and my fellow fliers for making such an enjoyable day."

Jim Paton, in ninth place, can't get his mystical out- of - body experience, he writes -

My first flight in FIG was a max. I was persisting with Robin Kimber's model. There are some problems with it. I hope he doesn't mind my mentioning them. To fit in my stooge it needs the wing removed. The rear peg is too big a diameter for the pisserchio hook for out of body winding. Also the Montreal stop either won't unlock on full turns or worse won't lock while I need to fiddle with the rest of the model. Also the centre of gravity is close to the rear peg which makes it very sensitive to the weight of the rubber. It's trimmed rubber dry weight of 9.8g. No more, no less. Anyway the first flight didn't get very high, but it caught some good air and hung on for a max. I think the prop is too big diameter. The second it got higher but was well short of a max. Similarly the third which got into the air a couple of minutes before the mid day hooter. The final two flights in the afternoon were maxes because the streamers gave very positive indications of rising air in the near flat calm. I also

flew my Buckeridge in mini vintage, which is why I left my second coupe flight to the last minute before the hooter. I had no time to study the streamer or feel the warmth. Tony Shepherd kindly timed my third flight with the Buckeridge. A few extra turns was probably the cause of the aerobatics. I tried and failed at an on-site repair so I had to settle for my 6 second attempt. This gave me a bottle of wine finishing third out of four.

I forgot to mention my tail wobbling dt on my fourth F1G flight. At times it was inverted, which brought it down very fast from a considerable height. I have since rectified the problem by tethering the dt line under the tail.

The organisation and the weather were perfect and having a prize giving is the icing on the cake. Retrieves were short and I had no dt failures. A great day was enjoyed by all

Don Thomson takes tenth place but wins the 'First In with a Report' prize. -

I was flying my C20, a 6.5% aerofoil wing, something of a favourite for a long time. However, my 3rd flight was spoiled by, I think, a mispositioned noseblock, so with too much right thrust it just whizzed around at low level. On my 5th flight, the model was gliding sweetly in nice air, along with Alan Brocklehurst's model, when BANG! Midair! The 2 models locked together and fell vertically on to the hard trackway. My wing was a write-off, with less damage to Alan's. I could have taken a refight, but as I was already out of the running, decided to retire hurt. RIP C20.

Well done to Peter, Alan and Chris on maxing out. Thanks to Ray and Roger for running it without fuss.

Ben Hobbs in eleventh place had an unlucky day:-

A light breeze from the east meant an easy drive onto the plain. The coupe flew well on its last outing, some good strong rubber was sourced, so what could go wrong?. Well, the strong rubber gave about 45 turns less than previously attained, but I thought

Final Southern Coupe League 2021

			Lond	5thA	Cag	South	Nats	Crkhm	C.Eu	TOTAL
1	A Brocklehurst	Bristol & West	17	12	13	13	8	15	14	72
2	G Manion	Birmingham	10	16			7	11	7	51
3	R Fryer	Oxford	11				10	8	11	40
4	R Vaughn	Crookham	12			9	13		5	39
5	J Paton	Crookham	8		10		2	9	6	35
6	B Hobbs	Oxford	5	2	8	7	12		1	34
6	M Stagg	Bristol & West	1		6		11	6	10	34
8	P Hall					8	1	6	13	28
9	T Winter	CVA	8				16			24
10	C Chapman	Bristol & West					4		17	21
11	B Whitehead	Grantham				11				11
11	K Taylor	Crawley				11				11
13	R Marking	CVA	9							9
13	S Willis	Croydon		9						9
13	D Thomson	Croydon		5				4		9
13	C Redrup	Crookham							9	9
17	R Willes	Epsom		7						7
18	D Taylor	Grantham		4						4
19	M Marshall	Impington		3						3
20	P Ball	Grantham	2							2
20	M Benns						2			2
22	W Hodgkinson	Grantham		1						1
23	R Elliott	Croydon								0
23	C McKenzie	CVA								0
23	D May	Timperley								0
23	R Taylor	Crawley								0
23	M McHugh	Peterborough								0

the extra power would compensate. Anyway one max and 3 lacklustre flights meant some action was required, so I changed the prop, and the model went up up up in a boomer, and was not seen to come down, the binns were not deployed as this was just a short test flight - - - say no more! It's still out there somewhere.

So there you have it blow by blow. Thanks to all for reporting. Unless there is a plague of locusts or some other biblical smiting the first S.C.L. event of 2022 will be La Grande Coupe de Birmingham November 7th North Luffenham.

Coupe Europa

		maxes	score			maxes	score
1	C Chapman	5	17	7	G Manion	3	7
2	A Brocklehurst	5	14	8	J Paton	3	6
3	P Hall	5	13	9	R Vaughn	3	5
4	R,Fryer	4	11	10	D Thomson	3	4
5	M Stagg	4	10	11	B Hobbs	1	1
6	C Redrup	4	9				

NOTICEBOARD

E30/RDT Batteries

Ron Marking: I have had another delivery of 75mAh 1s lipo's which other users tell me are the best E30 batteries they have ever had. They are of course also suitable for RDT. If you send me £10 I will put 4 in a Jiffy bag and send them to you.

Ron Marking, Pros Kairon, Pennance Road, Lanner, Redruth TR16 5TF

**BMFA SUBSTITUTE NATIONALS,
SALISBURY PLAIN, SEPTEMBER 4**

The results are finally available for the Saturday events of the second weekend, but there is still no sign of the mini events flown on the following day

F1A 11 flew

1	J Carter	Grantham	750	+286
2	J Cooper	Biggles	750	+285
3	J Williams	Birmingham	750	+284
4	R Jack	MFFC	708	
5	C Parry	Biggles	701	
6	P Williams	Richmond	690	
7	P Tribe	Bristol & West	680	

A sequence of
Kathy Burford
launching her
Cobra-powered
Apache II E36

F1B 7 flew

1	P Pietrzak	C/M	750
2	B R Peers	Grantham	744
3	M Woolner	E Grinstead	742
4	M Benns	Peterborough	733
5	P Brown	Country	711

F1C 3 flew

1	S Dixon	Birmingham	750
2	A Jack	MFFC	731

F1Q 4 flew

1	P Watson	MFFC	750
2	I Keynes	Croydon	742
3	C Redrup	Crookham	737



FFN SUBSCRIPTIONS

The FFn subscription renewal form is printed overleaf. In connection with this form, the following is a list of all those readers whose subscriptions expire later than December 2021, including payments received by October 24. The expiry date is given as year (last 2 digits) + month (eg 2206 is June 2022). Subscriptions that expire during 2022 can be extended to the end of 2022 by payment of a pro-rata fraction of the rate for the full year, with the possible addition of a full year subscription to continue to the end of 2022 if you prefer. Alternatively, you may pay the standard annual subscription to cover 12 issues from your current expiry month.

If at any time you choose to change from paper to an E-subscription then please send your email address to info@freeflightnews.org.uk and then your current subscription expiry date will be extended to correspond to the lower cost of the electronic subscription.

Paper edition	Electronic edition
2406 D Dolzinski	2208 J Andrews
2212 G J Percival	2212 R Baggott
2203 N Persson	2212 P Barford
2212 K W Salzer	2204 C Bastos
2201 A C Schlosberg	2305 W Booth
2201 I Taylor	2202 C Breeman
2212 D H Thomson	2307 S Brewer
2305 O Torgersen	2303 P Brocks
2203 A Ward	2204 P Brown
2212 S White	2212 J Carter
2204 C P Williams	2303 C Chapman
2206 G Woebbeking	2308 B Cleasby
	2212 J Cooper
	2212 M Dilly
	2212 S Dixon
	2307 D E Larsen
	2302 C Etherington
	2210 R Ewing
	2209 T Fairlie
	2206 M Fantham
	2203 P Fynn
	2212 W Gerlach
	2312 W Ghio
	2505 C Gianni
	2209 D Ginns
	2410 V Greimel
	2212 P Hall
	2206 D Hambley
	2212 R Heap
	2206 B Hobbs
	2303 A Jack
	2209 T Juell
	2204 A Klemetsen
	2308 A Klungrehaug
	2212 J Korsgaard
	2204 M Kusterle
	2204 B Lumb
	2212 G Madelin
	2212 P Martin
	2212 D May
	2212 S McDonald
	2202 B McGarvey
	2208 S Milan
	2203 V Morgan
	2312 C Morton
	2303 D Oldfield
	2210 T Oxager
	2201 J Partington
	2312 T Payne
	2212 S Philpott
	2512 C Redrup
	2412 J Richardson
	2208 P Rovensky
	2309 S Rumpp
	2203 C fo
	2202 P Uden
	2212 R Vaughn
	2207 G W Smith
	2210 U Wannop
	2212 F Wilkening
	2203 A Winker
	2302 M Woodhouse
	2304 M Woolner

FREE FLIGHT NEWS SUBSCRIPTION RENEWAL FORM 2022

If you wish to renew your subscription for 2022, please complete the form below IN BLOCK CAPITALS and send it, with your remittance, to:

FREE FLIGHT NEWS
7 Ashley Road
FARNBOROUGH
Hants GU14 7EZ
England

or submit payment with Paypal at <https://www.freeflightnews.org.uk/ffnbuy.htm>

The current subscription costs for a renewal for 1 or 2 years are:

		UK	EUROPE	WORLDWIDE AIRMAIL (outside Europe)
2022	12 issues:	£21.00	£25.00	£30.00
2022+2023	24 issues:	£40.00	£47.00	£57.00

E-subscription £10.00 for 12 issues by email, £18.00 for 24 issues by email. Pay by Paypal or send form below

Payment may be made by cheque payable to FREE FLIGHT NEWS or by direct credit to the FREE FLIGHT NEWS account at Lloyds TSB bank:- IBAN: GB45 LOYD 3090 0901 781588, BIC LOYDGB21199...

All subscriptions expire with the December 2021 issue except those listed overleaf. Direct payment by \$ checks from USA can no longer be accepted.

FFn back numbers are available at the cost of 70p each or at special prices for sets of issues. The annual sets of back numbers cost £2 per year for the 12 issues of the years 1989 to 2017. Back number prices include UK or Europe post. For countries outside Europe, please add £3 per set for delivery. Back numbers for all years from 2005 are available for free download from <https://www.freeflightnews.org.uk/home.htm>

NFFS Symposium Reports are available through FFn and you may order while renewing your subscription.

Sympo	2003	2015	2016	2021
UK	£5	£5	£10	£36
Europe	£8	£8	£13	£43.50
Worldwide	£14	£14	£19	£48

Please send 12 / 24 * issues of Free Flight News **BY EMAIL** commencing with the January 2022 issue to :

EMAIL address:

OR

Please send 12 / 24 * **PAPER** issues of Free Flight News commencing with the January 2022 issue to :

NAME

.....

ADDRESS

.....

Is this a new address compared to that used for sending the 2111 FFn ?
YES / NO *

* Delete as appropriate

Please also supply back numbers or books as follows:

I enclose a / cheque / have sent a bank payment / * to the value of
payable to FREE FLIGHT NEWS.

Date