FREE FLIGHT news

CONTENTS

Peter King	60	CIAM Competition Calendar	64
Coupe d'Hiver – some aspects of design	61	UK Competition News	64
News from BMFA FF Tech Committee	63	Noticeboard	64

FFn DIARY

Shown here are the BMFA events which will now take place during the remainder of 2020 and the Championships scheduled for 2021 and 2022 which have a date and venue. The other 2022 Championships are subject to bids and will be awarded later.

Not shown are any other international events. Some of the planned World Cup events in 2020 may continue as open internationals, but the situation is changing rapidly. These are left for reader direct contact with the previously published organisers.

September 5 (Saturday) Salisbury Plain	BMFA Ad hoc contest C/R, C/G, C/P, C/E. Contact: Mike Woodhouse 01603 457754, michaelwoodhouse1942@gmail.com
September 6 Salisbury Plain	BMFA Ad hoc contest. F1A, F1B, F1C, F1Q, F1G, F1H, F1J. Contact Peter Tribe 01225 862748 thepetertribe@gmail.com
September 13 Salisbury Plain	Crookham Gala. Modern & Vintage Coupe comb, BMFA Glider, BMFA Power (George Fuller trophy for best Dixelander score), Mini Vintage, E36. Start at 10.00, finish at 17.00, any fly offs commencing at 17.15. Entry fee £12 to include the site fee and unlimited classes. Contact Chris Redrup chrisredrup@yahoo.com
September 20 Area Venues	BMFA 6th Area event. Team Rubber Day. C/R Team (Farrows/Plugge), F1C (Buskell), F1QUK, Classic R/P (Plugge), Classic Glider (Plugge), C/G, HLG/CLG. Contact: Area Comp Secs.
September 27 Peak District or near Melton Mowbray.	BMFA 6th F1E. Not team selection. Contact: Ian Kaynes 01252 512538. kaynes@btinternet.com
October 3-5 Buckminster	BMFA Buckminster Gala. To be announced Contact:John Ashmole 01406 370188 Email: johnashmole@yahoo.co.uk
October 11 Area Venues	BMFA 7th Area event. Team Glider Day. C/G Team (Model Engineer, Plugge), F1B (Duce, Plugge), SLOP (Frog Sen',Plugge), Mini Vintage, E30, C/E, HLG/CLG. Contact: Area Comp Secs.
October 17 (Saturday) Salisbury Plain	Croydon Coupe Europa, See FFn 2002. F1G (in rounds), Vintage Coupe. Flitehook trophy for F1G teams. Start 10am. Contact Ray Elliott, tel 020 8997 7745, email ray.elliott8@btinternet.com
October 18 Peak District or near Melton Mowbray.	BMFA 7th F1E Not team selection. Contact: Ian Kaynes 01252 512538 kaynes@btinternet.com
October 24 (N.B. Saturday) Barkston Heath	BMFA Midland Gala. F1H, F1G, BMFA1/2A Power, E36, P30, SLOP, Mini Vintage, CO2, HLG-CLG. Contact: Phil Ball 07470 177947email: phil.ball@ntlworld.com Also Cranfield Classic (see FFn 2001) which had been planned as extra event at Nationals. Contact for Cranfield 60 is Simon Dixon dixonfamily100@yahoo.co.uk
July 17-20 Turda, Romania	2021 F1E World Championships
August 14-21 Moncontour, France	2021 F1ABC World Championships and F1ABP Junior World Championships
December 6-8 Slanic Prahova, Romania	2021 F1D Indoor World Championships
August 1-4 Turda, Romania	2022 F1E European Championships

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

PETER KING

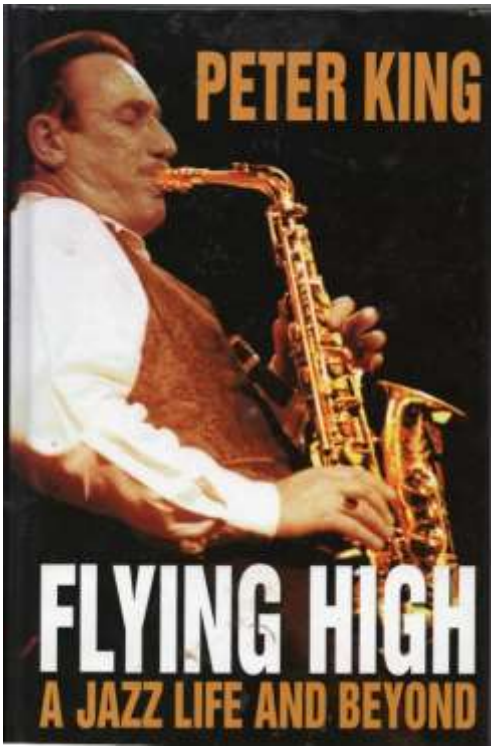
Jazz musician and Free-Flight Competitor 11-8-40 to 23-8-20

By Martin Dilly

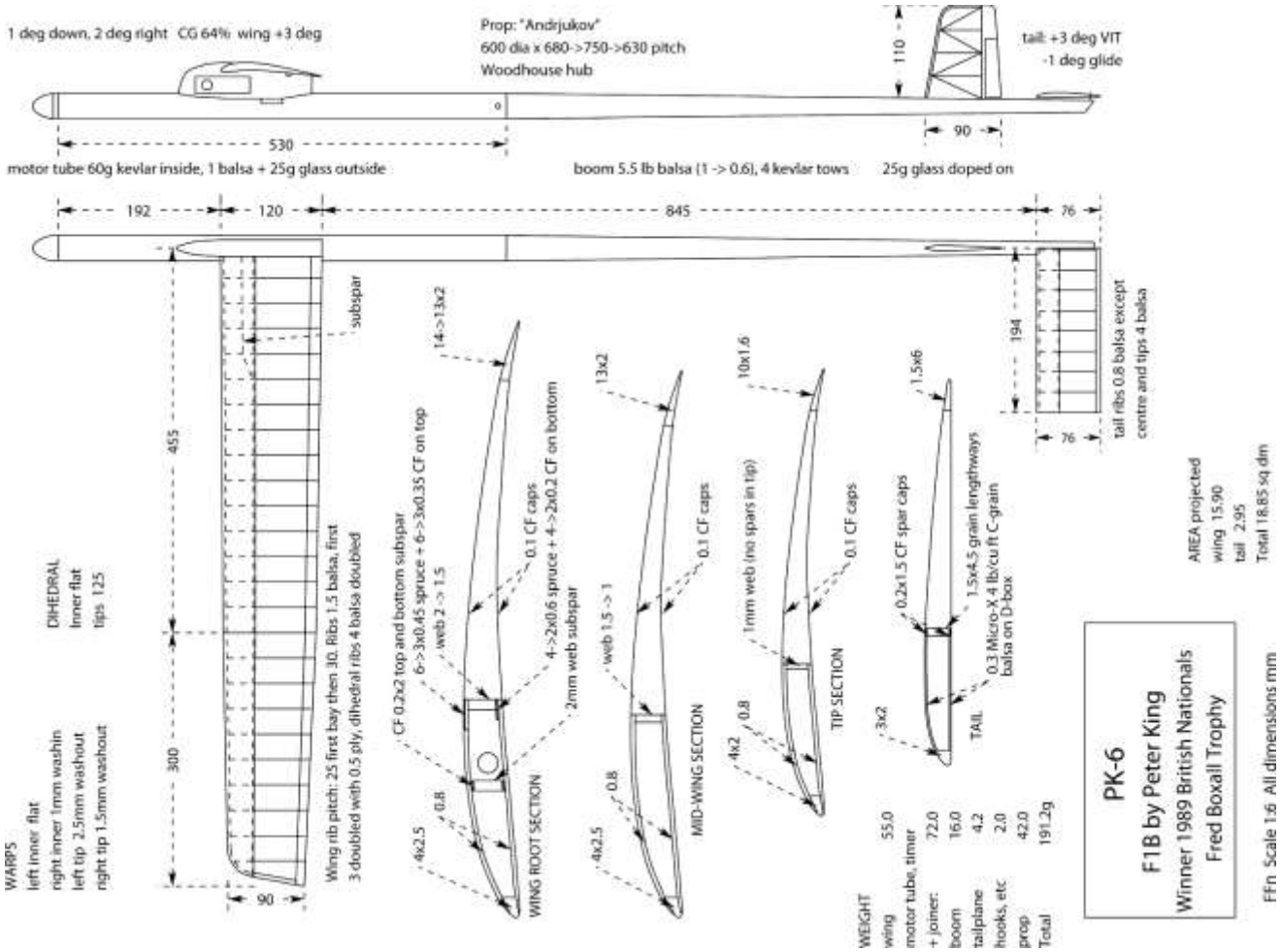
Born during the Blitz, Peter King joined the Surbiton club in 1952 and placed third in the Frog Junior free-flight contest at the Nats the year after, at the age of 13. He later joined Croydon & DMAC and had planned a career in aerodynamics, but at the same time taught himself clarinet and alto sax, developing a great feel for modern jazz, in particular the be-bop techniques of Charlie Parker. At the age of nineteen and as a recognised young prodigy, he was asked to play alto at the opening night of Ronnie Scott's jazz club in 1959, and there followed a thirty year break from model flying, while he developed his career as one of the world's most highly-regarded alto saxophonists.

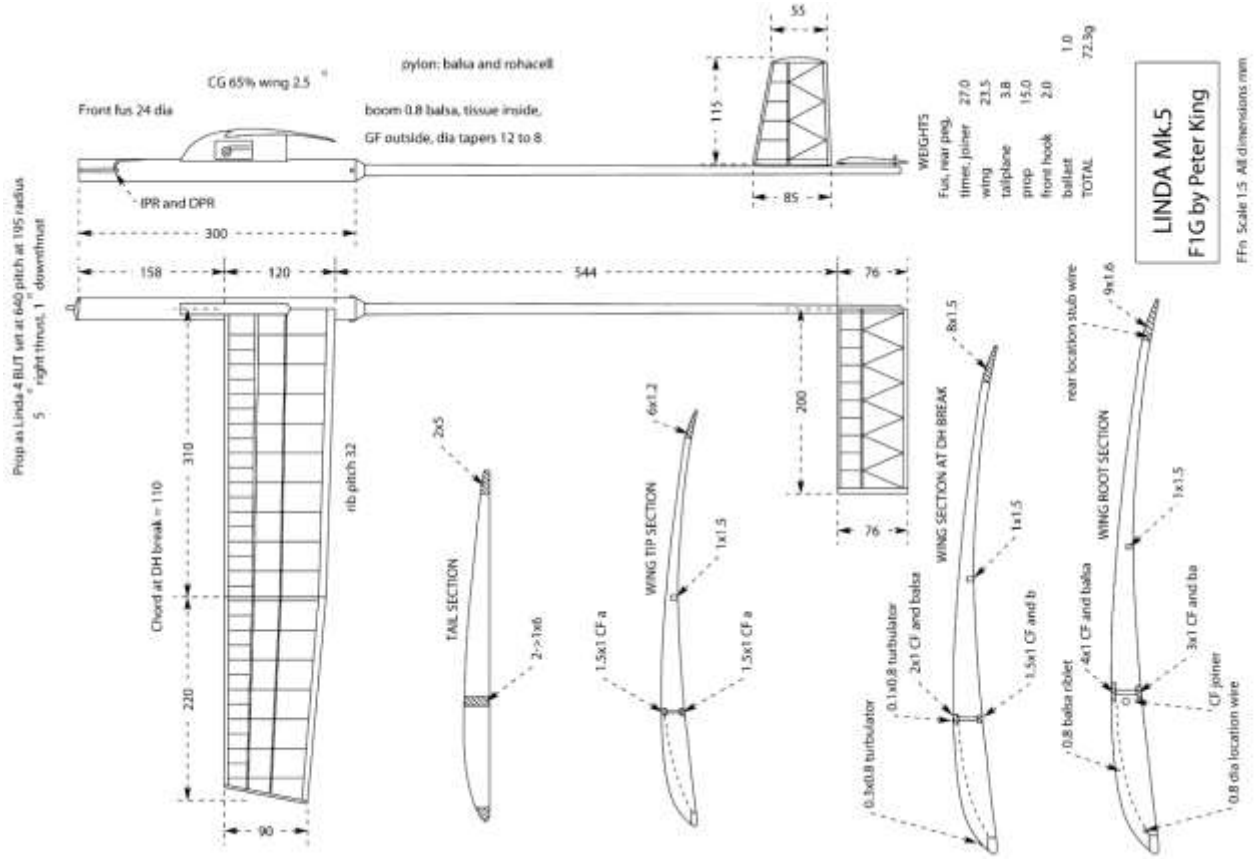
During that time he played all over the world with many of the world's leading jazz groups, including Johnny Dankworth, Quincy Jones, Zoot Sims, Ray Charles and the Charlie Watts Tentet, as well as with singers such as Anita O'Day and Jimmy Witherspoon. His film work included The Italian Job and The Talented Mr. Ripley. He wrote an opera, Zyklon, based on the life of the Jewish inventor of the gas later used in Auschwitz, and cut fourteen albums with his own quintets. In 2005 he won the BBC's Jazz Musician of the Year award and later was made an Honorary Doctor of Letters by Roehampton University.

In 1990 he came back to competitive free-flight and re-joined the Croydon club, flying in both the F1B Wakefield and F1G Coupe d'Hiver classes with considerable success. Peter had always had an interest in low-speed aerodynamics and wrote several papers on model performance for the BMFA's Free Flight Forum Reports and for the US NFFS Symposium Reports. He will be much missed by his friends, both in free-flight and the world of modern jazz.



His autobiography, Flying High, is published by Northway, ISBN: 9780955090899 and covers both his jazz career and his model flying.





COUPE D'HIVER – SOME ASPECTS OF DESIGN

Extracts from the article by Peter King in the 1991 Free Flight Forum report

The Computer Simulations

1 Altitude/prop run

See Figure 1. Notice the optimum prop runs for best height are:

Wing area (Proj)	Optimum prop run
9 dm^2	ca 22 secs
11dm^2	ca 26 secs
15 dm^2	ca 35 secs

(Note, also all the models tend to reach a similar altitude at *ca* 55 see prop run, i.e. about 45m)

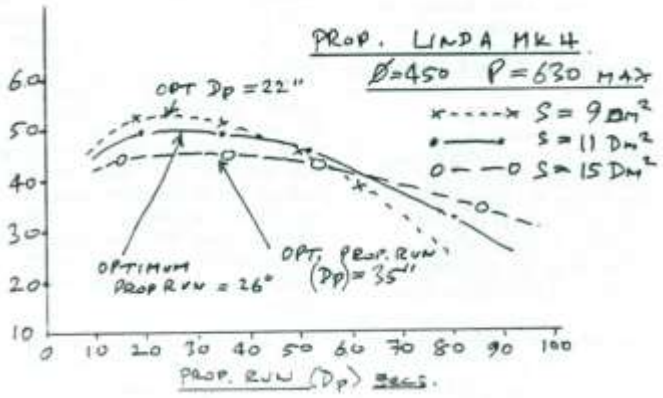


Figure 1

2 Duration (still air)/prop run

See Figure 2. Note that the sinking speeds are:

Wing area (Proj)	Sink speed
9dm^2	*0.48 m/s* (1.57 ft/se)
11 dm^2	*0.43 m/s* (1.41 tt/sec)
15 dm^2	*0.37 m/s* (1.21 ft/sec)

And the optimum prop runs are:

Wing area (Proj)	Optimum prop run (secs)
9 dm^2	50
11 dm^2	60
15 dm^2	80

Using the Linda Mk 4 prop, duration started to deteriorate when a wing area of more than *ca* 16 dm^2 was used. However some simulations with a 21 dm^2 model using a much larger prop showed an increase in potential duration to an amazing 190 sees!

Even the "Optimistic" computer, though, only showed a maximum altitude of 5-10 metres! Such a model would be more suited to flying at Cardington!

Notice also that the optimum prop run for the two smaller models looks rather long , but that is what the computer says.

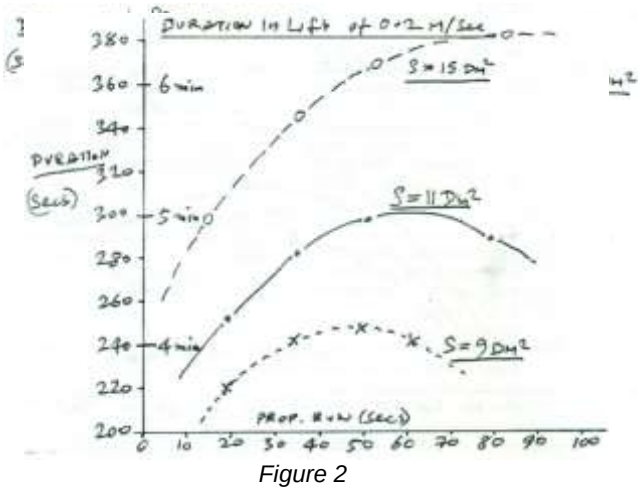


Figure 2

3. Duration in lift and sink of 0.2 m/sec

See Figures 3 and 4. I had the feeling that in gentle lift , the larger model would give the best performance, and in light sink the small, fast climbing model would be better. The computer confirms the situation in lift but also shows that, in gentle sink, the larger model is still the best in theory, [at least in sink of only 0.2 m/sec). Notice however that with a short prop run of up to 40 secs the 15 dm^2 model is no better than the small 11 dm^2 model. Also, this does not take account of any low level turbulence, or the fact that VIT would help the smaller model to a much greater extent than the larger. (More of this later).

Effect of Low-level Turbulence

See Figures 5 and 6. Using a rather rough and slightly naive calculation method, I have attempted to find the effect of low-level turbulence on the still air duration simulation above. In order to do this I have made some daring assumptions.

a. I have assumed there is a turbulent layer with a height of 20 metres throughout the entire flight, which reduces the climb height by a factor (F) up to 20 metres. I felt it necessary to alter the value of (F), according to the time taken to reach 20 metres in still air. This depends on the initial rate of climb which, in turn depends on:

1. The length of the prop run.
2. The wing area of the model (i.e. the climb drag).
3. Other factors!!

In order to get some semblance of realism into the calculations I have given (F) the value of between (F) = 0·5 to (F) = 0·65 for non- VIT models, depending on the above criteria, and, for the smaller VIT-equipped models, I have made (F) = 0·8 to (F) = 0·9. (N.B. In the conditions postulated, most of the small VIT models should reach 20 metres in under 3 secs.· I have therefore considered that the turbulence would have only a slight effect on the altitude reached, in these cases.

b. Also, throughout the calculations, I have assumed that the 20-metre turbulent layer affects the glide of all models such that their sinking speeds are increased by an arbitrary factor of (1.5) during that portion of the flight when the glide is at below 20 metres.

Of course, this is just an attempt to find some guidelines to the low level turbulence factor. However, the results are interesting and tend to support what I would have thought happens. Perhaps I may be accused of loading the dice, but we must start somewhere!

Note that for these calculations, I have had to assume no lift or sink. Unlikely in summer weather but quite common in cold, marginal conditions.

Figure 5 needs little explanation except to note that the 15dm^2 model with a prop run at longer than 65 sees never climbs out of the turbulent layer. Furthermore the addition of VIT makes little difference. However, using a very short run of ca. 25-30 sees there is a height gain of about 9 metres when VIT is used. (Notice also, with the 11 dm^2 model, VIT makes a difference of about 11 metres from a similar prop run).

Figure 6 shows how the altitude gained tends to translate directly into duration when flying in turbulence.

Note the following points:

a. The 15dm^2 model.

(1) The 15dm^2 model is badly affected by turbulence and its high still-air duration (176 sees) using the 84-sec prop run, has been savagely reduced to 103 sees (a 41 % drop in performance), i.e. its consistency is poor.

(2) The 9 metres altitude gained by using VIT and a short 25 - sec run, adds about 13 sees to the duration.

b. The 11 dm^2 model.

(1) With VIT and a 35 see run this model still does 123 sees (making the Max). This is a loss of only 18% from its still-air time of 150 sees, i.e. its consistency is quite good.

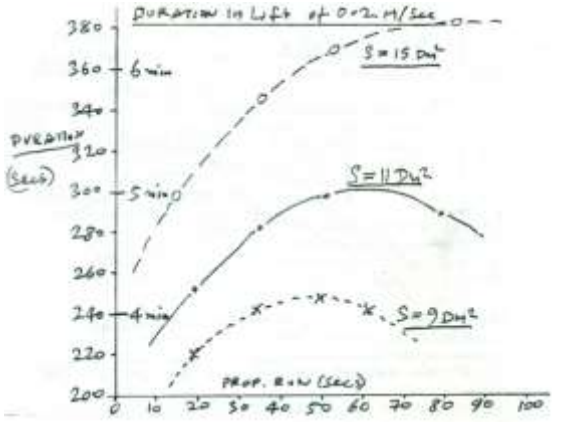


Figure 3

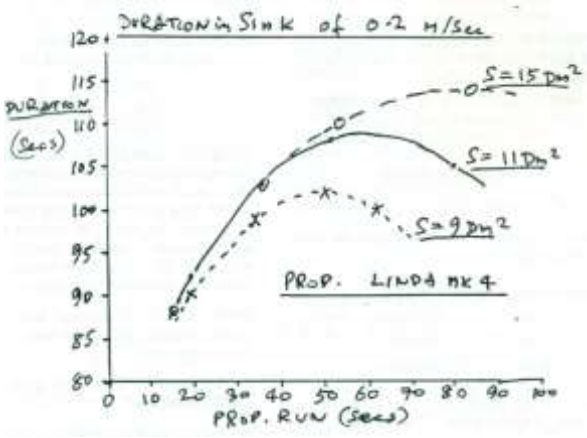


Figure 4

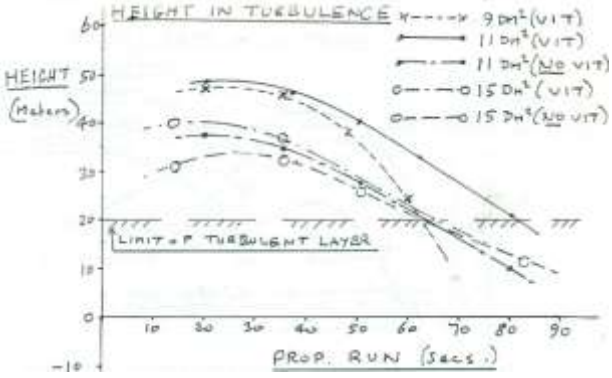


Figure 5

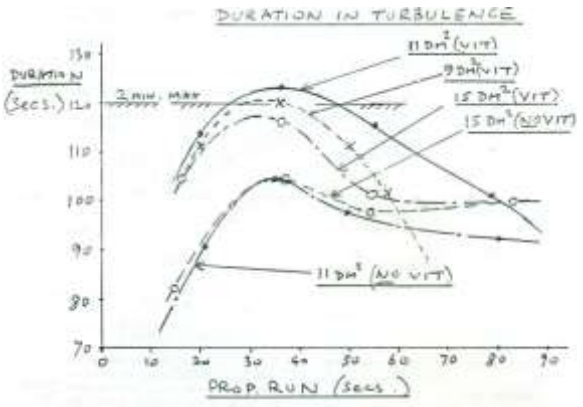


Figure 6

(2) Without VIT the performance is right down to that of the 15 dm^2 model.

c. The 9 drm^2 model. (With VIT) still does just 2 minutes with a prop run of *ca* 35 sees (the non- VIT version was omitted for clarity). However its performance was drastically lower than the VIT version.

d.. General. It is interesting to note that after about 50 sees , further lengthening of the prop run does not severely affect the duration of either the 15 dm^2 model (with or without VIT), or the 11 dm^2 (No VIT). However, both the 9drn^2 and the l1 dm^2, VIT models exhibit a marked, and steady deterioration in performance once the prop run exceeds 35 sees. (Maybe this explains why many fliers have remarked on the advantage of keeping the prop running in windy conditions with the larger models). However there seems to be a bigger advantage in using a small model with a short powerful run coupled with VIT and IPR or DPR.

N.B. The above section has many unprovable assumptions and is full of problems. There are many intangible effects: e.g. (i) Larger models may handle turbulence better than smaller ones? (ii) Turbulence is by nature unpredictable. However, after much soul-searching I have included it in order to promote further thought and discussion.

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 August 2020.

Contest flying to recommence

As you are aware the 2020 Contest Calendar has been severely impacted by the Covid 19 pandemic. In our last newsletter we confirmed that all events were cancelled until at least the end of August 2020. Having reviewed the position taking the latest Governments guidelines into account we are now satisfied contest flying can recommence from the beginning of September, picking up from the published calendar. The only exception is the Stonehenge and Equinox Cup contests have been cancelled. In their place two ad hoc contests will be held at Salisbury Plain on the same dates. The Saturday will be for combined RGPE classes, the Sunday will be for F1ABCQ. Space dates on the calendar have been cancelled for the remainder of 2020. The mandatory Covid set of rules that must be adhered to at all remaining competitions are included below.

2020 Contest calendar

The 2020 BMFA events are shown in Diary on the front page of this issue.

Team selection trials – F1ABCE

The team selection for 2021 has been postponed until the Spring of 2021.

Rule changes for 2021

In the last newsletter it was stated that there will be no rule changes for 2021. This is not correct in that there will need to be a rule change to cover the trials not being held this year due to the Covid 19 Pandemic. The rule change will be published in the next newsletter.

Covid rules for competition days

In order to restart the contest programme, it will be necessary to apply the following risk assessed measures to mitigate the spread of the Covid 19 virus. These measures will be monitored and amended as necessary.

The following procedures and measures will apply to all BMFA free flight contests and all non BMFA (privately run contests) that take place on sites operated by FFTC, including but not limited to, Barkston Heath, North Luffenham, Salisbury and Sculthorpe.

No person shall attend any contest or flying site if they are showing signs of Covid 19 or have been told to self isolate or are required to quarantine in a regional lockdown.

All persons who attend the flying site and contest are required to register their contact details and BMFA number at contest control.

Where a site requires a gate, access point to be manned and a sign in is required i.e. Barkston Heath. The attendee must sanitise before and after touching any gates or barriers and use own pen to sign the site log .

General

Sites have their own Covid 19 risk assessments and measures in place to mitigate the risk. The following measures are additional and will run alongside any existing site procedures.

The CD will have available at control suitable hand sanitiser

The CD will at all times social distance from all persons at control and engage in frequent use of hand cleaning and or wearing of latex/vinyl gloves to reduce the risk of transmission of virus from score sheets etc.

Competitors should only visit control as necessary for registration, entry, score recording, or information. Avoid forming any groups around contest control.

Travel to and from contest site. All contestants and attendees should travel to the contest site in their own vehicles and only carry passengers who are from the same household bubble.

Entry to site to be in accordance with site specific rules.

Parking, all vehicles should be parked to form a line leaving a clear space of 4 metres between adjacent vehicles (This will allow sufficient social distancing when doors are open for access and egress).

Contest entry

ALL CONTESTS FOR THE REMAINDER OF 2020 WILL BE FREE OF CHARGE. NO ENTRY FEE OR SITE FEES. (This will be reviewed for 2021 along with concessions for season ticket holders).

Contestants will register with the CD, ensuring at all times a social distance from the control table (Self entry and recording scores. Entrant shall only use their own pens)

NO flight cards will be issued.

All official flights and attempts will be recorded by verbal communication to the CD and or by themselves self scoring on official score sheets (using own pen).

Flying

All practice flying, and trimming must be undertaken at a distance from the competitors flying in the contest.

All competitors must position themselves to maintain a social distance of at least 2 metres from other flyers helpers and timekeepers.

For events and classes where it is required to fly from a line or box. The line and box will be of sufficient length and area to enable all flyers, helpers and timekeepers to social distance of at least 2 metres.

Handling

Where possible models and equipment should only be handled by the owner and or a member of the same household bubble.

In cases where it is absolutely necessary for another person to handle models etc. THE OWNER MUST FIRST SANITISE THE MODEL AND EQUIPMENT.

The handler is advised to wear suitable latex/vinyl gloves and or sanitise hands before and after handling .

Glider (Towline) Specific. This class of model generally requires the model to be launched by another person the following should be adopted .

Flyer mount the model on a self launch device,

Flyer to operate a self-launch procedure with model in own hands. This procedure is compliant with BMFA rules.

In the event the flyers requires another person to launch the model preference is that the helper be a person from same household.

If this is not possible then the model should be made ready for flight by the flyer and attached to towline, placed on the floor or other safe place .

The helper should only pick up and handle the model when a safe social distance is in place between flyer/helper. After handling the model, the model must be sanitised, and the helper must sanitise hands.

It is essential that the flyer before collecting the model after the flight sanitises the model (taking suitable cleansing wipes and or sanitiser on retrieval).

Timekeeping

The timekeeper must observe a 2-metre social distance from the flyer and others on the site.

Flight scores to be verbally reported or if self-recording use own pen and recorded on official score sheets (avoiding hand contact with score sheets).

Additional

ALL ON SITE SHOULD AVOID FORMING GROUPS of more than 6 people in any one location and always social distance.

All persons attending the contest whether they compete or not must sign in at control and provide BMFA number and contact details.

ANY person who during a contest day displays symptoms of Covid 19 MUST leave the site immediately and inform the CD

The BMFA and the FFTC are committed to ensuring that all contests take place with the minimum of risk of contacting and spreading the Covid 19 virus

The measures outlined must be followed in full.

CIAM COMPETITION CALENDAR

The FAI database of CIAM competitions has been updated at https://www.fai.org/page/ciam-events Events postponed to 2021 but without dates yet fixed for that year are shown with year 9999 and the original 2020 dates.

Correction : Kotuku Cup, Sierra Cup, Krka Cup were shown as undecided last month but were actually already postponed to 2021.

F1E events in France in September have been postponed to September 2021. The 16th Poitou Charentes will be on September 11 2021 and Poitou Moncontour on September 12 2021.

UK COMPETITION NEWS

CROOKHAM GALA

Following the announcement from the FFTC that free flight competitions can recommence in September, I am pleased to confirm that the Crookham Gala will take place on Sunday 13th September on Salisbury Plain.

Events are as follows: Modern and Vintage Coupe combined (3 flights only and prize for best vintage score); BMFA Glider; BMFA Power (George Fuller trophy for best Dixelander score); Mini Vintage; E36.

The contest will begin at 10.00 and finish at 17.00, with any fly offs commencing at 17.15

Entry fee £12 to include the site fee and unlimited classes.

Contact Chris Redrup chrisredrup@yahoo.com

CRANFIELD 60

To celebrate the 60 year anniversary of the 1960 Cranfield world champs where there were 5 joint winners Simon Dixon planned to hold an event at the Nationals, see FFn January 2020 With contests having restarted it will now be run at the Midland gala on 24th October at Barkston Heath. The rules are simple, basically BMFA classic power but only for the 5 designs :-

- Gloworm, Mr Max, no. 18, La Bestia, Lucky Lindy mk3 or taper wing version

- Built from a published plan - Zaic 1959-61 year book, Aeromodeller, American modeller, etc

- Any engine, any fuel, any fuel system, no minimum weight, 12 sec run, 2.30 max

The scores will also be a entered into a postal type event run through the vintage FAI Facebook group. A lot of interest from around the world - also being followed very closely by John Sheppard, the Gloworm designer / flyer.

You can enter the postal event up to 5 times as long as it's with one of the other designs with all flights on the same day and venue with someone else timing. 3 x 2.30 max plus unlimited flyoff. Other entries can be different days and venues. Email scores to Simon Dixon at dixonfamily100@yahoo.co.uk stating date, venue, name of flyer and model, with pictures if you can. Anytime from now until closing date of midnight UK time on 31st December 2020.

NOTICEBOARD

E30 BATTERIES: I have bought some batteries direct from China which are suitable for E30. They are labelled 75mAh. I have so far only had time to test three and I can report that they are all good and in fact give a better performance than any I have previously tried. If you send me £10 I will put four in a Jiffy bag and send them to you. Ron Marking, Pros Kairon, Pennance Road, Lanner, Redruth TR16 5TF

From Martin Dilly: Re-chargeable pin-type fishing float batteries, together with a USB charger are available here:

https://www.aliexpress.com/item/33061386945.html?spm=a2g0o.productlist.0.0.78a4667dUGTxZE&algo_pvid=22bff170-1fcf-492e-9f71-f962d2f27763&algo_expid=22bff170-1fcf-492e-9f71-f962d2f27763-1&btsid=0b0a182b15968305809745350eef02&ws_ab_test=searchweb0_0,searchweb201602_,searchweb201603_

And sheets of ten pin batteries for $3.51 here:

https://www.aliexpress.com/item/32865740665.html?spm=a2g0o.detail.1000060.2.e950110eVYztSw&gps-id=pcDetailBottomMoreThisSeller&scm=1007.13339.146401.0&scm_id=1007.13339.146401.0&scm-url=1007.13339.146401.0&pvid=1355ea02-11a9-4938-8564-1f512e0b93ff&_t=gps-id:pcDetailBottomMoreThisSeller,scm-url:1007.13339.146401.0,pvid:1355ea02-11a9-4938-8564-1f512e0b93ff,tpp_buckets:668%230%23131923%230_668%23808%235965%23399_668%23888%233325%2310_668%232846%238111%23499_668%232717%237566%23824_668%231000022185%231000069217%230_668%233468%2315616%23725

https://www.aliexpress.com/item/32851472317.html?spm=a2g0o.productlist.0.0.78a4667dUGTxZE&algo_pvid=22bff170-1fcf-492e-9f71-f962d2f27763&algo_expid=22bff170-1fcf-492e-9f71-f962d2f27763-8&btsid=0b0a182b15968305809745350eef02&ws_ab_test=searchweb0_0,searchweb201602_,searchweb201603_