FREE FLIGHT news

CONTENTS

FFn	82	News from BMFA FF Tech Committee	85
CIAM Plenary meeting	82	BMFA Contest Calendar 2021	85
Free Flight Forum, November 15	82	Michael Warren	86
A Contest that won't get cancelled- Hopefully…	83	F1G F6 by OTA VAVRIN	87
Classic A1 Glider	84	Volny Let	87

FFn DIARY

December	Grand Coupe de Birmingham - CANCELLED

The following events are scheduled for 2021 but watch for announcements of cancellations or postponements according to conditions.

February 28 Area Venues	BMFA 1st Area event- Winter Warmer. CG, CR, CP, CE (Plugge), F1H, F1J (Plugge), P30 (Plugge), H/CLG. Contact: Area Comp Secs.
March 7 Mjosa, Norway	Danish Winter Cup. F1A F1B F1C F1P F1Q, F1S. World Cup event. Entry fee €30. Contact: Steffen Hjorth Jensen, tel +4525332105 steffen.hjorth.jensen@gmail.com
March 20-21 Raná u Loun, Czech Republic	World Cup Rana. F1E. 2 World Cup events. Entry fee €35. Contact: Jiri Rudolf email: jiri.Rudolf@gmail.com
March 21 Area Venues	BMFA 2nd Area event- Spring Sorter. CR, CP (White), CE, F1A (SMAE), F1G (Plugge), E36 (Plugge), Mini Vintage (Plugge), H/CLG. Contact: Area Comp Secs.
March 26-29	BMFA F1E Trials for 2021. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
March 27-28 Padule di Bientina, Italy	Coppa Volo Libero. F1A F1B F1C F1Q. World Cup event. Entry fee €50. Contact: Fabrizio Ceccarini, tel +393474308840 email: f.ceccarini@tin.i t
April 2 Good Friday	BMFA Northern Gala. CG (CMA), CR (Caton), CP (Hamley), CE, F1H, SLOP (Falcons), Mini Vintage, P30, H/CLG, E30. Contact Phil Ball 07470177947 Phil.ball@ntlworld.com
April 10 Deva, Romania	Harghita Cup. F1A F1B F1C F1P F1Q F1H. World Cup event. Entry fee €40. Contact: Istvan Kiss, tel +40745161435 email: cc.cristur@gmail.com
April 11 Deva, Romania	Budapest Cup of Hungary. F1A F1B F1C F1Q F1H. World Cup event. Entry fee €40. Contact: Laszlo Patocs email: mmpa@t-online.hu
April 17-18	BMFA Trials (for 2021). F1A, F1B, F1C. Contact Phil Ball 07470177947 Phil.ball@ntlworld.com
April 17-18 Oberkotzau, Germany	2 F1E World Cup events. 17th: Otto Kuttler Cup, 18th Fohrlberg Cup. Entry fee €30. Contact: Peter Kuttler, tel +491609451646 email: peter-kuttler@web.de
April 21-23	BMFA F1E Trials (for 2021) Reserve. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
April 25 Area Venues	BMFA 3rd Area event- Gamage Day. CG, CR (Gamage), F1C (Halfax, Plugge), F1Q, Vintage G (Plugge), P30, H/CLG (Plugge), Tailless. Contact: Area Comp Secs.
May 8-9	BMFA London Gala. CG, CR, CP, CE, F1H, F1G, F1J, Mini Vintage, P30, H/CLG, E30, CO2. John Carter 01782 398816 Nordicf1a@outlook.com
May 8 Smolensk, Russia	Belaya Rus Cup. F1A F1B F1C F1P F1Q F1H. World Cup event. Entry fee €35. Contact: Anronov Leonid, t +79529937144 email: andronovleon@gmail.com
May 8 Salonta, Romania	Salonta Cup. F1A F1B F1C F1Q F1H. World Cup event. Entry fee €30. Contact: Sandor Vincze, tel +40724717992 email: vinczesg@gmail.com
May 9 Salonta, Romania	Szabo Miklos Memorial. F1A F1B F1C F1Q F1H. World Cup event. Entry fee €30. Contact: Guti Joszef, tel +36203635573 email: gutijozsef74@gmail.com

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

FFN

Thanks to the readers who have renewed their subscription after last month's renewal reminder. A few copies of the 2020 NFFS Symposium Report are still available at £37 including postage in the UK, £41 to other European countries and £47.50 to countries outside Europe. My apologies for having missed these costs from the subscription renewal form, and also for the incomplete website link on that page. For purchases from FFn go to

https://www.freeflightnews.org.uk/ffnbuy.htm

It has been reported that Norton software apparently marks some freeflightnews.org.uk addresses as dangerous sites. It is hoped that this will be addressed.

Please note that the 2018 and 2019 NFFS Symposium Reports are no longer available from FFn

CIAM PLENARY MEETING

Ian Kaynes

It was reported last month that the series of remote meetings which replaced the Plenary Meeting postponed from April were to conclude with the Plenary meeting on November 14th.

The meeting had 69 attendees. It started with a tribute to those lost in the previous 18 months, free flighters including Eugene Verbitski and Lars Oloffson. The FAI Secretary General reported on FAI matters and operation under a restricted budget. As well as working from home some FAI staff were on reduced hours so that the available effort was almost halved. State aid had contributed to salaries. All FAI meetings are now remote and this will continue until at least April 2021 (so that the CIAM Plenary 2021 will be remote).

The meeting awarded the remaining championships in 2022 which had not already been confirmed. For the F1ABP Junior World Championships there had also been a bid from Russia, but they have now clarified that they bid for the F1ABP Junior Euro Champs in 2023 and the Junior World Champs in 2024. There had been a possible bid from Ukraine for the F1ABC European Champs but that did not materialize, so it is awarded to North Macedonia who were going to host the cancelled 2020 event.

The full list for 2022 is now:

F1A F1B F1P Junior World Champs in Bulgaria, July 25-30

F1D World Champs Romania – currently March 14-17 but date to be confirmed

F1A F1B F1C European Champs in North Macedonia August 16-20.

F1E European Champs Romania, August 1-4

For events in 2021, the Bureau have asked organisers of the 2021 Championships for their deadlines for stages of the planning in order to understand the implications when reviewing whether to cancel events because of Covid19 situation. For World Cup events the Bureau have decided and the Plenary confirmed that the event registration is put back from November 15 to December and the 2021 World Cup will not start before March 1. The plans for 2021 will be kept under review. The Bureau had also proposed and the Plenary meeting accepted that in any 2021 Championship and in F1 Junior World Cup events the junior age will be increased by one year. This is a specific change for 2021 only and is to allow for those juniors who were selected and preparing for 2020 events which were cancelled.

The January FFn will include details of the proposals submitted for the 2021 Plenary meeting.

FREE FLIGHT FORUM, NOVEMBER 15

Due to restrictions on face to face meetings it was decided to hold the 2020 Free Flight Forum online using Zoom. It was chaired by Mike Fantham, who immediately credited the many times that Mike Evatt had chaired the meeting. Speakers were allocated thirty minutes each, which worked well giving time for some question and answer time plus a brief break and the whole day ran very closely to time.

First on was Simon Dixon describing "The Models of Ray Monks". This started with a 1946 petrol duration model which was the first plan Ray had published, when he was 19. Then followed some gliders, including the one with which Ray placed fourth in the contest in Yugoslavia in 1951 (Ed: in effect the first World Championship, Ray was leading with 2 5-minute maxes after round 2, but in round 3 he managed only 2.34 and dropped to fourth). Power models and gliders followed then in the seventies there was the Automat Wakefield with torque controlled surfaces and then the classic FAI power model Veterano. From the later power models Simon has a 2004 model and reported than Ray had made everything except the motor.

In "Tame your F1B and Related Thoughts" Mike Woodhouse described his experiences with F1B from placing fourth in the 1961 Team Trials through to the current period of stable rubber weight. To achieve consistency he advised Instant prop release rather than DPR which is more critical on launch and making parts interchangeable. He concluded with advice on trimming – no hand glide, a lower power test then full turns with VIT.

John Emmett talked about "Possible Future Uses for Electronics in FF" noting the advances that have been made in servos and then sensors. He suggested that these could allow thermal hunting, return up wind to launch point (not describing how the speed could be achieved) and applying geofencing. Another application was sensing to understand details of flight, although saying that airspeed could not be measured below 10 m/sec and that GPS receivers are 35mm square (which is much larger than the systems already in use on our models). He concluded by showing a device mounted on a frisbee to give time and maximum speed of movement relayed to a phone.

Peter Martin began his "Simulated 3D Flight Dynamics" with a tribute to Peter King, one of those identified with simulation of rubber model performance. He noted that 3D motion is governed by well established equations but there is more doubt about the aerodynamic forces. Peter demonstrated his 3D visualisation video of sample flights with a climb followed by glide, including the effect of wind and variations of the wind. Future work on his simulation include propeller modelling, optimisation and making flight measurements.

"What Next for a Lady Flyer?" was Sue Johnson's description of getting to grips with free flight. From having seen model flying when young and trying gliding and parachuting, after retirement she visited North Luffenham and decided to try free flight. After various difficulties with the problems of buying heavy balsa from Hobbycraft and trying various beginners models with limited success she reached catapult glider. They flew and she entered her first competition with them. A Senator is underway for the next Women's Cup and also a Caprice. Consideration of an E36 resulted in the meeting suggesting a Super Pearl kit, available from Mike Woodhouse.

Phil Ball was unable to present his planned paper, so Mike Fantham stepped in with a description of his history in F1A flying. From plastic kits in the early sixties and building balsa models from books and magazines with heavy balsa from local shops, he visited Chobham Common and was encouraged to try F1A. Wichita developments led to his own design models. In the team for the 1975 World Champs in Bulgaria he met Lepp and Isaenko. In 1979 with his latest model Mike placed third at Poitou, won both the Pierre Trebod and then the Livotto warm

up for the Taft World Champs. By Robin 13 he used "Hawker" tips rather than the elliptical tips and went on to his success in 1993. He bought models in 2004 and 2005 then in 2006 went over to F3K hand launch RC glider but retains his interest in FF and enjoys visits to Lost Hills.

Andy Sephton's presentation "F3-RES … RC for the Ageing Free Flighter" was pushing the virtues of a radio control soaring model which has limits on the components for which carbon can be used.

The meeting concluded with a general free discussion. The meeting had attracted 51 attendees, a significant increase over the usual number at the physical meeting, and included five from outside the UK and some from the further reaches of the UK who would not have travelled to Coventry.

The report of the Forum will be published next year as the 2021 Report.

A CONTEST THAT WON'T GET CANCELLED- HOPEFULLY…

Stuart Darmon:

After the frustration of the 2020 season, recent vaccine trials provide a glimmer of hope, but the first half of next season (at least) is still far from guaranteed. Therefore, in order to provide some opportunity for purposeful FF activity within the twin vagaries of Covid restrictions and the weather, The 'Birmingham MAC Classic A1 research group' has organised an 'email international' contest for the Classic A1 glider class, in which competitors can fly on a date of their choice between January 1st and July 1st 2021, submitting results by email (or post if they prefer).

In order to encourage participation, and hopefully confer a degree of prestige, high- value prizes are on offer; many thanks to the sponsors for their generosity.

1st. prize- Complete stand- alone RDT system (donated by Peter Brown & Leo Bodnar electronics) plus trophy (hand- cut lead crystal champagne glass engraved with 'Classic A1 winner')

2nd. Prize- £50 voucher for goodies from Free Flight Supplies, https://freeflightsupplies.co.uk/ (donated by Mike Woodhouse)

3rd. prize 12 month subscription to Aeromodeller magazine (donated by Andrew Boddington & Doolittle Media).

Top junior (aged 16 or under on the date of participation) will get an engraved glass trophy and a laser- cut Classic A1 kit donated by Bernard Guest from Hummingbird Model Products https://hummingbirdmodelproducts.com/

And finally, 'team prize 'for highest aggregate score by three members of the same club, each of whom gets am engraved whiskey tumbler.

Entry is free, and welcomed from anywhere in the world – the dates are such as to give both hemispheres the chance of some decent weather. A few FAQs before we get to the rules.

Q. Why Classic A1?

A. the models have a basic performance of 2 minutes or less and are therefore suitable for smaller flying sites. They are easy to fly but challenging to consistently max with. They are recognisable as duration models by followers of modern classes but also appeal to old-timer enthusiasts because of their traditional structures. Many are extremely simple and can be built in a few hours.

Q. Is there a minimum weight?

A. No. There was a wing loading (8g./sq. dm.) in the fifties but it was not felt necessary today, as very light models have negligibly higher performance

Q. Do I have to use tissue covering?

A. No. Structural materials not available in the fifties (carbon in particular) aren't allowed but non- rigid coverings like Polyspan & Mylar are fine. Turbulators are also allowed, as is any form of DT including RDT. No circle towhooks though, even fixed offset ones.

Q. Is there a catch?

A. Nope. Entry is totally free, no data collection, no spam, just a model aeroplane contest and nothing else.

Email address for entries is in the rules below, but won't be checked regularly until the start date, so any enquiries or comments should go to stuartdarmonf1a@yahoo.com , or call Stuart Darmon on 01858 882057 (United Kingdom). Those who don't use email can post their entry to 1, Post Office Cottages, Main Street,Theddingworth, Leicestershire LE176QP United Kingdom, but they must get here before July 07 2021.

Classic A1 Glider Email International 2021

ELIGIBLE MODELS

A Classic A1 glider is any Free Flight towline glider of total projected surface area not exceeding 18 square decimetres, built in accordance with a design published or kitted between January 1951 and January 1961, as per BMFA Classic Glider rules (https://britishmfa.sharepoint.com/sites/public/Rule Books)

Maximum length of towline 50 metres under 2Kg. tensile load

THE CONTEST

All flights for each entry must be made on the same day between 01 January 2021 and 01 July 2021 inclusive. All flights must comply with local regulations governing model flying and with the guidelines of the national aeromodelling governing body (BMFA, AMA, etc.)

All flights for each entry must be made with the same model. An individual may make up to three separate entries provided that each is made with an entirely different eligible model.

A model may not be used by more than one individual over the age of 16 years. Juniors below this age may fly a model borrowed from another entrant.

The maximum for the first flight of each entry is 30 seconds. If this is achieved, the entrant is permitted a second flight of maximum 60 seconds, and so on, the maximum increasing in increments of 30 seconds until either a max is not achieved ,or flying cannot continue (e.g. because the model is lost or damaged). The score for that entry is the total flight time including the sub- max final flight.

All flights must be timed by a person other than the entrant. Procedure for starts, timing, attempts etc. is per F1H **except** that a flight aborted by RDT does **not** qualify for a second attempt, even if less than 20 seconds (in line with BMFA classic rules)

ENTRY

Entry is free of charge. Once the flights are completed, entry is submitted no later than 07 July 2021 by email to classica1postal@gmail.com by sending the following information:

1. The name & contact email* of the entrant
2. The name(s) of the timekeeper(s)
3. The score, in seconds, in the form of an addition, e.g.
   30+ 60+ 90+ 120+ 124= 424
4. The name of the model and where it was published
5. The country and location where the flights were made

If entrants aged 16 or under wish to be eligible for the junior prize they must include their age in years (D.O.B. not required). Juniors are also included in the overall results and are eligible for the other prizes.

In order to qualify for the team prize the entries of all three team members must be submitted in the same email, also stating the

name of the team. Entries received in this way will also be included in the individual results.

Information about the flying, the site, etc. plus photographs will be very welcome and will help in reporting the contest in the modelling press.

CLASSIC A1 GLIDER

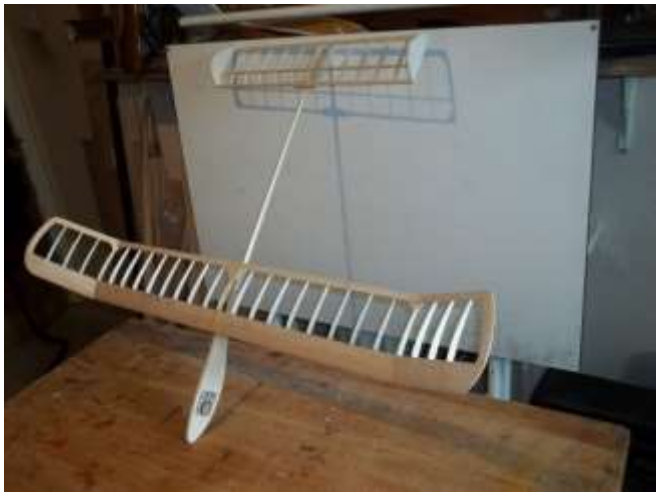
By Stuart Darmon

The Classic A1 Glider class is not an attempt to 'dumb down' duration Free Flight; it is not suggested as a substitute for high-performance competition, nor is it predicated on the dubious notion that things were somehow better when model aircraft were made of sticks and paper. It's simply a pragmatic way of flying more free Flight, either on sites such as Buckminster or as a second string class at traditional contests where the existing 'minis' have either a five- flight format, too much performance, or both, resulting in a decline in the practice of flying multiple classes which was once the norm.

In the year and a half or so since I began touting the idea, about twenty- five models have been built to my certain knowledge (including by several former & current international flyers), and no doubt there are others of which I'm not aware.

The considerable amount of flying to date, including two well-supported contests last year, has yielded information which may be of interest to anyone considering giving it a go. Firstly the fearsome reputation of small gliders (especially early ones) seems unfounded. Given the right warps (a little tip washout with fractionally more on the outside of the turn), a reliable tow trim is simply a question of adjusting the rudder and the towhook position, which as a general rule ends up more rearward than one would expect. Only one of the designs built so far- a V dihedralled model named 'Mock Turtle'- has proved inherently problematic, the two individuals who've built it each reporting an incurable divergence on tow.

Generally, the performance of the more conventional designs is roughly similar at around the two-minute mark- when everything goes right. Of these, the most popular is probably the 'Aiglet', at least half a dozen of which are doing the rounds, and which is now even available as a Kit from Mike Woodhouse. A wise modification to this design is spruce top spars in the centre panel, as a couple of people have folded them so far (albeit one was Peter Tribe, who I sometimes think does it on purpose). Bernard Guest (Hummingbird Models) has introduced no fewer than three classic A1 kits, including Ray Hansen's starkly functional design from the 1959- 61 Zaic book, a scratch- built version of which won the inaugural UK Nationals contest and seems to have performance to spare over the two- minute max.



Stuart's "Bingo"

Stuart's "Everest"

Stuart Darmon's "Everest"

Peter Watson's Pjerri 75

Unsurprisingly, models with surface spars tend to glide noticeably better than those where the aerofoil has been kept intentionally smooth, as was often done. The rules do permit thread turbulators, which are known to have been in use at the time, but despite one of these, Gavin Manion still isn't satisfied with his 'Pluto' (which has spars threaded through the ribs and out of contact with the covering), and would like to hear from anyone with evidence that invigorators were in use in 1958. By way of encouragement, a few of the designs built and flown successfully thus far are; *Pjerri 75, Everest, La Mouette, Hatchetman, Santanita, and Jetstream,* all of which can be downloaded free from the Outerzone plan sharing site.

NEWS FROM BMFA FF TECH COMMITTEE

All correspondence re this news to the FFTC Secretary:

Stephen Philpott, 14 Durley Drive, Sutton Coldfield, B73 6QT. Tel 0121 354 4448 mob 07939 205047. Email srphilpott@aol.com

The FFTC held an internet virtual Zoom meeting from their homes on 19 November 2020.

2021 Contest Entry Fees

Single Entry Fees £5 (Covers all events on any day at Area or Centralised Contests and all F1E contests) Separate site fee is applicable. Site fee on FFTC sites is £5 per day; non FFTC sites charge may differ

Team Selection: £25 covers all classes and site fee World Cup: £30 per contest covers all classes

Season Tickets: £70 Covers all centralised events (excluding Nationals) , all area events, Team Selection, World Cups, F1E and site fees at centralised events. Season ticket for 2020 will be extended to cover 2021

Note: Members of clubs who have use of the site for trimming and practise will still need to pay the field charge if they enter a contest

Juniors: Free of Charge and no site fee except for Nationals

Provisional Nats Entry Fees – TBC

Salisbury Trimming Ticket: Fee remains at £20 for 2021 and 2020 tickets will be extended to cover 2021

FFTC Communications and Results

The only official source of up to date information from the Free Flight Tech Committee is via the FFTC website. To find it look on the BMFA Website, then under The BMFA drop down find Technical Committees, select Free Flight. That will take you direct to the FFTC website. If you submit your email details on the front page you will receive immediate email notifications of any news as it is added. The results and newsletters are no longer emailed out to a list so it is important to enrol if you want to receive the news as it is posted and to access the results. If you change your email address please remember to update the address in the website to continue to receive the news.

Sport Flying and Trimming at FFTC Competitions

Sport flyers and flyers wishing to only trim their models are very welcome to fly at FFTC run competitions. The day site fee for the use of the field shall be paid to the CD. Please fly from an area that will not impact on the competitions taking place on the day

Calendar

2021 Calendar below is published on the understanding that Covid restrictions will enable competitions to take place. If any events are cancelled due to Covid restrictions they will be cancelled ahead of the event date via the FFTC website with as much notice as possible.

BMFA CONTEST CALENDAR 2021

February 28 Area Venues	BMFA 1st Area event- Winter Warmer. CG, CR, CP, CE (Plugge), F1H, F1J (Plugge), P30 (Plugge), H/CLG. Contact: Area Comp Secs.
March 21 Area Venues	BMFA 2nd Area event- Spring Sorter. CR, CP (White), CE, F1A (SMAE), F1G (Plugge), E36 (Plugge), Mini Vintage (Plugge), H/CLG. Contact: Area Comp Secs.
March 26-29	BMFA F1E Trials (for 2021). Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
April 2 Good Friday	BMFA Northern Gala. CG (CMA), CR (Caton), CP (Hamley), CE, F1H, SLOP (Falcons), Mini Vintage, P30, H/CLG, E30. Contact Phil Ball 07470177947 Phil.ball@ntlworld.com
April 17-18	BMFA Trials (for 2021). F1A, F1B, F1C. Contact Phil Ball 07470177947 Phil.ball@ntlworld.com
April 21-23	BMFA F1E Trials (for 2021) Reserve. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
April 25 Area Venues	BMFA 3rd Area event- Gamage Day. CG, CR (Gamage), F1C (Halfax, Plugge), F1Q, Vintage G (Plugge), P30, H/CLG (Plugge), Tailless. Contact: Area Comp Secs.
May 8-9	BMFA London Gala. CG, CR, CP, CE, F1H, F1G, F1J, Mini Vintage, P30, H/CLG, E30, CO2. John Carter 01782 398816 Nordicf1a@outlook.com
May 15-16	BMFA Trials (for 2021) Reserve. F1A, F1B, F1C. Contact Phil Ball 07470177947 phil.ball@ntlworld.com
May 16	BMFA 1st F1E. F1E Team Selection for 2022. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
May 29-31	BMFA Nationals + Team Selection Reserve. CG (Thurston), CR (Model Aircraft), CP (Shelley), CE, F1A (Ronytube), F1B (Boxall), F1C (Cosh), F1Q (Astral), F1H (BA), F1G (308), F1J (Quickstart), 1/2A (Hales), E36, Vintage RP (Jubiliee), Vintage G, Classic RP, Classic G, SLOP (Plugge .Harris), Mini Vintage (Weston), P30, H/CLG (Nats), Tailless (Lady Shelley), E30, CO2 (Sparklets). Contact: Mike Woodhouse 01603 457754 michael.woodhouse1942@gmail.com
June 13	BMFA 2nd F1E. Sheffield Magnet Cup. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
June 20 Area Venues	BMFA 4th Area event- Team Power Day. CG, Team CP (Keil, Plugge), CE, F1B (Gutteridge), Vintage RP (Plugge), Mini Vintage, H/CLG, E30 (Plugge). Contact: Area Comp Secs.
July 4	BMFA 3rd F1E. F1E Team Selection for 2022. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
July 11 Area Venues	BMFA 5th Area event- Summer Mini Day. CG, CR, CP, F1H (Plugge), F1G, 1/2A (Plugge), E36, H/CLG, CO2 (Plugge). Contact: Area Comp Secs.

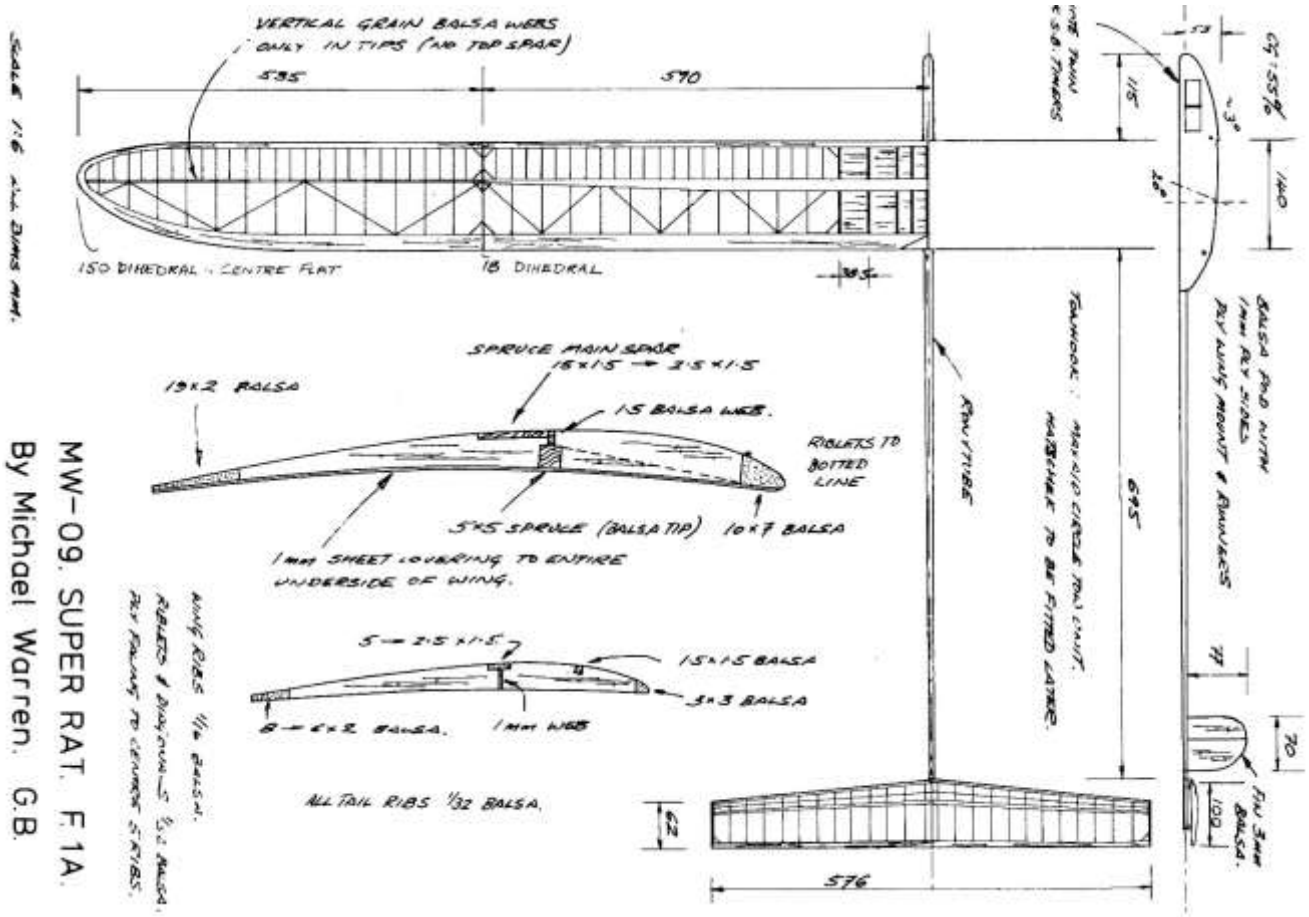
July 31 - 1 August	BMFA East Anglian Gala. CG, CR, CP, CE, E36, Vintage RP, Vintage G, Classic RP, Classic G, Mini Vintage, P30, H/CLG, Tailless, CO2. Contact: Mike Woodhouse 01603 457754 michael.woodhouse1942@gmail.com
August 15	BMFA Southern Gala. CG (Pilcher), CR (Flight), CP (Short), CE, F1H (Ripmax), F1G, F1J, 1/2A, H/CLG, E30. Contact: Ken Faux 01279 721008 ken.faux@btinternet.com
August 22	BMFA 4th F1E. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
September 4	Stonehenge Cup. World Cup event. F1A, F1B, F1C, F1Q. John Carter 01782 398816 Nordicf1a@outlook.com
September 5	Equinox Cup. World Cup event. F1A, F1B, F1C, F1Q. John Carter 01782 398816 Nordicf1a@outlook.com
September 12 Area Venues	BMFA 6th Area event- KMAA Day . CR, CP, F1A (Plugge KMAA), F1Q (Plugge), Vintage RP, SLOP, P30, H/CLG, Tailless (Plugge). Contact: Area Comp Secs.
September 18-19	BMFA Trials (for 2022). F1A, F1B, F1C. Contact Phil Ball 07470177947 Phil.ball@ntlworld.com
September 26	BMFA 5th F1E. F1E Team Selection for 2022. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.com
October 3 Area Venues	BMFA 7th Area event- Team Rubber Day. CG, Team CR (Farrow Shield, Plugge), CE, F1C (Buskell), Classic RP (Plugge), Classic G (Plugge), H/CLG. Contact: Area Comp Secs.
October 9-10	BMFA Trials (for 2022) Reserve . F1A, F1B, F1C. Contact Phil Ball 07470177947 Phil.ball@ntlworld.com
October 17 Area Venues	BMFA 8th Area event- Team Glider Day. Team CG (Model Engineer, Plugge), CE, F1B (Duce, Plugge), SLOP (Frog Senior, Plugge), Mini Vintage, H/CLG, E30. Contact: Area Comp Secs.
October 23 Saturday	BMFA 6th F1E. Team Selection for 2022 reserve if required. Contact: Ian Kaynes 01252 512538 kaynes@btinteret.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

MICHAEL WARREN

Michael Warren died at the beginning of November. Mainly a glider flyer, he had more recently initiated a move towards F1B. He had represented UK in the F1A team at the European Championships in 1974 at Homburg and 1982 at Zulpich. The accompanying plan is from July 1978 FFn

Michael had joined FFn in 1977 and for many years contributed his fine writing to the magazine. There were some notable contest reports, an early one being the 1981 World Championships in Spain. He instigated the reviews of the preparations of British teams for championships and maintained those over three decades.

We send our condolences to Lyndsey and Rebecca.



F1G F6 BY OTA VAVRIN

From Volny Let

When I retired, I returned to modeling and took up rubber, without any previous experince of it. I started with a P30 and the next year F1G. For starters, I used the CO2 wings I had from before and only needed the fuselages and tails. From my work I had experience with laminate production and so the fuelages were already my own production carbon. I got information from Bohouš Rýz on how to build carbon wings, so another model was soon complete.

I built this model in winter 2015/16. Previous models were not powerful enough and I also managed to eliminate the problems with hubs from Stefanchuk, with which I had struggled for two seasons. There were no significant problems during the flight and it has been flying reliably since the first competition. All outages were caused by my clumsiness or inconsistency during the preparation of the start. At present, more than 250 flights have been flown without serious damage. Because it is built on 8 strands, the rubber is not suitable for windy weather, when the torque is not sufficient for a smooth transition to the climb. The model is not equipped with any rudder control or timer. I still use a DT fuse to end the flight.

The design was based on experience with the P30 models, in which I use a tube of 4mm or 3 mm diameter of carbon sock as a wing or tail spar. Compared to previous models, I chose a slimmer wing with an area of 10 dm^2 yet the span is 1180 mm. The length of the fuselage is adapted to the metre transport box. So far, I have used the same section on all my P30 and F1G models (Makarov, Modelár 08 / 1991), which is thinner on current models as the templates wear out.

I build the wing on a polystyrene template with a shape approximately identical to the underside of the profile. I build the main wings without twist. Both tips have the same washout of about 3 mm. I achieve this by rotating the drawing on a template. The leading edge is ground from 5 x 4 mm and 4 x 3 balsa into a trapezoidal shape. I will pin it on the template. I stick the 2.5 x 0.8 carbon trailing edge with instant glue. Then I gradually put the ribs on the spar and fit them on the front and back. When I have all the ribs fitted, I stick 1x0.11 carbon caps to the ribs with an overlap at the front and back. I remove the leading and trailing edge from the template and set up the spar with threaded ribs. Then I glue the leading and trailing edge with instant glue, I will ensure possible overlaps of the ribs on the leading and trailing edge and I cap strip the top. I remove the glued part of the wing from the plan and grind the shape of the leading edge. I glue my tips to the centre panels then to the inner panels with the joint reinforced with a 2 mm plywood coupling glued to the tubular spar. At the root of the wing, a 3 diameter carbon tube is glued to the spar, which serves as a reinforcement and at the same time for the carbon joiner of the wing. I fill the space between the first and the second rib with balsa. On both sides I stick the diagonal carbon of one layer of fabric 93 g / m^2. The metallized mylar covering of the inner and middle panels is 9.7 g / m^2 and on the tips 5.6 g /m^2, glued on with dilute Chemoprene.

The tail is built in a similar way, where the leading edge is a 3 mm carbon tube which also serves as a spar. The space between the middle ribs is half-filled with 5 mm balsa and also in front of the trailing edge about 5 mm long. At a distance of 37 mm from the leading edge, I make a 4 mm hole between the center ribs for the width of the determalizer. The cover is a clear mylar of 5.6 g/m^2. After covering I glue a bamboo peg for the retaining rubber band from the top and cut a hole in the top and bottom cover.

I laminate the front part of the fuselage on a steel tube 18 mm diameter from two layers of carbon fabric 93 g/m^2. As a separator I use a foil from a coil condenser. The fabric goes on a PVC foil. Then I apply the tube, which I pre-coated in one place with a resin and soaked fabric, I wind it up and smooth it so that there is no air bubble anywhere between the fabric and a 0.15 mm foil and stick with adhesive tape. The rear part of the fuselage is laminated from one layer of unidirectional fabric 125 g/m^2 and two layers of glass 30 g/m^2. The connecting part is also carbon from two layers of 93 g/m^2. The pylon is laminated from one layer of 93g/m^2 carbon and and one layer of glass 30 g/m^2. A balsa block is glued in the place of the wing jooner and a balsa block is added at the place of the rear attachment, building the extra incidence of the right wing.

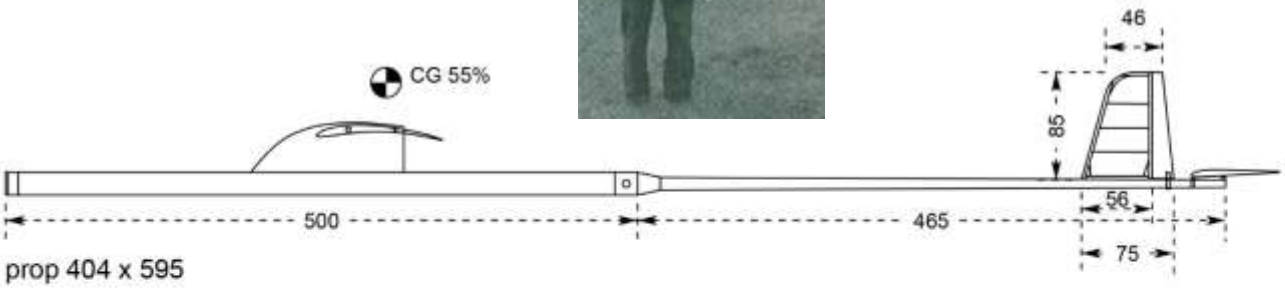
The rudder is balsa. The 3 x 3 balsa frame with 1 mm balsa ribs is ground to the profile. Dural rudder hinges are glued on the back. The cover is mylar 5.6 g/m^2. The rudder is made of 2 mm balsa and is attached to the hinges with pins. There is a spring on the bottom pin that pushes the rudder to the adjustable stop. The stop is sawn from 3 mm duralumin. I also saw the front tail mount from a duralumin milled semi-finished product. I glue the metal parts to the tube with 5 minutes epoxy.

I use a hub from Stefanchuk. The propeller has a diameter of 405 and a pitch of 595 mm. Depending on the type of rubber, the run is from 65 to 80 seconds with this setting. The problem with the hubs I mentioned at the beginning was manifested by the fact that when the propeller bundle was turned, it continued to stretch, and it stopped only when the bundle was twisted again. In one flight it went so far that it unscrewed the axle carrier and the propeller fell out during the flight. I found the propeller, but not the bearing ring. At home, I disassembled the second head (which I had no courage to do before) and found that the head is very easy to manufacture. I made the missing part and at the same time I made another whole hub. During the assembly, I also understood the cause of the problem that had plagued me for 2 years. Since then, I have been making hubs. I also make propeller blades myself today. The original sheets had a PVC foam core and 90 gram carbon on both sides. They were spectacular but terrible. I now use sheets with a balsa core, laminated 30 gram glass with carbon reinforcement in place of the duralumin root fitting.

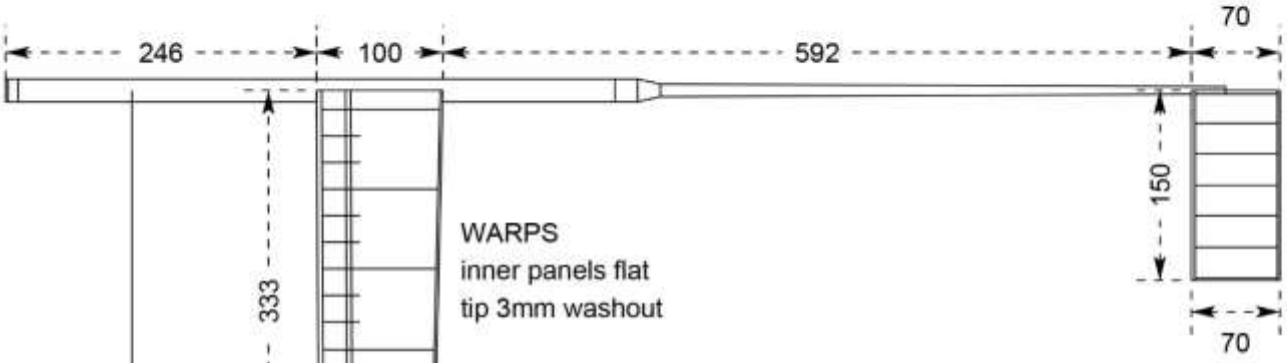
The model is right-to-right and there is no problem with flying. At launch, I do not recommend supplying additional energy by throwing. The power is not enough that it continues to rise after losing speed, but falls on the tail. Only in a strong thermal will it withstand a slight launch. Therefore, it is not suitable for stronger winds.

VOLNY LET

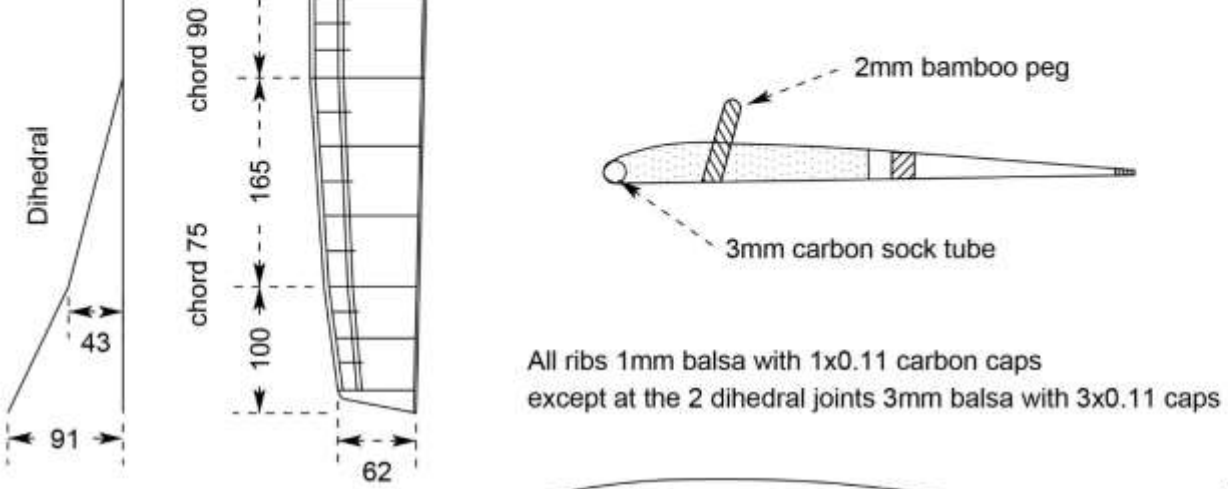
The latest issue of the Czech magazine Volny Let was accompanied by a sad note to say that the magazine was ceasing publication. The reasons given are low print numbers and the health of one of the editors. Over the 10 years life of the magazine they have been particularly strong in free flight and we have used a large number of their plans. Thanks to Josef Kubes and Michal Chudoba.



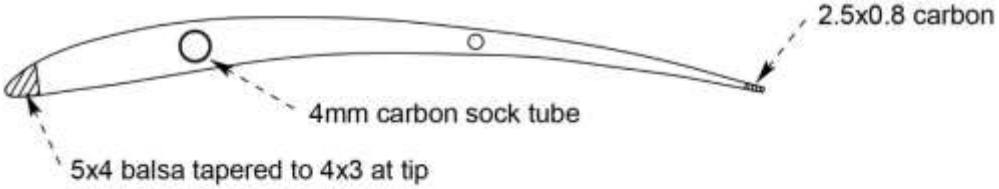
prop 404 x 595



WARPS
inner panels flat
tip 3mm washout



All ribs 1mm balsa with 1x0.11 carbon caps
except at the 2 dihedral joints 3mm balsa with 3x0.11 caps



span 1179 length 1008
wing area 10.0 dm^2
tail area 2.1 dm^2

F6
F1G by Ota Vavrin

FFn from Volny Let
Scale 1:6 All dimensions mm