F2 S/C Technical Meeting Minutes 2014

Report by: Bengt-Olof Samuelsson, F2 S/C Chairman

Present:

Name	Country	Title
Bengt-Olof Samuelsson	SWE	F2 S/C chairman, Delegate
Pavol Barbaric	SVK	F2 S/C member
Joe Devenish	BRA	F2 S/C member
Peter Germann	SUI	F2 S/C member
Kevin Dodd	AUS	Delegate
Bill Lee	USA	F2 S/C member
Ed Smith	CAN	Delegate
Jean Paul Perret	FRA	Alternate Delegate
J. C. Visser	NZL	Delegate
Rob Metkemeijer	NED	Alternate Delegate
Peter Halman	GBR	F2 S/C member
Bruno Delor	FRA	Delegate
Marek Dominiak	POL	Delegate

MINUTES - PROPOSALS

Note: i) Copy and paste a blank table if there are more proposals than there are tables provided; delete those tables that are not required.
ii) Add the proposal agenda paragraph number and proposal title in the first blank cell.

Page 8	**Class: ABR 4B**			
	15.2. a) B.3.5.			**Submitted by:** **BEL**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 0	Against: 3	Abstain:
	Technical Meeting Voting:	For: 0	Against: 10	Abstain: 1
	Comments *(if necessary)*:			

Page 9	**Class: ABR 4B**			
	15.2. d) B.6.1.			**Submitted by:** **F1 S/C**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 7	Against: 3	Abstain: 0
	Technical Meeting Voting:	For: 4	Against: 7	Abstain: 0
	Comments *(if necessary)*: The F2 Technical Meeting thought that the proposal could have positive effects but there were many drawbacks; e.g. if you had not participated in the previous championship you could not vote for a bid even if you intended to send competitors there.			

Page 11	**Class: ABR 4B**			
	15.2. h) B.7.4. Additional Fees			**Submitted by:** **NOR**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 1	Against: 8	Abstain: 1
	Technical Meeting Voting:	For: 0	Against: 11	Abstain: 0
	Comments *(if necessary)*: The F2 Technical Meeting wants to refer this proposal to the Bureau to make a total overview of Fees for Championships. This overview should also look into the needs for the Organiser to help with hotel arrangements for teams.			

Page 12	**Class: ABR 4B**			
	15.2. l) B.16.2. National Team Classification			**Submitted by:** **Bureau**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For: 11	Against: 0	Abstain: 0
	Comments *(if necessary)*: The F2 Technical Meeting found that clarification is needed for many classes which classification method will be used.			

Page 12	Class: ABR 4B			
	15.2. m) Team Classification			**Submitted by:** **BEL**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 0	Against: 3	Abstain:
	Technical Meeting Voting:	For: 0	Against: 8	Abstain: 3
	Comments *(if necessary)*:			

Page 23	Class: F2A			
	15.6. a) 4.1.12 c, e and f Number of Helpers			**Submitted by:** **NED**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 4	Against: 6	Abstain: 0
	Technical Meeting Voting:	For: 4	Against: 6	Abstain: 2
	Comments *(if necessary)*:			

Page 24	Class: F2A			
	15.6. b) 4.1.12 c, d, e and f Number of Helpers			**Submitted by:** **SWE**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 6	Against: 4	Abstain: 0
	Technical Meeting Voting:	For: 3	Against: 7	Abstain: 2
	Comments *(if necessary)*:			

Page 25	Class: F2B			
	15.6. c) 4.2.5 Contest Weather			**Submitted by:** **ITA**
	Amended at the Technical Meeting? **YES** ~~No contest flight shall be started when the wind speed is equal to or greater than **6** metres per second for a continuous period of 30 seconds, as measured from the height of a person standing on the ground holding the measuring instrument overhead at arms-length. In the event of such conditions occurring the F2B Contest Director and Head Judge shall agree a suitable delay to the contest timetable and shall inform all contestants and contest officials as soon as is practicable~~ **c.) In case of turbulence preventing the safe conduct of flight the Head Judge must interrupt the contest until safe flying is again possible.**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 5	Against: 5	Abstain: 0
	Technical Meeting Voting:	For: 12	Against: 0	Abstain: 0
	Comments *(if necessary)*:			

Page 25	Class: F2B			
	15.6. d) 4.2.7 Contest Flights			**Submitted by:** **F2 S/C**
	Amended at the Technical Meeting?			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For: 12	Against: 0	Abstain: 0
	Comments *(if necessary)*:			

Page 25	Class: F2B			
	15.6. e) 4.2.14 Execution and Sequence of Manoeuvres			**Submitted by:** **FRA**
	Amended at the Technical Meeting?			
	S-C Voting *(prior to the Technical Meeting)*:	For: 9	Against: 1	Abstain: 0
	Technical Meeting Voting:	For: 12	Against: 0	Abstain: 0
	Comments *(if necessary)*:			

Page 25	Class: F2B			
	15.6. f) 4.2.15.2. Starting Manoeuvre			**Submitted by:** **FRA**
	Amended at the Technical Meeting? **YES** ~~All judges shall award a mark 10 (ten) if the model aircraft begins its ground roll for the take-off manoeuvre within 1 minute of giving the ready to start hand signal.~~ ~~Both manual starting~~ **and the use** ~~motor starting~~ **of** ~~devices such as electric starters shall be permitted.~~			

~~and the 10 points shall be awarded if the above~~

~~1 minute condition is fulfilled, whatever the method of motor starting used.~~

~~But a mark 0 (zero) shall be given if:~~

~~- no hand signal is given ;~~

~~- or the competitor starts his motor/s before his hand signal has been acknowledged.~~

~~- or the take-off ground roll begins more than 1 minute after his hand signal was acknowledged.~~

Engines may be started manually or by the use of an electric or mechanical starter.

S-C Voting *(prior to the Technical Meeting)*:	For: 8	Against: 2	Abstain: 0
Technical Meeting Voting:	For: 11	Against: 1	Abstain: 0
Comments *(if necessary)*:			

Page 26	**Class: F2B**

15.6. g) 4.2.15.3 Take-off Manoeuvre	**Submitted by:**	**F2 S/C**

Amended at the Technical Meeting? **YES**

~~At take-off, electric powered model aircraft must be restrained by an assistant or a suitable device from the moment the battery is connected until the pilot holds the handle in his hand and gives a signal to release.~~

~~a) Start of manoeuvre:~~

~~The moment when the model aircraft is released to start its~~ **~~begins its~~** ~~ground roll.~~

~~The model aircraft must take off from the ground.~~

Electric powered model aircraft must be restrained by pilot or assistant or mechanically prevented from uncontrolled move or flight caused by accidental motor run. Controlled means for this purpose controlled by handle in pilots hand.

S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
Technical Meeting Voting:	For: 12	Against: 2	Abstain: 2
Comments *(if necessary)*:			

Page 26	**Class: F2C**

15.6. h) 4.3.2 Team Racing Site	**Submitted by:**	**USA**

Amended at the Technical Meeting? **YES / NO** *(delete as appropriate)* (*If "yes" then, type in the amended proposal with deletions as strikethrough and new text in bold underlined red*):

S-C Voting *(prior to the Technical Meeting)*:	For: 6	Against: 4	Abstain: 0
Technical Meeting Voting:	For:	Against:	Abstain:
Comments *(if necessary)*: Withdrawn			

Page 27	**Class: F2C**

15.6. i) 4.3.4 Characteristics of a Team Racing Model Aircraft	**Submitted by:**	**Bureau**

Amended at the Technical Meeting? **YES**

~~b) The maximum exhaust outlet area is 60 mm2 at the cylinder liner projected exhaust outlet or crankcase exhaust outlet.~~

~~c) Two separate methods of reducing noise are allowed:~~

~~i) with a silencer~~

~~ii) with a restricted venturi size.~~

~~d) With a silencer~~

~~i) The aircraft shall be fitted with a silencing system, either separate or integral, which reduces the noise by at least 14 dB(A) when tested on a standardised audio noise generator. This silencing system must be able to be connected to the noise generator.~~

~~ii) The silencer or exhaust outlet shall have a maximum outlet area of 60mm2 and shall be outside the aircraft.~~

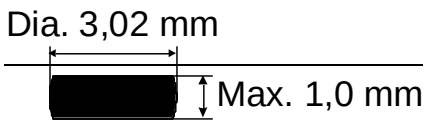
~~iii) The entire silencer system must be gas tight between the crankcase outlet and the silencer outlet.~~

~~iv) The silencer system shall be checked in accordance with the procedure in Annex 4M.~~

~~v) A test of the gas tight fitting of the engine and the exhaust system shall be conducted as a random check in the line check area during warm-up as follows: when the gas outlet of the silencer on a running engine is shut off with a finger or plug, the engine should stop immediately.~~

~~**e) With a restricted venturi size**~~

~~**i) The motor shall be naturally aspirated via a single, round venturi with a maximum diameter of 3 mm. The venturi diameter shall be checked with a simple no-go plug gauge per the following sketch:**~~



~~**ii) Any interconnecting chamber between the air intake and the induction port of the motor shall have a maximum volume of 1,25 cm3.**~~

~~**iii) No sub-piston induction or any other supplementary air intake is allowed.**~~

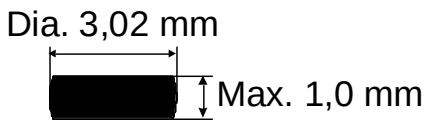
~~Reason: This proposal is made to allow the use of current F2C equipment in 2015 and onwards with only a change in venturi diameter.~~

~~Supporting Data: Flight tests have been carried out with a 2013 model and the noise reduction with a 3 mm venture size was measured to be -2.7 dB(A) when measured from the centre of the circle. This noise reduction is not as much as with a silenced model. The airspeed reduction was +1.2 seconds/10 laps.~~

~~It is assumed that, with development, the speed reduction will be in the order of 1.0 seconds/10 laps. This means in fact that people who choose a 3 mm venture instead of a silencer will be consequently slower by some 10 seconds for a 100 lap race (compared with an unrestricted venture size).~~

a) Maximum swept volume of motor(s) : 2,5 cm3

b) The motor shall be naturally aspirated via a single round venture with a maximum diameter of 3 mm. The venturi diameter shall be checked with a simple no-go plug gauge as per the following sketch:



c) Any interconnecting chamber between the air intake and the induction port of the motor shall have a maximum volume of 1,25 cm^3. No leakage is allowed between the venturi and the crankcase.

d) There shall be no supplimentary air induction except for sub piston induction to a maximum height of 0.6 mm at the exhaust port.

e) There will be a 4 year experimentation period to achieve full compliance with the ABR 4C 1.2. See Annex ?

f) The maximum exhaust outlet area is 60 mm2 at the cylinder liner projected exhaust outlet or crankcase exhaust outlet. If a silencer is used the measurement is taken at the exhaust outlet of the silencer. The piston face at the exhaust outlet shall not be visible from the exterior of the model aircraft when side or front exhaust engines are used.

S-C Voting *(prior to the Technical Meeting)*:	For: 3	Against: 7	Abstain: 0
Technical Meeting Voting:	For: 7	Against: 2	Abstain: 3

Comments *(if necessary)*:

The following is the process which will be used to establish an agreed method of noise reduction and noise control in F2C Team Racing models, the object being to achieve compliance with the Sporting Code ABR Section 4C paragraph 1.2.c). There will be an experimentation period starting in May 2014 and finishing in October 2017, there will be a review of progress in April 2016 and January 2017.

Step 1; the introduction of a 3.0mm venturi with effect from 1st January 2015. Testing to achieve a targeted reduction of a further 2 dB the 1st January 2017.

	Step 2; review of the acceptable noise level for F2C to be presented to plenary 2016 **Step 3**, during the 2015 and 2016 contest seasons, the F2 Sub Committee shall carry out noise tests at selected worldwide events to record the noise reductions achieved and the means employed. **Step 4**; the F2 Sub Committee shall consider whether it believes that further progress to the agreed F2C limit can be achieved by the experimentation route. If the belief is that it is achievable, the F2 Sub Committee shall present the appropriate rules to the 2018 Plenary for implementation from 1st January 2019.

Page 28	**Class: F2C**			
	15.6. j) 4.3.4 Characteristics of a Team Racing Model Aircraft			**Submitted by: Bureau**
	Amended at the Technical Meeting? **YES** e) Minimum dimensions of the fuselage at the top of the cockpit: height: 100 mm; width: 50 mm; cross-sectional area: 39 cm2 - (wing fillets shall not be included in the fuselage cross-sectional area). **If ~~the silencer~~ an exhaust system is partly recessed into the fuselage, the cross section shall be measured with an imaginary outline of the cross section as if there was no cut out for the ~~silencer~~ exhaust system.**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 4	Against: 6	Abstain: 0
	Technical Meeting Voting:	For: 11	Against: 0	Abstain:1
	Comments *(if necessary)*:			

Page 28	**Class: F2C**			
	15.6. k) 4.3.7 Race from Start to Finish			**Submitted by: USA**
	Amended at the Technical Meeting? **YES / NO** *(delete as appropriate)* (*If "yes" then, type in the amended proposal with deletions as strikethrough and new text in bold underlined red*):			
	S-C Voting *(prior to the Technical Meeting)*:	For: 6	Against: 4	Abstain: 0
	Technical Meeting Voting:	For:	Against:	Abstain:
	Comments *(if necessary)*: Withdrawn			

Page 28	**Class: F2C**			
	15.6. l) 4.3.9. Warnings-Disqualifications			**Submitted by: USA**
	Amended at the Technical Meeting? **YES / NO** *(delete as appropriate)* (*If "yes" then, type in the amended proposal with deletions as strikethrough and new text in bold underlined red*):			
	S-C Voting *(prior to the Technical Meeting)*:	For: 6	Against: 4	Abstain: 0
	Technical Meeting Voting:	For:	Against:	Abstain:
	Comments *(if necessary)*: Withdrawn			

Page 28	**Class: F2C**			
	15.6. m) 4.C.6.8 F2C Judging Guide			**Submitted by: USA**
	Amended at the Technical Meeting? **YES / NO** *(delete as appropriate)* (*If "yes" then, type in the amended proposal with deletions as strikethrough and new text in bold underlined red*):			
	S-C Voting *(prior to the Technical Meeting)*:	For: 6	Against: 4	Abstain: 0
	Technical Meeting Voting:	For:	Against:	Abstain:
	Comments *(if necessary)*: Withdrawn			

Page 29	**Class: F2C**			
	15.6. n) 4.3.4. Characteristics of a Team Racing Model Aircraft			**Submitted by: NED**
	Amended at the Technical Meeting? **YES / NO** *(delete as appropriate)* (*If "yes" then, type in the amended proposal with deletions as strikethrough and new text in bold underlined red*):			
	S-C Voting *(prior to the Technical Meeting)*:	For: 9	Against: 0	Abstain: 1
	Technical Meeting Voting:	For: 12	Against: 0	Abstain: 0
	Comments *(if necessary)*:			

Page 29	**Class: F2C**			
	15.6. o) 4.3.6 Organisation of Races, paragraph b)			**Submitted by: USA**
	Amended at the Technical Meeting? **YES / NO** *(delete as appropriate)* (*If "yes" then, type in the amended proposal with deletions as strikethrough and new text in bold underlined red*):			

	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For: 5	Against: 6	Abstain: 1
	Comments *(if necessary)*: The F2 Technical Meeting wants to refer this to the F2 S/C to develop a matrix for this draw and come back with a proposal to the Plenary Meeting next year.			

Page 29	**Class: F2C**			
	15.6. p) 4.3.7.c Race from Start to Finish		**Submitted by:**	**NED**
	Amended at the Technical Meeting? **YES** c) A period of 30 seconds is allowed for final preparations (filling up the tanks) and the Circle Marshal announces ten seconds and the last five ~~**ten**~~ seconds by counting down.			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For: 11	Against: 0	Abstain: 0
	Comments *(if necessary)*: Common practice.			

Page 29	**Class: F2C**			
	15.6. q) 4.C.6 General Points		**Submitted by:**	**USA**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 9	Against: 0	Abstain: 1
	Technical Meeting Voting:	For:	Against:	Abstain:
	Comments *(if necessary)*: The F2 Technical Meeting wants to refer this to the F2 S/C to come back with a proposal (in connection with proposal 15.6. o)) to the Plenary Meeting next year.			

Page 30	**Class: F2D**			
	15.6. r) 4.4.5 Characteristics		**Submitted by:**	**F2 S/C**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For: 11	Against: 0	Abstain: 0
	Comments *(if necessary)*:			

Page 31	**Class: F2F**			
	15.6. s) 4.E.1 Classes		**Submitted by:**	**F2 S/C**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For:	Against:	Abstain:
	Comments *(if necessary)*: The F2 Technical Meeting wants to refer this to the F2 S/C together to oversee the implication in combination with proposal 15.6. u) and come back with a proposal to the Plenary Meeting next year.			

Page 31	**Class: F2D**			
	15.6. t) 3. Time Schedule		**Submitted by:**	**F2 S/C**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For: 11	Against: 0	Abstain: 0
	Comments *(if necessary)*:			

Page 31	**Class: F2F**			
	15.6. u) 4.H.1. Definition of a Diesel Profile Racing Event		**Submitted by:**	**F2 S/C**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For:	Against:	Abstain:
	Comments *(if necessary)*: The F2 Technical Meeting wants to refer this to the F2 S/C together to oversee the implication in combination with proposal 15.6. s) and come back with a proposal to the Plenary Meeting next year.			

Page 31	**Class: F2G**			
	15.6. v) 4.K.2 Characteristics of an Electric Speed Model Aircraft		**Submitted by:**	**F2 S/C**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For: 10	Against: 0	Abstain: 0
	Technical Meeting Voting:	For: 11	Against: 0	Abstain: 0
	Comments *(if necessary)*:			

Page 32	Class: F2G			
	15.6. w) 4.K.4 Length of the Course			**Submitted by:** **F2 S/C**
	Amended at the Technical Meeting? **NO**			
	S-C Voting *(prior to the Technical Meeting)*:	For:	Against:	Abstain:
	Technical Meeting Voting:	For: 11	Against: 0	Abstain: 0
	Comments *(if necessary)*:			