

BRITISH MODEL FLYING ASSOCIATION  
**CONTROL LINE TECHNICAL COMMITTEE**  
**ADOPTED MINUTES**

of the 59th meeting (wef 02/12/00) held on  
10th October 2015

at College Court, Knighton Road, Leicester, LE2 3TQ

**Present:** Peter Halman (Chairman & Speed Rep); Jo Halman (Secretary); Mick Lewis (Treasurer & CFA Rep);  
Vernon Hunt (Council Rep & Member); Mervyn Jones (Member & F2B Rep);  
Chris Barker (Member & TR Rep); John Mealing (VTRSIG Rep); Andy Housden (Carrier Deck Rep)

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	Action
<p><b>(59)1 Apologies for Absence</b> Apologies had been received from Tony Goodger, Vintage Speed &amp; SAM 35 Representative.</p>	
<p><b>(59)2 Confirmation of those with voting Rights</b> There were seven voting members.</p>	
<p><b>(59)3 Correction &amp; adoption of the Minutes of the 58th meeting held on 21st February 2015.</b> There were no corrections and the TR Representative proposed that the Minutes of the meeting of 21st February 2015 be accepted as a true and accurate record of that meeting. This proposal was seconded by the Council Representative and voting was unanimous.</p>	
<p><b>(59)4 Matters arising from that meeting that are not on the Agenda</b></p>	
<p>(59)4.1 (58)/11.1 The definition of Novice Goodyear is no longer required because of the lack of novices and is to be removed as a standard agenda item for the future.</p>	JH
<p><b>(59)5 2015 CL Nationals Debrief &amp; Financial Reconciliation</b></p>	
<p>(59)5.1 <b>Class Reports</b></p>	
<p>(59)/5.1.1 <b>Speed:</b> Attendance was down as many fliers were away at the F2 European Championships. Sharing a cage with Vintage Speed was not so good; two cages will be necessary in the future. No flying at all on the Monday because of the rain.</p>	JH
<p>(59)/5.1.2 <b>Vintage Speed:</b> (By email) Sharing a cage was successful and there was a lot of flying.</p>	
<p>(59)/5.1.3 <b>Team Race including VTR:</b> The layout was good with the line-check at the lower edge of the ASP. VTR agreed but their line-check area had no barriers until the Sunday morning and a car drove through one competitor's lines laid out in the line-check. Retain this layout for the future. Barriers must be available early Saturday morning at the latest.</p>	PH JH
<p>The TR Jury Tower components are now very old and the resultant unit is dangerous and not fit for purpose. It is recommended that Highway staging or similar be used instead. The TR representative is to forward details to the Secretary who will investigate costs with the usual supplier.</p>	CBk/JH
<p>The TRDU was not available this year as it was being repaired. The warning boards and height marker were not delivered. They need to be located.</p>	JH
<p>For TR, some finals were held on the Sunday because of the Monday weather forecast; other TR classes just had rounds. TR was very disorganised. A revised system of TR CDs will be investigated for the future.</p>	CBk
<p>The TR rep has a contact in the Air Cadets and he will investigate having Air Cadet helpers in 2016.</p>	CBk
<p>VTR entries were down. The VTR CD had concerns about novice fliers and their level of competence. It was agreed that the CD can stop them flying as a safety issue. VTR held all their finals on the Sunday</p>	
<p>TR &amp; VTR were very grateful that the contractors erected and dismantled the cages.</p>	

<p>(59)/5.1.4 <b>Combat:</b> F2D needs to progress more quickly than it does. The Combat representative will talk to the 2016 F2 CD. F2E was left until the Monday and then was not flown because of the rain. Vintage Combat had 40 entries &amp; Oliver Tiger 30 entries and neither was able to finish in the two days that were available. On the rain-hit Monday, hourly decisions on whether to continue to fly were taken and at 12.00 it was decided to continue the competitions later under BMFA General Rule 2.5.7. Oliver Tiger Combat was finished on 18th September and Vintage and F2E will finish on 18th October.</p> <p>The Combat representative recommended that a "Nats Finishing date" be added to the BMFA ConEvCal.</p>	<p>Action ML</p>
<p>(59)/5.1.5 <b>Carrier Deck:</b> Carrier Deck was moved to make way for the Trade Tents but this did not impact on the competition.</p>	<p>ALL</p>
<p>(59)/5.1.6 <b>Holding Area:</b> Circles and flight line organisers need to be first on the airfield proper and the Secretary is to suggest to the Nats Co-ordinator that these organisers be kept in a separate holding area to the rest of the people wanting access. Perhaps the fire lanes be used as "organisers" holding areas with release onto airfield in sections along the fire lanes.</p>	<p>JH</p>
<p>(59)5.2 <b>TR Problems</b></p>	
<p>(59)/5.2.1 <b>Incursion:</b> This was established as being Mike Crossman (and passenger) who confirmed this in an email to the TR representative. However, he maintained that he had been given permission by a marshal to drive up to the ASP to begin marking the TR circles. However this was in conflict with eye-witness accounts of the incursion. The CLTC was unanimous that Mike Crossman be (i) banned for attending the Nationals in any capacity including, if possible, as a spectator and (ii) he will no longer be a CL official in any capacity at all.</p>	
<p>(59)/5.2.2 <b>Other Problem:</b> There was no evidence on which the CLTC can take any action. It was noted that there was a waste disposal unit at the other side of the ASP.</p> <p>The CLTC understood that camping was not permitted in that area and wonder why the people were not removed to the official camping area.</p> <p>There should not and there shall not be any CL camping including, motor homes, other than in the designated camping/motor home area.</p>	<p>JH</p>
<p>(59)/5.2.3 <b>Action:</b> Regarding both problems: The Nationals Co-ordinator (BMFA CEO) announced at the September Council Meeting that he will only organise the 2016 Nationals if he has the right to ban all TR. Council agreed. The Nationals Co-ordinator <i>may</i> relent if the CLTC are able to say who the culprits were. It was felt that only individuals should be penalised and not the whole of TR.</p> <p>The CLTC Chairman will write to the BMFA CEO with the CLTC decisions.</p>	<p>PH</p>
<p>(59)5.3 <b>Financial Reconciliation</b></p>	
<p>The Nationals CL Co-ordinator provided information as follows:  Income: £4,217 Expenditure: £1,784 Trophies: £1,080 Dinner Tickets: £312 (actual)  <u>Net Income: £1,041</u></p>	
<p>(59)5.4 <b>Nationals Trophies</b></p>	
<p>Given the weather and muddle on the Monday regarding all the Nats prize-givings, it was discussed whether the podium trophies should be made available to all the 1-2-3 placed competitors.</p>	
<p>It was decided to place a notice on the website and in the BMFA News (if publication times allowed) for any 1-2-3 CL placed competitor to apply to the CLTC for a podium trophy with a four-week deadline for applications after the notice was published.</p>	<p>JH</p>
<p><b>Post-meeting Note: the notice was published on the BMFA website on 10th November.</b></p>	
<p>Various ideas were put forward for future Nationals and these will be discussed further at the 2016 CL Nationals Planning Meeting in February.</p>	<p>JH</p>
<p>Additionally, The Treasurer very kindly offered to post out the BMFA 1-2-3 certificates and took away with him all the certificates.</p>	

	Action
<b>(59)6 Rule Change Proposals – see Agenda Appendices</b>	
(59)6.1 <b>Vintage Speed:</b> Approved with rule 4.1.9.10 to be amended to a zero flight . Appendix 1.	
(59)6.2 <b>Aerobatics:</b> Amendment 1 approved; amendment 2 rejected. Appendix 2.	
(59)6.3 <b>Team Race:</b>	
(59)/6.3.1 <u>Barton B:</u> Approved with rule 4.3.5.4.3 to be re-written; CLTC to approve by email; the Barton Club to approve the re-written text. Appendix 3.	PH
(59)/6.3.2 <u>British Goodyear:</u> Approved. Appendix 4.	
(59)/6.3.3 <u>Mini Goodyear:</u> Approved. Text needs to be written. Appendix 5.	JH
(59)/6.3.4 <u>Barton Classic 15:</u> Approved but needs re-writing in standard rule layout and terminology. Appendix 6.	JM
(59)6.4 <b>Vintage Team Race:</b>	
(59)/6.4.1 <u>Vintage Classes:</u> Approved as amended in Appendix 7.	
(59)/6.4.2 <u>Vintage 1/2 A:</u> Approved. Appendix 8.	
(59)6.5 <b>Combat:</b> <u>Vintage Combat:</u> Approved. Appendix 9.	
The Secretary will prepare the text as necessary and after checking by the appropriate CLTC member will send the rule changes to the Technical Secretary.	
(59)6.6 FAI Classes:	
(59)/6.6.1 <u>F2G:</u> Approved as amended in Appendix 10.	PH
(59)/6.6.2 <u>F2C:</u> Approved as amended in Appendix 11.	PH
The Chairman will forward the F2G & F2C proposals to the BMFA office for forwarding to the FAI in time for the CIAM Plenary Agenda deadline.	PH
<b><i>Post Meeting Note: There are further rules changes in Open Goodyear/VTR B and Vintage Speed from the CLTC meeting held on 28th November 2015 and attached to these Minutes at Appendices 16 &amp; 18 to keep together all the 2016 rule changes. Barton MFC approved in the CLTC amendments to Barton B &amp; Barton Classic 15 rules in December.</i></b>	JH
<b>(59)7 Training &amp; Excellence Budget</b>	ML
To enable the Treasurer to prepare claims in line with the way that the Accounts Manager wants, he had designed a supplementary form to be completed along with the BMFA claim form. The Treasurer will forward a best copy to the Secretary.	
It was agreed to standardise the T&E rules. The Secretary will prepare and the Treasurer will check. When finalised the Secretary will forward to the BMFA Treasurer.	ML/JH
It was unanimously agreed by the CLTC that the 2016 T&E Budget be split amongst all the 2016 GBR F2 team members as they will not have a chance to do any training before the 2016 World Championships which are scheduled early in the year (8th May). The Secretary is to contact the BMFA Treasurer with the request.	JH
<b><i>Post-meeting Note: The request was refused by the BMFA Treasurer.</i></b>	
<b>(59)8 FAI Judges &amp; Sub-committee Nominations</b>	
(59)8.1 <b>FAI Judges.</b> After discussion, it was unanimously agreed that the following names should be submitted to the FAI:	
F2A: Peter Halman, Jo Halman, David Brewin	
F2B: John Bonner, Barry Robinson, Roger Ladds	
F2C: Chris Barker, Bernie Langworth, Mike Crossman; add Malcolm Ross	JH
F2D: John James, Vernon Hunt, Gordon Price, Mervyn Jones	
The Secretary will send the list to the BMFA office for inclusion on agenda for the Technical Council meeting scheduled for 17th October	
(59)8.2 <b>F2 Technical Experts.</b> After discussion it was unanimously agreed that the following names should be submitted to the FAI:	
F2A: Peter Halman	
F2B: Barry Robinson	
F2C: Chris Barker	
F2D: John James, Vernon Hunt; add Mervyn Jones	JH
The Secretary will send the list to the BMFA office for inclusion on agenda for the Technical Council meeting scheduled for 17th October.	

**(59)9 2016 World Championships****(59)9.1 Team Selection F2A, F2B, F2D & F2C Update.**

The Secretary reminded the meeting that it is policy (custom & practice) that only 1st to 4th place will be considered for GBR teams.

**F2A:** Peter Halman, Paul Eisner, Ken Morrissey.

**F2B:** Peter Tindal, Kevin Morgan, Mervyn Jones.  
1st placed Barry Robinson declined his team place on health grounds.)

**F2C:** Fitzgerald/Thomason, Barker/Tricker, Ross/Toogood.  
3rd placed Heaton/Broadhead declined their team place. Ross/Toogood had only 7 or the required 8 qualifying times and, therefore, did not meet the minimum qualifying criteria. The TR representative proposed that they be the third F2C team. The proposal was carried by For: 5; Against: 2.

**F2D:** Wiseman, Whillance, Price.  
3rd placed Harry Walker declined his team place because of the cost of these Australian Championships.  
It was decided that dedicated Pitmen would not be proposed for these Championships.

It was unanimously agreed to propose the above people for the 2016 F2 World Championship team. The BMFA Competition Secretary will need to ratify the team promptly given the early date of the Championships.

JH

**(59)9.2 Team & Assistant Team Managers**

The only applicants had been John James (TM) and Val James (ATM). They had been unanimously proposed by the CLTC by email and ratified by the Competition Secretary.

**(59)10 Team Travel Fund**

With £10,000 in total (including the 2014 CL Nationals contest income) it was unanimously agreed to use £9,000 of that figure which equates to £600 per team member. The Treasurer is to inform the Accounts Manager and to request that the payments are made early as the funding is needed to purchase the very expensive air tickets.

ML

**(59)11 F2D Team Points: Nats/Champs Clash**

All the members of the CLTC had been circulated with Dave Wiseman's email and after consideration it was decided that no action was necessary as there will be no clashes for at least three more years.

**(59)12 Trophies to be Assigned**

(59)12.1 It was unanimously agreed that the Eifflaender Family Trophy (Combat Merit) be awarded to Nick Bridges, BMFA No 18134.

(59)12.2 It was unanimously agreed that the Knokke No I Trophy (CL Meritorious Performance) be awarded to Paul Eisner, BMFA No 57093.

(59)12.3 The Johnnie Hall (Open Speed Overall Champion) – Dave Smith, BMFA No 1784.  
The Alan Woodrow trophy (F2A Team Selection) – Peter Halman, BMFA No 50198.

(59)12.4 The Czech Vase – Fitzgerald/Thomason, BMFA Nos 33566/87971  
The Gordon Yeldham Memorial Trophy is only applicable in even years.

(59)12.5 The following trophies are for Team Race at the Northern Gala:  
The Budapest trophy (1/2 A) - Fitzgerald/Thomason, BMFA Nos 33566/87971  
The Wharfedale Trophy (F2C) - Fitzgerald/Thomason, BMFA Nos 33566/87971  
The ETA trophy ('B') – Eyre/Needham, BMFA Nos 20806/63207

The Secretary will forward the information to the Records Officer.

JH

**(59)13 Report from the September Council Meeting**

The Council Delegate gave a brief report.

**(59)14 Technical Council Agenda**

It was agreed that the Council Delegate vote as necessary at the Technical Council meeting on 18th October.

**(59)15 Nomination for Pilot of the Year Trophy (wef (2010))**

This had already been submitted to the BMFA Awards Committee.

**(59)16 AGM Static Model Display 21/11/15**

The Secretary reminded the meeting about this.

**(59)17 Members' Reports**

(59)17.1 Chairman: The Chairman reminded the meeting that it had provisionally agreed to run the F classes at 2016 CL Nationals as a World Cup. If the 2016 Nationals do not take place then it was suggested that Darley Moor would be an F2D World Cup at different dates. The Secretary reminded the meeting that the FAI Competition Registration form and sanction fee had to be with the FAI by 15th November 2015.

He explained that it was intended that France would host an F2A World Cup on Britain's behalf. GBR would pay the sanction fee; France would retain the entry fees and reimburse GBR with the sanction fee. France would run the World Cup..

He added that Belfast was working on a provisional 2019 European F2 Championships. Belfast City Council was giving financial help as well as a free site. The CLTC fully supported this initiative.

(59)17.2 Secretary: no report other than routine matters.

(59)17.3 Treasurer: nothing other than Minutes items 7 & 10.

(59)17.4 Speed: he had received a request from Vintage Speed that the Speed and Vintage competition dates should not clash. Whilst this would clearly be good, there is simply not enough choice of venues and dates to accommodate the request. It may be possible to combine Vintage Speed with Speed at Wittering.

The Records Officer had asked that the Speed .29 class trophy be transferred to the Formula 29 class but this was rejected as 2015 was the first year that class had existed.

(59)17.5 Team Race: a written report appears at Appendix 12.

F2C racing was different with the 3 mm venturiers.

A "lost" RAFMAA trophy in poor condition had been handed to the TR representative.

(59)17.6 Aerobatics: a written report appears at Appendix 13.

(59)17.7 Combat: Combat is coming along nicely. F2D is stable with 10 serious competitors, F2E with 20 entries & 1/2A with only 7 are only flown at the Nationals. The Vintage & Oliver Tiger classes are still increasing in numbers: at the Nationals, there were 40 competitors in Vintage and 30 in Oliver Tiger. The Oliver Tiger numbers were up by quite a few. It is gaining in popularity and if a competitor is knocked out in Vintage, then he still has Oliver Tiger in which to fly. The Combat representative receives weekly emails from people looking to get back into Vintage Combat.

(59)17.8 Vintage Team Race: a written report appears at Appendix 14.

(59)17.9 Vintage Speed & SAM 35: a written report appears at Appendix 17.

(59)17.10 Carrier Deck: a written report appears at Appendix 15.

**(59)18 Any Other Business**

There was no Any Other Business

**(59)19 Date of Next Meeting**

28th November, 2015

(John Mealing and Chris Barker offered their apologies for absence at that meeting)

The meeting closed at 17.55 hours.

**Distribution of Corrected & Adopted Minutes:**

Signed: *Signed copy on file*

Peter Halman FSMAE, Chairman

Dated: 28th November 2015

Already Distributed: All Committee Members

Representatives of VTRSIG, SAM 35 & Carrier Deck

Requires Distribution:

Mr D Varallo, Technical Secretary

Mrs Linda Harding, BMFA Office Manager

Other distribution as necessary

## Weatherman Speed Rule Amendments for 2016

### 4.1.9.1 Model

Cyril Shaw's Weatherman as published by Ian Allen (Model Aviation ~1949). To be built as plan (except classes VI and VII, see below) with no scaling down although wing and tail areas can be increased if desired.

~~Optional: 1¾" diameter spinner,~~ Mandatory: **1¾" diameter spinner or backplate**, two 2" minimum diameter wheels, bellcrank fastened to hardwood spar built into wing (position optional), undercarriage approximately as plan, external controls.

Wing dihedral optional but preferred, but wing and spar must be additionally attached to bearers using screws and/or dowel pins. The tail section should be reinforced and pushrod additionally supported as necessary to prevent vibration in flight.

Classes VI and VII to be built as plan, but scaled up by a factor of 1.414 to give a minimum wingspan of 26.6". Spinner to be 2" diameter.

Class 0 to be built as plan, but scaled down by 25% to provide a minimum wingspan of 14". Spinner to be 1¼" diameter, 1½" diameter wheels and fixed 14swg undercarriage.

**A safety wire constructed from multi-strand wire with a minimum bulk diameter of 0.45 mm for classes 0 – V, and of 0.70 mm for classes VI – VII must be visibly and safely attached between the bellcrank pivot bolt and the engine. Class I is exempt.**

### 4.1.9.8 Lines

Only 2 line operation is allowed. **Minimum** Line length and diameter (tolerance ± 2.5%) shall be as noted in the table below and will be measured from the centre of the handgrip to the centre of engine crankshaft. Model, handle and lines shall be pull tested prior to each flight. A restraining strap attached to the handle is mandatory in all classes. All single strand line ends must be made in accordance with the BMFA handbook, section 4. Line diameters are for single strand carbon spring steel wire. Multi strand may be used, but minimum diameters of 0.3mm (± 2.5%, class 0) and 0.4mm (± 2.5%, classes II, III and IV) apply. Classes V, VI and VII must use single strand only.

### 4.1.9.11 Jettisoning

**If jettisoning occurs during an official flight then the flight will be considered as an attempt.**

Rule amendments provided by Vintage Speed

Approved by the CLTC  
10/10/15

## **Aerobatics Class II Rule Amendments for 2016**

BMFA Rule 4.2.3 Class II Aerobatics does not include any “starting rule”. All Class II rules refer to the FAI F2B rules. The F2B rule 4.2.13 Starting Procedure no longer contains any reference on how to start an engine therefore the proposal as submitted is irrelevant.

However, the BMFA rule book does contain the following outdated reference to FAI 4.2.13 Starting Procedure under BMFA Variations on F2B Aerobatics:

“The competitor may hand start and warm up his engine within the three minute period, but the engine must be stopped before he gives his official start signal.”

This variation should be removed from the BMFA rule book.

Rule amendment provided by the F2B Representative to the CLTC

Amended by the CLTC

Approved by the CLTC

10/10/15

**Barton B Team Racing Rule Amendments for 2016****4.3.5.4.1 General**

- (a) Other than for safety reasons, the rules for Barton B Team Racing may only be altered with the approval of the Barton Model Flying Club.
- (b) **The team may choose to employ an assistant to help start the engine.**

**4.3.5.4.2 Model specification**

- (i) Pressure refuelling systems, **other than a hand-held squeeze bottle,** shall not be used.

**4.3.5.4.3 Engine specification**

- (g) A small amount may be machined off **each side of the crankcase fins, the exterior of the cylinder head, and** the exhaust stack to allow easier installation but the engine must still be capable of having the original silencer mounted by the original means. It is permissible to machine a small amount of metal from the top of the mounting lugs thus rendering them level to facilitate mounting in the model. An extended prop driver may be used.

**4.3.5.4.9 Race conduct**

- (a) **The pilot must be crouching with one hand close to the ground at the start of the race and during any pit stops.**
- (b) **In the interest of safety the Contest Director may, at his discretion, group models/teams to their performance/competence.**
- (c) **The conduct of the race shall be in accordance with rule 4.3.4 'General Team Racing with the following exceptions:**
- (1) **Models already on the ground must avoid causing an obstruction to any landing models, either in the air or running to their pit station. Unlike 'modern' TR there is no minimum over-fly height. Lines must be on the ground and a pitted model must not be released to undertake or foul a landing model. To do so will result in disqualification from that heat or final. (Ref: General TR rule 4.3.4.10 (f).)**
- (2) **A team shall be warned if the pilot does not keep one hand close to the ground at the start of the race and during any pit stops. (Ref General TR Rule 4.3.4.15 v.)**

Rule amendments submitted by Barton MFC

Amended by the CLTC

Approved by the Barton MFC

10/12/15



## British Goodyear Team Racing Rule Amendments for 2016

### 4.3.6.3 CLASS BRITISH GOODYEAR

#### 4.3.6.3.2 Engines

- (a) Engines shall be:
  - (1) any 2.5cm<sup>3</sup> Oliver Tiger or PAW or clones thereof which have enjoyed a significant production run. All engines shall be compression ignition, have radial porting and an iron/steel piston liner assembly;
  - (2) **the Parra OT clone with steel/steel piston liner assembly**
- (b) Any replacement parts shall, wherever possible, be genuine items from the original manufacturer or elsewhere. Should such parts be unavailable, replacement parts shall be manufactured to the original specification and in the original material.
- (c) The only modification permitted is the removal of metal from any part.

Rule amendments submitted by CLTC

Approved by the CLTC  
10/10/15

## Mini Goodyear Team Racing Rule Amendments for 2016

### 4.3.6.4.6 Contest Organisation

The contest shall be run to BMFA Team Race rules with the following exceptions:

**(a) Heats for Juniors shall be flown as two-up races.**

**(b)** The circles shall be marked out on grass.

**(c)** All models shall be hand launched.

**(d)** There is no requirement to move to a defined pitting area but pitmen must move a safe distance from a model which is already in the process of being pitted.

**(e)** With permission of the Contest Director, pitmen may enter the flight circle to retrieve a model which has landed, but he must then immediately move outside of the flight circle.

**(f)** If a team has not completed its second pit stop in a heat or its fifth pit stop in a final by the end of the penultimate lap, timing of the team will continue until the last pit stop is completed plus one lap flown.

**(g)** A complete lap must be flown between each pit stop. In the absence of such a lap the subsequent pit stop will not be counted.

**(h)** The Contest Director at all times shall ensure that the conduct of the contest shall be such so as to encourage the participation of junior and novice competitors.

Rule amendment submitted by Peter Jephcott

Amended by the CLTC

Approved by the CLTC

10/10/15

## NEW CLASS

### 4.3.5.5 CLASS BARTON CLASSIC 15 With acknowledgements to Barton MFC

#### 4.3.5.5.1 General

Other than for safety reasons the rules for Barton Classic 15 may only be changed with permission of the Barton MFC.

#### 4.3.5.5.2 Model Specification

- (a) The model must comprise a separate wing and stabiliser, in the style of pre-1970 models, with an all-enveloping (ie not profile) fuselage. Designs published up to 31st December 1969 are acceptable, or builders may produce their own design to the parameters set out in this specification. 'Flying wings' and 'pod and boom' fuselages are not permitted.
- (b) The fuselage must be fitted with a transparent canopy in a central or forward position, and a visible pilot. The pilot shall have clear forward visibility.
- (c) The minimum total projected wing area (wing and stabiliser, including the area within the fuselage) shall be 12 sq dm (186 sq ins).
- (d) The fuselage shall have a minimum height of 100 mm, a minimum width of 50 mm and a minimum cross sectional area of 39 sq cm at the canopy position. Any wing fillets shall not be considered part of the fuselage width.
- (e) Fuel tank capacity, including tubing, filter, valve, shut-off etc shall not exceed 10 cc.
- (f) A working shut-off must be fitted and may be used during racing.
- (g) Pressurised refuelling systems, other than a hand held squeeze bottle, are not permitted.
- (h) Pressure feed from tank to engine is not permitted.
- (i) Multi-function valves are permitted.
- (j) The tank and fuelling arrangements shall be accessible for the purpose of scrutiny.
- (k) Undercarriages may have one or two wheels of minimum diameter 25 mm, with a maximum wear tolerance of 3 mm. They must be permanently fixed to the model.
- (l) Retractable undercarriages are not permitted.
- (m) Steep or shallow 'V' tails are permitted.
- (n) Any asymmetry in the plan view shall not exceed 15 mm.

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- (o) Other than glass cloth/epoxy, the use of materials such as carbon fibre, Kevlar, Rohacel, etc is not permitted except for local strengthening and/or repairs. An exception is made in the use of carbon fibre tube for pushrods, which is permitted.
- (p) Metal wings are not permitted. Aluminium or magnesium engine pans and plates are permitted.
- (q) The engine and tank shall be fully cowled, with openings just sufficient to permit the ingress and egress of air to facilitate the efficient running of the motor.
- (r) The only parts of the motor and tank which may project from the fuselage are those necessary for adjustment, shut-off and fuelling.
- (s) Lead-outs may be set within the wing, and line connections may be internal.

#### 4.3.5.5.3 Engine Specification

- (a) Engines with a maximum swept volume of 2.5 cc built or designed prior to 1970 and having iron/steel piston/liners may be used. Of currently or recently available engines, the Rothwell, Ridley, Parra T3, CS and Rustler Mk3 or Mk4 Oliver Tigers (but not the Rustler ABC version) may be used, together with non-schnuerle PAWs. Engines may be modified using the 'technology of the period'. The fitting of ABC or AAC piston liners in old or new engines is not permitted.
- (b) Use of the Fora Pioneer, modified, if necessary by the replacement of the front bearing with a sealed version and/or the addition of a "suck-back" hole, will be permitted up to 31st December 2016.
- (c) A safety spinner nut or spinner, and a safety compression screw must be used.

#### 4.3.5.5.4 Control System

- (a) Lines shall be steel multistrand, minimum 0.3 mm diameter.
- (b) The length of the lines shall be 15.92 m +25 mm - 0mm, measured from the centreline of the model to the centre of the handle.
- (c) Monoline is not permitted.
- (d) A handle safety strap shall be fitted and used at all times when flying.
- (e) The assembled control handle, safety strap, lines and model shall be subjected to a pull test equivalent to twenty times the weight of the model.

#### 4.3.5.5.5 Circle Layout

The circle marking shall be a minimum of the flight circle at 19.6 m radius, the centre circle at 3 m radius and the inner circle at 2 m radius.

cont/...

**4.3.5.5.6 Propellers**

- (a) **Propellers shall be commercially available twin bladed injection moulded glass reinforced plastic, and must not exceed the maximum RPM specified by the manufacturer.**
- (b) **A total negative tolerance of 13 mm below the nominal propeller size is permitted to allow for balancing and limited redressing of the propeller tips after 'razzing', ie a nominal 6.5 mm off each blade.**
- (c) **Apart from the above and boring the hub to fit the prop shaft/spinner, no other material may be removed from the propeller.**

**4.3.5.5.7 Fuel**

**Fuel is unrestricted, within the limits of BMFA safety rules, with the exception that lead additives are not permitted.**

**4.3.5.5.8 Race Distance**

- (a) **Heats and semi-finals shall be 100 laps.**
- (b) **Finals shall be 200 laps.**

**4.3.5.5.9 Race Conduct**

- (a) **Whenever possible, provided conditions permit, races should be flown three-up.**
- (b) **Races shall be run in accordance with the BMFA general Team Race rules, except that the race warm-up period shall be 90 seconds.**

Rule amendments submitted by Barton MFC  
Amended by the CLTC  
Approved by the Barton MFC  
10/12/15

## Vintage Team Racing Classes Rule Amendments for 2016

### 4.3.7 Vintage Class Rules

#### 4.3.7.2 Eligibility of models

**(a) Only those models which are included in the Eligible Models listings in Sections 4.3.7.9.6, 4.3.7.10.7 and 4.3.7.11.6 shall be used.**

**(b)** Models shall be either scale or semi-scale in appearance and if semi-scale must have a raised windshield or cabin. ~~The aspect ratio of the wing shall not be more than 8:4 or less than 4:1.~~ The cockpit or cabin must contain the head of a pilot.

**(c)** For classes A and B, **models** must be built to a .....

**(d)** For class 1/2A, models must be built to a .....

#### 4.3.7.4 Eligibility of Engines

(d) Any engine modifications, replacement parts or hybrid engines must use materials and technology clearly in use for model aircraft engines used in team racing prior to 1st January 1958.

Class B glow engines must be ~~loop~~ **cross** scavenged **or cross flow** with a baffle piston.

In the case of 1/2A and A classes, an engine's piston shape is not restricted. The tuner may then remove as much metal as he sees fit.

#### 4.3.7.5 Race Conduct

The conduct of the race shall be in accordance with ~~the rules laid down for the conduct of Team Racing events in the current edition of the BMFA Contest Rules Book. In the interest of safety the Contest Director may, at his discretion, group model/teams according to their performance/competence. Section 4 Control Line, clause the~~ **current rule 4.3.4 'General Team Racing' with the following exceptions:**

~~Note: An exception to the above, in vintage racing,~~

**(a)** Models already on the ground must avoid causing an obstruction to any landing models, either in the air or running in to their pit station. Unlike modern T/R there is no minimum over-fly height. Lines must be on the ground and a pitted model should not be released to undertake or foul a landing model. To do so is a DQ.

**(b) If required the team may employ an assistant to assist in the starting of the engine/s.**

**(c)** The pilot must be crouching with one hand **close to** ~~on~~ the ground at the start and during pit stops. (Ref: General Team Racing Rule 4.3.4.9 (d)).

**(d) In the interest of safety the Contest Director may, at his discretion, group model/teams according to their performance/competence.**

### 4.3.7.9 Vintage Team Racing Class 1/2 A Rules

#### 4.3.7.9.6 Eligible Models

Model	Designer	Source	Date
<b><u>K31</u></b>	<b><u>Ken Long</u></b>	<b><u>Accepted by VTRSIG</u></b>	<b><u>1956</u></b>

cont/...

**4.3.7.10 Vintage Team Racing Class A Rules**

**4.3.7.10.7 Eligible Models**

Model	Designer	Source	Date
K31	Ken Long	Accepted by VTRSIG	1956
Zenith Mk4	Stan Robinson	Accepted by VTRSIG	u/k
Zenith Mk7	Stan Robinson	Accepted by VTRSIG	u/k

**4.3.7.10.8 Eligible Engines**

**Parra T3 2.5**

**4.3.7.11 Vintage Team Racing Class B**

**4.3.7.11.1 Model specification**

Maximum ~~Maximum~~ **Minimum** projected wing area .....125sqin

**4.3.7.11.6 Eligible Models**

Model	Designer	Source	Date
<b>Queen Bee</b>	<b>O Stutter</b>	<b>Accepted by VTRSIG</b>	<b>1949</b>

**4.3.7.11.7 Eligible Engines**

**Parra T4**

**Oliver Tiger JO19**

**Oliver Tiger Major**

**Rothwell 19**

**Kometa 29 (Ringed piston with baffle versions only)**

Rule amendments submitted by VTRSIG

Amended by the CLTC

Approved by the CLTC

10/10/15

## Vintage Team Racing Class 1/2 A Rule Amendments for 2016

### 4.3.7.9.3 Lines

The line length from the centre line of the handle to the centre line of the model shall be ~~42 feet 0 inches.~~ **46 feet 8 inches**

The minimum line diameter shall be 0.012inches.

### 4.3.7.9.4 Race Distance

Heats will be run over ~~400~~ **90** laps (5 miles)

Finals will be run over ~~200~~ **180** laps (10 miles)

### 4.3.7.9.5 Flight Circle

The radius of the flight circle shall be ~~53~~ **58** feet ~~6~~ **2** inches.

Rule amendments provided by VTRSIG

Approved by the CLTC

10/10/15



## Vintage Combat Class Rule Amendments for 2916

4.4.7.1 (h) **The approved list of Vintage Combat models is as follows:**

Name	Designer	Source	Year
<u><b>Boogaloo</b></u>	<u><b>Dave Williams</b></u>	<u><b>Stuart Vickers</b></u>	<u><b>1974</b></u>
<u><b>Finale</b></u>	<u><b>Martin Kizsel</b></u>	<u><b>Martin Kizsel</b></u>	<u><b>1974</b></u>

4.4.7.2 (a) **Engine**  
**AK 19**

Rule amendments provided by the CFA  
Approved by the CLTC  
01/09/2015

## F2G Rule Amendments for CIAM Plenary 2016

### 4.K.2 Characteristics of an Electric Speed Model Aircraft

- a) Maximum voltage of power supply 42 volts off load.
- b) Minimum total projected area 5 dm<sup>2</sup>.
- c) Maximum loading 100g/dm<sup>2</sup>.
- d) Maximum weight 600 g. **(Note; this weight shall be checked at random after flights see 4.K.17 d))**
- e) The model aircraft must take off from the ground.
- g) A radio control system may be used to control the electric motor in accordance with ABR 1.3.2 c).
- e) A person other than the pilot may operate this system. **A person other than the pilot may control the starting and shutdown of the electric motor. If the pilot controls the shutdown of the electric motor he must maintain control of the electric motor until the aircraft power system has been made safe by an assistant. Between initial motor start and final shut off, the pilot may control the power of the motor.**
- f) **The pilot must make the motor power system live (The pilot must connect the motor power battery to the ESC whilst preparing the model for flight inside the flying circle).**

### 4.K.4. Length of Course

- a) The measured distance covered by the model aircraft must be at least one kilometre.
- b) The radius of the flight circle must be ~~15.92 m (10 laps = 1 km).~~ **17.69 m (9 laps – 1 km).**

### 4.K.17. Individual Classification

- a) The best speed attained during the three flights is used for classification. In case of a tie, to separate the fliers, the second best speed, and if still a tie, the third best speed is used.
- b) The first three positions are subject to rechecking of the declared model aircraft characteristics.

**d) The weight of the models shall be randomly checked throughout the competition at the end of a competitor's flight.**

Rule amendments provided by CIAM F2 Sub-Committee Chairman

Approved by the CLTC

10/10/15

## F2C Rule Amendments for CIAM Plenary 2016

### 4.3.11. International Team Classification

International team classification is established by adding the numerical position **three best individual race times achieved by each National team.** achieved by each individual team. The team with the lowest total is ranked first, etc. with complete three-team teams ahead of two-team teams which in turn are ranked ahead of single team entries. In case of a team tie, The **National team with the lowest total is ranked first, with teams with three race times ranked ahead of teams with two race times which in turn are ranked ahead of teams with one race time.** In case of a team tie, the best individual placing **time** decides.

Rule amendments provided by CIAM F2 S-C Chairman

Amended by the CLTC

Approved by the CLTC

10/10/15

## 2015 Team Race Report

2015 saw the first use of the 3mm venturis in F2C. This brought with it a number of issues that the UK fliers initially found hard to overcome but through dogged determination the heat times have come down as the season progressed. We lost two competitions to the weather but those that did run were flown in generally good conditions ie none were marginal. Participation in F2C has been poor overall with 7 teams being the maximum at any competition.

F2CN has continued in popularity with at least one team gaining success on the international scene in France and Portugal, reaching the final in each of the three competitions entered. There are still issues to be addressed in all classes. For instance: what is the future of F2C as far as the 3mm venturi is concerned as the top teams can now achieve in excess of 50 laps per tank? Should the tank size be reduced or make a set number of pitstops compulsory? Also should the UK adopt the F2F rules in full and allow ex-F2C motors to be used? The consensus is that F2CN/F2F is becoming too fast to be classed as a beginners class. The usual problem of people being unwilling to officiate is ever present; the call for volunteers to help is often un-responsive especially for the Nationals.

The forthcoming 2016 season will be unusual in that the World Championships are to be held in May ahead of our normal season so this will have an effect on the contest calendar for both F2C/F2CN and domestic competitions as a number of people will be absent who would otherwise support these competitions.

Chris Barker  
TR Representative  
October 2015

## **F2B Report 2015**

All the Centralised competitions have maintained entry levels with the one at the Barton F2 Weekend attracting 13 entries. Unfortunately the Barton Club, whose event it is, retains all the entry fees and so the BMFA does not receive any revenue but it does use the results in the Team Selection table.

Had the weather been kinder there would probably have been larger entries at the competitions early in the year with one or two being borderline due to high wind, but with Australia in mind I was very reluctant to cancel any.

I have been approached to join the CLAPA committee which is a positive sign of the changes within CLAPA and while CLAPA still has issues with the CLTC, progress is being made. The results from Bulgaria also highlight once again how poorly we are competing internationally. They were probably distorted by the low entry from the lesser nations and the inability to get any meaningful practice due to the weather prior to the championships. However it is possibly time to consider the F3A method of scheduling training days. Changing to four from five competitions to count and awarding team points (5 points?) for attending training with one being mandatory for team selection.

Judges training has been held twice this year with Roger Ladds. Pete Tindal attended the second and was very impressed with the information imparted. Having at least one essentially classroom based day seems the best way forward.

Is there a trophy available for F2B league?

Mervyn Jones  
October 2015

## **VTRSIG End of Year Report 2015**

Vintage team racing continues to decline. Only four competitions were run this year: South Bristol at their Berkeley site, two at Barton and the Nationals.

Class A is maintaining reasonable entries but 1/2A and B are virtually stagnant. Shortage of flying sites, health and age of the main competitors are the main causes of the decline.

John Mealing  
October 2015

## **UK Carrier Deck 2015 End-of-Season Report to the CLTC**

### **Contests**

There have been 11 Carrier events in the UK between April and October, of which seven were of full weekend or longer duration and four were single-day (and there were an additional six events in Europe: two in Belgium, two in Holland and two in Germany, all of which were of weekend duration).

There are nine Carrier Decks in existence in the UK (and four in Europe), with seven of the UK decks (and two of the Continental decks) in regular use.

### **Weather**

So far as the UK events were concerned, the average weather conditions were somewhat worse than in 2014, but this appears to have had no effect on the contest attendance. The nature of the 'worseness' consisted more of rain than wind, and as it is wet operating conditions that appear to discourage participation more than excess wind, this suggests that other compensatory effects are operating (see Attendance). Fortunately, no event had to be cancelled beforehand and only the Scale weekend at Old Warden in July had one day more-or-less written off (by rain) - the Sunday. Marlborough, also in July, suffered from a couple of hours of rain, but this merely extended the day. The Nationals' Sunday suffered from a little light rain during the afternoon, but insufficient to affect flying and whilst the Monday was a write-off between daybreak and about 1400, all flying had been completed by the end of Sunday: for the fourth year in succession, therefore, Carrier's Nationals has been treated extremely kindly by the weather!

### **Attendance**

Entirely satisfactory: slightly better than in 2014, despite the slightly poorer weather. No obvious cause suggests itself, although it is possible that the difference is either no more than a year-to-year statistical variation or, perhaps, a reflection of the fact that more and more flyers are retiring: whilst their health remains good with their increasing age, perhaps they find they have more free time? The Nationals' attendance (very good) was about the same as in 2014. Carrier continues to be fortunate in its recruitment - as always due largely to the efforts of the Training Teams at the Nationals and the Old Warden events, plus the inevitable word of mouth - and whilst this results in no more than a few flyers per year, that's all that's needed to 'top' up the numbers.

### **The Nationals**

The Carrier site remained in its 'new' 2014 position between the Commercial Area and the approach lights to Runway 27. This is a good position for 'passing trade', ie: for general spectators as well as for attracting people to the Hands-on Flying Training, and more will be made of this in 2016 (presuming Barkston remains available, of course) by an internal rearrangement that will put the Training Circle nearest the Commercial Area. Site mowing was carried out without a glitch. The Wednesday and Thursday evenings, however truncated they are for RAF operational reasons, remain **absolutely essential** for preparatory work, particularly if the BMFA continues to be subject to a rigid 1700 Friday access start time. Thanks are deserved by the Roping Crew who produced a revised traffic corridor on the Saturday without adversely affecting Carrier's activities, when it was clear that conditions demanded an improvement; particular thanks need to go to the crew who distributed the tables and chairs on the Friday evening and who continued to do this job until well after dark - despite the difficulty of locating their recipients - as this enabled the remainder of the site preparation to be completed in time for Saturday morning's start.

As in previous years, the Nationals was easily the largest Carrier contest of the season, with 42 pre-entries across the two Carrier classes. Both the Training Circle, Practice Circle and the Information Tent were popular and well used, and the contest activities on both Saturday and Sunday went without a hitch, particularly the extension into Sunday evening to completely finish all flying as it was by then quite clear that Monday would be unflyable. It was!

*cont/...*

## Safety

There were no known safety issues or injuries arising from contest activities in the 11 UK events of 2015. Off-site, the fire-risk represented by Lithium Polymer batteries continues, with at least one flyer arriving back home, having been away for only a few minutes, to find his kitchen curtains on fire! Very fortunately, except for smoke blackening of walls, ceilings and paintwork (bad enough, of course), the significant damage was able to be limited to a new pair of curtains...

## Developments

As in previous years, Carrier enjoys a mix of aircraft fitted with either piston engines/mechanical control, piston engines/electronic control or electric engines/electronic control, with no particular system better than the others. Although there may be a nationwide acceptance of the possibility that electric engines/electronic control will eventually dominate both the competition and sport sides of Control Line, the innate greater visibility and therefore correction of serviceability and faults provided by piston/mechanical systems - and the continuing **significantly** greater unreliability of electronic systems - means that for the foreseeable future the choice remains wide open. This does not gainsay the recent inroads made by electric in Carrier, however, particularly in Class 1 where the emphasis is on high speed where it is clearly easier to operate a high-power electric motor than it is to minister to the vagaries of a highly-tuned piped piston engine that is both fuel-, prop- and plug-fussy. Horses for courses, inevitably. The utter simplicity of Electric Ducted Fans will also make the use of jet aircraft eminently possible in Carrier, whereas power via piston-engined ducted fans has always been far more problematic. Several models for EDF power are now on building boards.

For the second year running, the Basic Carrier Deck sub-class of WWOCC (World War One Commemorative Class) was operated at all the Old Warden events and at the Nationals. In essence, this is a scale biplane sub-class which attracts its own 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place awards in addition to those of the parent BCD class. Whilst a little slow to catch on (models are more complex and time-consuming to build than the more popular monoplanes), the tendency has been to power such aircraft with four strokes for increased realism; although there is an undoubted weight and power penalty, this is welcomed as it will enable a future 'Biplane Bonus Score' to be more realistically developed for longer-term use.

Andy Housden

08.10.15

Amended 14.11.15



## **Open Goodyear & VTR B Rule Amendments**

### **4.3.6.2 Class Open Goodyear**

#### **4.3.6.2.2 Engines**

**(d) The team may choose to employ an assistant to help start the engine.**

### **4.3.7.11 Vintage Team Racing Class B**

#### **4.3.7.11.7 Eligible Engines**

**The team may choose to employ an assistant to help start the engine.**

Submitted by the CLTC Secretary

Approved by the CLTC

10/10/15

## **Report on Vintage/Weatherman speed and SAM 35 activities – 2015**

This year has carried on very much as last year with entries just about holding their own. We have had some good turnouts at the Old Warden events with some new 'nostalgic' events run by Brian Lever proving to be popular.

Some records have been broken. The South Bristol Gala at Berkeley Power Station proved to be eventful with one certain competitor knowingly 'bending' the Weatherman rules. Some would call this cheating, which was certainly not within the spirit in which we normally fly. As a result I have put forward some rule alterations to prevent this occurring in the future. I have also introduced the use of a safety wire for most classes as a safety measure in Weatherman speed as some models are becoming seriously fast.

The Vintage Speed community has purchased its own Transitrace system which is in the process of being set up. This has caused some problems as it still operates in MS-DOS but all seems to be working now. As well as timing conventional speed flights, we are also setting it up to time proto type events, ie timed from a standing start. This has apparently been used successfully at the US Nats for these type of events.

For stopwatch timing, we now have an 'app' for the iPad to convert times into speeds and percentages of current records which makes results calculations much easier.

Tony Goodger  
10/10/15

## **Vintage Speed Rule Amendment for 2016**

### **4.1.5 VINTAGE SPEED**

4.1.5.10 (e) Speed (mph) = ~~4,800~~1799.28/time in seconds for all classes.

Rule amendment provided by Tony Goodger

Approved by the CLTC

10/10/15