



EFRA ANNUAL SECTION MEETING
HOTEL Hesperia Sant Just
Barcelona, Spain
31st October and 1st of November 2015

AGENDA ELECTRIC SECTIONS – GENERAL.

1. CHAIRMAN'S WELCOME **Mr. Heiner Martin & Mr. Paul Worsley**

The Electric Chairmen opened the meeting at 14:55

2. APOLOGIES FOR ABSENCE – ELECTRIC GENERAL

Apologies have been received from: Christophe Jadot (France). Colin Whelan (Ireland)
 .Andy Frattaroli(Switz.) Jeff Mersch (Luxembourg) Nikos Zannos (Greece)
 Member Countries presents. Section subscription.

COUNTRY	PRESENT	SECTION SUBSCR
AUSTRIA	Markus Vrana	FULL
BELARUS		NO ELEC.
BELGIUM	Krist Bultinck	FULL
BULGARIA		NO ELEC.
CROATIA		FULL
CZECH REP.		FULL
DENMARK		FULL
ESTONIA		NO ELEC.
FINLAND		FULL
FRANCE	Remy Couchon	FULL
GERMANY	Robert Gillig	FULL
GREAT BRITAIN	Chris Hardisty	FULL
GREECE		OR Elec.
HUNGARY		NO ELEC.
IRELAND		OR Elec.
ITALY		FULL
LUXEMBOURG		TC Elec.
MONACO		OR Elec.
NETHERLANDS	Frans Heinsbroek	FULL
NORWAY	Nicolay Haaheim	FULL
POLAND		ALL ELEC.
PORTUGAL	Cesar Coelho	FULL
RUSSIA		NOT Mem.
SLOVAK REP.		FULL
SLOVENIA		NO ELEC.
SPAIN	Javier Llobregat	FULL
SWEDEN		FULL
SWITZERLAND		FULL
TURKEY	Fatih Bodur Paid section fee at AGM. Voting allowed.	TC Elec.
TOTAL		

Other persons present: Nick Daman Jurgen Lauterbach

Total possible votes for App.3A = 22 Total votes for App.3A present at meeting = 9

3. MINUTES OF 2014 SECTION MEETING

November 2014 – Valencia, Spain

Matters arising from the minutes:

The minutes were checked and accepted as written at the AGM 2014. Proposed – Germany
The following person was elected to check the minutes of this year Netherlands (Frans Heinsbroek)

4. CORRESPONDENCE RECEIVED

Correspondence received from LRP, concerning the possibility of allowing 4S Lithium batteries to be approved by EFRA. PW advised that dimensions for these batteries would need to be established as sizes that are allowed by some organizations could easily give a transportation problem by air. Various sizes were discussed and a proposal has been submitted (below).

Other items of correspondence that are relating to specific Electric Sections Will be covered in the Individual Elec. Sections below.

5. RULE PROPOSALS (Does / May affect all Electric Sections)

Note: The EFRA Committee has studied all received proposals and has come to an opinion over each one, The EFRA Section Chairman will inform the floor of such positions.

APPENDIX 3 A ELECTRIC CARS GENERAL

THE RULE SHOULD BE AMENDED TO READ:

2.2.

Existing Rule:

‘SPEC’ BRUSHLESS MOTORS (17.5T, 13.5T and 10.5T ‘wind’ limit)

The following rules have been agreed by various International organisations.

1 Only sensored motors are allowed in the Spec. classes.

2 The motor has to be rebuildable. Ball bearings are allowed. The motor must be constructed to allow easy replacement of the; rotor, bearings and front End-Bell.

3 Sensor connection requirements:

The motor must use a six-position JST ZH connector model number ZHR-6 or equivalent connector with 6 JST part number SZH-002T-P0.5 26-28 awg. contacts or equivalent.

Wire sequence must be as follows: -

Pin #1 - Black wire ground potential

Pin #2 - Orange wire phase C

Pin #3 - White wire phase B

Pin #4 - Green wire phase A

Pin #5 - Blue wire temp control, 10 k Thermistor referenced to ground potential

Pin #6 - Red wire + 5.0 volts d.c. +/- 10%.

Compatible speed control must use the 6 position JST header part number X-6B-ZR-SMX-TF (where the X denotes the style of the header), or equivalent.

The motor power connectors have to be clearly marked A, B, C.

A for phase A. B for phase B. C for phase C

It is not mandatory that sensored Speed Controls have to be used, or that the sensor ‘harness’ has to be connected.

4 The Can. (Based on ‘05’ size specifications).

The overall dimensions of the assembled motor do not include: - solder tabs, lead wires or the original manufacturer’s logo or name.

Overall maximum diameter is 36.02mm measured at whatever point yields the maximum dimension. Overall minimum diameter is 34.0 mm measured at whatever point yields the minimum dimension. Maximum length is 53.0 mm measured from the mounting face of the motor to the furthest point of the end bell. Minimum length is 50.0 mm measured from the mounting face of the motor to the furthest point of the end bell. Motor mounting holes must be on nominal 25.0/25.4 mm centres.

5 The Stack/Stator: Slot-less stators are not allowed. The stator must be continuous laminations having the same overall shape, being one after the other without anything in between. The laminations must be of one homogeneous material without cut-outs, holes or hollow sections other than for the three slots of copper coil wires and the three grooves for the screws used to hold the entire assembly together. Stator minimum length 19.3 mm, maximum 21.0 mm. The thickness of the stator laminations is 0.35 +/- 0.05 mm. The Inside diameter of the stator must accept a ‘plug gauge’ of 14.50 mm +/- .005 diameter, clearing the stator, plus its windings and the electrical collection ring at any end of the stator.

6 The Winding: Only three slot (phase) ‘Y’ (star) wound stators are allowed. No delta wound stators allowed. Only circular (round) pure copper magnet wire permitted. The three slotted stator must be wound with: -

17.5T Class:- 17.5 turns of 2 x 20 awg. (or 0.813 mm) maximum wire dia.

13.5T Class: - 13.5 turns of 2 x 21 awg. (or 0.724 mm), & 2 x 23 awg. (or 0.574 mm)

maximum wire dia.

10.5T Class: - 10.5 turns of 2 x 20 awg. (or 0.813 mm), & 2 x 22 awg. (or 0.643 mm)

maximum wire dia. Dimensions are before lacquer coating

The electrical circuit through the windings can only be from the ends of the wires forming the designated number of turns.

7 The Rotor: Shaft diameter must be 3.175mm where the pinion gear locates. Only one piece, two pole Neodymium bonded or sintered, or Ferrite (ceramic) magnetic rotors are permitted. Magnet length will be 25.00 +/- 1.00mm, not including any non-magnetic balancing aids. Magnet outside diameter will be 12.20/12.51mm (min./max. with no further tolerance) for the entire length of the magnet. The shaft outside diameter where the magnet is mounted will be 7.25mm +/- 0.15mm, with this diameter extending beyond the magnet to facilitate measurement.

The rotor will be identified with the manufacturers name or logo and the unique part number. Applies to all rotors in new motors or new optional rotors from 1st. April 2015 onwards.

8 All motors must have the original manufacturer's logo or name moulded/engraved into the end bell/plate. A unique marking or feature that is difficult to remove must be incorporated into the assembled motor to identify the motor is either a 17.5T, 13.5T or 10.5T Spec. Class motor. Motors introduced from 2011 onwards must have the 'wind' # etched/engraved onto the outer surface of the motor on a part of the motor that cannot easily be separated from the stator windings.

9 If the stator cannot be easily removed from the assembled motor for technical verification of sizes or construction, then the Can/Sleeve must have :- Slots or holes that will allow measurement of the stator length. Slots or holes to allow visual appraisal of the laminates used in the stator.(Rule to be applied to any new range of motor starting 01.01.12. Existing motors without these features are not excluded.)

10.No hybrid motors allowed (mixing of parts from different manufacturers).

Proposal:

SPEC' BRUSHLESS MOTORS (**21.5T**, 17.5T, 13.5T and 10.5T 'wind' limit)

Remarks:

- **Amendment to use part 6 in order to give the wire details for 21,5T**
- **Specific measurement from Gauge (AWG) to Metric can cause confusion by the conversion. So proposal to use Metric only as a Maximum.**

The proposal: Seconded: Spain Passed Unanimously

THE RULE SHOULD BE AMENDED TO READ:

3.1.2.

Existing Rule:

Lithium Based (LiPo/LiFe) Batteries can be approved, but must conform to the following :-

1. Lithium Based (LiPo/LiFe) battery packs must have a hard, protective case that completely envelopes the cell(s). The case should be made from ABS or a similar material. The two halves of the case must be factory sealed in a way that any attempt to open the case will destroy the case. The only opening in the case that is allowed, is for the exit of wires.:

Batteries to comply with the weights specified on the EFRA homologation list, (maximum tolerance for manufacturers is +/- 4%).

The maximum case sizes are as follows:

2S Batteries:

Length: 139.0 mm.

Width: 47.0 mm. (The max. width includes any side exit wires).

Height: 25.10 mm. (Chassis location features additional to this dimension are allowed)

Saddle-Pack cells are allowed, but must comply with the above dimensions.

Saddle-Pack cells must have a combined dimension of 139.0mm max when placed end to end.

1S Batteries:

Length: 93.0mm.

Width: 47.0mm. (Side exit wires are allowed outside this dimension).

Height: 18.5mm. (Chassis location features additional to this dimension are allowed)

2. Individual cells used in the construction of the battery pack shall be rated at (LiPo

3.7/LiFe 3,3) volts nominal. Individual cells may be wired in parallel.

For 2S Packs, the maximum connection "In Series" is two, to give a Final pack voltage of (LiPo 7.4v/LiFe 6.6v) nominal.

For 1S Packs, cells can only be connected in parallel to give a Final pack voltage of (LiPo 3.7v/LiFe 3.3v) nominal.

3. The battery pack shall have leads extending from the case for the positive and negative electrical connections using wire of adequate size to handle discharge rates acceptable to racing applications.

Alternatively, the case shall have internal connection points for these wires clearly marked positive and negative so the user can apply the lead wires. Any type of metal connections that are incorporated in the battery pack must be substantially below the major surface of

the plastic casing, to prevent any "short circuit" if placed on a conductive surface.

4. The case must have the original suppliers label intact, stating:- the Part #, the rated voltage and the chemistry (LiPo/LiFe).. The Brand name/logo shall be easily readable.
5. All LiPo/LiFe packs must be charged with a LiPo/LiFe-capable charger using the industry standard CC/CV (Constant Current/Constant Voltage) charge profile.
6. 2S LiPo/LiFe batteries may be charged to a maximum of 8.40v (LiPo) resp. 7.40v (LiFe). 1S LiPo/LiFe batteries may be charged to a maximum of 4.20v (LiPo) resp. 3.70v (LiFe). Overcharging is a serious safety hazard and will not be tolerated.
7. Any competitor found to be charging cells using a charger that is not specifically designed for LiPo/LiFe cells, or using a charge profile other than the industry standard CC/CV, will be penalised at the event.

Any competitor found to have charged LiPo/LiFe cells to above the values detailed in rule 3.1.2 (6) above will be penalised. The different guidelines for use and homologation of LiPo/LiFe-Batteries are published on the EFRA webpage (www.EFRA.ws). A copy of the guidelines for the end-user must be included in the driver's packages for EC's.

8. LiPo/LiFe drive batteries should be charge in a 'Lipo sack' at all times. LiPo sack is defined as a receptacle designed for the purpose of charging LiPo/LiFe batteries and of a suitable construction as to contain a LiPo/LiFe fire.

Proposal:

Lithium Based (LiPo/LiFe) Batteries can be approved, but must conform to the following :-

1. Lithium Based (LiPo/LiFe) battery packs must have a hard, protective case that completely envelopes the cell(s). The case should be made from ABS or a similar material. The two halves of the case must be factory sealed in a way that any attempt to open the case will destroy the case. The only opening in the case that is allowed, is for the exit of wires.:

Batteries to comply with the weights specified on the EFRA homologation list, (maximum tolerance for manufacturers is +/- 4%).

The maximum case sizes are as follows:

2S Batteries:

Length: 139.0 mm.

Width: 47.0 mm. (The max. width includes any side exit wires).

Height: 25.10 mm. (Chassis location features additional to this dimension are allowed)

Saddle-Pack cells are allowed, but must comply with the above dimensions.

Saddle-Pack cells must have a combined dimension of 139.0mm max when placed end to end.

1S Batteries:

Length: 93.0mm.

Width: 47.0mm. (Side exit wires are allowed outside this dimension).

Height: 18.5mm. (Chassis location features additional to this dimension are allowed)

2. Individual cells used in the construction of the battery pack shall be rated **with a nominal voltage of no more than** (LiPo **3.8**/LiFe 3,3). Individual cells may be wired in parallel.

For 2S Packs, the maximum connection "In Series" is two, to give a **maximum** Final pack **nominal** voltage of (LiPo **7.6v**/LiFe 6.6v). **For** 1S Packs, cells can only be connected in parallel to give a **maximum** Final pack **nominal** voltage of (LiPo **3.8v**/LiFe 3.3v). 3. The battery pack shall have leads extending from the case for the positive and negative electrical connections using wire of adequate size to handle discharge rates acceptable to racing applications.

Alternatively, the case shall have internal connection points for these wires clearly marked positive and negative so the user can apply the lead wires. Any type of metal connections that are incorporated in the battery pack must be substantially below the major surface of the plastic casing, to prevent any "short circuit" if placed on a conductive surface.

4. The case must have the original suppliers label intact, stating:- the Part # of the pack, the rated voltage, the chemistry (Lipo/LiFe), **the rated energy** capacity of the pack in Wh. and the **"C" rating of the pack**. The Brand name/logo shall be easily readable.

NOTE: Saddle Pack batteries supplied as two individual batteries (not hard wired together), will show the nominal battery voltage for each battery on the labels, not the combined voltage.

5. All LiPo/LiFe packs must be charged with a LiPo/LiFe-capable charger using the industry standard CC/CV (Constant Current/Constant Voltage) charge profile.

6. 2S LiPo/LiFe batteries may be charged to a maximum of 8.40v (LiPo) resp. 7.40v (LiFe).

- 1S LiPo/LiFe batteries may be charged to a maximum of 4.20v (LiPo) resp. 3.70v (LiFe).

Overcharging is a serious safety hazard and will not be tolerated.

7. Any competitor found to be charging cells using a charger that is not specifically designed for LiPo/LiFe cells, or using a charge profile other than the industry standard CC/CV, will be penalised at the event.

Any competitor found to have charged LiPo/LiFe cells to above the values detailed in rule 3.1.2 (6) above will be penalised. The different guidelines for use and homologation of LiPo/LiFe-Batteries are published on the EFRA webpage (www.EFRA.ws). A copy of the guidelines for the end-user must be included in the driver's packages for EC's.

8. LiPo/LiFe drive batteries should be charge in a 'Lipo sack' at all times.

LiPo sack is defined as a receptacle designed for the purpose of charging LiPo/LiFe

batteries and of a suitable construction as to contain a LiPo/LiFe fire.

Remarks: Cell technology has advanced. This recognises what is currently being produced and allows manufacturers to identify later technology. Has safety implications.
Under no circumstances should the maximum charge voltage be increased.
If adopted, the date of introduction should be decided.
If adopted, rules 3.3, 3.4, 3.5 will also need amending.

Amendment PW: Amendment to include additional text, clarifying how saddle packs voltage should be shown on the battery label.

Proposed by EFRA

Seconded by: . Great Britain

The proposal: Passed with ..7.. for, ..1.. against and ..1.. abstentions.

THE RULE SHOULD BE AMENDED TO READ:

3.1.2.

Existing Rule:

Lithium Based (LiPo/LiFe) Batteries can be approved, but must conform to the following :-

1. Lithium Based (LiPo/LiFe) battery packs must have a hard, protective case that completely envelopes the cell(s). The case should be made from ABS or a similar material. The two halves of the case must be factory sealed in a way that any attempt to open the case will destroy the case. The only opening in the case that is allowed, is for the exit of wires.:
Batteries to comply with the weights specified on the EFRA homologation list, (maximum tolerance for manufacturers is +/- 4%).
The maximum case sizes are as follows:
2S Batteries:
Length: 139.0 mm.
Width: 47.0 mm. (The max. width includes any side exit wires).
Height: 25.10 mm. (Chassis location features additional to this dimension are allowed)
Saddle-Pack cells are allowed, but must comply with the above dimensions.
Saddle-Pack cells must have a combined dimension of 139.0mm max when placed end to end.
1S Batteries:
Length: 93.0mm.
Width: 47.0mm. (Side exit wires are allowed outside this dimension).
Height: 18.5mm. (Chassis location features additional to this dimension are allowed)
2. Individual cells used in the construction of the battery pack shall be rated at (LiPo 3.7/LiFe 3,3) volts nominal. Individual cells may be wired in parallel.
For 2S Packs, the maximum connection "In Series" is two, to give a Final pack voltage of (LiPo 7.4v/LiFe 6.6v) nominal.
For 1S Packs, cells can only be connected in parallel to give a Final pack voltage of (LiPo 3.7v/LiFe 3.3v) nominal.
3. The battery pack shall have leads extending from the case for the positive and negative electrical connections using wire of adequate size to handle discharge rates acceptable to racing applications.
Alternatively, the case shall have internal connection points for these wires clearly marked positive and negative so the user can apply the lead wires. Any type of metal connections that are incorporated in the battery pack must be substantially below the major surface of the plastic casing, to prevent any "short circuit" if placed on a conductive surface.
4. The case must have the original suppliers label intact, stating:- the Part #, the rated voltage and the chemistry (Lipo/LiFe).. The Brand name/logo shall be easily readable.
5. All LiPo/LiFe packs must be charged with a LiPo/LiFe-capable charger using the industry standard CC/CV (Constant Current/Constant Voltage) charge profile.
6. 2S LiPo/LiFe batteries may be charged to a maximum of 8.40v (LiPo) resp. 7.40v (LiFe). 1S LiPo/LiFe batteries may be charged to a maximum of 4.20v (LiPo) resp. 3.70v (LiFe).
Overcharging is a serious safety hazard and will not be tolerated.
7. Any competitor found to be charging cells using a charger that is not specifically designed for LiPo/LiFe cells, or using a charge profile other than the industry standard CC/CV, will be penalised at the event.
Any competitor found to have charged LiPo/LiFe cells to above the values detailed in rule 3.1.2 (6) above will be penalised. The different guidelines for use and homologation of LiPo/LiFe-Batteries are published on the EFRA webpage (www.EFRA.ws). A copy of the guidelines for the end-user must be included in the driver's packages for EC's.
8. LiPo/LiFe drive batteries should be charge in a 'Lipo sack' at all times.
LiPo sack is defined as a receptacle designed for the purpose of charging LiPo/LiFe batteries and of a suitable construction as to contain a LiPo/LiFe fire.

Proposal:

Lithium Based (LiPo/LiFe) Batteries can be approved, but must conform to the following :-

1. Lithium Based (LiPo/LiFe) battery packs must have a hard, protective case that completely envelopes the cell(s). The case should be made from ABS or a similar material. The two halves of the case must be factory sealed in a way that any attempt to open the case will destroy the case. The only opening in the case that is allowed, is for exit wires or pin type connections. Batteries to comply with the weights specified on the EFRA homologation list, (maximum tolerance for manufacturers is +/- 4%). The maximum case sizes are as follows:

4S Batteries:

Length: 139.0mm.

Width: 47.0mm. (The max. width includes any side exit wires).

Height: 48.2mm. (Chassis location features additional to this dimension are allowed)

2S Batteries:

Length: 139.0 mm.

Width: 47.0 mm. (The max. width includes any side exit wires).

Height: 25.10 mm. (Chassis location features additional to this dimension are allowed)

Saddle-Pack cells are allowed, but must comply with the above dimensions. Saddle-Pack cells must have a combined dimension of 139.0mm max when placed end to end.

1S Batteries:

Length: 93.0mm.

Width: 47.0mm. (Side exit wires are allowed outside this dimension).

Height: 18.5mm. (Chassis location features additional to this dimension are allowed)

2. Individual cells used in the construction of the battery pack shall be rated at (LiPo 3.7/LiFe 3,3) volts nominal. Individual cells may be wired in parallel.

For 4S Packs:- the maximum connection "In Series" is four, to give a Final pack voltage of (LiPo 14.8v/LiFe 13.2v) nominal.

For 2S Packs, the maximum connection "In Series" is two, to give a Final pack voltage of (LiPo 7.4v/LiFe 6.6v) nominal.

For 1S Packs, cells can only be connected in parallel to give a Final pack voltage of (LiPo 3.7v/LiFe 3.3v) nominal.

3. The battery pack shall have leads extending from the case for the positive and negative electrical connections using wire of adequate size to handle discharge rates acceptable to racing applications. Alternatively, the case shall have internal connection points for these wires clearly marked positive and negative so the user can apply the lead wires. Any type of metal connections that are incorporated in the battery pack must be substantially below the major surface of the plastic casing, to prevent any "short circuit" if placed on a conductive surface.

4. The case must have the original suppliers label intact, stating:- the Part # of the pack, the rated voltage, the chemistry (Lipo/LiFe), **the rated energy** capacity of the pack in Wh. and the **"C" rating of the pack**. The Brand name/logo shall be easily readable.

5. All LiPo/LiFe packs must be charged with a LiPo/LiFe-capable charger using the industry standard CC/CV (Constant Current/Constant Voltage) charge profile.

6. 4S LiPo/LiFe batteries may be charged to a maximum of 16.80v (LiPo) resp. 14.80v (LiFe).

2S LiPo/LiFe batteries may be charged to a maximum of 8.40v (LiPo) resp. 7.40v (LiFe).

1S LiPo/LiFe batteries may be charged to a maximum of 4.20v (LiPo) resp. 3.70v (LiFe).

Overcharging is a serious safety hazard and will not be tolerated.

7. Any competitor found to be charging cells using a charger that is not specifically designed for LiPo/LiFe cells, or using a charge profile other than the industry standard CC/CV, will be penalised at the event.

Any competitor found to have charged LiPo/LiFe cells to above the values detailed in rule 3.1.2 (6) above will be penalised. The different guidelines for use and homologation of LiPo/LiFe-Batteries are published on the EFRA webpage (www.EFRA.ws). A copy of the guidelines for the end-user must be included in the driver's packages for EC's.

8. LiPo/LiFe drive batteries must be charged in a "Lipo sack" at all times. Anybody not doing this, will be penalized at the event.

LiPo sack is defined as a receptacle designed for the purpose of charging LiPo/LiFe batteries and of a suitable construction as to contain a LiPo/LiFe fire.

9. Modifications to the original battery case, by removal of material or any modification that could be deemed to affect safety is not allowed.

10. The maximum Wh. rating for all LiPo/LiFe batteries must comply with aviation transport rulings

Remarks:

Add 4S hardcase batteries to the homologation process so they can be used at the new 1/8th electric buggy class.

Why the new 100Wh rating limit?

The maximum Wh rating of 100Wh has to be in the rules to ensure, that the batteries can be taken on a plane. Every battery above 100Whs is considered as dangerous good under IATA rules and can not be carried on a plane by a normal person. Not in the check-in baggage and also not in the carry-on baggage.

The IATA rules make an exception for all batteries with a maximum Wh rating of 100. It is

allowed to take these batteries with you in the carry-on baggage so it is easy when travelling to races.

We have to consider this rule and follow it as otherwise it would be nearly impossible to take batteries with you to races where you have to travel by plane.

Why was the 100Wh rating limit not an issue until today?

This rule has been in place for a while now, but with 2S batteries it will never be reached.

The Wh rating is defined by the nominal voltage x capacity. So for example a 8000mAh 2S 7.4V LiPo battery has a Wh rating of 7.4V x 7.0Ah = 59.2Wh.

So with all current homologated 2S packs this limit was never reached so it never was an issue. Now with the 4S packs, the 100Wh rating can be reached so we need to consider it now.

Proposed by LRP electronic GmbH,

Seconded by: .Austria

Amendment: To remove the reference to Wh, capacity maximum, as EFRA cannot control this. As the 4S batteries will be new, introduction date agreed at 2017.

The proposal: Passed with 5 for, ..2.. against and ..2.. abstentions.

THE RULE SHOULD BE AMENDED TO READ:

3.2.1.

Existing Rule:

Lithium based batteries:

2S Batteries -- A minimum of one individual battery has to be received by 1st. Dec.

1S Batteries -- A minimum of one individual battery has to be received by 1st. Dec.

Each individual battery sample must be supplied with :- (a) Lithium based batteries must be covered by their safety test certification in accordance with UN Manual of Test and Criteria ST/SG/AC.10/11/Rev.5, Part 3, Sub-Section 38.3, Tests T1 to T8.

(b) Technical Spec. sheet detailing the recommended charging rate, the maximum voltage when charging, case material, thickness and method of sealing the case, the battery weight (max tolerance +/- 4%).

New batteries have to be submitted to the EFRA Battery Homologation Officer for approval.

Subject to the Officer being satisfied that the new cell conforms with technical specifications and commercial availability, the cell will be legal for use from:

- 2S Batteries - the following April 1st.

- 1S Batteries - the following March 1st.

Cells received after the above submission dates (1st. Dec.) will not be included on the EFRA approved list for the following year. Any changes to the technical specifications or visual appearance of the battery or casing after the original approval will require re-approval.

Proposal:

Lithium based batteries:

4S Batteries -- A minimum of one individual battery has to be received by 1st. Dec.

2S Batteries -- A minimum of one individual battery has to be received by 1st. Dec.

1S Batteries -- A minimum of one individual battery has to be received by 1st. Dec.

Each individual battery sample must be supplied with :- (a) Lithium based batteries must be covered by their safety test certification in accordance with UN Manual of Test and Criteria ST/SG/AC.10/11/Rev.5, Part 3, Sub-Section 38.3, Tests T1 to T8.

(b) Technical Spec. sheet detailing the recommended charging rate, the maximum voltage when charging, case material, thickness and method of sealing the case, the battery weight (max tolerance +/- 4%).

New batteries have to be submitted to the EFRA Battery Homologation Officer for approval.

Subject to the Officer being satisfied that the new cell conforms with technical specifications and commercial availability, the cell will be legal for use from:

- **4S Batteries - the following April 1st.**

- 2S Batteries - the following April 1st.

- 1S Batteries - the following March 1st.

Cells received after the above submission dates (1st. Dec.) will not be included on the EFRA approved list for the following year. Any changes to the technical specifications or visual appearance of the battery or casing after the original approval will require re-approval.

Remarks:

Add 4S hardcase batteries to the homologation process so they can be used at the new 1/8th electric buggy class.

After changing 3.1.1, 3.2.1 also needs to change so the homologation process can be done.

Proposed by LRP electronic GmbH,

Seconded by: .Grate Britain

The proposal: o Passed with .6... for, ..0.. against and ..3.. abstentions.

THE RULE SHOULD BE AMENDED TO READ:

3.4.

- Existing Rule:** 1/10 Touring scale cars will be driven by a lithium based (LiPo/LiFe) battery. Maximum nominal voltage is 7.4 V/ 6.6 volts. Receiver batteries are not allowed.
- Proposal:** 1/10 Touring scale & **Formula 1** cars will be driven by a lithium based (LiPo/LiFe) battery. Maximum nominal voltage is 7.4 V/ 6.6 volts. Receiver batteries are not allowed.
- Remarks:** Adjust the rule to allow for the new proposed F1 class

Proposed by SRCCA Swiss R/C Cars Association,

Seconded by: Nederland

The proposal: o Passed Unanimously

THE RULE SHOULD BE AMENDED TO READ:

7.1.1.

- Existing Rule:** European Championships are held in the following classes:
1/10 Off-Road 2WD & 4WD
1/12 Modified & 1/12 13.5T Spec. Brushless
1/10 Touring Cars modified & 1/10 Touring Cars 10.5T Spec. Brushless
- Proposal:** European Championships are held in the following classes:
1/10 Off-Road 2WD & 4WD
1/12 Modified & 1/12 13.5T Spec. Brushless
1/10 Touring Cars modified & 1/10 Touring Cars 10.5T Spec. Brushless
1/10 Formula One 21.5T Spec
- Remarks:** During the past 2 years, a lot of the biggest brands in RC have developed 1/10 Formula One cars and still more are to come. Until now, no attempts from EFRA have been made to integrate this substantial part of the electric classes into the rules and events despite the facts that it is most probably the strongest growing class in electric cars since years.

The potential of this class is clearly visible if considering events like the F1 Dutch Masters at Heemstede (NL) organized for the first time this year and having more than 70 entries from all over Europe. The future event F1 Masters of Europe taking place in August 2016 in Lostallo has already registered 30 drivers (1 year prior to the event!).

We think it would make sense to integrate the F1 class into the EFRA rules and events.

Proposed by SRCCA Swiss R/C Cars Association,

Seconded by: ..Great Britain

The proposal: o Passed Unanimously .

THE RULE SHOULD BE AMENDED TO READ:

8.1.2.

- Existing Rule:** 1/10th Touring EUROPEAN CHAMPIONSHIP:
THURSDAY: 09:00 Registration, Open and a minimum 2 timed practice, 2 rounds of controlled Practice and 1 Qualifying Round
FRIDAY 09:00 1 timed practice (minimum) and 4 Qualifying Rounds
SATURDAY 09:00 1 Practice Final (minimum) and 3 finals for all
There will be a minimum of 10 min between start of round.
Based on the numbers of participants, this timetable can be changed by the organiser with agreement by the section chairman.
- Proposal:** 1/10th Touring & **1/10th Formula One** EUROPEAN CHAMPIONSHIP:
THURSDAY: 09:00 Registration, Open and a minimum 2 timed practice, 2 rounds of controlled Practice and 1 Qualifying Round
FRIDAY 09:00 1 timed practice (minimum) and 4 Qualifying Rounds
SATURDAY 09:00 1 Practice Final (minimum) and 3 finals for all
There will be a minimum of 10 min between start of round.
Based on the numbers of participants, this timetable can be changed by the organiser with agreement by the section chairman.
- Remarks:** Adjust the rule to allow for the new proposed Formula One class

Proposed by SRCCA Swiss R/C Cars Association,

o Passed Unanimously o

THE RULE SHOULD BE AMENDED TO READ:

9.4.3.

Existing Rule: 1/10 Touring Cars:- The Qualifying Heats and Finals will be 5 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds.
At the start of the event at Team Managers Meeting (on Friday morning) it will be decided if the Qualification Rounds will be declared dry or wet based on the weather conditions.

Proposal: 1/10 Touring **Cars & 1/10 Formula 1**:- The Qualifying Heats and Finals will be 5 minutes and the last lap plus the time to complete this last lap up to a max of 40 seconds.
At the start of the event at Team Managers Meeting (on Friday morning) it will be decided if the Qualification Rounds will be declared dry or wet based on the weather conditions.

Remarks: Adjust the rules to work for the new proposed F1 class

Proposed by SRCCA Swiss R/C Cars Association,

o Passed Unanimously.

(Above sections re F1 are passed in one go as a whole)

THE RULE SHOULD BE AMENDED TO READ:

10.2.

Existing Rule: The winner determined from the combined A finals will be the champion. If the A finals cannot be completed, the awards will be made based on the final Qualifying positions.

Proposal: The winner determined from the combined A finals will be the champion. If **all** finals cannot be completed, the awards will be made based on the final Qualifying positions.

Remarks: All competitors should be treated equally. Therefore all Finals need to be completed for the results of Finals to be used.

Proposed by EFRA

Withdrawn

6. ITEMS FOR GENERAL DISCUSSION.

The Section Chairman thanked all participants for a constructive meeting, and being no further business the meeting was closed at 1620

MEETING TO CONTINUE WITH ELECTRIC OFF-ROAD SECTION MEETING.



EFRA ANNUAL GENERAL MEETING
HOTEL Hesperia Sant Just
Barcelona, Spain
31st October and 1st of November 2015

AGENDA ELECTRIC - OFF-ROAD.

1. CHAIRMAN'S WELCOME

Mr Paul Worsley

The Electric Off-road Chairman opened the meeting at

2. APOLOGIES FOR ABSENCE

Apologies have been received from: : Christophe Jadot (France). Colin Whelan (Ireland)

.Andy Frattaroli(Switz.) Nikos Zannos (Greece)

COUNTRY	PRESENT	SECTION	REQUESTED:
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		SUBSCR	EC	EC			Max33%
			Buggy 2wd	Buggy 4wd			%
AUSTRIA		FULL	5	5			
BELARUS		NO ELEC.					
BELGIUM	Krist Bultinck	FULL	1	1			
BULGARIA		NO ELEC.					
CROATIA		FULL					
CZECH REP.		FULL	0	0			
DENMARK		FULL	1	1			
ESTONIA		NO ELEC.					
FINLAND		FULL	5	5			
FRANCE		FULL					
GERMANY		FULL	8	8			
GREAT BRITAIN	Chris Hardisty	FULL	8	8			
GREECE		OR Elec.	2	2			
HUNGARY		NO ELEC.					
IRELAND		OR Elec.	4	4			
ITALY		FULL	1	1			
LUXEMBOURG		TC Elec.					
MONACO		OR Elec.					
NETHERLANDS	Frans Heinsbroek	FULL	2	2			
NORWAY	Nicolay Haaheim	FULL	1	1			
POLAND		ALL ELEC.					
PORTUGAL	Cesar Coelho	FULL	1	1			
RUSSIA		NOT Mem.					
SLOVAK REP.		FULL					
SLOVENIA		NO ELEC.					
SPAIN		FULL	20	20			
SWEDEN	Kai Koivuranta	FULL	10	10			
SWITZERLAND	Frans Heinsbroek	FULL	3	3			
TURKEY		NO ELEC.					
TOTALS			72	72			

Allocations can be changed till December 21th 2015.

Other persons present: Jurgen Lauterbach Nick Danam

Total possible votes for App.3C = 21. Total votes for App.3A present at meeting = 9

3. MINUTES OF 2014 SECTION MEETING

November 2014 – Valencia, Spain:

Matters arising from the minutes:

The minutes were accepted as written at the AGM 2014. Seconder Great Britain

The following person was elected to check the minutes of this year: Frans Heinsbroek

4. CORRESPONDENCE RECEIVED

Apart from all the usual mails dealing with allocations and organisation for the EC in Great Britain and the WC at Yatabe, Japan, there has been one item requiring some investigation :-

I received an email from the Denmark Federation (DASU), questioning why three drivers at the EFRA International Race at Kampenhout did not have a licence ?? At first, I was assuming that Denmark were referring

to these drivers not having an EFRA licence (which is not mandatory) But after further explanations, it appears that they did not either an EFRA licence or a licence issued by their National Federation which was Denmark. General Rule 4.1.3 states :- All competitors at EFRA GP and other EFRA sanctioned event (apart from EC's) must have a valid EFRA licence or a valid National licence issued by their National organisation. As an International Race has EFRA sanction (GR 3.1.1), these drivers should have at least have been in possession of a national licence. This will need checking at similar events in the future.

5. CHAIRMAN'S REPORT

2015 was a very busy year for the Chairman due to the number of events requiring input, with organisation and entry procedures.

A major organisational problem with all these events is the late entries received, cancellations close to the event date and no-shows at the event. This increases the burden for the Section Chairman and the organisers, often resulting in continuous changes to the schedules and entry/heat lists. Federations should respect the deadlines.

The EFRA/IFMAR calendar consisted of :- An International Race at Retford (UK) as an EC 'Warm-Up', an International race at Kampenhout (Belgium), an International Race 40+ at Vaasa (Finland), the EC at Retford (UK) and the World's at Yatabe (Japan).

Int. Race – Retford (UK)

This event served as a Warm-Up event for the EC taking place later in the Year. It was a good test of the Organising Team and no particular problems were incurred. The track proved to be very consistent with no repairs needed. There was a small amount of rain which resulted in losing one Qualifying Round, but the organisers can quickly cover the track to minimise this problem.

The event was run over three days, with one day of Practice for both Classes, followed by a full EC schedule for 2WD on the second day and 4WD on the third day. Any driver that achieved the 'A' Final in both Classes had 32 runs on the track in three days.

2WD had 74 entries. The winner was David Ronnefalk (SE).

4WD had 67 entries. The winner was Lee Martin (UK).

Int. Race - Kampenhout (Belgium):

This is a well established event that has taken place for many years and always attracts good entry numbers. The event has been an EFRA International Race for the past three years.

The event date was early July and the three day format accommodated 2WD and 4WD 1/10 Off-Road Classes.

The Kampenhout event is always popular and the 2015 event attracted entries from many different countries.

2WD had 82 entries. The winner was Tom Cockerill (UK).

4WD had 72 entries. The winner was Jesper Rasmussen (DK).

Int. Race 40+ – Vaasa (Finland):

The idea for a Veterans Race was proposed by the Vaasa organisers at the last agm. As a new event to the calendar, it was decided to give it EFRA status by having it as an EFRA International Race. The organisers hoped to attract drivers from many countries Worldwide, particularly past Champions from EFRA or IFMAR events. The Team at Vaasa are well experienced, having previously run an EC and a WC.

With EFRA Int. Race status, the organisers were asked to give full details for the EFRA website to promote the event, but unfortunately this did not happen. This may have affected the entry numbers which were rather low and consisted of largely Scandinavian drivers.

Additional to the above; I received a mail in the Hotel this week-end from the organisers from Vaasa, stating that they enjoyed hosting the event. Whilst the number of competitors was low, all enjoyed the event and the Vaasa organisers provided various social events to give the event more character.

2WD had 28 entries. The winner was Sami Salmela (FI).

4WD had 30 entries. The winner was Jari Itavuori (FI).

EC. – Retford (UK):

The organisers of this event did an excellent job, with all requirements fully covered. The pitting area was a very large marquee which accommodated all racers and pit crews in one single area.

The dirt track was in superb condition at the start of the event and remained in this condition without any repairs needed for all six days of the event. The organisers had invested in new covers that would cover the complete track, which could be in place in two minutes if any rain was to fall. I had advised the organisers the chemical needed and how to treat the track early in the year and experiments indicated this would maintain the track in a constant condition without any 'break-up' of the surface. The track was treated each night and the covers applied. It worked very well and very little 'dust clearing' was needed. Apart from the 'blue-groove' increasing during the week, the track remained very consistent.

It should be noted that the organisers also had a big involvement with local media. They had local television filming with the event shown on local news during the week and also the local radio station broadcasting live one day for several hours with interviews of competitors and organisers. A really good coverage.

The running of the event was done largely by experienced persons from within the BRCA, with the BRCA Chairman being the Race Director. All six days ran very smoothly and at no time was the event behind schedule.

The weather is always a concern with out-door racing, especially on a dirt track. The Team in the UK were very lucky, as we had an unusually dry week (for UK). The track covers were only applied once during the day for a few minutes. There was some rain one night, but with the covers on the track it did not delay proceedings.

Entries for this event were not high, based on the allocations received at the 2014 agm. The confirmed entries taken later increased the numbers a little and further late entries received made the Final numbers reasonable at 125 in 2WD and 116 in 4WD.

There were some late cancelations near to the event, but even worse; there were 10 NO-SHOWS at the event that gave no advanced warning. The final numbers competing were :-

2WD had 114 entries. The winner was Lee Martin (GB). The U17 medal was won by Wesley van Helmond.
4WD had 106 entries. The winner was Michal Orlowski (PL). Also receiving the U17 medal.

Conclusion:

A well organised event with excellent facilities. As always, thanks to all that were involved, including : Referee's, guys in Tech. and many more.

WC. – Yatabe (Japan):

This year saw a BIG CHANGE to normal proceedings for a World Championship event for Off-Road, as the event was held indoors using an astro-turf surface. This was the first time this had been allowed, following a rule amendment.

The venue facilities were excellent, with the track, pitting, tyre control, restaurant all in the new building that was erected in 2011. An amazing facility built specifically for Model Car Racing.

The Organising Team was impressive and attended to all details fully, with little language barrier problems. The main organiser was Masami, who worked very hard in the months before the event and continuously during the event. The permanent staff for the venue were working continuously to attend to all requirements and were very well organised. I was appointed to be the Tech. Officer for the event and had a staff of six persons to check all cars and operate the tyre control. The diligence of these persons could not be faulted. An impressive Team.

With the event being held indoors, weather was not a factor and the event ran faultlessly to schedule.

Entries were received from ROAR, EFRA and FEMCA Blocs. No entries from FAMAR.

EFRA had entries from 16 countries. There were a total of 25 countries represented.

EFRA managed to achieve entries for all EFRA drivers that wanted to attend. The EFRA entry list had 58 competitors. There were some late EFRA cancelations and also 6 NO-SHOWS from EFRA at the event. The final number of competitors from EFRA competing was 48 in each Class.

With the change to Astro-turf for the track surface, there were many experienced drivers that did not achieve the results that they are usually accustomed to when racing on a dirt surface. This resulted in a few surprises in the results. In fact – the winners of both Classes were competing at their first World Championship event in 1/10 Off-Road.

The final numbers competing were :-

2WD had 142 entries. The winner was Spencer Rivkin (USA). ROAR

4WD had 128 entries. The winner was Bruno Coelho (Portugal). EFRA

EFRA drivers that achieved the Main 'A' Finals were :-

2WD	4WD
Neil Cragg - 4	Bruno Coelho - 1
Jorn Neumann - 5	David Ronnefalk - 3
Martin Bayer - 7	Michal Orlowski - 4
Michal Orlowski - 9	Tom Cockerill - 6
Lee Martin - 10	Martin Bayer - 7

A good result for EFRA, with five drivers in the Main 'A' Final in both Classes.

Conclusion:

A well organised event with excellent facilities. As always, thanks to all that were involved, including : Referee's, guys in Tech. and many more.

Paul Worsley. (Chairman, 1/10 Elec. Off-Road Section).

6. PRESENTATIONS FOR APPLICATIONS EC AND GP'S 2016/17

The section has reviewed the applications to host coming EFRA events:

Year/Date	Alt. Date	Status	Country	Venue
2016		IR/GP	Spain	Valladolid
2016		IR	Belgium	Kampenhout
2016		EC	Spain	Valladolid

2016		EC Indoor	Slovakia	Trencin
2017		EC Indoor	Slovakia	Trencin
2017		EC	Italy	Pinerolo
2017		IFMAR WC	Sweden	Trelleborg
2017		IFMAR WC	Slovakia	Trencin

Final Race calendar 2016

Year/Date	Alt. Date	Status	Country	Venue
27 - 29/05 2016		IR/GP	Spain	Valladolid
1 - 3/ 07 2016		IR	Belgium	Kampenhout
25 - 30/07 2016		EC	Spain	Valladolid

PW NOTE : Spain informed the meeting that the track at Valladolid will be completely rebuilt as a 1/10 size track, in time for the IR event.

Future Race calendar Championships

Year/Date	Alt. Date	Status	Country	Venue
2017		EC	Italy	Pinerolo

Nominated Tyres for the 1/10th Off-Road EC: J Concept, compound to be advised by end of March. Discussion revolved around the possibility of EFRA receiving the WC in 2017 (This was also minuted in 2014). Final decisions cannot be made until IFMAR decide where the event will be held.

Allocations were made to each country as printed in the table form under item 2 on the agenda.

All Federations MUST confirm their FINAL Allocation Numbers for each event to the relevant Section Chairman by 21th. December LATEST.

7. RULE PROPOSALS.

Note: The EFRA Committee has studied all received proposals and has come to an opinion over each one, The EFRA Section Chairman will inform the floor of such positions.

APPENDIX 3 C ELECTRIC CARS PARTICULARS for 1/10 OFF ROAD

THE RULE SHOULD BE AMENDED TO READ:

3.6.

Existing Rule: No tyre additives other than water are allowed, inside or outside of any tyre. Excess of glue deemed to alter the performance of the tyre is not allowed.

Proposal: **Only cleaning of the tyre bead where the tyre is glued to the wheel is allowed.** No tyre additives other than water are allowed **on any of the other surfaces of the tyre**, inside or outside of any tyre. **No additives are allowed to be applied to any tyre insert.** Excess of glue deemed to alter the performance of the tyre is not allowed. **The use of any additives that is deemed by officials for the purpose of improving the tyre performance will result in disqualification from the event.**

Remarks: Clarifies what is allowed and clearly states the penalty that will be applied.

Proposed by EFRA

Seconded by: Germany

The proposal: o Passed Unanimously

8. ELECTION OF SECTION CHAIRMAN.

.Paul Worsley is willing to restand

9. ANY OTHER BUSINESS

Consider EC in Hot countries later in the year for the weather conditions for electrics
Consider youngsters and school

10. ITEMS FOR GENERAL DISCUSSION.

The Section Chairman thanked all participants for a constructive meeting, and being no further business the meeting was closed at 17:55

MEETING TO CONTINUE WITH ELECTRIC TRACK SECTION MEETING.



EFRA ANNUAL GENERAL MEETING
HOTEL Hesperia Sant Just
Barcelona, Spain
31st October and 1st of November 2015

AGENDA ELECTRIC - TRACK.

1. CHAIRMAN'S WELCOME

Mr Heiner Martin

The Electric Track Chairman opened the meeting at

2. APOLOGIES FOR ABSENCE

Apologies have been received from: Christophe Jadot (France). .Andy Frattaroli(Switz.) Jeff Mersch (Luxembourg)

Member Countries presents, section subscription, allocations etc:

COUNTRY	PRESENT	SECTION SUBSCR	EC 1/12	WC 1/12	EC 1/10 Touring	WC 1/10 Touring	
AUSTRIA	Markus Vrana	FULL	10	3	15	3	
BELARUS		NO ELEC.					
BELGIUM	Krist Bultinck	FULL	1		3	1	
BULGARIA		NO ELEC.					
CROATIA		FULL					
CZECH REP.		FULL					
DENMARK		FULL				1	
ESTONIA		NO ELEC.					
FINLAND		FULL	2	1	1	2	
FRANCE		FULL	4	3	8	4	
GERMANY	Robert Gillig	FULL	5	4	9	12	
GREAT BRITAIN	Chris Hardisty	FULL	8	5	8	8	
GREECE		OR Elec.					
HUNGARY		NO ELEC.					
IRELAND		OR Elec.					
ITALY		FULL					
LUXEMBOURG		TC Elec.					
MONACO		OR Elec.					

NETHERLANDS	Frans Heinsbroek	FULL	0	1	1	1	
NORWAY	Nicolay Haaheim	FULL	4	4	4	4	
POLAND		ALL ELEC.					
PORTUGAL	Cesar Coelho	FULL			1	1	
RUSSIA		NOT Mem.					
SLOVAK REP.		FULL					
SLOVENIA		NO ELEC.					
SPAIN	Javier Llobregat	FULL			1	1	
SWEDEN	Kai Koivuranta	FULL	3	3	1	2	
SWITZERLAND	Frans Heinsbroek	FULL	2	2	2	2	
TURKEY	Fatih Bodur	Electr.			TBA		
TOTAL			39	26	54	42	

Allocations can be changed till December 21th 2015.

Other persons present: Jurgen Lauterbach Nick Daman

Total possible votes for App.3B = 19. Total votes for App.3A present at meeting = 11

3. MINUTES OF 2014 SECTION MEETING

November 2014 – Valencia, Spain

Matters arising from the minutes:

The minutes were checked and accepted as written at the AGM 2014. Seconded Great Britain

The following person was elected to check the minutes of this year: Frans Heinsbroek

4. CORRESPONDENCE RECEIVED

Section Chairman reports that no correspondence has been received, other than the usual mails dealing with event entries.

5. CHAIRMAN'S REPORT

Report Section Chairman Electric Track AGM 2015.

Dear Sirs,

I regret not being able to attend the meeting due to my health. Further on, I will make this report quite short.

I have not received any correspondence beside of the "normal" ones regarding the allocations EC and WC. I have to state, that a lot of countries are late with their entries. This should be improved for the future and everybody should note the deadlines given.

Regarding Touring Cars, I visited the EC in Torres Novas (there were no other EFRA-events, no GP). Two years ago, we have been in Torres Novas already, so the facilities were known. The track is quite large but not very easy to drive. My special thanks goes to the whole organising team, which did a great job, Portuguese federation, the technical inspection (which was very well prepared) and the Referee Javier Garcia. It was the second time ever we raced two classes (Modified and Stock). Looking at the number of participants we have to make some more advertisements especially for the Stock class. A lot of drivers wants to fly back home on Sunday evening, so we changed the timetable accordingly.

Russ Giles were at the Euro 1/12 at Hudy arena. So he will report on this event. Thank you for your attention.

Heiner Martin
EFRA Electric Track Section Chairman

1/12th

The 2015 EFRA 1/12 EC was held at the Hudy Arena, Slovakia. Despite the short notice of less than 4 months to organise the meeting, the team did very well.

When the initial date was announced after last years AGM there were a number of problems with the dates chosen, the replacement date was also called in to question after ETS decided to put a meeting on at the same time. This led to some criticism of EFRA for changing the dates.

The meeting itself ran very well, the organising team were very able, experienced and keen to make the meeting a success. Initially there were some problems with the carpet and tack markers, this was because they had a basic knowledge of the 1/12 class requirements. This was soon addressed and the meeting then ran smoothly. I would like to congratulate the Hudy family and the organising team for holding a great event, one that all the drivers who attended enjoyed.

The attendance of an American driver as a guest in the 'Spec' Class was well received by most of the competitors. The Hudy Arena is a truly fantastic facility and it is my belief that EFRA should make use of any offers to stage meetings at this world class track.

The meeting was also the last that Frans Heinsbroek attended as a 1/12 referee. I would like to thank Frans for all the work he has put in to 1/12th over the years.

Russel Giles

6. PRESENTATIONS FOR APPLICATIONS - EC AND GP'S 2016/17

The section has received the following applications to host coming EFRA events. These proposals have reached us in time, no other proposal will be accepted after distribution of the agenda.

Year/Date	Alt. Date	Status		Country	Venue
2016		EC	1/12 Indoor	Slovakia	Trencin
2016		EC	1/10 Touring Indoor	Italy	Mordano
2016		EC	1/10 Touring	Slovakia	Trencin
2016		EC	1/10 Touring	Turkey	Izmir
2016	Aug.	EC	1/10 Touring	Austria	Kirchberg
2017		EC	1/10 Touring	France	Bonneville
2017		EC	1/10 Touring	Turkey	Izmir
2017		EC	1/10 Touring	Spain	Almussafes
2017		EC	1/10 Touring	Austria	Kirchberg
2017		EC	1/10 Touring	Slovakia	Trencin

Final Race calendar 2016

Year/Date	Alt. Date	Status		Country	Venue
1-3 Ap. 2016		EC	1/12	Slovakia	Trencin
14 -16 July 2016	To be confirmed	EC	1/10 Touring	Slovakia	Trencin
22-30 Aug. 2016		WC	1/12 1/10	China	Beijing

Future Race calendar Championships

Year/Date	Alt. Date	Status		Country	Venue
2017		EC	1/10 Touring	Spain	Almussafes

Tyres for the 1/10th Touring Car EC 2016: No information from Slovakia, will be conducted through a postal vote.

Allocations were made to each country as printed in the table form under item 2 on the agenda

7. ALLOCATIONS

Allocations were made to each country as printed in the table form under item 2 on the agenda.

All Federations MUST confirm their FINAL Allocation Numbers for each event to the relevant Section Chairman by 21th. December LATEST

8. RULE PROPOSALS

Note: The EFRA Committee has studied all received proposals and has come to an opinion over each one, The EFRA Section Chairman will inform the floor of such positions.

APPENDIX 3 B ELECTRIC CARS REQUIREMENTS FOR ELECTRIC ON ROAD CLASSES

THE RULE SHOULD BE AMENDED TO READ:

2.1.

- Existing Rule:** Any newly homologated bodies must have the part number moulded into the front windscreen.
- Proposal:** Any newly homologated bodies must have the part number moulded into the front windscreen. **For 1/10 Formula One Spec class, no body homologation is required.**
- Remarks:** Adjust the rule to work for the new proposed F1 class. No homologation of bodies for F1 deemed necessary for the moment. If required, homologation can be added in following years. To ease start-up of the new class, we propose to run without body homologation for the moment.

Proposed by SRCCA Swiss R/C Cars Association Seconded by: .Netherlands,

The proposal: Passed Unanimously .

THE RULE IS NEW:

7.

- Existing Rule:** PARTICULAR TO 1:10 ELECTRIC SALOON CARS
- Proposal:** **8. Particular to 1/10 Formula One Spec Cars**

8.1 Cars specification

Maximum width: 190mm

Front independent king pin, coil spring suspension is allowed. Suspension pick up points must be mounted inside the body. Independent front shocks are not allowed
The main chassis plate must not protrude from the body when viewed from above
Minimum weight = 1050 grams including personal transponder

8.2 Tires:

The tires will be decided by the section chairman early in the season and will remain in use for a minimum of one year. Tires can be warmed up with the appropriate equipment. **Amended: Tyres to be chosen as per. Touring Car procedure for selection** (Rubber type tyres, no foam)

8.3 Additive:

only odorless additive is allowed (as per. rules)

8.4 Bodies:

Only Formula 1 body styles are allowed. Body must be painted in a race inspired theme. Single color themes are allowed but you must the included sticker sheet to detailed the car.
All cars must have a drivers figure installed in the cockpit.

8.5 Wings:

Front and rear wings must be made of a molded ABS Style plastic similar to a Tamiya Style wing. Front and rear wings made of Lexan material will not be allowed (this includes bolt on Lexan front wings over a smaller ABS plastic wing). Wings equipped with any type of remote adjustment or DRS are not allowed.

8.6 Motor and Speed Control:

~~The combo (motor + esc) will be decided by the section chairman early in the season and will remain in use for a minimum of two years. The criteria for the choice of motor and esc are:~~

- ~~• quality of the product~~
- ~~• performance of the product~~
- ~~• affordable price motor~~
- ~~• availability of the product~~

AMEND 8.6: Delete proposed motor & speedo rules. Motor and speed controller rules to be same as current Spec. Touring Car, but with 21.5 T Spec. motor

- Remarks:** Suggestions for the technical specification for the new proposed F1 class. To be enhanced/adjusted based on further requirements and details.

Proposed by SRCCA Swiss R/C Cars Association Seconded by: .Netherlands,

The amended proposal: o Passed Unanimously

THE RULE SHOULD Be AMENDED TO READ:

7.3.3.

Existing Rule: 2 sets of 4 dry weather tyres are allowed for qualifying, and 1 additional set of 4 dry weather tyres is allowed for finals. Tyres from qualifying may be used in the finals. 1 set of 4 wet weather tyres is allowed to be used for both qualifying and finals.

Proposal: **5** sets of 4 dry weather tyres are allowed for qualifying, and 1 additional set of 4 dry weather tyres is allowed for finals. Tyres from qualifying may be used in the finals. 1 set of 4 wet weather tyres is allowed to be used for both qualifying and finals.
For modified only

Remarks: This will give more consistant competition within each Qualifying Round.

Proposed by EFRA

Seconded by: .Germany

The Amended proposal: Passed with .8... for, ...2 against and ..1.. abstentions.

. Amended: Netherlands

9. ELECTION OF VICE SECTION CHAIRMAN.

The position of Vice Section Chairman has one candidate: **Chris Hardisty** of BRCA

10. ANY OTHER BUSINESS

The meeting expressed their thanks to Heiner Martin for the work he undertakes and wishes him a speedy return to good health.

11. ITEMS FOR GENERAL DISCUSSION.

The Section Chairman thanked all participants for a constructive meeting, and being no further business the meeting was closed at 19:37.