

**BMFA
FREE FLIGHT TECHNICAL COMMITTEE
MINUTES OF MEETING 11th November 2014**

					Action	
Present	Mike Woodhouse	MW	Phil Ball	PB		
	Chris Strachan	CS	Trevor Grey	TG		
	John Carter	JC	John Jacomb	JJ		
	Stuart Darmon	SD	Ian Kaynes	IK		
	Dave Phipps (part time)	DP	Ken Faux (guest)	KF		
Apologies	All present					
Minutes of 10.09.14	Minutes accepted					
Matters Arising	No matters arising					
Contest Calendar	<u>2015 Calendar</u>					
	TG presented the fully detailed calendar and after some discussion of Plugge point allocation this was accepted. TG to reformat and publish.(Included in these minutes as Appendix 3) Accepted unanimously				TG	
	<u>Entry fees</u>					
	Proposed entry fees were agreed as					
	Centralised	£5 each day covers all classes	No site access charge			
	Area Centralised	£5 covers all classes, additional	Site access charge set by Area			
	Team Selection	£10 per class				
	Stonehenge and Equinox	£10 per class per event				
	F1E	£5 plus site charges where applicable				
	Juniors	Free				
	Space	Site charges where applicable				
	Season Ticket	£40 (covers Area Centralised (except site charge), Centralised, and Team Selection)				
	To be published after the next meeting the next meeting					
	<u>Income and costs planning</u>					
	PB and JC to collect history and predictions on income, costs and contest entries as a basis for MW to set up a budget for funding of Free flight's future maintenance and development. All members to offer suggestions for relevant topics such as-				PB JC ALL	
	Donations to RAF and other site owners					
	Dinner tickets					
	Experimental events					
	Free Flight Travel Fund					
	<u>Trophies</u>					
	The Dick Johnson and Dixon trophies have now been located and will be taken to the Free Flight forum. MW agreed to take responsibility for getting them to the correct people and keeping track of them in future				MW	
	On the wider subject of trophies it was noted that the records officer is looking at the relationship between trophies and entry numbers. PB and TG undertook to look at such figures for Free Flight and consider possible reallocations					PB TG
Flying Fields	<u>Barkston</u>					
	DP stated that there is no change agreed for Free Flight activity but negotiations					

continue. He stated that FOD remained a major concern and that we will have to be cleaner than clean at the 2015 Nationals.

Luffenham

DP reported that work is proceeding on the formation of a new club with the prime purpose of using the site for trimming with an annual use rather than a per-event licence. Such a situation which would have the benefit of keeping clear of the restrictions negotiated by the radio club and he is advising Bryan Spooner and Alan Jack on its creation. However in the end it will be down to the CO to decide how many clubs he wants on his field. Whatever happens a back-up to Barkston will remain essential and licences for BMFA event would be a separate stream.

DP

Salisbury Plain

TG reported that the relationship remains good and there is a good chance of Area 7 becoming available to us as well as Area 8.

Gliding Clubs

Two successful examples of the use of gliding club sites for trimming were discussed which involved the flyers joining the clubs as Clubhouse Members. DP stated that he will be contacting the BGA with a briefing document and asked for any input by the end of the month.

DP

MW

SAM 35

Nothing to report until Nationals planning is underway.

PB

Nationals

2014

Final account not yet available. A donation of £200 to the RAF Benevolent fund was agreed'

Proposed by SD

Seconded by JJ

Agreed unanimously

JC

2015

It was agreed that discussion of changes and improvements for 2015 should be deferred to the next meeting. The Nationals entry fees must be agreed at that time for submission to Council

PB

Officer's Reports

Treasurer

Nothing to report

Council Delegate

MW attended the Technical Council meeting on 18/10 and had circulated a report to all members. He drew the meeting's attention to two points

- In 2015 all competition results must be entered on the BMFA website. PB to investigate
- Teams and Team Manager proposals are required by 24th November. We will be late on both as we committed to last year's timescales in both the team availability letters and the manager adverts. MW and CS to liaise with the Competition Secretary.

PB

CS MW

PRO

Nothing to report

Results Officer

Nothing to report

Safety Officer

Nothing to report

Rules Officer

Nothing to report except below under Rules.

Stonehenge

After discussion it was decided to run the two events on separate dates and these are

**Cup and
Equinox
Cup**

given in the 2015 calendar. They are the dates already supplied to CIAM

**International
teams**

F1A,B,C

All but one qualifier (John Williams) have accepted their places. John is still undecided and KF undertook to speak to him. One TM and ATM joint application (Woodhouse and Tribe) has been received and the last date for application is 05 Jan. CS to prepare proposals asap.

CS

F1E

IK reported that their trials are complete and undertook to send details to CS

IK

Insurance.

One of the F1 team members suffers from a pre-existing medical condition. DP agreed to check on the insurance position.

DP

**Space
Modelling
Rules**

Nothing to report.

CIAM Proposals

The proposals to CIAM for long term reduction in F1A,B and C performance produced since the previous FFTC meeting and included as **Appendix 1** were accepted for submission with the only changes being to maximum wing spans in stage 3 of 2.0 metres for F1A, 1.5 metres for F1B and 2.1 metres for F1C

Proposed by JC

Seconded by MW Approved Unanimously

IK gave a summary of other performance reducing changes that the CIAM FFTC are discussing. These include

- Large pennants for F1A
- No flaps for F1B
- 4 second run for F1C
- Venturi inserts for F1C

and for contest organisation

- Split fly-offs into two groups
- Go straight to 6 min Fly-off
- Drop fly-off to 5 min period
- 5 rounds with 6 minute rounds amongst them

BMFA Rules

TG presented the BMFA rule proposals to finally be implemented. These were discussed and the following changes agreed

Proposal 2 Anticipation of weather for team selection

In paragraph (j) timing to be changed to “48 hours before the planned commencement of the event”.

Proposal 3 Revision to Classic design eligibility

In 3.18.1 last sentence to be reduced to “Designs Published in the Frank Ziac 59/61 year book will also be admissible”

Proposal 4 Revision to visual aids

MW proposed do not introduce

Seconded by PB

Voting For 5, against 1, abstention 1,
Accordingly change to be dropped
Proposal 6 Addition of flexibility to Bowden rules

Agreed

Proposal 7 Minimum max times in F1E

Agreed

Proposal 9 Introduction of combined Electric

Agreed but add note on revised timing

Proposal 10 Changes to FAI Classes F1A and F1Q

Agreed

Proposal 11 Prevent movement between sites at Area Centralised Events

Change to be dropped

TG

The committee voted unanimously that all these rule changes, altered as above should be implemented. TG to action and the resulting changes are included as **Appendix 2**

**BMFA and
FFTC
websites
Events**

We are not certain if all the data has been transferred or how much tidying will be needed. All to look at what is there and discuss at the next meeting.

MW TG
ALL

No progress on any of the previously discussed options. However the experimental meeting at Luffenham was successful and PB was thanked for the effort he put into organising it.

AOB

Alan Jack has indicated that he would like to take one or more juniors to an international event to compete in FI classes as a way of generating a continuing interest in model flying. He has thought through a many of the surrounding issues and it was agreed that he should be invited to the next meeting of the Committee for a discussion. CS to invite him.

CS

**Next
meetings**

Dates

Wednesday 3rd December

FFTC 12/11/14

Critical dates for FFTC

BMFA News Copy dates	December 2014 Issue– copy date 25 th November
Full Council	February 2015 Issue - copy date 8 th January
Technical Council	10 th January Agenda deadline 8 th December
FFTC meetings	March 2015
	3 rd December

FFTC 12/11/14

Appendix 1

CIAM Proposals:

F1A:

FEDERATION AERONAUTIQUE INTERNATIONALE
AEROMODELLING COMMISSION (CIAM) - PROPOSAL FORM

Hard copy proposals are no longer necessary.

*Submit the proposal via the automatic submission process
using the following web address copied into your web browser:*

<http://www.fai.org/ciam-documents/31653-submission-of-proposals>

Date: 5.11.14

Proposal submitted by: United Kingdom

For proposals from Subcommittees: Voting Numbers Required:

Overall Votes Cast: For: Against:

Sporting Code Volume: F1

Heading of section: 4C

Class: F1A Gliders

Number & heading of the paragraph: 3.1.11. Launching Devices

Page number if appropriate: Page 12

This proposal is a:

Rule Change	X
Clarification	

Safety	<input type="text"/>	Noise	<input type="text"/>	Other	<input type="text"/>
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**mark the boxes with X
as appropriate**

Type the instruction in the space below:

Change rule as below

Type the text changes in the space below (show deletions as ~~strike through~~ and additions as **bold underlined**):

Add to 3.1.11. paragraph a)

a) The glider must be launched by means of a single cable **with a minimum diameter of 1.75mm**, and its length including release equipment and launching device shall not exceed 50metres, when subjected to a tensile load of 5kg. This tensile load shall be applied by means of an appropriate apparatus available to the competitors before and during the competition and also to officials during the competition when checking at least 20% of the gliders. Metal cables are prohibited.

Change 3.1.11. paragraph b)

~~b) Launching of the glider by means of this cable may be carried out with the help of various devices such as winches, single or multiple pulley trains, or by running etc. These devices (except the launching cable) must not be thrown by the competitor, under penalty of cancellation of the flight. The competitor may release the launching cable and a lightweight marker (such as a ring, pennant or small rubber ball) at its end.~~

b) Launching of the glider by means of this cable may be carried out by running etc. The cable may be stored on a winding device but this must be removed before the launching process begins. A lightweight marker (such as a ring, pennant or small rubber ball) may be attached at its end. The cable and its marker must not be released by the competitor until after the model has been launched from the cable, under penalty of cancellation of the flight.

Type the reasons in the space below:

The performance of F1 class Free Flight models has reached a level at which now exceeds sensible limits. The UK believes that CIAM should commit to a planned step change in performance reduction over a period of five years. The CIAM bureau should mandate the F1 sub-committee to take action to implement the necessary changes.

Current F1 class models have become too effective in achieving the maximum times and Championships are now decided on the fly off. The numbers reaching the fly off are a high proportion of the entry (50% at the last two events). In addition we have the situation of models out flying the sites available to us, especially at fly offs with up to 10 minute flights. We need a long-term plan to reduce performance, but without emasculating the class.

We should also seek to reduce complexity and thus cost. The models should be brought closer to the reach of the average sportsman and reduce commercial involvement. The level of performance reduction needed is 50%, to enable a meaningful competition with a round maximum of 2.30 and maximum model performance of no more than 4 minutes. The change process requires firm management and must maintain the enthusiasm for the discipline. We suggest that a programme of change over 5 years with final complete replacement of models at the end of that period.

We believe that CIAM should adopt a proactive plan to tackle the current issues:

Stage 1 - Reductions in performance without model changes – with effect from 2016.

This proposal is stage 1. The extra drag from specified line diameter will reduce the launch speed. The restriction on launch technique will cut the launch impetus and thus the altitude gain. Importantly, current models will not be made redundant.

Stage 2 - Elimination of devices/technologies that will require re-trimming of models but will not make complete airframes redundant – effective from 2018. Such changes might be:

- Flaps to wings banned.
- Restrict tow movement to three functions being straight, circle and launch.
- Release functions restricted to only launch and glide settings.

Stage 3 - Changes that require completely new airframes and will deliver still-air times of no more than 4.00 minutes and enable round maximums to be reduced to 2.30. - Effective from 2020. Such changes might be:

- Span limitation 2.00 metres.
- Reduce rounds to 5. The consistency of models means that in good conditions models will still max, the number of flights has a minimal impact. This change allows more time to organise the eventual fly off.

Within rounds allow a 10-minute working time to launch after the commitment to fly.

Type any supporting data for the proposed technical amendments in the space below:

None

F1B:

**FEDERATION AERONAUTIQUE INTERNATIONALE
AEROMODELLING COMMISSION (CIAM) - PROPOSAL FORM**

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<http://www.fai.org/ciam-documents/31653-submission-of-proposals>

Date: 5.11.14

Proposal submitted by: United Kingdom

For proposals from Subcommittees: Voting Numbers Required:

Overall Votes Cast: For: Against:

Sporting Code Volume: F1

Heading of section: 4C

Class: F1B - Model Aircraft with Extensible Motors

Number & heading of the paragraph: 3.2.11. Launching

Page number if appropriate: Page 16

This proposal is a:

Rule Change	X
Clarification	

Safety	
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Noise	
-------	--

Other	
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mark the boxes with **X as appropriate**

Type the instruction in the space below:

Add to rule as below

Type the text changes in the space below (show deletions as ~~strike-through~~ and additions as **bold underlined**):

Add paragraph e) to 3.2.11

e) The propeller must have been released and be rotating under power before the model leaves the competitor's hands.

Type the reasons in the space below:

The performance of F1 class Free Flight models has reached a level at which now exceeds sensible limits. The UK believes that CIAM should commit to a planned step change in performance reduction over a period of five years. The CIAM bureau should mandate the F1 sub-committee to take action to implement the necessary changes.

Current F1 class models have become too effective in achieving the maximum times and Championships are now decided on the fly off. The numbers reaching the fly off are a high a proportion of the entry (50% at the last two events). In addition we have the situation of models out flying the sites available to us, especially at fly offs with up to 10 minute flights. We need a long-term plan to reduce performance, but without emasculating the class.

We should also seek to reduce complexity and thus cost. The models should be brought closer to the reach of the average sportsman and reduce commercial involvement. The level of performance reduction needed is 50%, to enable a meaningful competition with a round maximum of 2.30 and maximum model performance of no more than 4 minutes. The change process requires firm management and must maintain the enthusiasm for the discipline. We suggest that a programme of change over 5 years with final complete replacement of models at the end of that period.

We believe that CIAM should adopt a proactive plan to tackle the current issues:

Stage 1 - Reductions in performance without model changes – with effect from 2016.

This proposal is stage 1. The restriction on launch technique will cut the launch impetus and thus the altitude gain. Specifically current models will not be made redundant.

Stage 2 - Elimination of devices/technologies that will require re-trimming of models but will not make complete airframes redundant – effective from 2018. Such changes might be:

- VP props banned.
- Flaps to wings banned.
- Only a single timer function other than DT.
- Limit prop diameter to 500mm.

Stage 3 - Changes that require completely new airframes and will deliver still-air times of no more than 4.00 minutes and enable round maximums to be reduced to 2.30. - Effective from 2020. Such changes might be:

- Span limitation 1.50 metres
- Reduce rounds to 5. The consistency of models means that in good conditions models will still max, the number of flights has a minimal impact. This change allows more time to organise the eventual fly off.

Within rounds allow a 10-minute working time to launch after the commitment to fly.

Type any supporting data for the proposed technical amendments in the space below:

None

F1C:

**FEDERATION AERONAUTIQUE INTERNATIONALE
AEROMODELLING COMMISSION (CIAM) - PROPOSAL FORM**

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<http://www.fai.org/ciam-documents/31653-submission-of-proposals>

Date: 5.11.14

Proposal submitted by: United Kingdom

For proposals from Subcommittees: Voting Numbers Required:

Overall Votes Cast: For: Against:

Sporting Code Volume: F1

Heading of section: 4C

Class: F1C - Model Aircraft with Piston Motors

Number & heading of the paragraph: 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) F1C

Page number if appropriate: Page 17

This proposal is a:

Rule Change	X
Clarification	

Safety	<input type="checkbox"/>	Noise	<input type="checkbox"/>	Other	<input type="checkbox"/>
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mark the boxes with X as appropriate

Type the instruction in the space below:

Change rule as below

Type the text changes in the space below (show deletions as ~~strike-through~~ and additions as **bold underlined**):

Change Maximum Duration of Motor Run in 3.3.2.

Maximum duration of motor run..... ~~5~~ **4** seconds from release of model

Type the reasons in the space below:

The performance of F1 class Free Flight models has reached a level at which now exceeds sensible limits. The UK believes that CIAM should commit to a planned step change in performance reduction over a period of five years. The CIAM bureau should mandate the F1 sub-committee to take action to implement the necessary changes.

Current F1 class models have become too effective in achieving the maximum times and Championships are now decided on the fly off. The numbers reaching the fly off are a high a proportion of the entry (50% at the last two events). In addition we have the situation of models out flying the sites available to us, especially at fly offs with up to 10 minute flights. We need a long-term plan to reduce performance, but without emasculating the class.

We should also seek to reduce complexity and thus cost. The models should be brought closer to the reach of the average sportsman and reduce commercial involvement. The level of performance reduction needed is 50%, to enable a meaningful competition with a round maximum of 2.30 and maximum model performance

of no more than 4 minutes. The change process requires firm management and must maintain the enthusiasm for the discipline. We suggest that a programme of change over 5 years with final complete replacement of models at the end of that period.

We believe that CIAM should adopt a proactive plan to tackle the current issues:

Stage 1 - Reductions in performance without model changes – with effect from 2016.

This proposal is stage 1. This will cut the climb height. Specifically current models will not be made redundant.

Stage 2 - Elimination of devices/technologies that will require re-trimming of models but will not make complete airframes redundant – effective from 2018. Such changes might be:

- Geared engines banned.
- Flapped wings banned.
- Folding wings banned.
- VP props banned.

Stage 3 - Changes that require completely new airframes and will deliver still-air times of no more than 4.00 minutes and enable round maximums to be reduced to 2.30. - Effective from 2020. Such changes might be:

- Span limitation 2.10 metres.
- Reduce rounds to 5. The consistency of models means that in good conditions models will still max, the number of flights has a minimal impact. This change allows more time to organise the eventual fly off.

Within rounds allow a 10-minute working time to launch after the commitment to fly.

Type any supporting data for the proposed technical amendments in the space below:

None

Appendix 2

BMFA Rule changes:

Rule Changes 2015 - Final Action

(N.B. Only relevant para's of FF rule book (3) shown)

Proposal 1

Withdrawn

Add to/Delete 3.2.4 Team Selection Events as ~~highlighted/struck through~~

3.2.4.1 Team Selection F1A, F1B, F1C and F1P

- (a) Two FAI Team Selection events (parts 1 and 2) will be included in the Contest Calendar for the purpose of selecting the Senior World and European teams for F1A, F1B and F1C-and the Junior World and European teams for F1A, F1B and F1P in the following year.

Juniors must be a minimum of 12 years of age on January 1st of the year in which the team will compete.

At all UK F1C events, in order to provide practice opportunities for a UK junior power team, juniors only may compete with F1P models flying to the same maximum as F1C and with motor runs as FAI class definitions for F1P.

All F1A, F1B, F1C and F1P Team Selection meetings shall be run, where relevant and desirable, as closely as possible to the FAI rules.

- (j) ~~If the weather forecast for the planned venue, 48 hours prior to the event, shows that the wind speed is likely to be above 15 mph (6.7 m/s) for more than 50% of the event, or if the predicted visibility will be unworkable for more than 50% of the event then the event may be postponed. If such is the case then the event organiser will notify the competitors, who have pre-entered, by e-mail or phone no later than 48 hours before the planned event.~~

Proposal 3

Accepted as:

Add to/Delete "3.18 Classic and Vintage Models" as ~~highlighted/struck through~~

3.18 Classic and Vintage Models

These models may be flown in either single discipline events (Vintage Glider, Classic Power etc.) or in all class events (Vintage or Classic)

3.18.1 A vintage model must be built in accordance with a design that was published prior to 1st January, 1951, or was kitted by that date. (January 1951 issues of magazines are accepted as published in 1950).

A classic model must be built in accordance with a design that was first published or kitted after 30th December 1950 and before 1st January 1961 (January 1961 issues of magazines are accepted as published in 1960).

Designs Published in the Frank Zaic 59/61 year book will also be admissible.

3.18.2 Competitors are responsible for proving the eligibility of their models and engines to the satisfaction of the Contest Director if required, and must be prepared to produce photo-copies (or originals) of plans and magazines on the day of the contest which include or confirm the date of publication.

Guidance from the FFTC ~~for the period of 2008 to be reviewed for 2009~~

The eligibility of the model must be based upon the existence of a plan which was published between the specified dates. The purpose of additionally specifying "kitted" is to include those plans which were supplied as part of a kit but were not "published" elsewhere. Where multiple sizes of a design were published or kitted between the specified dates the plan must be for the actual size model entered.

In the special case where a table of model sizes, including lists of material sizes referenced to a plan, was published between the specified dates this information will be sufficient and need not be accompanied by an actual size plan of the model entered.

In all these circumstances the plan, or table of sizes must be supported by photo-copies (or originals) of material which was published between the specified dates and confirms the date of publication or kitting.

Statements, publications or any other material created outside the specified dates (other than in 3.18.1 paragraph 2 above) are not acceptable as proof of either design features or publication dates.

Proposal 4

Rejected

Proposal 5

Rejected

Proposal 6

Accepted as:

Add to "3.47 The Bowden Class" as highlighted

3.47 The Bowden Class

These full rules are in the spirit of the original Bowden contests and should be adhered to when weather conditions permit. However in adverse conditions at the discretion of the CD the flying requirements and associated scoring may be appropriately modified prior to the commencement of flying. Any such modification(s) must then apply throughout the contest.

3.47.1 The contest is a two-flight contest.

Proposal 7

Accepted as:

Change "3.1.4.1 Maximums" and "3.2.4.2 Team Selection F1E " as highlighted

3.1.4.1 Maximums

- (a) The duration of flights will be used for scoring purposes with a maximum of three minutes being recorded for all but fly-off flights (unless specified otherwise in the special rules governing the contest). For Area centralised contests the maximum shall be two and a half minutes unless a lower maximum is already specified in the special regulations governing the class. Before the start of a centralised contest the Contest Director (CD) may vary the maximum to suit conditions but once the contest has started no variation is permitted. The maximum for FAI contests may be varied to suit the conditions before the start of any round.
- (b) In F1E contests the maximum will be any time up to 5 minutes as indicated by the CD before the start of the round concerned.

3.2.4.2 Team Selection F1E

- (a) Six centralised competitions and a reserve will be nominated each year for the purpose of selecting a team for either the World or the European F1E Championships in the following year. The competitions will be run to FAI rules and percentage scoring in the rounds will be to the FAI Sporting Code.
- (b) Dependant on their placing in these competitions each competitor will be awarded points in accordance with the table in 3.1.11.(b). Only the competitor's best three results will count for team selection points.
- (c) If the selection competitions flown do not produce a team then the FFTC shall take appropriate action.
- (d) The number of rounds planned to be flown must be between 5 and 7 inclusive and must be announced before the start of the competition. The maximum time for each round may be up to 5 minutes and must be announced before the start of that round.

- (e) If fewer than 3 rounds can be flown then the contest shall be null and void.

Proposal 8

Accepted as:

Add to/Delete "3.7.4 Electric Class (BMFA Electric)" as highlighted/struck through

3.7.4 Electric Class (BMFA Electric)

- (a) Maximum weight of batteries
 - Ni Based 120 grams
 - Li based 90 grams
- (b) Motor run, maximum time from launch:
 - For Brushed motors (no functions)..... 15 seconds
 - For Brushed motors (with functions) 12 seconds
 - For Brushless motors (no functions)..... 12 seconds
 - For Brushless motors (with functions)..... 10 seconds
- (c) No camber changes to wings or tails, surface area changes or bunt functions are permitted.
- (d) Safety locks must be used to prevent unintentional restarting of motor(s) after the motor(s) have been stopped.
- (e) Timing of motor run:

The motor run is to be verified by the timekeeper check timing on the ground before flying. The motor run will be deemed to begin when the motor timer starts and end when the prop ceases to rotate. The timekeeper shall mark the flight card to affirm this. It is only required that the ground timing procedure is carried out before the first flight, **unless the motor run needs to be changed when the process must be repeated.** ~~In addition~~ The motor run shall **not** be checked visually during each **in** flight. ~~If the model has not clearly stopped climbing under power after the allowed maximum motor run an over-run shall be declared.~~

Proposal 9

Accepted as:

Add to "3.1.9.3 Combined Class Contests" and "3.11.8" Class E36 Electric" as highlighted

3.1.9.3 Combined Class Contests

Combined Class Contests shall be those held for a combination of individual classes as defined by the relevant class rules (the rule numbers of these are appended for easy reference).

For these events the combinations of classes shall be:

- (i) Combined Glider: F1A (3.3)
BMFA Glider (3.7.1)
Classic Glider (3.18)
Vintage Glider (3.18)
- (ii) Combined Rubber: F1B (3.4)
BMFA Rubber (3.7.2)
Classic Rubber (3.18)
Vintage Rubber (3.18)
- (iii) Combined Power: F1C (3.5)
BMFA Power (3.7.3)
SLOP (3.19)
Classic Power (3.18)
Vintage Power (3.18)
- (iv) Combined Electric: F1Q (3.5Q)
BMFA Electric (3.7.3)
E36 Electric (3.11.8)

3.11.8 Class E36 Electric

- (a) Model specification
Maximum projected wing pan..... 36 inches
Minimum total weight (ready to fly.....)..... 120 g (4.24 oz)
Maximum cells permitted..... Lithium - 2 cells; Nickel - 6 cells

Any type of motor, gearbox and prop is permitted.
No timed moving surfaces, apart from dethermalisers, are permitted.

- (b) Contests shall be run as follows:

Only 2 models in any one contest are permitted.

2 minute maximum [or less as per rule 3.11.1 (c)]

2 flights to be made with a 15 second motor run. If the maximum is reduced (due to prevailing conditions) the motor run will be 10 seconds.

A 3rd flight to be made with a 10 second motor run. If the maximum is reduced (due to prevailing conditions) the motor run will still be 10 seconds.

If all 3 flights score maximums a fly-off will be made with a 5 second motor run (as per rule 3.1.4.3).

All motor run timing will be as 3.7.4e (BMFA Electric)

When E36 models are flown in Combined Electric contests the motor run will be 15 seconds for all flights including any fly-off.

Proposal 10:

Accepted as:

Change "3.5.Q. Characteristics of Electric Motor Driven Models, International Formula (Class F1Q)" in entirety.

3.5.Q Characteristics of Electric Motor Driven Models, International Formula (Class F1Q)

Nickel Metal Hydride (NiMH) and Lithium (Li) batteries can be used.

Lithium type battery packs must be in 'as manufactured' condition with the overall covering surrounding the individual cells intact. A balancer connection must be fitted if the battery contains more than one cell.

External battery packs are required to have a safety tether to the fuselage.

Safety locks must be used to prevent unintentional restarting of motor(s) after the motor(s) have been stopped.

The motor run time will be determined by a maximum energy amount.

Maximum motor run allowed..... 40 seconds

Maximum permitted energy amount (Ea)..... 4 Joules per gram of total weight

For energy calculations, total weight exceeding 500 grams is to be ignored.

Energy limitation will be by a motor run limit related to measured power or by an energy limiter:

(a) ***Models without energy limiters***

The motor run will be controlled by a timer. The motor run (R) in seconds, is calculated by dividing the permitted energy amount (Ea) by the measured power (P) rounded down to the nearest whole second ($R=Ea/P$).

The power measurement process should be carried out with a Wattmeter and a fully charged battery: When the motor has been started and has reached full power, the start button is released (the normal moment of launch) and the power measurement taken at 'half' the time to motor cut-off. The final calculated motor run should be clearly marked on the model.

The motor run time will be checked statically, on the ground. The motor run will not be timed in flight.

(b) ***Models with energy limiters***

The energy limiter must measure the permitted energy amount (Ea), in real time, from the release of the start button until the ESC has stopped supplying energy to the motor. When the permitted energy amount (Ea) has been used-up the motor(s) must stop irreversibly.

If energy verification is required an SET (Static Energy Tester) is to be connected to the model to allow measurements confirming the energy used, from the release of the start button up until the ESC has stopped supplying energy to the motor. The SET must store and display the energy used or time and power data.

Models must be capable of connecting to an SET, between the model's systems and battery, via 3.5 mm male and female bullet connectors. The connectors from the model's battery should be: male positive and female negative. In addition a 'parallel' connection from the models timer start button should terminate in a 2 pin, 2.54mm pitch female connector.

It is the responsibility of the competitor to supply any adaptors needed to connect to the SET.

Proposal 11

Rejected

Proposal 12

Accepted as:

Add to "3.1.4.3 Fly-offs" as highlighted

3.1.4.3 Fly-Offs

- (a) (i) Competitors who score a maximum on every flight are entitled to make an additional flight
 - (ii) If two or more competitors score the same total time then, at the discretion of the CD and when the competitors concerned have been notified, they shall be entitled to make a further additional flight.
 - (iii) The additional flights will determine the order of placing. These flights will be subject to the attempt rule 3.1.6, and must be made in a 10 minute period specified by the CD.
- (b) In Area Centralised contests any competitor returning a maximum score for each of his official flights should make this additional flight even if no other maximum score has been returned in his Area; the additional flight must commence within the hour following the close of the contest and must commence within 10 minutes of the starting signal being given.
- (c) At Centralised contests the additional flight(s) must commence within the hour following the close of the contest and must commence within 10 minutes of the starting signal being given.

Proposal Supplemental

Accepted as:

Reposition "3.1.17 Ballast" (below) by adding to "3.1.1" as:

(d) Ballast

When it is necessary to use supplementary ballast to obtain the stipulated weight, this must be located internally in the machine and fixed in a permanent manner. When moveable ballast is used to regulate the centre of gravity position the model must be of the specified weight without the moveable ballast.

Add after "3.1.16":

3.1.17 Snuffer Tubes

All models using burning fuses shall be fitted with a device designed to ensure:

- (a) that the burning fuse is not at any time ejected from the model whilst in flight or on the ground;
- (b) that as soon as practical after the functioning of the operation for which the fuse is fitted, the lighted end of the fuse is extinguished.

Add after "3.1.17":

3.1.18 Starting and Closing times of contests

All Free Flight contests should start at 09.00 hours and must close at 18.00 hours or 2 hours before sunset at Greenwich whichever is the earlier.

If an Area is unable to gain access to its flying site for Area Centralised events before 13.00 hours, the closing time can be extended by up to 4 hours. If previous notice is given Free Flight centralised contests may start before 09.00 hours.
(See also General Rule Book rule 2.3.10)

Renumber "3.49 Catapult Glider Class" (below) to:

3.14 Catapult Glider Class

- (a) The glider must be launched by means of a catapult, powered only by rubber
 - (i) The maximum weight of rubber allowed is 2 grams and can be made up into any number of strands of any width. (Note: a 12 inch length of 0.25 wide strip weighs close to 2 grams)
 - (ii) The rubber may be attached to a handle. The maximum handle length shall be 6 inches.
- (b) The competitor must launch the glider himself with the catapult held in one hand and the glider in the other.
- (c) If a Catapult Glider competition is being held at the same time as a Hand Launched Glider competition then both shall be flown from the same 'box'.
- (d) Rules as for Hand Launched Glider Class - 3.13 (b) and (c) shall apply.

Correct "3.11.1 Mini Contests (c)" (below) as:

- (c) In mini contests competitors are entitled to make five official flights for F1G, F1H and F1J. For BMFA 1/2A Power, CO₂ Duration, Mini Vintage, E30 and P30 competitors shall be entitled to make three official flights. Please note that in E36 there is a schedule of flights as defined in rule 3.11.8. In all cases the maximum shall be 2 minutes, or less at centralised contests if conditions dictate.

Appendix 3

2015 FF Calendar for publication:

BMFA FREE FLIGHT AND SPACE CALENDAR 2015 Publication Ver. V1

Please note that Space events appear on this calendar as they are the responsibility of the FFTC. They are not part of the Overall British Free Flight Championship

DATE	COMPETITION & VENUE	CLASSES/TROPHIES (N.B. <u>Non</u> British FF Championship events are shown in <i>Bold Italic</i>)	PROVISIONAL CONTACT
8 February	1st Area. Area Venues.	F1A(SMAE), F1G(Plugge), C/P (White), E36(Plugge), Mini Vintage(Plugge).	Contact: Area Comp Secs.
1 March	2nd Area. Area Venues.	F1H, P30(Plugge), F1J(Plugge), CE(Plugge), HLG-CLG.	Contact: Area Comp Secs.
22 March	3rd Area. Area Venues.	Vint' G(Plugge), C/R (Gamage), F1C (Halifax/Plugge), F1Q, HLG-CLG (Plugge).	Contact: Area Comp Secs.
3 April (Good Friday)	Northern Gala. Venue: North Luffenham	C/G (CMA), C/R (Caton), B/P (Hamley), C/E, SLOP (Falcons), F1H, P30, BMFA 1/2A, Mini-Vintage, HLG-CLG.	Contact: G.Warburton 0113 2852947
18/19 April	London Gala. Venue: Salisbury Plain.	18th: C/G, C/R, C/P, C/E, P30, CO ₂ . 19th: F1H, F1G, F1J, Mini Vintage, E30, HLG-CLG.	Contact: T.Grey 01892 539221.
19 April	<i>1st Space Meeting. Venue: Salisbury Plain.</i>	<i>S1, S3, S4, S5, S6, S7, S9</i>	Contact: Trevor Seabrook, phone: 07899 030875, e-mail: contacttrevorseabrook@gmail.com
26 April	1st F1E (Team Selection). Venue: Near Melton Mowbray	<u>F1E (FF Slope Soaring).</u>	Contact: Ian Kaynes 01252 512538. Mobile: 0794 185 2144
2/3 May	<i>Stonehenge</i>	<i>F1A, F1B, F1C/P, F1Q. World</i>	Contact: J.Carter

	Cup.Venue: Salisbury Plain.	Cup Free Flight events.	01782 398816. email: carterbuild @yahoo.com
9/10 May	Team Selection part 1. Venue: Salisbury Plain.	F1A, F1B, F1C. N.B Pre-entry only, for both parts 1 & 2, prior to 20th April. Plus on 10th May (Sun) Classic Glider, SLOP, Mini Vintage.	Contact: Phil Ball 01332 665361. e-mail: phil.ball@ntlworld.com
17 May	2nd F1E (Team Selection). Venue: Near Sheffield, or , Near . Melton Mowbray	F1E (FF Slope Soaring).	Contact: Ian Kaynes 01252 512538. Mobile: 0794 185 2144
24/25 May	Space National Championships and 1st Space Team Trials. Venue: Barkston Heath.	<i>S1, S3, S4, S5, S6, S7, S8E/P, S9, S11</i>	Contact: Trevor Seabrook, phone: 07899 030875, e-mail: contacttrevorseabrook @gmail.com
23/24/25May	National Championships. Venue: Barkston Heath.	23th: B/G (Thurston), B/R (Model Aircraft), B/P (Shelley), B/E, E36, Tailless (Lady Shelley), Women's BG/BR/BP (SAA), Junior BG/BR/BP (Frog Junior), CLG. 24th: F1A (Ronytube), F1B (Fred Boxall), F1C (Eddie Cosh), F1Q(Astral), Vintage R/P (Jubilee), SLOP (Peter Harris), HLG (Nats), P30, Novice Glider & Rubber (J) (junior kit glider & junior kit rubber), Bowden. 25th: F1H (BA), F1G (308), F1J(Quickstart), BMFA1/2A(Hales), Mini-Vintage (Weston), CO2 (Sparklets), E30, Vintage Glider, Classic R/P, Classic Glider. Plus Junior and overall category championships. Also Non Championship: FF Scale, Lulu/Golden Wings and SAM 35 events.	Contact: Mike Woodhouse 01603 457754.
7 June	4th Area. Area Venues.	C/G, F1B(Gutteridge), C/P Team (Keil/Plugge), Vint' R/P(Plugge), Mini Vintage, E30(Plugge).	Contact: Area Comp Secs.
14 June	3rd F1E (Team Selection). Venue: Near Sheffield, or , Near . Melton Mowbray	F1E (FF Slope Soaring). SMC Trophy.	Contact: Ian Kaynes 01252 512538. Mob:0794 185 2144
28 Jun	5th Area. Area Venues.	F1H(Plugge), F1G, F1J, E36, BMFA 1/2A Power, CO2.	Contact: Area Comp Secs.

5 July	4th F1E (Team Selection). Venue: Near Sheffield, or , Near . Melton Mowbray	F1E (FF Slope Soaring).	Contact: Ian Kaynes 01252 512538. Mobile: 0794 185 2144
12 July	6th Area. Area Venues.	F1A(KMAA/Plugge), P30, Vint' R/P, F1Q(Plugge), SLOP, Tailless(Plugge).	Contact: Area Comp Secs.
19 July	5th F1E (Team Selection). Venue: Near Sheffield, or , Near . Melton Mowbray	F1E (FF Slope Soaring).	Contact: Ian Kaynes 01252 512538. Mob': 0794 185 2144
25/26 Jul	East Anglian Gala. Venue: Sculthorpe.	25th: B/R, Vint' R/P, Classic Glider, E36, Tailless, HLG-CLG. 26th: B/G, B/P, C/E, Vint'G, Classic R/P, Mini Vintage, CO2, Bowden.	Contact: Michael Marshal: 01233 246142.e-mail hiver666@aol.com
26 Jul	3rd Space Meeting & 2nd Team Trials Venue: Sculthorpe.	S1, S3, S4, S5, S6, S7, S8E/P, S9.	Contact: Trevor Seabrook, phone: 07899 030875, e-mail: contacttreorseabrook@gmail.com
22 August (N.B. Saturday)	Southern Gala. Venue: Salisbury Plain	C/G (Pilcher), C/R (Flight), C/P (Short); [Club Champs], B/E, F1H (Ripmax), F1G, F1J, E30, HLG/CLG.	Contact: Dave Greaves 01285 652730.
5/6 Sept	Team Selection part 2. Venue: Sculthorpe.	F1A, F1B, F1C. N.B Pre-entry only, for both parts 1 & 2, prior to 20th April. Plus on 6th Sept (Sun) Vint' Glider, Classic R/P, P30.	Contact: Phil Ball 01332 665361. e-mail: phil.ball@ntlworld.com
12 Sept (N.B. Saturday)	6th F1E (Team Selection). Venue: Near Sheffield, or , Near . Melton Mowbray	F1E (FF Slope Soaring).	Contact: Ian Kaynes 01252 512538. Mob': 0794 185 2144
13 Sept	7th Area. Area venues.	Classic Glider, C/R Team (Farrow's/Plugge), F1C(Buskell), C/E, Classic R/P, HLG-CLG.	Contact: Area Comp Secs.
26/27 Sept	Equinox Cup. Venue: Salisbury Plain.	F1A, F1B, F1C/P, F1Q. World Cup Free Flight events.	Contact: J.Carter 01782 398816. email: carterbuild@yahoo.com
27 Sept	4th Space Meeting & 3rd Team Trials Venue: Salisbury Plain	S1, S3, S4, S5, S6, S7, S8E/P, S9.	Contact: Trevor Seabrook, phone: 07899 030875, e-mail: contacttreorseabrook@gmail.com
3/4 October	Team Selection	F1A, F1B, F1C.	Contact: Phil Ball

	(Reserve Date). Venue: Salisbury Plain.		01332 665361. e-mail: phil.ball@ntlworld.com
10/11 October	7th F1E (Team Selection Reserve Date). Venue: Near Sheffield, or , Near . Melton Mowbray	F1E (FF Slope Soaring). (Non Team Selection if date not needed)	Contact: Ian Kaynes 01252 512538. Mob': 0794 185 2144
18 October	8th Area. Area Venues.	CG Team(M'Engineer/Plugge), F1B(Duce), SLOP(Frog Senior), P30, Mini Vintage, E30.	Contact: Area Comp Secs.
24 October (N.B. Saturday)	Midland Gala. Venue: North Luffenham.	<u>F1H, F1G, F1J, BMFA1/2A, E36, P30, SLOP, Mini Vintage, HLG-CLG.</u>	Contact: P.Ball 01332 665361.
24 October (N.B. Saturday)	<i>4th Space Meeting. Venue:</i> North Luffenham.	<i>S1, S3, S4, S5, S6, S7, S9</i>	Contact: Trevor Seabrook, phone: 07899 030875, e-mail: contacttreverseabrook@gmail.com

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