

# FREE FLIGHT news

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## FFn DIARY

May 8 <a href="#">Salisbury Plain</a>	Croydon Wakefield Day. See FFm 1603. F1B, 4oz Vint Wake, 8oz Vint Wake, Marcus Lightweight Challenge. Start 10.00, F1B in rounds. Contact: Ray Elliott, tel 0208 997 7745, <a href="mailto:ray.elliott8@btinternet.com">ray.elliott8@btinternet.com</a>	June 5 Sombor, Serbia	20th Open Backa Kup. F1A F1B F1C F1H. Contact: Andrija Sil, tel: 063/1705231, <a href="mailto:andrijasil@yahoo.com">andrijasil@yahoo.com</a> <a href="http://www.aeroklubsombor.com">www.aeroklubsombor.com</a>
May 14 (Saturday) Near Melton Mowbray	BMFA 2nd F1E (Team Selection). F1E. Contact: Ian Kaynes 01252 512538. m: 0794 185 2144	June 10-12 Blagodatoe, Kharkov, Ukraine	Free Flight Latvia Cup. F1A F1B F1C F1P F1Q. World Cup event. Contact: Sergey Molchanov, tel: +380 50 682 1806 / +380 67 57 77 270, fax: +380 57 717 40 21, email: <a href="mailto:sergey_f1b@mail.ru">sergey_f1b@mail.ru</a>
May 15 Area Venues	BMFA 4th Area. C/G, F1B (Gutteridge), C/P Team (Keil/Plugge), Vint' R/P (Plugge), Mini Vintage, E30 (Plugge). Contact: Area Comp Secs.	June 11-12 Port Meadow, Oxford	Oxford MFC Rally. See FFn 1601. June 11 Champagne flyoffs: start 18.30: F1G, F1H, HLG/Cat. June 12 start 10.00: 5 flts in rounds F1G, F1H, E30/P30/CO2 comb. 3 flts no rounds Vint+classic G, tailless R+G, Hi-start G. HLG/Cat 7 flt. No streamers on poles, thermistors, bubbles, no i/c power. All flyers must be insured. Contact A Crisp, 4 Grove St, Summertown, Oxford OX2 7JT, tel 01865 553800.
May 28-29 Aradac - Zrenjanin, Serbia	33rd Srem Cup. F1A F1B F1C F1Q. World Cup event. Contact: Martin Grubic, Kralja Petra 1, 27, Nova Pazova, Serbia, tel: 022 325 232, email: <a href="mailto:martin.grubic@yahoo.com">martin.grubic@yahoo.com</a>	June 11-12 Monti Lessini, Italy	June 11: 11th Coppa Primavera, June 12: 6th Volare Lessini. F1E World Cup events. Contact: Maurizio Tomazzoni, via Legnano 3, 10135 Torino, Italy, tel: +39 335 565 09 70, email: <a href="mailto:mautom60@gmail.com">mautom60@gmail.com</a> web: <a href="http://www.asdvoli.it">www.asdvoli.it</a>
May 28-30 Barkston Heath	BMFA National Championships. Entries must reach the BMFA Office by May 16. Contact: Mike Woodhouse, phone: 01603 457754 <a href="mailto:MichaelWoodhouse1942@gmail.com">MichaelWoodhouse1942@gmail.com</a>	June 19 North Luffenham	Brumfly. F1H, F1S (E36), comb HLG/CLG, SLOP, Mini Vint rubber, Payload P30, Comb A2 glider. See FFn 1604. Round 1 9.00-12.00, then 3 2-hour rounds. Contact Stuart Darmon <a href="mailto:stuardarmonf1a@yahoo.com">stuardarmonf1a@yahoo.com</a> 01858 882057 or Gavin Manion <a href="mailto:gavin.manion84@gmail.com">gavin.manion84@gmail.com</a> 01543 422509
June 3-5 Vize - Kirklareli, Turkey	Istanbul Free Flight Cup. F1A F1B F1C. World Cup event. Contact: Mehmet Arslan, THK Inonu Egitim Merkezi, Inonu Eskisehir, Turkey, tel: +90 222 59 12 112, fax: +90 222 59 12 114, email: <a href="mailto:arslanthk@yahoo.com">arslanthk@yahoo.com</a> <a href="http://www.turkey-ff.org">www.turkey-ff.org</a>	June 26 Area Venues	BMFA 5th Area. F1H (Plugge), F1G, F1J, E36, BMFA 1/2A Power (Plugge), CO2 (Plugge). Contact: Area Comp Secs.
June 4 Viborg, Denmark	Jutland Heath Cup. F1A F1B F1Q F1S. World Cup event. Contact: Peter Rasmussen, Skalsbyvej 4, 4735 Mern, Denmark, tel: +45 5593 9325 / +75 4016 5727, email: <a href="mailto:pr.arkitekt@gmail.com">pr.arkitekt@gmail.com</a>		
June 5 Near Melton Mowbray	BMFA 3rd F1E (Team Selection). F1E. SMC Trophy. Contact: Ian Kaynes 01252 512538 m: 0794 185 2144 <b>NB date change</b>		

**7 Ashley Road, Farnborough, Hants, England GU14 7EZ [ffn@btinternet.com](mailto:ffn@btinternet.com)**

**Web site address: [www.freeflightnews.org.uk](http://www.freeflightnews.org.uk)**

**Compiled and produced by Ian Kaynes, Paul Masterman and Michael Warren**

## CIAM PLENARY MEETING

Report by Ian Kaynes

The CIAM Plenary meeting was held in Lausanne on April 8 and 9, preceded by a Bureau meeting on April 7.

This year there was no Free Flight Technical meeting. Of the Technical meetings that were held, it was notable that Gerhard Wobbeking chaired his last Education meeting and Srdjan Pelagic his last Space modelling meeting, after 20 years in Srdjan's case. Per Findahl had been identified as an appropriate replacement to chair Education and, as the only nominee for the position, Per has now succeeded Gerd.

A major theme of the meeting was drones, both from the effect of legislation inspired by them on regular aeromodelling and also to accommodate sporting activity with drones. For the latter purpose a new subcommittee has been established and a World Cup is being run this year.

Of the items on the agenda with some impact of free flight the Plenary decisions were as follows.

Canada had proposed a new schedule for submission and distribution of proposals. After some adverse comments, Canada withdrew the proposal.

USA had made two proposals about changing status of rules from provisional to official and for eligibility for championships, with F1Q mentioned in the reasons. After considerable adverse comments on these, the USA still wanted a vote. The first was defeated 37 against, none in favour (I wonder why didn't a USA vote appear in favour?) and the second by 30 against, 2 in favour.

Poland had proposed raising the maximum age for juniors from 18 to 21, because some classes do not have enough juniors and because classes are difficult – all this justified by mentioning control line, scale and radio classes which only have juniors involved in championships as one extra to the regular 3-man team. No mention of the classes which have independent junior championships and are generally healthier, like FF, space modelling and the radio HLG F3K. The Plenary vote was remarkably close – the proposal was defeated by 18 votes against with 17 votes in favour. The Control Line subcommittee had proposed raising the age limit to 25 just for control line. This was amended in their technical meeting to 21, like the Polish proposal. Although this applied just to control line, it was defeated more heavily than the other one – with 21 against and 15 in favour. The logic of that vote rather escapes me, perhaps there were some people who objected more to the idea of having different age limits in different classes than they cared what the age limit was.

Belgium proposed that F1C starting poles should be at least 50m away from rubber or glider poles. This was accepted unanimously.

Germany made two proposals about the rules on interruption of the contest. The first changes the responsibility for interruption from the jury to the contest director. This was accepted unanimously by Plenary. The other part proposed removing the part discussing return of entry fees and also the rule that results will be based on the scores of the finished rounds. This last removal was disliked by several people, leaving the scoring undefined, and it was withdrawn.

A proposal from the Netherlands was passed to change F1C rules on fuel to allow either castor oil or synthetic oil as chosen by the competitor. At championships the competitor will specify which lubricant he wants for the official fuel.

A proposal from Germany to revert the F1Q mass for energy calculation from 500g to 550g was opposed by a majority of the FF Subcommittee and Germany withdrew the proposal.

A number of proposals from the Free Flight Subcommittee were accepted unanimously by Plenary:

- a) Identification marking by championships organisers – it was clarified that the organisers should only mark the model in one place – on the edge of the FAI sticker, and not make marks on each component of the model. This does not remove the requirement that they check that each part of the model has the required identification code.
- b) Rewording the attempt definition for a part of the model becoming detached. The new wording for gliders is *"It is apparent to the timekeepers that a part of the model becomes detached during the launch by the helper, while the model is being towed, or during the official flight time"* and for other models *"It is apparent to the timekeepers that a part of the model becomes detached during the launch or during the official flight time"*.
- c) To change the rule on extended maximum in open internationals for F1A to be the same as F1B and F1C, allowing the a maximum of up to five minutes.
- d) To add a new clarification item to the end of the group flyoff rule 3.1.8.f "Competitors proceeding from group flyoffs to the later flyoffs will be classified only by times achieved in the later flyoffs after the group stages. The times in group stages do not count in their classification."
- e) World Cup points for places to be multiplied by 10 (500 for a win, 400 second place, etc) and to award one bonus point for every competitor a person has beaten.
- f) The number of competitors in an event for World Cup points calculations will be the number of competitors completing a flight in the first round of the competition
- g) A revised FF organisers guide

A new CIAM General Rules volume was accepted as a replacement for the existing Volume ABR. There are few actual changes but a complete re-organisation of the numbering and location of items. Some specialised Free Flight only rules will not be in the new General Rules but transferred to the free flight volume F1. Like all the rule changes this will become effective in January 2017. An FFSC proposal to renumber the technical volumes with class designation instead of the current meaningless 3. Number before each paragraph met with complaints in Bureau and was referred to the Bureau.

### Championships

The venues for the 2018 events were selected at this Plenary meeting

The Junior World Championships F1ABP will be held in Bulgaria since they won a vote with 26 supporters against 11 votes for Romania. The event will be at Pazardzhik. The dates in the bid had been for late July but that clashed with the Euro Champs in Hungary. After discussion, Bulgaria have agreed that the dates will be August 5 to 11.

The Indoor World Championships will be at West Baden, USA, from March 18 to 23. The bid from USA had been submitted the required 45 days before the meeting, but there

was also a late bid from Romania. The President seemed reluctant to positively rule out the late bid in cases like this with one in time and one late, but in each case the Plenary gave a unanimous acceptance of the correctly timed bid.

The European Championships F1ABC will be at Szentes, Hungary. There had also been bids from Romania and from Bulgaria but Bulgaria withdrew after winning the Junior World Champs. Hungary got 26 votes against 12 for Romania. The dates will be July 23 to 30.

The F1E European Championships will be held at Martin in Slovakia, the only bid for this event.

### Awards

The CIAM scholarship, which gives €2000 towards educational expenses, had four applications, all free-flyers: Christian Winker (GER), Michail Lomov (RUS), Taron Malkhasyan (USA), and Konrad Zurowski (POL). The bids were assessed by a selection panel and this awarded the scholarship to the Polish F1E flyer Konrad Zurowski.

There were two nominations for Alphonse Penaud Diploma and Slovakia Ivan Treger won the vote.

The Frank Ehling Diploma had nominations from John Jacomb (UK) and the National Association of Rocketry of USA. The USA association narrowly beat John to the award.

At the Plenary meeting World Cup medals and diploma are presented to this any competitors present. For free flight Per Findahl collected F1A second and I got the F1Q second.

## F1H#19 BY BALÁZS SELMECI

*This is an article to go with the plan of this model which was published in the March FFN.*

I started to deal with free flight modelling, when I was 10 years old. I spent my holiday at a summer camp and I saw there a modelling exhibition and show. It was really exciting and fascinating for me. I suddenly decided to find the nearest modelling club, because this could be my hobby, passion what I want to do. Unfortunately my studies at the secondary school brought me to another town, therefore I had no chance to continue this sport. When I had finished the Lyceum, I came back to Ajka. Definitely, I wanted to continue this activity. At this time my old trainer wanted to go to retirement, so we convinced my father to take a lead of our club. Since 2008, he became a sponsor and the manager of our team. It means that we could go to more and more competitions to further distances in Hungary. With better financial conditions we were able to try better and better solutions.

At the beginning we used only balsa and wood as the main building materials. I learned a lot from Oszkár Illési, who has more than 30 years of experience at free flight sport, especially in F1H and F1A categories. Actually, he is dealing with the training of our younger generations.

Our interests surrounding the Euro Challenge started in 2012. Honestly we did not know so much about this championship before 2011, we participated in some Hungarian HEC events, and it was a surprise when we heard that Oszkár Illési reached 2nd place at the end. At this time we had Pelican - 8 models from István Hársfalvi, equipped with a mechanical timer.

My first "carbon model", No. #14, was of the same condition, but we installed an electronic timer by Ákos Patócs, instead of the mechanical one. This timer has been a well known reliable tool for several years and it is commonly used by the

Hungarian F1H and F1Q modellers. I became the Hungarian champion in 2012 and 2013 with this model.

After that, at the beginning of 2012, we decided to participate in the Euro Challenge. We tried to go to more and more contests in our neighboring countries. It was a great opportunity to go abroad and not only participate in Hungary. First to Slovenia, to the Mura cup and the Ptuj cup, then to Slovakia to the Lucenec cup, to Romania to the Harghita cup and the Salonta cup. It allowed us to meet with new people, like Bogdan Lemut, István Havran, István Kiss and Sándor Vincze. This year we went to Ilbesheim, as well to take part at the final. This contest was also in a really good atmosphere, at the field and a dinner at the Smahl winery. Finally Oszkár reached the third place, I got the second place, behind Thomas Weimer. At the 5th round Oszkár's plane flew away due to a failed mechanical timer. He was obliged to use a spare machine, fortunately this plane could achieve a good result also. Several days later Oszkár's plane was found 17 km away from Ilbesheim at a sport model airport, and his model was still able to fly.

All the time I tried something different, something new and better, there were no two models alike, which were built consecutively. Of course time to time some of them were not successful, but we tried to improve it, or build a brand new one.

No# 15 It was the same Pelican -8 model with a balsa D-box. It had very good behaviour in thermal conditions, Unfortunately we lost it at Tapolca in really bad weather conditions.

No#16 Again a Pelican-8 with carbon D-box, built with 3 servos (stabilizer, wing, rudder), but never used at competitions.

No#17 We built it with Findahl profile ribs, wrapped a yellow icarex on a left wing, decorated by a small fox. This model was the HEC -C category winner in 2013 in Slovenia.

No#18 Again, we tried something new. The same model with Findahl profile, but only one servo for a stabilizer and two lines, which allowed us to achieve the HEC-B irreversible bunt functions. The idea was very clever, but the mechanism was not so reliable. It crashed at the Salonta cup in 2014.

No#19 After 2014 we decided to build a professional model in HEC-O category. Based on Thomas Weimer's plan, the wing with Stamov profile from the a carbon D-box by Gy.Vasas made with hand-cut, polished balsa ribs, laid on polystyrene jigs, glued and covered with carbon strips from Van Dijk. The stabilizer was simplified a little, not apply a diagonal ribs as shown on the original drawing. Russian style towhook, no wingwiggler. Two servos (stabilizer HS-45, rudder Dymond D-45). The timer is W-Hobby JWH-10, with 1 cell LiPo accumulator. The wingjoiner is a rectangular carbon by F.Kerner.

2015. This year started in a bad mood, because I went to work in Germany, and had no chance to do training or participate at contests in my 1st semester. Fortunately the Serbian round winning (3th 100%) result gave me a chance to feel enough confidence to go to Switzerland. The Gürbetalpokal and the Eurofly possibility kept alive my status to achieve a 4th 100 % results, to be able to start at the final of Eurofly.

At Gürbetalpokal we could reach a 600 second, were easy to concentrate for a next day. After the contest we stayed till the sunset to try to find the best regulations for tomorrow final. At Eurofly the first 4 starts were OK, but we didn't push the 5th round, because it was not important and we tried to focus for the final.

“Five minutes in the final”, Ansgar said. This long duration seemed impossible, but the model was programmed according the day before trials setting in a similar whether conditions. The wind was a little stronger than the previous day. Five minutes!

My model was not at a so high altitude, but could keep the same level for long time. Ansgar said: Swimming like a fish! It was a great moment to win the 2015 Eurofly championship.

Gary Madelin (UK Coordinator, [gary.flh@gmail.com](mailto:gary.flh@gmail.com)) reminds that the FIH Euro League now has 51 events in nearly 20 countries. The event website is at [www.creasus.de/ikarus](http://www.creasus.de/ikarus) and follow the link to HEC Euro Challenge.

## MP-4 F1G BY PETRA MIKOLASKA

From Volny Let

The beginnings of my hobby were in the first half of the eighties. It was inevitable, because I live about 2 km from Vlašim airports and aircraft flew over the house all the time. In addition there was the Vlašim model club. I watched them and eventually competed with A1 models. I always liked rubber models but then it was almost impossible to get good rubber. I built a couple of kits and then P30 models. I used to basic black rubber and the performance was always disappointing.

After some time I began to flirt with RC models. Then followed the period when I rode a motorcycle, chased girls and then built a house and established a family. Then modelling came back and I started to build historic RC gliders in 1/4 or 1/3 scale, but building such a model takes a long time and I got the idea to build a small model. During Christmas 2013 I built a P-30 model, and it flew well despite the high weight. I have always admired the F1G models and I started construction of the model without any experience. The finished model weighed 90 g without rubber. It flew, but I needed some advice regarding the adjustment and joined the forum Mojehobby. Discussing with coach Nick F1D, which turned out to be Joe Kubes, he complimented me and included instructions for what to do differently and better. In a month I built a second model with which I went to my first competition.

There Pepa took the fuselage of the first model, saying it was too heavy and this gave him a pupil to build and fly with. At competitions was I quite successful, I built a third model, and with it I took second place in the 2014 National Championship.

I began to think about increasing performance of my models, and I was looking for a way to go. I set a goal to build a reliable model for tactical flying with a good climb. I also wanted to avoid complex mechanisms. The long run of the models of Bohuslav Ryze fascinated me, but I would not have the nerve to have the slow climb of a one minute run model. I studied the PGI trim which Pepa Kubeš promotes. Finally, I took something from everyone and created model MP-04.

In shape it was almost identical to the previous one, but I used mostly carbon materials. The main difference is the use of a wing wiggler. In the first phase of powered flight the left wing has significant negative incidence (about 4 mm at the trailing edge). This allows a steep climb to a great height, without going into a spiral or on its back. After launch model climbs about 10 to 15 meters in height and then starts to turn right. After about 4.5 to 6 seconds, the left wing moves to about 1 mm compared with the right. At this time, the torque of the rubber volume is already relatively low and model continues to climb in the classic right climbing spiral.

The second important change compared to the original model is the propeller. I decided on a custom design. The pitch is

highest at the root and gradually reduces towards the tip. The nominal value of the pitch is at 70% of the propeller diameter. The model flies on 12 strands of 3x1 rubber with a run time of 35 seconds. In calm conditions, it can fly with 10 strands without any adjustment, and the run is extended to 50 or 55 seconds. This is used for flyoffs in calm conditions. The quality of the model was proved this season when I've flown eight competitions and finished with 4 wins and 3 second places.

### Fuselage

The motor tube, 20 mm diameter, and the tail boom are carbon from Ivan Treger. The pylon is glued 1.5mm balsa. It is reinforced with 0.4 mm plywood where the wing wiggler is fitted. The 1.5mm lever moving the wing is pivoted on the left side. To the second lever arm is carbon 2 mm diameter, which moves with the wing. In the lower part of the lever is an M2 screw which extends through the side of the pylon.

### Tailplane

The leading edge is a 3mm carbon tube and serves as the torsion beam. Trailing edge is 1.2x0.5 carbon. Ribs are 1 mm balsa with 1x0.13 carbon capstrips, 13 mm.

### Fin

It is an all-moving surface of the same design as the tailplane. A carbon rod of 2mm is fitted in the first two ribs. This rod is inserted into a plastic housing in the boom. A hair spring pushes it to against a stop on the boom. The rudder passes through the plastic screw M2 which allows simple and precise adjustment of the deflection.

### Wing

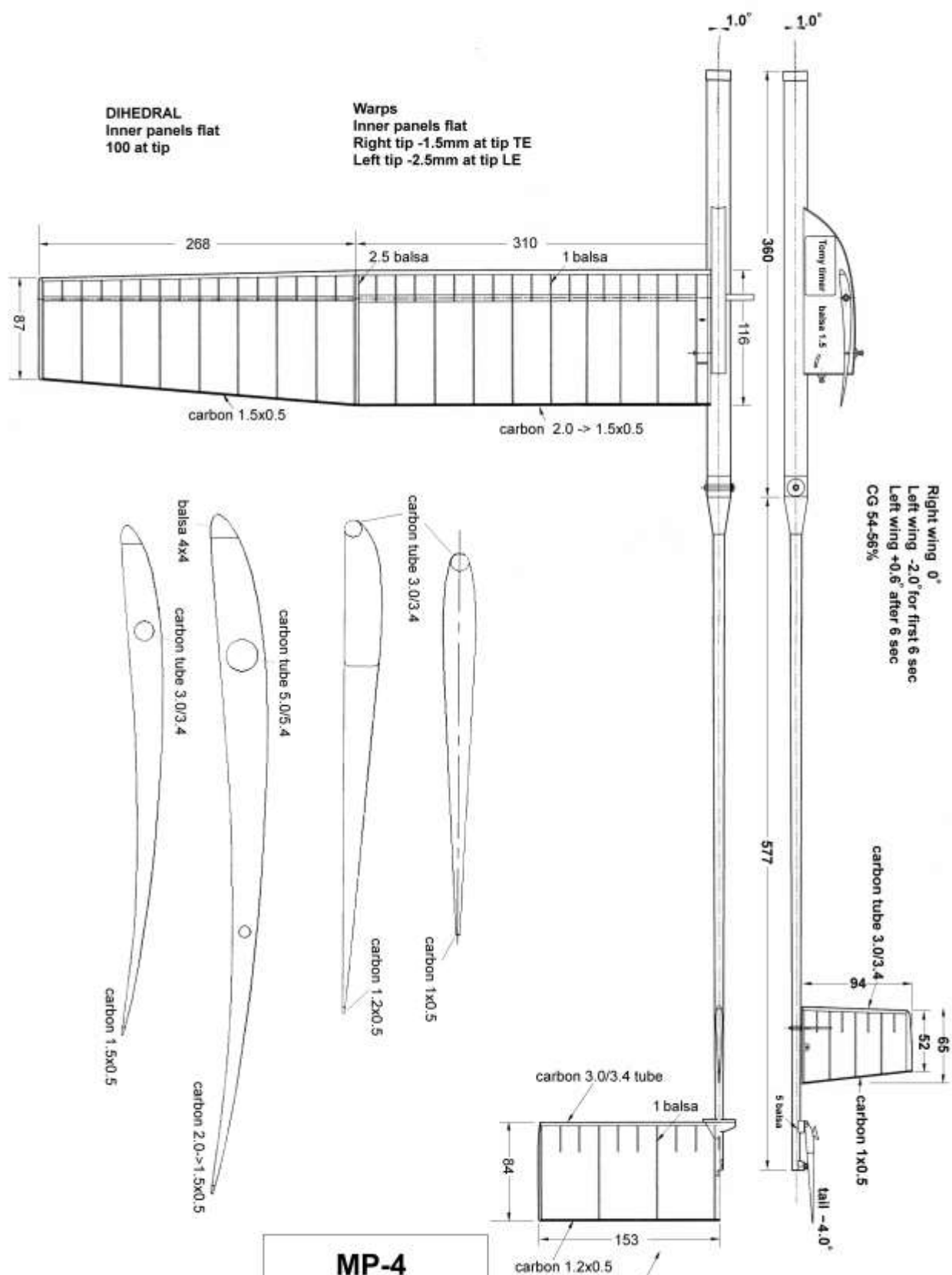
The torsion beam consists of a carbon tube by Jan Vodičky. On the centre panels it is 5mm diameter and 3 mm in the tips. For vigorous launches the middle of the tube can be reinforced with carbon or kevlar thread. The leading edge is hard balsa, trailing edge carbon. Ribs are 1mm balsa 1 mm with 1x0.13 carbon capstrips. The root rib and the ribs at the dihedral break are hard 2.5mm balsa. The tip is butt-joined to the inner panel. It is good to let the tip spar extend slightly and insert it into the centre section spar. The covering is mylar. Inner wings have no twist, the right tip is negative -1.5 mm and -2.5 mm on the left.

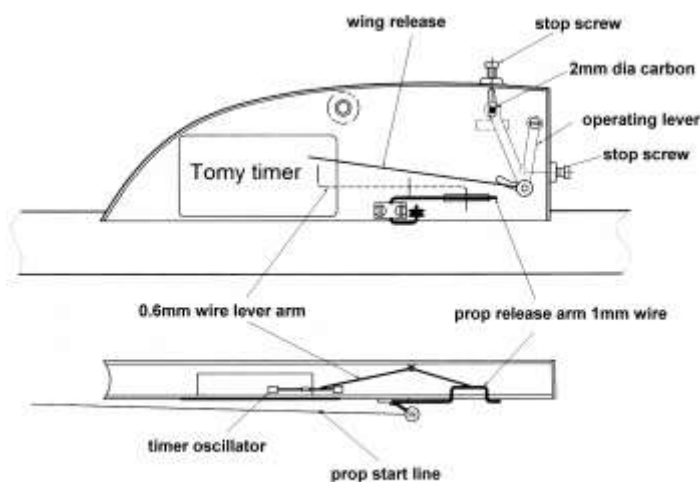
### Propeller

The blades are made of the lightest 3 mm balsa, sanded at the tips to a thickness of 0.8 mm. Always check the thickness with a caliper. Soak for 10 minutes in boiling water then bandage the blades to the form, not too tightly. After drying apply thin varnish, glue to the roots M3 screws or hinges of your choice. Blades are covered with 30 g/sq m glass cloth with two layers at the root. Orientation of fabric should be at 45 ° to the longitudinal axis. The cloth is folded over the leading edge and trimmed at the trailing edge with an excess of 3 mm. At the root it is possible to insert wedges as a reinforcement of carbon tape of 0.1 mm. The blade is then clamped in the mould. After hardening remove from the mould trim the excess fabric and sand.

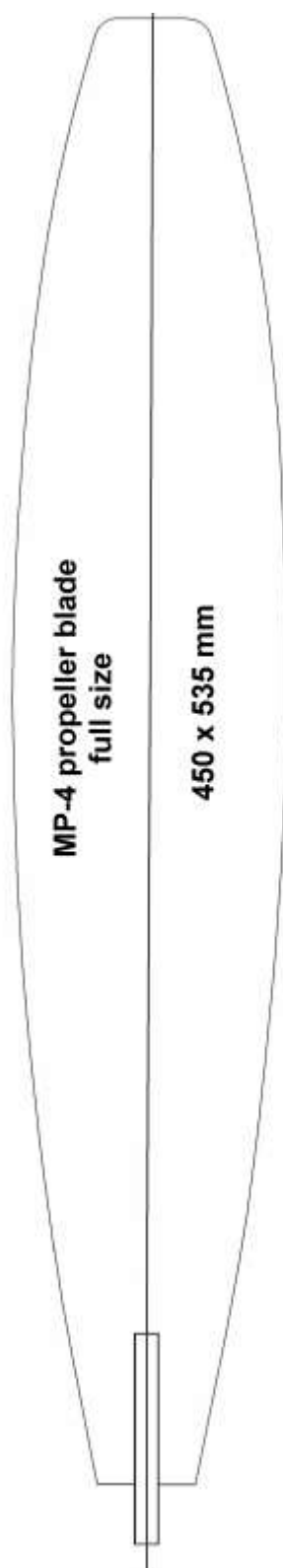
I use a hub of my own design and production. However, you can use any hub, which allows delayed propeller start

For the first stage of powered flight the left wing trailing edge is about 4 mm higher than the right half. After 4.5 - 6 sec is put into a position where the trailing left side about 1 mm lower than the right. CG position is 65 mm from the leading edge.





**MP-4 pylon**



### BMFA F1E

At Burrough Hill, April 17

5 flew 3x120

1	S Philpott	271.67%
2	I Kaynes	264.17%
3	P Fynn	199.17%

## NORTHERN GALA, LUFFENHAM, MARCH 25

## NORTH

### Combined Glider (C.M.A) 15 flew

1	J Carter	Grantham	7.30	+5.07
2	R Jack	MFFC	7.30	+4.50
3	G Madelin	CM	7.30	+3.39
4	P Ball	Grantham	7.30	+2.51
5	D Cox	Crookham	7.30	+2.05
6	G Peck	Grantham	7.30	+1.34
7	J Williams	Birmingham	7.04	
8	C Parry	Biggles	6.38	

### Combined Rubber (Caton) 15 flew

1	P Ball	Grantham	7.30	+11.39
2	C Redrup	Crookham	7.30	+11.00
3	I Davitt	Morley	7.30	+8.14
4	A Beales	Croydon	7.30	+7.07
5	I Taylor	Birmingham	7.30	+4.23
6	M Marshall	Impington	7.30	+3.39
7	P Woodhouse	Morley	7.30	+3.07
8	A Moorhouse	Vikings	7.12	

### Combined Electric 8 flew

1	C Strachan	Biggles	7.30	+2.38
2	P Watson	MFFG	7.30	+2.26
3	P Tolhurst	Crookham	7.05	
4	G Williamson	CM	6.51	

### F1H 7 flew

1	J Cooper	Biggles	10.00	
2	G Hart	Vikings	9.56	
3	G Madelin	CM	9.43	
4	B Lavis	Biggles	9.27	

### P30 10 flew

1	P Adams	Peterboro	5.51	
2	P Ingham	ACLE	5.30	
3	C Redrup	Crookham	5.07	
4	T Bailey	Grantham	4.32	
5	S Willis	Croydon	4.25	

### BMFA Power (Hamley) 6 flew

1	K Faux	Vikings	7.30	
2	A Jack	MFFC	7.27	
3	S Dixon	Birmingham	7.23	

### SLOP 6 flew, 3 full scores

1	S Barnes	Morley	7.30	+4.36
2	F Rushby	Cleemac	7.30	+4.26
3	C Foster	Morley	7.30	+3.32

### Mini Vintage 13 flew

1	C Foster	Morley	6.00	+5.10
2	B Jackson	Sharston	6.00	+2.57
3	S Willis	Croydon	6.00	+2.38
4	I Davitt	Morley	6.00	+2.01
5	M Sanderson	Cleemac	6.00	
6	T Rushby	Cleemac	5.33	
7	W Hodgkinson	Grantham	5.30	

### BMFA ½ A 4 flew

1	F Rushby	Cleemac	6.00	
2	C Foster	Morley	5.49	
3	S Barnes	Morley	5.27	

### HLG/CLG 6 flew

1	P Ball	Grantham	6.34	
2	I Clark	CM	6.15	
3	B Colledge	Birmingham	5.42	

### Club Championship.

1	Grantham	250	Carter	100	Ball	100	Sibson	50
2	Birmingham	20	Williams	60	Taylor	73	Dixon	67
3	MFFC	176	R Jack	93	A Jack	83		



# FAI WORLD CHAMPIONSHIP INDOOR CLASS F1D 2016

Held at Slanic, Romania from April 11 to 16

## Individual results

1	Yuan Kang Lee	W/C	7.05	17.58	22.33	23.20	27.59*	26.56+	54.55
2	Zoltan Sukosd	HUN	5.07	23.29	25.00	21.10	26.37+	27.57*	54.34
3	John Kagan	USA	25.43+	24.52	23.07	23.32	25.18	26.56*	52.39
4	Dmytro Sednev	UKR	19.21	19.47	25.23+	0.00	24.40	25.45*	51.08
5	Anthony Hebb	GBR	24.07+	22.00	22.34	9.17	21.26	26.42*	50.49
6	Corneliu Mangalea	ROU	21.06	23.36	24.10+	21.18	25.56*	21.18	50.06
7	Ivan Treger	SVK	21.54	21.40	22.01	18.16	24.43*	24.13+	48.56
8	Brett Sanborn	USA	24.02	22.51	21.06	24.36*	24.11+	23.13	48.47
9	Dezso Orsovai	HUN	23.32+	19.40	24.03*	21.22	20.32	21.42	47.35
10	Mark Benns	GBR	21.46	22.44*	7.30	22.24+	4.30	22.21	45.08
11	Didier Barberis	FRA	22.45*	22.20+	22.11	18.27	4.11	21.36	45.05
12	Hans Staartjes	GBR	4.32	13.56	23.29*	21.14+	18.31	6.20	44.43
13	Vasile Nicoara	ROU	17.51	22.21*	22.00+	15.50	1.09	21.05	44.21
14	Istvan Botos	HUN	20.18	20.23	20.53	22.23*	12.11	21.48+	44.11
15	Aurel Popa	ROU	19.59	21.15+	21.45*	20.25	20.55	20.49	43.00
16	Vasilii Tkachenco	RUS	15.42	19.53+	0.00	9.57	22.47*	12.21	42.40
17	Calin Alexandru Secara	AUS	21.30*	20.26	21.03+	0.00	20.29	20.22	42.33
18	Joshua Finn	USA	20.48+	20.14	20.20	21.43*	18.22	0.00	42.31
19	Thomas Merkt	GER	20.10	20.50+	19.03	17.54	15.52	21.36*	42.26
20	Uwe Bundesen	GER	19.28	17.52	19.05	21.40*	19.57	20.46+	42.26
21	Marian Krause	GER	12.07	14.30	17.27	21.59*	0.00	20.14+	42.13
22	Vladimir Komarov	RUS	6.00	17.43	20.41+	18.49	0.00	20.43*	41.24
23	Robert Champion	FRA	20.17+	18.24	7.38	13.45	20.51*	18.30	41.08
24	Dambrauskas Ernestas	LTU	16.12	16.57	18.03+	21.32*	6.44	14.47	39.35
25	Thierry Marilier	FRA	19.40*	19.24	19.19	19.34	12.26	19.35+	39.15
26	Mikita Kaplan	CZE	17.16	18.20	17.23	16.16	18.51+	19.35*	38.26
27	Kazumasa Kihara	JPN	19.03*	16.32	18.09	14.32	18.40+	0.08	37.43
28	Vladimir Linardic	CRO	18.02	12.32	14.40	18.17+	14.17	19.09*	37.26
29	Sergei Panihin	RUS	14.28	14.53	17.37+	11.52	18.48*	14.42	36.25
30	Tokuhiro Yaginuma	JPN	17.02	18.40*	0.00	17.42+	2.14	13.26	36.22
31	Ondrej Krucky	CZE	11.48	16.56	4.46	16.08	18.35*	17.45+	36.20
32	Hideyo Enomoto	JPN	13.39	12.05	15.54	15.38	17.19+	18.43*	36.02
33	Dmytro Silin	CAN	15.06	15.57	15.45	15.34	16.05+	18.30*	34.35
34	Jaroslav Straka	CZE	0.00	0.00	16.12*	14.57	15.32+	13.50	31.44
35	Laurikenas Simas	LTU	10.02	9.40	9.36	13.34*	10.38	13.21+	26.55
36	Steponas Rimas	LTU	10.41+	8.50	13.13*	0.47	1.45	7.53	23.54
37	Mykhailo Serebryakov	UKR	0.00+	23.46*	0.00	0.00	0.00	0.00	23.46
No.of best flights in each round			4	4	5	7	7	10	
No.of 2nd best flights in each round			7	4	7	4	7	8	
No.of scoring flights in each round			11	8	12	11	14	18	
No.flts exceeding 15 min			25	29	28	26	24	26	158
No.flts exceeding 20 min			13	15	17	14	13	19	91
No.flts exceeding 25 min			1	0	2	0	4	5	12

Longest single flight 27.59 by Yuan Kang Lee

## FAI Junior World Championship Indoor class F1D 2016

### Individual results

1	Bulai Calin	ROU	22.30	20.50	20.54	25.45*	21.36	23.35+	49.20
2	Iyrii Vitko	UKR	21.12	22.17	22.53+	21.50	24.04*	0.00	46.57
3	Denis Zhariy	UKR	21.57	21.02	22.59	17.54	23.29*	23.12+	46.41
4	Vladyslav Klymenko	UKR	22.11+	23.42*	15.50	14.34	14.40	21.06	45.53
5	David Yang	USA	20.20	20.58	21.00+	20.50	23.04*	13.24	44.04
6	Gheorghe Tatu Filip	ROU	16.11	11.47	0.00	18.42	20.15+	23.06*	43.21
7	Evan Guyett	J/W	15.07	18.16	17.42	20.28+	21.12*	12.37	41.40
8	Arjan David	ROU	16.55	12.26	21.02*	20.24+	9.35	0.00	41.26
9	Francois Duble	FRA	12.36	17.04	18.57+	6.08	21.24*	4.15	40.21
10	Antonin Ricou	FRA	17.43	15.41	19.56*	19.08	19.26+	16.02	39.22
11	Hugo Desloges - Bazile	FRA	17.38	18.27	18.12	5.57	20.22*	18.32+	38.54
12	Wyatt Wear	USA	10.33	8.03	14.48	16.20*	15.18+	12.37	31.38
13	Joseph Szczur	USA	12.23	11.29	8.35	10.16	14.06+	15.05*	29.11
No.of best flights in each round			0	1	2	2	6	2	
No.of 2nd best flights in each round			1	0	3	2	4	3	
No.of scoring flights in each round			1	1	5	4	10	5	
No.flts exceeding 15 min			10	9	10	9	10	7	55
No.flts exceeding 20 min			5	5	5	5	8	4	32
No.flts exceeding 25 min			0	0	0	1	0	0	1

Longest single flight 25.45 by Bulai Calin

**Senior Team results**

	Country	Abbrev	Total
1	Hungary	HUN	146.20
2	USA	USA	143.57
3	United Kingdom	GBR	140.40
4	Romania	ROU	137.27
5	Germany	GER	127.05
6	France	FRA	125.28
7	Russia	RUS	120.29
8	Japan	JPN	110.07
9	Czech Republic	CZE	106.30
10	Lithuania	LTU	90.24
11	Ukraine	UKR	74.54
12	Slovakia	SVK	48.56
13	Australia	AUS	42.33
14	Croatia	CRO	37.26
15	Canada	CAN	34.35

**Junior Team results**

	Country	Abbrev	Total
1	Ukraine	UKR	139.31
2	Romania	ROU	134.07
3	France	FRA	118.37
4	USA	USA	104.53

**BEAR CUP, PORI, FINLAND, MARCH 19-20****F1A 38 flew 20 full scores**

1	T Lepp	EST	1020	+360	+540
2	R Hellgren	SWE	1020	+360	+517
3	P Findahl	SWE	1020	+360	+514
4	H Tahkapaa	FIN	1020	+298	+450
5	P Kuikka	FIN	1020	+360	+409
6	P Ronkanen	FIN	1020	+360	+378
7	M Kosonozhkin	RUS	1020	+360	+364
8	K Koivula	FIN	1020	+360	+344
9	V Poljaev	RUS	1020	+360	+329
10	K Henriksson	FIN	1020	+305	+288
11	J Savolainen	FIN	1020	+307	+285
12	K Huber	SWE	1020	+355	+278

**F1A-Junior 4 flew**

1	T Tahka	FIN	1020	+295
2	K Hartikainen	FIN	826	

**F1B 18 flew 12 full scores**

1	M Solodov	RUS	1020	+360	+292
2	J Isotalo	FIN	1020	+360	+283
3	A Kutvonen	FIN	1020	+360	+115
4	J Isotalo	FIN	1020	+343	
5	B Eimar	SWE	1020	+338	
6	V Rosonoks	LAT	1020	+328	
7	S Zubakov	RUS	1020	+275	
7	T Linkosalo	FIN	1020	+275	
9	M Woolner	GBR	1020	+265	

**F1B-Junior 1 flew**

1	K Kreis	EST	1020	+227
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**F1C 3 flew**

1	K Kuukka	FIN	1020	
2	J Roots	EST	579	

**F1Q 2 flew 1 full scores**

1	J Juslin	FIN	1020	
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**HARGHITA CUP, DEVA, ROMANIA, April 9-10****F1A 31 flew**

1	B Bardarov	BUL	960	+141
2	S Szijjarto	ROU	960	+127
3	S Lipcsei (J)	HUN	950	
4	J Sion	ROU	948	
5	C Muresan	ROU	933	
6	I Mascovszky	ROU	929	
7	M Pitlanic	SVK	927	
8	A Pesic	SRB	925	

**F1A-Junior 7 flew**

1	S Lipcsei	HUN	950	
2	T Kiss	ROU	794	

**F1B 14 flew 6 full scores**

1	S Stefanchuk	UKR	840	+92
2	B Gostojic (J)	SRB	840	+91
2	D Larsen	NOR	840	+91
4	S Gostojic	SRB	840	+89
5	R Blagojevic	SRB	840	+85

**F1B-Junior 3 flew**

1	B Gostojic	SRB	840	+91
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**F1C 3 flew**

1	J Wlodarczyk	POL	650	
2	D Bogomaz (J)	POL	540	

**F1P-Junior 1 flew**

1	D Bogomaz	POL	540	
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**KUP SLAVONIJE I BARANJE, CEMINAC, CROATIA, APRIL 23****F1A 54 flew 20 full scores**

1	B Bardarov	BUL	900	+360
2	D Terlep	SLO	900	+309
3	C Kargin	TUR	900	+293
4	I Bombek	CRO	900	+280
5	I Bezak	SVK	900	+265
5	O Pshenichniy	UKR	900	+265

**F1A-Junior 14 flew**

1	M Jezik	SVK	900	+230
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**F1B 15 flew 6 full scores**

1	A Krawiec	POL	900	+360
2	E Hajdarevic	BIH	900	+352
3	R Blagojevic	SRB	900	+312
4	V Tomljanovic	CRO	900	+307

**F1B-Junior 1 flew**

1	M Cicek	CRO	831	
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**F1C 9 flew 3 full scores**

1	D Zulic	SLO	900	+261
2	Z Grepl	CRO	900	+248

**F1Q 6 flew**

1	G Milak	HUN	900	+360	+101
2	G Kertesz	HUN	900	+360	+88

**DAVE ANDERSON MEMORIAL, NARRANDERA, AUSTRALIA, APRIL 8-10****F1A 9 flew**

1	P Mitchell	AUS	1020	+365
2	B Van Nest	USA	1020	+362
3	M Campbell	AUS	1017	
4	V Morgan	AUS	945	
5	D Gunawan	IND	940	

**F1B 10 flew**

1	T Bond	AUS	960	
2	R Morrell	NZL	950	
3	V Morgan	AUS	928	
4	C Jones	USA	860	
5	M Hannaford	AUS	858	

**F1C 5 flew**

1	M Pettigrew	AUS	1020	
2	R Summersby	AUS	969	
3	T Bond	AUS	959	

**AUSTRALIAN FF SOCIETY CHAMPS, NARRANDERA, AUSTRALIA, APRIL 12-14****F1A 8 flew**

1	P Mitchell	AUS	900	+263
2	D Gunawan	IND	900	+223
3	B Van Nest	USA	886	
4	A Fathers	AUS	835	



**F1B 14 flew**

1	A Andriukov	USA	960	+378
2	V Morgan	AUS	960	+311
3	H Lu	CHN	960	+301
4	C Jones	USA	951	
5	Y Wu	CHN	947	
6	R Morrell	NZL	943	
7	P Rossiter	AUS	934	

**F1C 8 flew 4 full scores**

1	H Lu	CHN	900	+447
2	R Summersby	AUS	900	+445
3	S Tolmie	AUS	900	+262
4	T Bond	AUS	900	+59

**SOUTHERN CROSS CUP, WEST WYALONG, AUSTRALIA, APRIL 16-17****F1A 6 flew 3 full scores**

1	P Mitchell	AUS	960	+377
2	B Van Nest	USA	960	+374
3	T Stowe	AUS	960	+116

**F1B 11 flew**

1	A Andriukov	USA	960	+348
2	V Morgan	AUS	960	+304
3	R Morrell	NZL	960	+282
4	P Rossiter	AUS	960	+262
5	C Jones	USA	960	+235
6	Y Wu	CHN	958	

**F1C 8 flew**

1	Y Gao	CHN	960	+392
2	H Lu	CHN	960	+374
3	M Sheng	CHN	960	+330
4	R Summersby	AUS	957	

**BMFA 3RD AREA MEETING, APRIL 10****Area Weather**

Scotland	
North West	
Northern	Calm early windy later
Midland	10 to 15 all day
East Anglia	5 to 10 early 15 at fly off
Western	Very windy
South East	Dry 15 to 25
Southern	20 to 35 !!!!

**Vintage Glider 13 flew**

1	P W Woodhouse	Morley	7.30	+2.02
2	D Cox	Crookham	7.05	
3	J Northrop	Morley	6.23	
4	I Wilkinson	Morley	6.19	
5	G Hart	Vikings	6.14	

**Combined Rubber (Gamage Cup) 12 flew**

1	S Willis	Croydon	7.30	+5.06
2	A Moorhouse	Vikings	7.30	+4.11
3	C Foster	Morley	7.30	
3	P Woodhouse	Morley	7.30	

**F1C (Halfax Trophy) 7 flew**

1	A Jack	MFFG	11.23	
2	S Dixon	Birmingham	7.30	
3	D Cox	Crookham	5.17	

**F1Q 2 flew**

1	C Strachan	Biggles	12.30	+2.48
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**Combined HLG/CAT 17 flew**

1	I Clark	CM	6.16	
2	P Watson	MFFG	5.38	
3	P Ball	Grantham	5.30	
4	S Brewer	Biggles	4.46	
5	A Brocklehurst	Bristol & West	3.21	
6	M Cook	Crawley	3.14	
7	M Stagg	Bristol & West	3.05	

**Plugge**

	3rd Area:-	Vint G	F1C	HLG	Total
1	Crookham	107	128		1222
2	Morley	185			503
3	Bristol & West			112	440
4	Vikings	115		24	405
5	Grantham	23		88	330
6	Birmingham		86		296
7	Midland FFG		100	94	294
8	Biggles			135	264

**SOUTHERN COUPE LEAGUE****Third Round: London Gala April 24th. Salisbury Plain**

By Peter Hall

A chilly gusty wind, 20 m.p.h., slightly west of north, straight down from the arctic, at our backs. In front just over airfield ridge, prowl hostile bustard - fancying farmers, 12 bores at the ready, behind impenetrable thickets of barbed wire fencing. Ninety second maxes for coupe and a D.T. fly-off were imposed to prevent our massive death - dealing flying robots from laying waste the countryside and all the fluffy, chirpy little innocents therein.

I exaggerate slightly for dramatic effect but there was a palpable atmosphere of paranoia. Never mind the bustards, we are the endangered species now. We are being driven from our nesting, sorry, flying sites by the nets and snares of regulation; climate change and ageing are reducing our reproductive capacity. Send twenty pounds now to SOSAM (Save Our Society of Ancient Modellers).

Throwing caution to the wind, Gary Manion was the first to launch his massive deathdealing robot (weighing no less than 80 grams and made of bone - shattering balsa-wood). He was deceived by a slight lull and was dumped in death valley. He confidently maxed his next four flights and took first place. Spencer Willis maxed four rounds and looked set for victory. I watched him wind for his last flight. Standard practice now is to pull out to about eight times the motor length hold for a while and then wind on half turns maintaining the tension before walking in for the rest. Spencer stretched his motor no more than three times the length and got about 430 turns on to his 25 cm. motor. The temperature was about 7 degrees centigrade. So much for standard practice. Or was it just a good sample of Tan 2 ? But he didn't find the air to get the height to cross the valley and dropped for second place. Andrew Moorhouse flew his windy weather model ( a bit smaller than his standard). He dropped two flights but just squeaked into third place ahead of Peter Tolhurst. Peter took four maxes but launched badly for 55 secs on his third flight. Mike Marshall had a terrible time with four flights each short of a minute. Something wrong somewhere! There certainly was; he showed me his starboard wing, it had developed a huge amount of washout on both panels. How? Peevish regulators and other malign agents had sneaked in during the night.....Peter Hall, that's me, got an easy max. in very good air, then went away O.O.S. / D.T.'d in a boomer on the second flight. I was searching the by-ways when suddenly seized by masked men, trussed like a chicken, locked in ahen house and my coupe shredded in a turnip shredder. I managed to chew through my bonds and escape. A paranoid fantasist? Moi? On my return, dehydrated, cramped, disoriented, traumatised, exhausted, and hypoglycaemic, my will-to-win collapsed and I retired into sixth place. Martin Stagg also retired after two flights, he was finding retrieving difficult. I hope my story didn't put him off.

Gavin Manion is now racing ahead in the league, but I would remind you that there are still five events to go and the scores of only five count. So you can begin your challenge at the Oxford Rally on June 12th. The Oxford Rally! Portmeadow! A

haven of peace, free of farmer and regulator, limited only by the river to the west, the railway to the east, the village to the north and the cows to the south.

## London Gala

		maxes	score	time
1	G Manion	4	16	7.10
2	S Willis	4	13	7.02
3	A Moorhouse	3	11	7.00
4	P Tolhurst	4	10	6.55
5	M Marshall	0	5	4.35
6	P Hall	2	6	3.00
7	M Stagg	1	4	2.44

## League

			Brum	A.1	LG	Total
1	G. Manion	Birmingham	16	12	16	44
2	R. Vaughn	Crookham	12	17		29
3	P. Tolhurst	Crookham	10	7	10	27
4	A. Moorhouse	Vikings	10	5	11	26
5	S. Willis	Vikings		5	13	18
6	M. Marshall	Vikings	5	3	5	13
7	A. Brocklehurst	Bristol & West		11		11
8	T. Bailey	Coventry	2	8		10
9	P. Ball	Grantham	8			8
10	D. Chevanard	Beaujolais	7			7

## FF TRACKER FREQUENCIES

By Martin Gregorie

I have changed ISPs fairly recently and this has forced a minor change in the user name you need to login and view the frequency lists. The URL is still the same: either go to [www.gregorie.org](http://www.gregorie.org), click on 'Free Flight Model Flying' and then select 'Trackers'. Or you can go directly to <http://www.gregorie.org/freeflight/trackers>

Then click on 'Tracker use in the UK'. At this point you'll be asked for a user name and password. These are:

User name: GeorgeFrench

Password : night train

The user name is one word with caps as shown (this is a change, forced by my change of ISP). The password is all lower case with a space exactly as shown.

## MODELLING DATABASE

By William Damerell.

I have developed a home PC stand-alone database in which one can capture a lot of information regarding one's personal model aircraft collection. It's called a "Model Aeroplane Asset Register Database".

Essentially, the DB captures details of models, competitions, wing profile data, model plane suppliers, activities and weather forecasts. It provides you with reports of model performance and competition summaries per year. It allows you to upload pictures, plans, documents, data files, links etc which can be attached to pertaining assets.

The DB runs on a PC with Windows 7 or higher and more importantly runs stand-alone without any other third party software (Excluding the free version of "MSAccess RunTime"). I am also in the process now of developing an Android app which will eventually be able to synchronise with your home pc DB version. The main ideas behind the app are to be able at competitions or training to capture details of your models flights with pics, times (Date) and text.

English and German Flyers are available from links on [www.math-coach.ch](http://www.math-coach.ch) or contact William at [william.damerell@gmail.com](mailto:william.damerell@gmail.com)

## F1J EURO CHALLENGE

Simon Dixon has updated the F1J Euro Challenge website to include the qualifying events for 2016. Please see the website for details <http://f1jeurochallenge.jimdo.com/>

## UK COMPETITION NEWS

BMFA F1E event scheduled for June 12 has been brought forward one week to be on June 5 and will be at sites near Melton Mowbray. This is the event for the SMC Trophy.

The Crookham 50th Anniversary Gala will be held on Salisbury Plain on Sunday 18 September. Classes will be:

- Combined F1G and Vintage Coupe d'Hiver, with a prize for highest placed vintage model
- George Fuller power for the George Fuller Trophy, 8s run, 2 minute max
- E36
- F1H/A1 glider

The aim will be to contain all flights on the field and the contest will be organised accordingly. Contest will be run in rounds with the first round between contest start at 1000 and 1200. The max for all classes will be 2 minutes unless the weather dictates less. The number of rounds will be decided on the day, dependent on the weather, with a minimum of three. DT flyoffs will be used if necessary. Contact [roy.vaughn@btinternet.com](mailto:roy.vaughn@btinternet.com) 01344 779071

## FREE FLIGHT FORUM

The 2016 BMFA Free-Flight Forum Report has now been published, including the written papers from the November 2015 Forum and a few additional items. The contents list is:

Indoor Scale Free Flight Gliders - Andy Sephton

Juniors in Free Flight - Mark Gibbs

Carbon Fibre for Aeromodellers - Mick Lester

The Making and Testing of F1 B Rubber Motors - Peter Brown

Computations at Low Reynolds Number and a New Aerofoil for F1G (Coupe d'Hiver) Models - Alan Brocklehurst

Carbon Fibre Covered Prop Blades from Simple Tooling - Phil Ball

Weather Forecasts - How Good Are They and How to Interpret Them - Mark Gibbs

Capitalising on Low Drag Aerofoils and All That- Alan Brocklehurst

Basic Propeller Theory - Andy Sephton

Methanol to Lithium - Peter Watson

Some interesting & successful models from 2015- Phil Ball

Dave Greaves 1942-2016 - An Appreciation

The UK price is £12.00 including postage; to Europe it's £15 and everywhere else £17. Sales of the Forum Reports help to defray the heavy expenses of those representing Great Britain at World and European Free-Flight Championships. Cheques should be payable to 'BMFA FF Team Support Fund' in pounds sterling, drawn on a bank with a UK branch; you may also order by credit card, which is a lot easier (and cheaper)



Copies are available from Martin Dilly, 20 Links Road, West Wickham Kent, BR40QW