Fédération Aéronautique Internationale

Agenda

of the Plenary Meeting of the
FAI Aeromodelling Commission

To be held in Lausanne, Switzerland
on 28 & 29 April 2017

Issue 1

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AGENDA
CIAM PLENARY MEETING 2017

to be held in Lausanne (Switzerland)
on Friday 28 April and Saturday 29 April 2017, at 09:15

1. PLENARY MEETING SCHEDULE AND TECHNICAL MEETINGS

According to the rules, and after confirmation at the 2016 CIAM December Bureau Meeting by the relevant Subcommittee Chairmen, the following scheduled Technical Meetings will be held: F1, F3A, F3BK, F3C, F3D, F3U and Education.

The Technical Meetings will take place in the meeting rooms and in the Plenary room, and other venues that may be available to the CIAM.

2. DECLARATION OF CONFLICTS OF INTEREST (ANNEX 1a)

Declarations, according to the FAI Code of Ethics will be received.

3. PRESENTATION IN MEMORIAM

4. MINUTES OF THE APRIL 2016 BUREAU & PLENARY MEETINGS, AND OF THE DECEMBER 2016 BUREAU MEETING

4.1. **2016 April Bureau**
- 4.1.1. Corrections
- 4.1.2. Approval
- 4.1.3. Matters Arising

4.2. **2016 Plenary**
- 4.2.1. Corrections
- 4.2.2. Approval
- 4.2.3. Matters Arising.

4.3. **2016 December Bureau**
- 4.3.1. Corrections
- 4.3.2. Approval
- 4.3.3. Matters Arising

5. APRIL 2017 BUREAU MEETING DECISIONS

Distribution and comments of the April 2017 Bureau Meeting decisions.

6. NOMINATION OF BUREAU OFFICERS AND SUBCOMMITTEE CHAIRMEN (ANNEX 1b)

6.1. **Subcommittee Chairmen to be elected**

F1 Free Flight
F3 RC Aerobatics
F3 RC Soaring
F3 RC Helicopter
F3 RC Pylon Racing

Note. The nomination form will be distributed together with the agenda. The Delegate or the Alternate Delegate will have to complete the form (Annex 1b) in advance and submit it, preferably during the registration period, and before leaving the auditorium for the various Technical Meetings.

6.2. **Subcommittee Chairmen to be confirmed**
F2 Control Line
F3U FPV
F4 RC Scale
F5 RC Electric
F7 RC Aerostats
S Space Models
Education

7. REPORTS

7.1. **2016 FAI General Conference, by the FAI**

7.2. **CIAM Bureau report on its activity since the last Plenary, by CIAM President, Antonis Papadopoulos**

- ASC Presidents meetings June and October 2016
- CASI meeting October 2016
- Bureau activities

7.3. **2016 FAI World and Continental Championships, Jury Chairmen (ANNEX 2)**

7.3.1. 2016 FAI F1 Juniors World Championships for Free Flight Model Aircraft. FYR of Macedonia. Srdjan Pelagic

7.3.2. 2016 FAI F1D World Championships for Free Flight Indoor Model Aircraft. Romania. Srdjan Pelagic

7.3.3. 2016 FAI F2 World Championships for Control Line Model Aircraft. Australia. Massimo Semoli

7.3.4. 2016 FAI F3F World Championships for Model Gliders. Denmark. Tomas Bartovsky

7.3.5. 2016 FAI F3J World Championships for Model Gliders. Slovenia. Tomas Bartovsky

7.3.6. 2016 FAI F4 World Championships for Scale Model Aircraft. Romania. Narve Jensen

7.3.7. 2016 FAI F5 World Championships for Electric Model Aircraft. Italy. Andras Ree

7.3.8. 2016 FAI S World Championships for Space Models. Ukraine. Gerhard Woebbeking

7.3.9. 2016 FAI F1 Seniors European Championships for Free Flight Model Aircraft. Serbia. Gerhard Woebbeking

7.3.10. 2016 FAI F1E European Championships for Free Flight Model Aircraft. Romania. Srdjan Pelagic

7.3.11. 2016 FAI F3A European Championships for Aerobatic Model Aircraft. Germany. Michael Ramel

7.3.12. 2016 FAI F3A Asian-Oceanic Championships for Aerobatic Model Aircraft. Chinese Taipei. Sandy Pimenoff

7.3.13. 2016 FAI F3 European Championships for Model Helicopters. Poland. Dag Eckhoff

7.4. **2016 Sporting Code Section 4: CIAM Technical Secretary, Mr Kevin Dodd (ANNEX 3)**

7.5. **2016 Subcommittee Chairmen (ANNEX 3)**

7.5.1. Free Flight: Ian Kaynes

7.5.2. Control Line: Peter Halman

7.5.3. RC Aerobatics: Michael Ramel
7.5.4. RC Gliders: Tomas Bartovsky
7.5.5. RC Helicopters: Dag Eckhoff
7.5.6. RC Pylon: Rob Metkemeijer
7.5.7. RC FPV: Bruno Delor
7.5.8. RC Scale: Johan Ehlers
7.5.9. RC Electric: Emil Giezendanner
7.5.10. Aerostats: Johannes Eissing
7.5.11. Space Models: Joze Cuden
7.5.12. Education: Per Findahl

7.6. **2016 World Cups, by World Cup Coordinators (ANNEX 4)**

7.6.1. Free Flight World Cup: Ian Kaynes
7.6.2. Control Line World Cup: Jo Halman
7.6.3. RC Aerobatics World Cup: Rob Romijn
7.6.4. Thermal Soaring and Duration Gliders World Cup: Ralf Decker
7.6.5. RC Helicopter World Cup: Dag Eckhoff
7.6.6. RC Pylon Racing Euro Cup: Rob Metkemeijer
7.6.7. RC Slope Soaring World Cup: Erik Schufmann
7.6.8. RC Thermal Duration Gliders World Cup: Sotir Lazarkov
7.6.9. RC Hand Launch Gliders World Cup: Friedman Richter
7.6.10. RC Multi-rotor FPV Racing World Cup: Bruno Delor
7.6.11. RC Large Aerobatics World Cup: Pascal Rousseau
7.6.12. RC Scale World Cup: Johan Ehlers
7.6.13. RC Electric Powered Thermal Duration Gliders World Cup: Emil Giezendanner
7.6.14. Space Models World Cup: Joze Cuden

7.7. **2016 Trophy Report, by CIAM Secretary, Massimo Semoli (ANNEX 5)**

7.8. **Aeromodelling Fund- Budget 2017, by the Treasurer, Andras Ree (ANNEX 3)**

7.9. **CIAM Flyer, by the Editor, Emil Giezendanner (ANNEX 3)**

7.10. **EDIC WG report, by Chairman, Paul Newell (ANNEX 3)**

8. PRESENTATION OF 2016 FAI WORLD CHAMPIONSHIPS MEDALS COUNT PER NATION

9. PRESENTATION OF 2016 WORLD CUP AWARDS CEREMONY

INVITATION TO THE PRESENTATION CEREMONY FOR

The 2016 World Cup awards for classes F1A, F1A junior, F1B, F1B junior, F1C, F1E, F1E junior, F1P junior, F1Q, F2A, F2B, F2C, F2D, F3A, F3B, F3F, F3K, F3J, F3U, F5B, F5J, S4A, S6A, S7, S8E/P and S9A

will be held on Friday, 28 April 2017, at 16.30.

10. PLENARY MEETING VOTING PROCEDURE

Confirmation of the voting procedure for the Plenary Meeting.

11. SCHOLARSHIP SELECTION APPROVAL (ANNEX 8)

- Daniel BOGOMAZ (Poland)
- Bojan GOSTJIC (Serbia)
- Michail LOMOV (Russia)
- Taron MALKHASYAN (USA)
- Michal ZITNAN (Slovakia)
- Christian WINKER (Germany)

12. NOMINATIONS FOR FAI-CIAM AWARDS (ANNEX 6)

Alphonse Penaud Diploma

- Daniel VARTOLOMEI (Romania)
  The Romanian NAC confirmed that three F4B National Championships have been won by the candidate.

Andrei Tupolev Diploma

- No Candidates

Antonov Diploma

- No candidates.
  The only candidate provided by the Romanian NAC was not eligible since the CIAM Bureau considered that what it is described is not an innovation.

Frank Ehling Diploma

- Shoji YAMADA (Japan)

Andrei Tupolev Medal

- Paul EISNER (United Kingdom)
- Kiryl ZHABRAVETS (Belarus)

FAI Aeromodelling Gold Medal

- Bob BROWN (USA)
- Ingemar LARSSON (Sweden)
- Jan MAIXNER (Slovak Republic)
- Mykhailo RIABOKON (Ukraine)
- Bogdan WIERZBA (Poland)

13. OPEN FORUM

Future format of CIAM events

You will receive additional information regarding the Open Forum Session as soon as it is available.

14. SPORTING CODE PROPOSALS

The Sporting Code proposals begin overleaf.

14. SPORTING CODE PROPOSALS

The Agenda contains all the proposals received by the FAI Office according to the manner required in rule A.10.

Additions in proposals are shown as **bold, underlined**, deletions as ~~strikethrough~~ and instructions as *italic*.

Bureau proposals appear in the appropriate rule section of item 14.

Each section begins on a new page.

14.1 Volume CIAM General Rules, Section 4A
(CIAM Internal Regulations – begins on page 9 (2017 Edition))

a) A.6.5 Competence **Bureau**

Amend the second last paragraph as follows:

The Technical Secretary shall be responsible for maintaining the current FAI Sporting Code Section 4 **and Section 12** complete with amendments and additions in accordance with the decisions of the CIAM. He will also co-ordinate the work of the Subcommittees as necessary. The Technical Secretary will also check the record attempt dossiers.

Reason: Following the 2016 CASI decision, CIAM will be additionally responsible for taking on the maintenance of the Section 12 Volume.

b) A.6.4 Suspension and Dismissal **Bureau**

Amend and extend Section A.6.4 with an addition to the title (see above) and text as follows added prior to the existing text.

Where the CIAM Bureau Members are of the opinion that a Bureau Member has:

(a) persistently refused or neglected to comply with a provision or provisions of the rules of the FAI/CIAM; or

(b) persistently and wilfully acted in a manner prejudicial to the interests of the FAI/CIAM ; or

(c) committed a single act of sufficient seriousness to the interests of the FAI/CIAM

Bureau, with a three-quarter majority vote, may suspend and/or temporarily replace the Bureau member, whichever is appropriate.

The CIAM Secretary shall, as soon as practicable, cause a notice in writing to be served on the Bureau Member setting out the decision of the CIAM Bureau, their intention to impose a suspension and/or temporary replacement and the grounds on which it is based.

The notice will state that the Bureau Member may appeal the decision of the CIAM Bureau by email to the CIAM Secretary not later than 28 days after service of the notice, this appeal to be considered by the Plenary Meeting.

On receipt of an appeal, the CIAM Secretary shall notify the Bureau Members, the FAI Secretary General and the Bureau Member concerned and place the appeal on the agenda for the next CIAM Plenary Meeting.

Should there be no appeal forthcoming, the CIAM Secretary shall notify the Bureau Members, the FAI Secretary General and the Bureau Member concerned and place the matter on the agenda for the next CIAM Plenary Meeting for action.

The **continued suspension, replacement, or** dismissal of a Bureau member can only be decided by the Plenary Meeting with a vote by an absolute majority (> 50 %).

In case of **replacement,** ~~dismissal,~~ election of a successor will be held at the Plenary Meeting in order to fill the vacancy for the one year remaining of the two year term.

Reason: The Bureau requires the authority written into the rules to suspend and replace a Bureau member who is either, through circumstances, not performing the required duties pertaining to the elected positon, or is, through adverse actions, bringing the CIAM and the aeromodelling community into disrepute. This proposal gives the Bureau Member who is subject to such a decision the right to appeal. The appeal can only be placed before Plenary for their decision. The decision from Bureau should stand until Plenary has reviewed the matter – even if this is a considerable time. The reason is that the Bureau decision and action would have been taken only after lengthy and in-depth investigation and consultation, including counselling the member concerned, so that every opportunity is given to this member to rectify the situation before the Bureau is forced to act. Suspension is a serious action for a serious and/or sustained offence or negligence.

c) A.6.6 Bureau Meeting Minutes **Bureau**

Amend the first paragraph as follows:

The Minutes of the December Bureau Meeting shall be sent by the Secretary electronically to the Bureau members, Subcommittee Chairmen and the FAI Office no later than ~~15~~ **30** January each year.

Reason: The December Bureau Meeting is very close to the scheduled holidays. In addition, both CIAM secretaries are working on other CIAM issues during December and January, such as publication of the new versions of Sporting Code Volumes and preparation of the Plenary Meeting Agenda. January 30 seems to be more practicable.

d) A.8 Technical Experts List **Bureau**

Amend the first paragraph as shown:

a) Nominations for persons to be put on the list of technical experts must be received by the FAI Office no later than 15th November. **The nominations can be submitted either on paper or by using the on-line submission procedure available on the FAI web site.**

Reason: The FAI IT department recently developed an on-line tool to handle the Technical Expert Lists. CIAM Bureau is highly recommending using this tool. For 2017, both options will be available. After that, CIAM Bureau will be in a position to decide whether the method to be used for submission of the nominations will be only by using the on-line tool.

e) A.8 Technical Experts List **New Zealand**

Amend the paragraph c) with the addition of new text as shown:

c) To comply with the principle of NACs and Airsports Persons, NACs are only permitted to submit names of persons of their own NAC, **or someone who is a**

delegate for another country and therefore is classed as a "resident" of the country they represent.

Reason: As the member is a delegate for one country their actions can be compromised if they are a technical expert for a second country.

Effectively the individual, who is a delegate for one country can be controlled / bullied by their home nation, from whom they hold a judges position, to vote for or against a motions / remits at the command of their home nation or face the removal of their judge status.

This then effects their ability to openly and honestly represent their duty to the country they are delegate for.

Technical Secretary Note: See also 14.4 items i) and l) from New Zealand.

f) A.10.3 Submission procedure **Canada**

Amend the submission dates and add additional text as follows:

All proposals from Sub-committees and NACs for the Plenary Meeting must be submitted through the FAI automatic submission process ~~between 1st August and 15th November~~ **by July 31st**.of the year immediately preceding the Plenary Meeting at which the proposals may be considered within the appropriate two-year rule cycle. **The submissions to be distributed by CIAM to the NACs who will distribute the documents to the interest groups of their organisation. The NACs would collect the replies and send them to CIAM by November 15th.** of the year immediately preceding the Plenary Meeting at which the proposals may be considered within the appropriate two-year rule cycle.

Reason: The above proposed process of submission of rule changes would assist the FF subcommittee and would allow members of the category who will be affected to voice their opinion. This will result in fairer and more constructive changes for the sport.

Volume CIAM General Rules, Section 4B begins overleaf

14.2 Volume CIAM General Rules, Section 4B
(General Specifications for CIAM Classes – begins on page 17 (2017 Edition))

a) B.1.2 Classification of model aircraft **France**

B.1.2.3 Category F3 – Radio Controlled Flight

Official and provisional model aircraft classes are listed for each category:

This category is divided into the following classes:

Move F3U from sub-paragraph ii), relative to provisional classes, to sub-paragraph i) relative to official classes.

ii) Provisional Classes
~~F3U – RC Multi-rotor FPV Racing~~

i) Official Classes
F3U – RC Multi-rotor FPV Racing

Reason: Class F3U complies with the criteria defined in Volume CIAM General Rules A.9.1 to be considered for adoption as an official FAI class.

For the year 2016, 1st edition of the F3U World Cup, there have been 9 contests from 7 countries considered for the World Cup with more than 220 competitors placed from 14 countries.

Volume CIAM General Rules, Section 4C begins overleaf

14.3 Volume CIAM General Rules, Section 4C
(General Rules for International Events – page 25 (2017 Edition))

a) C.4 Sanction Fees **Bureau**

Add a new paragraph d) to C.4 as follows:

d) The sanction fee of cancelled events (no matter at what date the cancellation happened) is not refundable and can't be used for sanctioning later events.

Reason: Clarification.

b) C.5.1 Competitor **Poland**

Amend the first paragraph as follows:

A competitor is considered to be a junior up to and including the calendar year in which he attains the age of ~~18~~ **21**. All other competitors are classed as Seniors.

Reason: Please do evaluate following facts:
1. There are no juniors in some classes: eg. F4C, F4G, …
2. There are not enough juniors in classes: eg. F2C, F2B, F2A, F3P, F3C, F3N ….
3. Some CIAM classes are very difficult. Juniors of the age 18 and less need to gain experience and time for building and practising their model aircraft at a good level.
4. In the real Gliding sport (associated in the FAI), for juniors the maximum age is 25 years. It is possible to apply and change the maximum age for juniors to 21 years in Aeromodelling.
5. The problem with the present junior age limit exists. The above-presented arguments are not exhaustive.

CIAM Bureau should handle this problem.

c) C.5.1 Competitor **Poland**

Amend the first paragraph as follows:

A competitor is considered to be a junior up to and including the calendar year in which he attains the age of 18**, except for F2 where age shall be 21**. All other competitors are classed as Seniors.

Reason: In most cases, juniors are able to participate in competitions for 2, maximum 3 years before becoming seniors. What is more, in most countries around 18 y.o, one needs to take some sort of exams, qualify to higher school etc. which often forces juniors to stop flying with a rather small chance of coming back.

Reasoning given in F2 Subcommitee proposal:
F2 classes are both complex and physically demanding. Young people are unable to be competitive against senior pilots until after the age of 18 yrs. Once reaching the age of 18 many good juniors are lost to F2 because they can no longer be competitive.

d) C.5.1.4 Competitor's Therapeutic Use Exemption Bureau

Replace heading and the entire section as follows:

~~a) Any competitor who has to take any of the substances on the WADA Prohibited List for a medical condition must have a Therapeutic Use Exemption (TUE) granted by the FAI (FAI Sporting Code General Section 4.11.2.4).~~

~~b) If it is necessary for a competitor to hold a Therapeutic Use Exemption (TUE) then the application form must be completed and sent to the FAI by the competitor.~~

~~c) In normal circumstances the application form must arrive at the FAI at least 21 days before the start of the contest.~~

~~d) The FAI processing of TUEs is free, but any other costs associated with submitting a TUE must be borne by the competitor.~~

~~e) The TUE is effective for between one and four years depending on the medical condition for which it is issued.~~

C.5.1.4 Anti-Doping Policy for Competitors

FAI adheres to the World Anti-Doping (WADA) Rules. All related FAI Rules and Procedures for Anti-Doping, including Therapeutic Use Exemption, can be found on the dedicated section of the FAI web site http://www.fai.org/cimp-anti-doping-programme

Reason: Anti-doping rules are common for all FAI activities. It is better not to have duplicated information which is also very difficult to maintain.

e) C.5.3 National Team for World and Continental Championships Poland

Add additional text to paragraphs b) and c) as follows:

a) A national team shall consist of a maximum of three individual competitors, or three pairs of competitors, for each category and a Team Manager.
b) For those categories that do not have separate Junior Championships, the team may consist of a maximum of four individual competitors or four pairs of competitors for each category provided that the fourth competitor is a junior, plus a team manager. **In the case of F2ABCD junior competitor or pair is considered a team member while evaluating National Team Classification and a four-member team is considered full National team.**
c) The reigning World or Continental Champion has the right (subject to the approval of his National Airsports Control) to participate in the next World or Continental Championships in that category regardless of whether he qualifies for the national team or not. If he is not a member of the national team, his score will not be considered in the team results (**that includes reigning World or Continental Junior Champion).**

Reason: Junior team member should be considered a team member when calculating National Team Qualification. Therefore full team would consist of three senior members and one junior member. Including juniors in Team classification will push national teams to stronger support juniors whenever possible. In expensive, time consuming classes like F2, strong support from senior competitors is vital to introduce new generations to the sport.

Technical Secretary's Note: This proposal from Poland also contained the following 'necessary amendments' to the F2 Rules, which are inadmissible as they are Rule Changes out of the two year cycle and may not be proposed until Plenary 2018. They are reproduced below for Subcommittee reference.

F2A 4.1.19. Team Classification
To establish the national team scores for the team classification, add together the best speed attained by each individual member of the team. In a case of a team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, then the best individual placing decides.

F2B 4.2.12 Classification
d) To establish the national scores for team classification add the numerical placing of the **four**~~three~~ team members of each nation. Teams are ranked according to the lowest numerical sum of placings to highest, with complete **four-competitor teams ahead** three-competitor teams ahead of two-competitor teams which in turn are ranked ahead one-competitor teams.

F2C 4.3.11. International Team Classification
International team classification is established by adding the numerical position achieved by each individual team. The team with the lowest total is ranked first, etc. with complete **four-team members ahead** 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 best individual placing decides.

F2D 4.4.14 Individual and Team Classification
k) The team classification is established by taking the total scores, obtained in 4.4.14.g) above, of the three best scoring members of the team and adding them together. In the case of a team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, the best individual placing decides. Complete **four-competitor teams are ranked ahead** three-competitor teams ~~are ranked~~ ahead
of two- competitor teams which, in turn, are ranked ahead of single competitor entries.

Annex 4F – Control Line Organisers' Guide
15. Ranking - International Team Classification
Complete f**our competitor teams are ranked ahead** three competitor teams ~~are ranked~~ ahead of two competitor teams, which are in turn ranked ahead of single competitor teams.
F2D - Individual and team standings will be based solely on the number of matches won. Losses will not be subtracted. Complete **4 competitor teams are ranked ahead of** 3 competitor teams ~~are ranked~~ ahead of 2 competitor teams, which are in turn ranked ahead of single competitor teams.

f) C.5.3 National Team for World and Continental Championships USA

Add the following paragraph d) and renumber the existing paragraph d) to e).

d) The reigning Junior World or Junior Continental Champion has the right (subject to the approval of his National Airsports Control) to participate in the next World or Continental Championships in that category regardless of whether he qualifies for the national team or not, and provided that he will still be a junior pilot when the next World or Continental Championships are held. If he is not a member of the national team, his score will not be considered in the team results.

~~d)~~ **e)** Any Junior World or Continental Champion who will be too old to defend his title at the next Junior World or Continental Championships is entitled to fly in the appropriate Senior World or Continental Championship for the concerned class, within the three calendar years following his becoming Junior World or Continental Champion.

Reason: This will allow the reigning World or Continental Champion to defend their title at the next World or Continental World Championships, provided that they are still classified as a junior pilot when the event is held.

g) C.6 FAI Sporting Licence — Bureau

Replace the entire section as follows:

~~a) Every competitor, team manager and assistant team manager entering a FAI event must possess a valid Sporting Licence of the FAI.~~

~~*Note:*~~

- ~~*A Sporting Licence shall only be considered issued and valid, if the holder is listed on the FAI Sporting Licence database by the NAC that is issuing the particular Sporting Licence (FAI Sporting Code General Section 3.1.3).*~~
- ~~*When specifically stated in the rules for a particular class, other participants such as helper, mechanic, caller must also possess a valid FAI Sporting Licence. They are exempt from the FAI regulations regarding "Change of Representation - First Category Events" (FAI Sporting Code General Section 3.1.3.6.4).*~~

~~The FAI Sporting Licence is issued by the NAC of the competitor, team manager or assistant team manager under the conditions of the General Section of the FAI Sporting Code.~~

~~Names on FAI Sporting Licence must be completed using the Roman alphabet. If it is deemed necessary by a NAC that names have to be written in an alphabet common to its country, then the licence must also show the name in the Roman alphabet.~~

~~Competitor names as entries in contest lists and results must be listed using only the Roman alphabet.~~

~~b) Organisers of any FAI event must check the FAI Sporting Licence database and, neither permit entry to the event to anyone who does not have a valid FAI Sporting Licence; nor permit entry to a first category event (championship) by anyone who has represented a different country in a first category event (championship) during the previous twenty four months (FAI Sporting Code General Section 3.1.3.6.4).~~

~~c) Checks to ensure that General Section of the FAI Sporting Code is not contravened should be carried out by:~~

~~the NACs intending to send a team to a championship;~~

~~the organisers who accept the entries (see b) above);~~

~~the FAI Jury at the championship.~~

~~Reference to the championship results of two years previously is the definitive way of establishing whether any entrant is qualified to represent the country under which he is entered.~~

~~*Note: Championship results may be obtained from the FAI, from the appropriate Subcommittee Chairman or from the FAI Jury President of previous championships in line with the provisions of the General Section of the FAI Sporting Code.*~~

~~d) Competitors who hold an FAI Sporting Licence issued directly by the FAI Office enter as "FAI Participants" and in entry and results list their nationality shall be shown as "FAI".~~

C.6. FAI Sporting Licence

All FAI Sporting Licence rules and procedures are maintained by CASI and can be found at the FAI Sporting Code General Section Chapter 3 http://www.fai.org/downloads/casi/SC_GS

Reason: FAI Sporting Licence rules are common for all FAI activities. It is better not to have duplicated information which is also very difficult to maintain.

h) C.7.2 FAI Jury at World and Continental Championships & WAG Bureau

Amend the paragraph a) with the deletion and addition of new text as shown:

a) ~~The Jury, including two suitable reserves who shall also fulfil the criteria below, should be nominated by the relevant Subcommittee Chairman after consultation with the organisers.~~
a) **The FAI Jury, including two suitable reserves, shall be selected by the organiser. The subcommittee chairman shall review the proposed jury members to check that they qualify to be on an FAI Jury. He may propose replacements with an appropriate justification.** ~~This~~**The** jury composition shall be proposed in Bulletin 0 and must be approved by the Bureau.

Reason:
The organiser takes the financial risk for the Championships and should therefore be able to choose a jury which is financially viable. This process will still make the final selection of the FAI Jury independent of the organisers, but the organiser still maintains financial control.

i) C.7.5 Contest Officials New Zealand

Amend the paragraph a) with the addition of new text as shown:

a) To meet the CIAM requirements on nationality, the nationality of a Judge or Jury member is deemed to be that of the NAC which is permitted to issue an FAI Sporting Licence to that person. **and includes the country they are a delegate for.**

Reason: As the member is a delegate for one country their actions can be compromised if they are an official for a second country.

Effectively the individual, who is a delegate for one country can be controlled / bullied by their home nation, from whom they hold a judges position, to vote for or against a motions / remits at the command of their home nation or face the removal of their judge status.

This then effects their ability to openly and honestly represent their duty to the country they are delegate for.

j) C.7.5 Contest Officials Bureau

Amend the paragraph c) with the addition of new text as shown:

~~c) The relevant Subcommittee Chairman, after consultation with the organisers, shall submit to the Bureau, for approval, the names of the persons who shall act as judges or reserve judges~~
c) **The Championship judges and reserve judges shall be selected by the organiser and the names supplied to the relevant subcommittee chairman for checking to ensure that the chosen judges are qualified in all respects to judge at the Championship. The subcommittee chairman may propose**

replacements for judges with an appropriate justification. The list of judges shall be proposed in Bulletin 0 and must be approved by the Bureau. International judges must have had recent practical judging and/or flying experience of the category for which they are selected, **and they must be on the approved judges list at the time of approval.**

Reason: The organiser takes the financial risk for the Championships and should therefore be able to choose panels of judges which are financially viable.

k) C.9 Judges Lists **Bureau**

Amend the paragraph with an addition as follows:

a) Nominations for persons to be put on the list of international judges must be received by the FAI Office no later than 15th November. The nominations are valid for two years starting the following January and can be updated annually. If no list is returned by the deadline in any year, then the old one stands for one more year. Judges shall be chosen from the list. Any judges appointed for a championship must be on the list when selected. The nomination must contain the information requested by the FAI Office on the electronic form it sends to NACs. **The nominations can be submitted either on paper or by using the on-line submission procedure available on the FAI web site.**

Reason: The FAI IT department recently developed an on-line tool to handle the Judges Lists. CIAM Bureau is highly recommending using this tool. For 2017, both options will be available. After that, CIAM Bureau will be in a position to decide whether the method to be used for submission of the nominations will be only by using the on-line tool.

l) C.9 Judges Lists **New Zealand**

Amend the paragraph c) with the addition of new text as shown:

c) To comply with the principle of NACs and Airsports Persons, NACs are only permitted to submit names of persons of their own NAC.**or someone who is a delegate for another country and therefore is classed as a "resident" of the country they represent.**

Reason: As for the previous New Zealand proposal - item i).

m) C.10 Number of Models Eligible for Entry **F5 Subcommittee**

In C.10.1, add the class F5J to the list as shown below:

Class F – Model aircraft

Scale classes	One (1) only
F3A, F3C, F5B, F3M	Two (2) only
F2A, F2B, F2C, F3D, F2C, F3B, F3J, F5D, F3F, F3P, **F5J**	Three (3) only
F1A, F1B, F1C, F1P.....	Four (4) only
F1E, F3K.....	Five (5) only
F1D, F2D, F3N.....	Unlimited (two per heat in F2D).

Effective January 1st 2018

Reason: In consequence of the current F5J rule.

n) C.13.1 Organisations Bureau

Remove the following paragraph:

~~c) The rules must be displayed at the event ground in English and in the language of the organising country~~.

Reason: Not practised for many years and not practicable any longer. Every FAI document is currently available on line.

o) C.14.1 Eligibility for World and Continental Championship USA

Change number of competitors in C.14.1:

Before a class can be considered by the CIAM for a World and/or Continental Championship, there must be a minimum period of two years from the time the class becomes official. The rules must have been used in at least five international contests, or three World Cup contests, each with a minimum of six FAI member countries participating. At least two contests must be held in each of the two years with a total of at least ~~60~~ **40** competitors in each year. All the contests must be registered on the FAI Sporting Calendar.

Reason Measuring participation by using only the FAI Sporting Calendar leaves the USA and Canada at a disadvantage. North America is only allowed 6 World Cup contests. In the USA, most fliers are reluctant to purchase FAI licenses ($100) as they are only required for World Cup points. So even if they do compete in the World Cup, their scores are low.

In the case of F1Q (a provisional event), there were 14 fliers at the USA Nationals held in Muncie, Indiana in July. Only two of these fliers (Murphy and Ivers) were awarded points in the 6 World Cup contests mentioned above. So most of the F1Q participation in the USA is unreported in terms of CIAM, which is why the threshold numbers in paragraphs A.15.1 and A16.1 have been reduced by ten (down 20% and 16.6% respectively).

As of the 27th of July, 26 F1Q fliers from 11 countries were awarded World Cup points, but only 2 were from the USA. But F1Q flying is quite popular in the USA, as noted above.

p) C.14.1 Eligibility for World and Continental Championship USA

Change number of competitors in C.14.1:

Before a class can be considered by the CIAM for a World and/or Continental Championship, there must be a minimum period of two years from the time the class becomes official. The rules must have been used in at least five international contests, or three World Cup contests, each with a minimum of six FAI member countries participating. At least two contests must be held in each of the two years

with a total of at least ~~60~~ **50** competitors in each year. All the contests must be registered on the FAI Sporting Calendar.

Reason: As for the previous USA proposal - item m) above.

q) C.15.1 CIAM championship naming policy F1 Subcommittee

Modify entries in the CIAM Class Code and Category Columns:

CIAM Class Codes ~~F1~~ **F1ABC**
F1ABP

Category: add as second or third entry **For Free Flight Slope Soaring Gliders**

Reason The explicit codes F1ABC and F1ABP help to define the explicit championships whereas F1 is general for any free flight event.

The addition of a name to apply to F1E Championships helps to avoid confusion with the F1ABC or F1ABP events which currently all carry the same "for free flight model aircraft" name which is confusing when the class code is omitted.

r) C.15.2 Current World Championships F5 Subcommittee

Add a new World Championship Class F5J as shown below:

C.15.2.1 Class F (Model Aircraft)

Odd years	**Even Years**
F1ABC (Senior)	F1ABP (Junior)
F1E (Senior & Junior)	F1D (Senior & Junior)
F3A (Senior + 4th junior member)	F2ABCD (Senior + 4th junior member)
F3B (Senior + 4th junior member)	F3F (Senior + 4th junior member)
F3CN (Senior + 4th junior member)	F3J (Senior & Junior)
F3D (Senior + 4th junior member)	F4CH (Senior + 4th junior member)
F3K (Senior & Junior)	F5BD (Senior + 4th junior member)
F3M (Senior + 4th junior member)	
F3P (Senior + 4th junior member)	
F5J	

Effective January 1st 2018

Reason: Following the Minutes of the 2016 Plenary Meeting (page 17, approved Proposal of Slovenia).

s) C.15 Organisation of World and Continental Championships Bureau

Replace the section C.15.6.1. with the new paragraphs as shown below:

C.15.6 Classification

C.15.6.1. Individual classification

~~a) In each category at a World Championship an FAI medal and diploma will be awarded to the competitors in the first, second and third places.~~

~~b) In each category at a Continental Championship, an FAI medal and FAI diploma will be awarded to the competitors in the first, second and third places.~~

~~c) If there is a Challenge Trophy, this is awarded to the NAC of the winning competitor for custody until the following championship.~~

~~d) The winner earns the title of World Champion or Continental Champion in the category.~~

~~e) For those categories where a junior may participate in a Continental or World Championship National Team under C.5.3b), individual awards for junior competitors will be awarded to the first, second and third place juniors.~~

~~f) Where at least four juniors from at least four different nations participate under C.5.3b), the winner shall earn the title of Junior World or Continental Champion in the class.~~

a) For any World or a Continental Championship:

- **FAI medals and diplomas will be awarded to the competitors in the first, second and third places in the class.**
- **The Championship winner earns the title of World Champion or Continental Champion in the class.**

b) For any class where a junior may participate in a Continental or World Championship as a fourth team member under C.5.3 b), all juniors are considered for the following awards:

- **FAI medals and diplomas will be awarded to the first, second and third placed juniors. If only one or two juniors compete in the class, they shall be also awarded an FAI medal and diploma.**
- **The best junior earns the title of Junior World or Continental Champion if juniors from at least four different nations participate in that class.**

c) If there is a Challenge Trophy, this is awarded to the NAC of the winning competitor for custody until the following Championship.

Reason: To clarify the existing situation regarding Juniors.

t) C.15.6.2 National Team Classification **Bureau**

Amend paragraphs c) and d) as shown below and add paragraph e).

c) When teams consist of four competitors or, in the case of F2C, four pairs of competitors (see C.5.3.) then all the team members in first, second and third place will be awarded medals **and shall be entitled to be on the podium.**

d) In each class a diploma will be awarded by the FAI to each **team** member including the team manager of the teams in first, second and third places.

e) If there is a Challenge Trophy then this shall be awarded to the NAC of the winning team for custody until the following championship.

Reason: To clarify the existing situation and to repeat the protocol regarding trophies as this is considered important.

Technical Secretary's Note: A proposal was received from the Austrian NAC asking for clarification on an ambiguity they perceived between point a) which sets out the two procedures for determining national team classification and point c) above. Austria stated they were uncertain whether the three best scoring members of the team or all the team members were awarded medals and diplomas. Austria did not provide an amendment – merely a statement of concern. The Technical Secretary believes that with careful reading, point a) is clearly regarding the calculation of final team placings, while point c) clearly states that all four members receive medals and diplomas.

u) C.15.7 Awards ceremony procedure **Bureau**

Add the following paragraph:

k) **Out of respect to the national authorities, FAI officials and organisers, all competitors, and especially the winners, are expected to attend the ceremony. According to FAI Protocol for Award-Giving and Closing Ceremonies, competitors must be properly dressed. It is recommended that the Contest Director mentions this during the briefing.**

Reason: We do have many examples where the FAI Protocol is not properly followed. Document can be found at http://www.fai.org/downloads/fai/protocol_award_giving_closing_ceremonies.

v) C.19.1 Penalties imposed by the contest director **Bureau**

Add additional text to the last paragraph as follows:

Penalties may be imposed by the contest director, with the consent of the FAI Jury, for:

-Unsporting behaviour (including, but not limited to cheating, deliberate attempts to deceive or mislead officials, bringing FAI into disrepute, wilful interference with other competitors, falsification of documents, use of forbidden equipment or prohibited drugs and violations of airspace). **Once a competitor is called to the flight line or the flying circle for an official attempt, smoking or consuming alcoholic drinks is also considered as unsporting behavior, until the attempt is finished.**

Reason: Fortunately, there are few examples of competitors who are carrying alcoholic drinks or they are smoking while flying. This is not appreciated by other competitors and is not a good professional image for our activity.

w) C.22 Awards **Education Subcommittee**

Insert a new paragraph at the end of Part 4C with the heading as shown above and the wording as shown below:

C.22 Awards

For promotion purpose CIAM (the Education Subcommittee) can use a special designed FAI diploma as awards in bigger international contests/events where aviation is used in education. The contest/event might have different forms and different classes than the already specified FAI classes. The contest/event has to be approved by CIAM (the Education Subcommittee).

Reason: To give us a simple tool to make connections between FAI and events that running on the side, or even outside, the umbrella of FAI. This is sometimes contests/events that have potential newcomers in our sport. And we should work more active to build good relationships with this kind of organizers. If we show FAI is behind this kind of activities we can promote FAI and show newcomers, very often newcomers in a young age, what FAI stands for and what we can offer to them. If we offer to give out our diplomas, in return from organizers we can be seen with our Logo and with link on webpages, give out information papers together with the diplomas and so on. A simple way to promote us to a category of people we want to come in to our sport. To give one example where such diploma could be used is in the University Payload Challenge contest that runs every year.

14.4 Volume CIAM Records
(2017 Edition)

a) Aeromodelling Records **Bureau**

Replace Volume CIAM Records, (previously) ABR Section 4C: Part 2 Records, with the restructured and renamed Volume – SC Section 4 - Aeromodelling Records, Classes F and S 2018 Edition as shown in ***Annex 7a****.*

Note (i): ***Amendments****. Refer to the accompanying PowerPoint (PDF) which is located at* ***Annex 7b*** *for explanations of specific changes to rules from Volume ABR Editions 2016 & the separate 2017 Volume.*

Note (ii): The ***List of Forms and Documents*** *which are referred to in the new Volume is located on page 8 and these will be updated and made available for download from the CIAM web site.*

14.5 Section 12 Volume Class U

a) 1.1 General Definition **Bureau**

Amend paragraphs 1.1.1 and 1.1.1.1 as shown below:

1.0.1 Unmanned Aerial Vehicle (UAV) - an ~~aerodyne~~ **aircraft or aerostat** ~~with a means of propulsion~~, that does not carry a human. ~~which is designed for scientific research, commercial, governmental, or military purposes~~**. Excluded are model aircraft according to specifications in Section 4 - Aeromodelling Records.**

1.0.1.1 A UAV ~~is~~ **can be** remotely controlled by a person or persons, **either by direct sight or First Person View (FPV)**, or autonomously controlled by a hardware system and/or software system onboard the UAV, or both.

Reasons:
1. The definition “aerodyne” excludes aerostats in general. Airships and balloons are in fact in use as commercial and scientific UAV, e.g. as camera drones, weather balloons, and even have been employed as drift bombs in WWII. The Google-X Loon project employed balloons as drifting data relay stations. The NASA Jet Propulsion Laboratory uses balloons as telescope platforms. There is no reason for ruling out aerostats from UAV competitions, as they have a benefit when it comes to emissions, endurance, range, and general acceptance (e.g. flight permissions).

The definition “with means of propulsion” excludes free flight models and balloons.

Google-X, Project Loon

https://en.wikipedia.org/wiki/Project_Loon

Forschungszentrum Jülich,

Analyse of fields from the top with unmanned air vehicles

http://www.fz-juelich.de/ibg/ibg-2/EN/methods_jppc/UAV_ZeppOcto/_node.html

TVN TV production, Airship TVN-Z1

http://www.tvn.de/connect/leistungen/luftaufnahmen/Film-tv-Produktion.html

Japanese Fire Balloon
https://en.wikipedia.org/wiki/Fire_balloon

2. It is of no relevance for what purpose a (record breaking) UAV was (originally) designed or built. It is a UAV with the purpose to break a record. Maybe the UAV was originally built for a purpose, but when it is used for a record, probably in a highly modified form, the original purpose or use is of no relevance for the recognition of that record.

3. By excluding all model aircraft (which are exclusively for sport and recreational use according to our General Rules), we can define a (record breaking) UAV for any use. This amendment is intended to make a clear distinction between records for model aircraft and UAV records in order to prevent double records. All records for ‘unmanned aircraft’ other than records for ‘model aircraft’ will be in Section 12.

Technical Secretary’s Note: Consider CIAM General Rules definition of UAV at B.3.1. in conjunction with the above.

b) 1.3 Types of Flight **Bureau**

Proposed addition as shown below:

1.3.6 Payload - A flight performance, measured and calculated for
- Payload times distance over a course,
- Payload times speed over a course,
- Payload times duration of a flight,
- Payload times altitude above mean sea level.

Reasons: UAVs are operated in commercial, scientific, or military use. Payload plays the major role in development and operation. A UAV without payload simply doesn't perform.

The value of payload times distance, -speed, -duration or -altitude is of main interest for potentially sponsoring universities or companies. Sponsors again foster the sport in general, and evolution of technologies in particular.

Assessing Lighter-Than-Air Vehicles for Mission Tasks of the U.S. Coast Guard in 1977, the Center of Naval Analysis found "Productivity", the product of payload and speed, to be the predominant measure for performance comparisons for different types of vehicles.

Reference:

"Assessment of Selected Lighter-Than-Air Vehicles for Mission Tasks of the U.S. Coast Guard"

http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA058237

c) 2.1.1.3 Propulsion Classifications **Bureau**

Proposed addition as shown below:

2.1.1.3.5 Group 4: Unpropelled

Reasons: Allows unpropelled aircraft and aerostats to compete.

d) 2.1 Class U Unmanned Aerial Vehicle (UAV) **Brazil**

Insert a new sub-section 2.1.1.4 as shown below:

2.1 Class U: Unmanned Aerial Vehicle (UAV)

2.1.1 UAVs are classified according to method of control, weight, **type**, and type of propulsion as follows:

2.1.1.4 Type Classifications

2.1.1.4.1 Type 1: fixed wing aircraft

2.1.1.4.2 Type 2: rotary wing aircraft

Reason: UAVs can be designed as several kind of different configurations, but always as Fixed or Rotary wings. Several examples around the world of fixed wing and rotary unmanned aircraft were already presented to the community, such as, Boeing Scaneagle, Shiebel Camcopter, FT Sistemas FT-100 and FT-200FH.

Because of the principle design differences between Rotary Wing and Fixed Wing UAVs, the performance of each Type are not comparable, having, each one, pros and cons for typical desired applications. Design speeds, ceiling, endurance and ranges are always different when comparing these Type of UAVs.

Therefore, considering that a Fixed Wing UAV cannot be compared to a Rotary Wing UAV, in exactly the same way that FAI does not compare a manned Helicopter to a manned Airplane, the aforementioned addition to the Class U FAI Sporting Code is proposed.

https://en.wikipedia.org/wiki/Boeing_Insitu_ScanEagle

https://en.wikipedia.org/wiki/Schiebel_Camcopter_S-100

https://www.rockwellcollins.com/Data/News/2016-Cal-Yr/GS/FY16GSNR24-FTSistemas.aspx

http://www.janes.com/article/62395/ft-sistemas-sells-uav-to-brazilian-navy

e) 4.4 Other rules **Russia**

Delete text in 4.4.6 as shown below:

4.4.6. The use of auxiliary propulsion specifically for the record attempt is prohibited. ~~Only engines normally installed in the UAV may be used.~~

Reason: Even today many UAVs use hybrid engine systems, and this tendency will grow in future. Hybrid engines are more progressive and they promise better sport results. So, what is the reason for restricting capacities of UAVs - so quickly developing kind of flying machines? The suggestion is to exclude this restriction. The less restrictions exist for UAVs, the better.

f) Proposals to be referred back to Bureau **Bureau**

- Proposals from Sweden and Russia to change the weight classifications for UAV records. (par. 2.1.1.2. Weight Classifications)
- Proposals from Sweden and Russia concerning course length for speed records. (par. 3.1.1.2. Speed records)
- Proposals by Sweden and Russia for introduction of a duration time record, independent of distance flown (new par. 3.1.1.5, and 5.5), redefining the current duration records to a duration distance record.. (par 3.1.1.3).
- Proposals by Russia and Sweden to increase the difference between consecutive records (par 4.1.1) significantly.
- Russian proposal for course definition for speed records (par.5.2.1.2), Swedish proposal to add smaller course lengths for out and return speed records (par. 5.2.2), see also par . 3.1.1.
- Swedish proposal to add shorter distances for duration distance records. Addition of requirement of VLOS for distances less than 50 km. (par. 5.3.2)
- Proposal by Sweden to add duration time records (new par. 5.5) see also proposed par. 3.1.1.5

Reasons: Swedish proposals were not submitted in the standard format, but were in place before Section 12 became the responsibility of CIAM.

These proposals need further study and some technical issues need consideration. It is appropriate to seek out expert guidance for the above proposals and come back to Plenary in 2018.

Bureau recommends the installation of an advisory committee to the Bureau for technical advice on matters concerning UAV. (FAI By Laws 3.4.5. state that Commissions shall be entitled to call on specialists for advice).

Volume F1 – Free Flight begins overleaf

14.6 Section 4 Volume F1 - Free Flight

a) F1.2.1 Timekeepers **The Netherlands**

Add a new paragraph F1.2.1 c):

a) Each team shall have the right to provide a timekeeper for the following classes of World and Continental Championships: F1A, F1B, F1C, F1D, F1E, S3, S4, S6, S8, S9, S10; with the organiser to be responsible for providing lodging and food only. Teams must nominate only skilled timekeepers and the timekeepers must bring binoculars, watches and tripods for their own use. The organiser must use these timekeepers as a priority, before allocating duties to timekeepers of the host nation or other timekeepers.

b) Competitors may act as timekeepers.

c) In case competing fly-off participants are requested to supply timekeeper(s) for a fly off (see a), these time keepers must be randomly distributed among the competing fly-off participants, e.g. by draw or moving timekeepers to respective neighbouring starting poles.

Reason: To improve time keeping impartiality.

b) F1.2 Timing **The Netherlands**

Add a new paragraph F1.2.7 and renumber the following paragraph regarding binoculars:

In Fly-offs, electronic time and altitude recording devices may be used mounted in or on a model. Such devices must be commercially available with an altitude measuring frequency of at least 2 Hz and display equipment like a computer, tablet or smart phone equipped with graphing software must be available to produce a time-altitude graph of the recorded flight. The responsibility of the use and correct functioning of such devices rests with the competitor.

The use of an altimeter is voluntary. Prior to each fly off, participants with (reserve) models equipped with such recording devices being switched on, should position their model(s) at ground level no more than 5 metres from their assigned starting pole. Upon instruction of the contest director, the participant will have to lift the model(s) from the ground and hold the model(s) elevated a number of times, the number and duration of these movements is decided by the contest director thereby generating a unique altitude-time signature. In case of a flight-time related dispute, the competitor automatically may proceed to the following fly off round. Any dispute must be marked on the competitor's scorecard for that fly off round. After the last fly off but no later than 30 minutes from the end of the last fly off, the jury will ask the competitor who filed the dispute to read out the altimeter data and present the altitude versus time graph. The jury will check the signature in the graph and determine the flown time for the fly off round for which a dispute has been filed. If the moment of launch, landing and flight time can be clearly established and the correct signature is present, the flight time will be

recorded for the final result. If any one of these conditions is not met, the timekeeper's time of the disputed fly off round will be used as the score for that fly off round. If this time is less than the maximum flight time set for that particular fly off round, any subsequently flown fly off rounds will be cancelled for that competitor. In case of a protest related to the altimeter generated flight time, the altitude graphs must be made available to the jury. Failure to do so will result in the time keeper's recorded flight time being the official score.

Reason: Make use of electronic possibilities.

Recorded fly-off times often suffer from inaccuracies as caused by time-keeper skill, equipment used and/or poor visibility which could result in flight scores which do not reflect the true performance and proper ranking of sportsmen. The use of electronic altimetry can objectively supply the flown time. Timekeepers are however still required as per the current rules.

Some arguments have been raised against this proposal, which I summarize below:

Electronic altimeters are inaccurate: as this may be true for the measured altitude, the time base of these devices is accurate and comparable to electronic stopwatches. The absolute altitude values are not used for measuring the flown time, it is merely the signature in the graph which is used for establishing launch, landing and unique signature which is generated prior to a fly off.

These devices can be tampered with and pre-stored altimeter graphs can be presented as 'proof': the contest director will define a unique signature which will mark the start of a fly off and recorded flight. As the competitor does not know such signature prior to the fly off, he can also not pre-record it.

Launch and landing cannot be clearly seen in the graph: launch of F1B and F1C models can, without exception, be clearly established in the graph. Also the launch of an F1A generates a clear and distinct signature in the graph. If the model descends and touches ground, the sink rate will show a marked discontinuity in the graph. If the model does not sink it will keep its altitude or climb and the dethermalisation will generate a distinct signature in the graph. In cases where either the launch (in the unlikely scenario where a model floats off the tow line) or moment of landing cannot be established, the altimeter result will be inconclusive and the timekeeper's score will be used instead.

Such devices are expensive and complex to operate: a typical altimeter such as the one sold by 'Hobby King' costs less than the average entry fee for a World Cup event. They are typically plug and play: apply a lipo battery and they will start recording. Analysis software is freeware and available for Android and Window devices.

Sportsmen are forced to invest in additional equipment: See above as to costs. The use of the altimeter is strictly voluntary. There will always be a timekeeper who will record the flight time.

Models can disappear from timekeeper's view but the altimeter can continue recording the flight. This is a valid argument, however it is up to the competitor if he wants to take advantage of the real flown time rather than the time the model is or can be visible by the timekeeper. Basically, flying at a site with many downwind obstructions will effectively be similar to flying on a site with no obstructions if altimeter time keeping is used.

c) 3.1.3. a) Number of Flights **F1 Subcommittee**

F1A: Amend sub-paragraph (a) as follows:

a) Each competitor is entitled to ~~five~~ **or seven** official flights. ~~in World and Continental Championships. For other international events the number of official flights is five unless a different~~ **The** number **to be flown must be** ~~has been~~ announced in advance **in the bulletin**. ~~and approved by CIAM.~~

Reason: For some competitions likely to have good conditions it may be appropriate to return to seven flights.

Technical Secretary's Note: See also proposals d) and e) which follow.

d) 3.1.3. a) Number of Flights **Canada**

F1A: Amend sub-paragraph (a) as follows:

Each competitor is entitled to ~~five~~ **seven** official flights at World and Continental Championships.

Reason: Flying seven rounds will create a stronger competition, will provide more enjoyment to the sportsmen and will reduce the number of fly-off participants. The competitions are held for the promotion of the sport, participants, and not the organizers.

During the 2015 World Championships in Mongolia 8% of the competitors dropped in the sixth and 8% of the competitors dropped in the seventh round. By flying seven rounds it will reduce the fly-off participants by 16 percent.

e) 3.1.3. a) Number of Flights **Denmark**

F1A: Amend sub-paragraph (a) as follows:

a) Each competitor is entitled to **seven** ~~five~~ official flights in World and Continental Championships. For other international events the number of official flights is **seven** ~~five~~ unless a different number has been announced in advance and approved by CIAM.

Reason: More flights will reduce the number of fliers in the fly-off. It will also be more satisfying for competitors who may have travelled very long and worked for years to make their national teams, that they are allowed to make seven flights at championships, and not just five.

*Technical Secretary's Note: The above proposal was also submitted by **The Netherlands** for the following reasons:*

-Preferred by a majority of competition participants

-Free flight is presented as a sport and the number of flights has been reduced in the last rule change to reduce the physical effort which contradicts this classification

-To reduce the number of fly off participants

-To avoid lengthy breaks between the end of the last round and the start of the fly off, which results in timekeeping problems as non fly off participants leave the field and might not return for the fly off.

-Free flight aeromodelling is supposed to be a hobby and fun, so why cut away 2/7th of fun by the earlier rule change?

f) 3.1.5. Definition of an Unsuccessful Attempt **Denmark**

F1A: Delete paragraph f).

An attempt is classed as unsuccessful if the model is launched and at least one of the following events occurs. If this happens on the first attempt then the competitor is entitled to a second attempt.

a) The model returns to the ground without release of the cable.

b) The moment of release of the cable cannot properly be established by the timekeepers.

c) When a part of the model becomes detached during the launch or during the flight time.

d) It is apparent to the timekeepers that the competitor has lost contact with the cable and the competitor or his team manager chose to declare an attempt.

e) It is apparent to the timekeepers that the competitor has lost contact with the cable and the cable is controlled by a person other than the competitor himself.

~~f) The duration of the flight is less than 20 seconds.~~

Reason: A flight of 20 seconds or less must be regarded as successful and must not entitle the competitor to a second attempt. It is possible to dethermalize models with a radio-D/T-system to make a bad start last less than 20 seconds. This is not the intention of the rules, so it should be prohibited.

g) 3.1.7. Duration of Flights **F1 Subcommittee**

F1A: Modify the first paragraph of 3.1.7 as shown.

The maximum duration to be taken for the official flights in world and continental championships is four minutes for the first round and, if conditions allow, for ~~the last~~ **one other** round and three minutes for the other rounds. In other international events a maximum of three minutes will be used for all rounds unless different durations (not exceeding four minutes) have been announced in advance in the contest bulletin for specific rounds.

Reason: To give more flexibility of choosing when a second longer maximum is used.

h) 3.1.7. Duration of Flights **The Netherlands**

F1A: Modify the first paragraph of 3.1.7 as shown.

3.1.7. Duration of Flights

The maximum duration to be taken for the official flights in world and continental championships is four minutes for the first round and, if conditions allow, for the **second** ~~last~~ round and three minutes for the other rounds. In other international events a maximum of three minutes will be used for all rounds unless different durations (not exceeding five minutes) have been announced in advance in the contest bulletin for specific rounds.

Reason:
-The last round is often the round with the strongest thermal activity and wind speeds. A max of 4 minutes contradicts the last sentence in paragraph 3.1.7 which reads "Maximum durations greater than three minutes should only be used for rounds at times when wind and thermal activity are expected to be at a minimum."

-The second round is often the most difficult as thermals are not yet fully developed. Consequently, a max of 4 minutes in the second round will reduce the number of fly off participants.

-On average wind speeds are still low in the second round compared to the third to last round

Technical Secretary Note: *This paragraph was amended in 2016 and the agreed amendment will have come into effect in the 2017 Volume. It was to change the upper limit from four to '(not exceeding five minutes)'. To avoid confusion, this change has been made to the above proposal as it was received.*

i) 3.1.8 Classification **F1 Subcommittee**

F1A: Modify paragraph 3.1.8(c) as follows:

c) The organiser will establish a ~~10~~ **7** minute period during which all fly-off competitors must tow and release their model. Within these ~~10~~ **7** minutes, the competitors will have the right to a second attempt in the case of an unsuccessful first attempt for an additional flight according to paragraph 3.1.5. Starting positions will be decided by draw for each fly-off.

Reason: To make the flyoff a greater challenge by giving less time to find good air.

j) 3.1.8 Classification **F1 Subcommittee**

F1A: Modify paragraph 3.1.8(f) as indicated:

f) If the number of competitors in a flyoff is 12 or more and is greater than 25% of the number of competitors in the competition **and it would be difficult to provide enough timekeepers**, then the flyoff may be split into two groups:

1) The number of competitors in each group will be as closely as possible equal
2) Competitors are allocated a group and starting position by a single draw
3) A flyoff is flown for each group according to the other regulations of 3.1.8
4) The second group flyoff must be flown as soon as possible after the first group.
5) From both groups all flyers who achieve the maximum duration proceed to the next round

6) ~~An equal number of flyers from each group may proceed to the next round by including competitors from one group those with the best flights below the maximum time, providing the flight times are at least 75% of the maximum.~~ **If possible an equal number shall go forward from both groups. If one group has fewer competitors with a maximum than the other group, then the number going forward from that group must be increased by including the competitors with the best flights below the maximum time. In order to go forward a competitor's flight time must be at least 75% of the highest time scored in that group.**

7) If the selections (5) and (6) result in fewer than 4 competitors proceeding to the next round, then the two competitors with the highest flight times in each of the groups will proceed to the next round **without the 75% time requirement of (6).**

8) Competitors eliminated in group flyoffs will be classified with final placing according to time achieved in the group flyoff.

9) **Competitors continuing from the group flyoff will be classified by their time in the later single flyoffs. Their times in the group flyoff should be recorded in the results but do not count in assessing their final placing. There should be two columns of times in the group flyoff results to show which times have been flown in which group.**

Reason: Group flyoffs to be used only when it is difficult to provide enough timekeepers for a regular flyoff.

The use of the word MAY in the current version of (6) had apparently been interpreted that there was some choice in whether to follow to the rule or not. The proposed rewording is intended to clarify that as many as possible must go through up to equal number with the other group, but only with people scoring more than 75%. The 75% is set against the highest time in the group instead of the maximum in case no competitors score a maximum in that group.

(9) is added to clarify that group flyoff times are not used in final results for competitors that go forward from the group flyoffs, but the times by every competitor in a group flyoff should be recorded in the results.

k) 3.1.8. Classification — Denmark

F1A: Delete paragraph f) about the group-flyoff possibility in the Classification-paragraph.

~~f) If the number of competitors in a flyoff is 12 or more and is greater than 25% of the number of competitors in the competition, then the flyoff may be split into two groups:~~

~~1) The number of competitors in each group will be as closely as possible equal~~

~~2) Competitors are allocated a group and starting position by a single draw~~

~~3) A flyoff is flown for each group according to the other regulations of 3.1.8~~

~~4) The second group flyoff must be flown as soon as possible after the first group.~~

~~5) From both groups all flyers who achieve the maximum duration proceed to the next round~~

~~6) An equal number of flyers from each group may proceed to the next round by including competitors from one group those with the best flights below the maximum time, providing the flight times are at least 75% of the maximum.~~

~~7) If the selections (5) and (6) result in fewer than 4 competitors proceeding to the next round, then the two competitors with the highest flight times in each of the groups will proceed to the next round.~~

~~8) Competitors eliminated in group flyoffs will be classified with final placing according to time achieved in the group flyoff~~

Reason: The group flyoff feels unjust and against the spirit of free flight competition.

l) 3.2.5. Definition of an Unsuccessful Attempt **Denmark**

F1B: Delete paragraph 3.2.5. b):

An attempt is classed as unsuccessful if the model is launched and at least one of the following events occurs. If this happens on the first attempt then the competitor is entitled to a second attempt.

a) When a part of the model becomes detached during the launch or during the flight time.

~~b) The duration of the flight is less than 20 seconds.~~

Reason: A flight of 20 seconds or less must be regarded as succesful and must not entitle the competitor to a second attempt. It is possible to dethermalize models with a radio-D/T-system to make a bad start last less than 20 seconds. This is not the intention of the rules, so it should be prohibited.

m) 3.2.7. Duration of Flights **The Netherlands**

F1B: Change 3.2.7 as follows:

3.2.7. Duration of Flights

The maximum duration to be taken for the official flights in World and Continental Championships is to be four minutes for the first round and, if conditions allow, for the **second** ~~last~~ round and three minutes for the other rounds. In other international events a maximum of three minutes will be used for all rounds unless different durations (not exceeding five minutes) have been announced in advance in the contest bulletin for specific rounds.

Reason:

-The last round is often the round with the strongest thermal activity and wind speeds. A max of 4 minutes contradicts the last sentence in paragraph 3.2.7 which reads "Maximum durations greater than three minutes should only be used for rounds at times when wind and thermal activity are expected to be at a minimum."
-The second round is often the most difficult as thermals are not yet fully developed. Consequently, a max of 4 minutes in the second round will reduce the number of fly off participants.
-On average wind speeds are still low in the second round compared to the third to last round.

n) 3.2.8 Classification **F1 Subcommittee**

F1B: Modify paragraph 3.2.8. c) as follows:

The organiser will establish a ~~10~~ **7** minute period during which all fly-off competitors must ~~wind their rubber motor and~~ **launch their model. Competitors may wind one rubber motor before the start of the 7 minute period.** Within these **7** minutes the competitor will have the right to a second attempt in the case of an unsuccessful attempt for an additional flight according to para 3.2.5. Starting positions will be decided by a draw for each fly-off.

Reason: Not stated.

o) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) **Germany**

F1C: Add new paragraph as follows:

Distinguished are:

a) Models with variable geometry (changes of camber or area) grade A with maximum duration of motor run 4 seconds from release of model.

b) Models with fixed geometry (fixed camber and fixed area, VIT allowed) grade B with maximum duration of motor run 5 seconds from release of model.

Reason: The season 2016 shows clearly that there is a big difference in using a Folder or Flapper with 4 seconds motor run time in comparison to a normal straight model. In more of 90% of fly offs models with variable geometry are winning competitions. Test shows that after climb there is a difference from about 30 m in high and in glide there is a difference from round about 60 to 90 sec or more in dead air.
To compensate the performance difference between categories A and B there should be a difference in model specification and a difference in motor run time. In this way new developments are not blocked, investments keep valued.
The competitor can make his own choice, to take a grade A or grade B model, depending on circumstances. Most important is to avoid that many members of the F1C community will leave the sport; because they feel it is no fun anymore because they have to buy and use a model that is not easy to handle. For a beginner it is easier to start with a model grade B, because handling is easy and low tech only. And he will have fun in competition because he is able to have success with simple models. Later he can change to grade A if he wants. So everybody can make a free choice and have a fair competition on the level he wants.

Competitors don´t have to use high-tech models which they can´t handle. So it would be more safe for everyone if people can fly with models they can handle and have success with them without stress. The sense of free flight is not to be pressed in one direction and to have to use a special type of model.

Technical Secretary Note: *It is not clear where it is proposed that this paragraph be inserted. More specific instructions are required in the Technical Meeting minutes please.*

In addition, refer to the following proposals regarding the same paragraph.

p) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) The Netherlands

F1C: Add new paragraph to 3.3.2. as follows:

Distinguished are:

a) Models with variable geometry (changes of camber and/or area) grade to A

b) Fixed geometry models (fixed camber and fixed area) grade to B

Reason: To compensate the performance difference between categories A and B there should be a difference in model specification. In this way new developments are not blocked, investments keep valued.

The competitor can make his own choice, to take an A or B model, depending on circumstances.

Most important is to avoid that many members of the F1C community will leave the sport; because they feel it is no fun anymore

q) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) The Netherlands

F1C: Amend as follows:

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

Grade A models: Maximum duration of motor run ……. 4 seconds from release of model.

Grade B models: Maximum duration of motor run ……. 5 seconds from release of model.

Reason: To compensate the performance difference between categories A and B there should be a difference in motor run time. In this way new developments are not blocked, investments keep valued.

The competitor can make his own choice, to take an A or B model, depending on circumstances.

Most important is to avoid that many members of the F1C community will leave the sport; because they feel it is no fun anymore.

r) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) Canada

F1C: Amend the 5th paragraph as follows:

Maximum duration of motor run ~~four~~ **five** seconds.

Reason: This proposal is supported by the protest of 137 signatures from 15 countries which was submitted to CIAM in June 2015.

Please see http://www.ipetitions.com/petition/f1c-rule-changes-petition

s) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) USA

F1C: Add wording to first paragraph as follows:

Maximum duration of motor run: ..... 4 seconds from release of model **(for models with variable wing geometry).**

Maximum duration of motor run: ..... 5 seconds from release of model (for models with fixed wing geometry).[1]

Reason: [1]The most recent rule change from a motor run of 5 seconds to 4 seconds has caused the fixed wing models to become immediately obsolete. They were already at a disadvantage due to lower climb height and poorer glide performance, but with a 4 sec engine run, the disparity is more obvious. The sportsmen who fly these simpler models can upgrade (at great expense), but now the barrier to people who want to enter into F1C is much higher. Much of the construction and repair of the simpler models can still be done by individual flyers. However, moving to variable geometry models almost surely necessitates the purchase of 'factory' models from a very few suppliers.

It is important for us to continue to look for ways to keep performance in check and reduce it where possible. However, rendering simpler models obsolete in favour of more complex and expensive models is a step in the wrong direction.

[1]Dave Lacey's article, "A Numerical Simulation of an F1C Model with Fixed, Flapped and Folded Wing," Free Flight Quarterly, January 2016.

t) 3.3.2 Characteristics of Model Aircraft with Piston Motor(s) Poland

F1C: Add the text as shown below: With immediate possible effect.

Additional requirements for Juniors' models:

Motor exhaust duct(s) connected with a silencer consists of a single, circular and fixed chamber with an outlet diameter 8 mm. The total capacity of the silencer system must exceed 12.5 cm^3. Maximum total length of the system, measured from the motor exhaust duct, including the engine outlet, shall not exceed 150 mm.

Reducers prohibited.

Wing with fixed span and constant sprung profile (flaps prohibited).

Reasons:

1. Class F1P does not allow a smooth transition to F1C class (from junior to senior in fact).
2. Class F1P with its technical rules is an archaic one. Result - a small number of juniors compete in competitions especially in EChs and WChs - 15 juniors F1P only in 2015 FAI Junior WChs for Free Flight Model Aircraft.
3. During the course of juniors there is no need to build from a scratch or to invest in other models (just remove a muffler or replace an engine and readjust a model) - to increase a number of young players competing.
4. Reduced engine power and noise more secure for a junior to use.
5. Currently practiced by the juniors only.
6. The consequence is running the first class events for Free Flight for Juniors in the class F1C instead of F1P.

u) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) USA

F1C: Modify paragraph as follows:

F1C models ~~must~~ **may[2]** be fitted with functional radio control only for irreversible actions to control dethermalisation of the model. This may include stopping the motor if it is still running. Any malfunction or unintended operation of these functions is entirely at the risk of the competitor.

Reason: [2]RDT devices fitted to F1C models with mechanical timers can only release the stabilizer after the model has gone to glide. Releasing the DT line prior to glide will have no effect during the "unsafe" part of the flight.

RDT does work on F1C models with electronic timers but there is little RDT can do to increase safety. RDT would normally be used if the model was going off pattern and perhaps diving. Unless the wings are folded, pressing the RDT will often rip the wings off and the fuselage becomes a more dangerous 'spear' type projectile.

[2]With an RDT system, the receiver is typically connected to a servo that releases the DT line. However, in the case of F1Cs with mechanical timers, the RDT cannot work until after the engine has shut off and the timer has stepped through the bunt sequence and then has released the bunt pull-down line to go into glide. Until then the DT line can be released, but the stabilizer is still held down in the climb position and then the bunt position. There is no known interface that will enable an electronic RDT receiver to take over a mechanical timer to stop the engine and then release all the lines to the stabilizer at the same time. Consequently, to enable DT prior to glide, F1C models will be required to convert to electronic timers. For a fleet of 4 F1C models that currently have mechanical timers, the immediate financial cost will be over €1500. The flyer will have to buy 4 electronic timers, the programmer, DT transmitter and battery chargers. This is an unreasonable requirement.

Technical Secretary Note: *Please also see proposals (v), (w) and (x) regarding this paragraph.*

v) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) Germany

F1C: Amend as follows - ***Effective 1.1.2020****:*

F1C models must be fitted with functional radio control only for irreversible actions to control dethermalisation of the model. This ~~may~~ **must** include stopping the motor if it is still running. Any malfunction or unintended operation of these functions is entirely at the risk of the competitor.

Reason: The requirement to have a radio control for dethermalisation was introduced as a safety measure. But with a running engine the actuation of the dethermalisation may destroy the model and this will not increase the safety.

Thus it is necessary, that the radio control includes the possibility to stop the motor. As this might have some impact to the timer (likely an electronic timer to be used), this change should become effective 1.1.2020, only.

Technical Secretary Note: *Please also see proposals (u), (w) and (x) regarding this paragraph.*

w) Characteristics of Model Aircraft with Piston Motor(s) Canada

F1C: Amend as follows:

F1C models ~~must~~ **may be** fitted with radio control **but** only for irreversible action to control dethermalization of the model.

Reason:

a, Models equipped with mechanical timers cannot use RC device

b, The usage of RC device almost always results in breaking the wing of the model in flight and further increases the possibility of harming people.

c, The 2016 Sporting Code does not specify when is required and/or when is mandatory to use the RC device. It represents an unnecessary expense which will result in further loss of competitors in this category.

Technical Secretary Note: *Please also see proposals (u), (v) and (x) regarding this paragraph.*

x) 3.3.2. Characteristics of Model Aircraft with Piston Motor(s) The Netherlands

F1C: Amend the last paragraph in 3.3.2. as follows:

F1C models ~~must be fitted with functional~~ **must use** radio control only for irreversible actions to control dethermalisation of the model. This may include**s** stopping the motor if it is still running. Any malfunction or unintended operation of these functions is entirely at the risk of the competitor.
Whenever the electronic timer in the model is activated (e.g. put in non-flight mode or starting position) the competitor must be able to stop the motor and dethermalise the model.

Reason: Current used electronic timers already have the possibility to be activated by radio even if the starter button is not yet released. Some timers may need a software update.

Nowadays most glider flyers use electronic timer including radio control to save their models and avoid dangerous situations. Why should power models, which are more dangerous, not have at least the same possibilities?

y) 3.3.5. Definition of an Unsuccessful Attempt Belgium

F1C: Delete " c) the duration of the flight is less than 20 seconds.":

3.3.5. Definition of an Unsuccessful Attempt

An attempt is classed as unsuccessful if the model is launched and at least one of the following events occurs. If this happens on the first attempt then the competitor is entitled to a second attempt.

a) the time of the motor run from the release of the model exceeds the time specified in 3.3.2. or 3.3.8 as appropriate for the flight.

b) when a part of the model becomes detached during the launch or during the flight.

~~c) the duration of the flight is less than 20 seconds.~~

Reason:

- Deleting the 20 s rule will reward the competitors that fly reliable and thus safer models and will stimulate the construction of such models.
- In case of maintaining the 20 s rule, competitors might be tempted to use RDT for competitive advantage rather than for maximising safety. For example:
- In order to stay below the 20 s limit, competitors might be tempted to shorten a bad but safe flight by RDT, possibly resulting in a high-risk landing, too close to the starting line, hurting people and damaging models, cars and others.
- In order to stay below the 20 s limit, competitors might be tempted to postpone to the very last moment RDT on a rapidly descending model, increasing the risk in case of malfunction or misjudgement.

Technical Secretary's Note: *The above proposal was also submitted by* ***Denmark*** *for the following reason:*
It is possible to dethermalize models with a radio-D/T-system to make a bad start last less than 20 seconds. This is not the intention of the rules, so it should be prohibited.

z) 3.3.7. Duration of Flights — The Netherlands

F1C: Change 3.3.7 as follows:

3.3.7. Duration of Flights
The maximum duration to be taken for the official flights in World and Continental Championships is to be four minutes for the first round and, if conditions allow, for the **second** ~~last~~ round and three minutes for the other rounds. In other international events a maximum of three minutes will be used for all rounds unless different durations (not exceeding five minutes) have been announced in advance in the contest bulletin for specific rounds.

Reason:
-The last round is often the round with the strongest thermal activity and wind speeds. A max of 4 minutes contradicts the last sentence in paragraph 3.3.7 which reads "Maximum durations greater than three minutes should only be used for rounds at times when wind and thermal activity are expected to be at a minimum."
-The second round is often the most difficult as thermals are not yet fully developed. Consequently, a max of 4 minutes in the second round will reduce the number of fly off participants.
-On average wind speeds are still low in the second round compared to the third to last round.

Technical Secretary Note: *This paragraph was amended in 2016 and the agreed amendment will have come into effect in the 2017 Volume. It was to change the upper limit from four to '(not exceeding five minutes)'. To avoid confusion, this change has been made to the above proposal.*

aa) 3.3.8 Classification — F1 Subcommittee

F1C: Modify paragraph 3.3.8. c) as follows:

c) Starting positions will be decided by a draw for each fly-off. The organiser will establish a ~~10~~ **7** minute period during which all fly-off competitors must start their

engines and launch their model. Within these ~~10~~ **7** minutes the competitor will have the right to a second attempt in the case of an unsuccessful attempt for an additional flight according to para 3.3.5.

Reason: To make the flyoff a greater challenge by giving less time to find good air.

ab) 3.4.2 Characteristics of Indoor Model Aircraft F1 Subcommittee

F1D: Add new paragraph at the end of 3.4.2

The model shall carry the FAI unique ID number of the competitor on the motorstick written with permanent marker or other non-removable means.

Consequential change:

F1.3.2 Processing Indoor Model Aircraft for competition flights

Indoor free flight duration models must be processed before each flight to confirm that the model meets the dimensional and weight requirements of the class **and to confirm the FAI unique ID number of the competitor is marked on the model**. Rubber motors are to be weighed before or after the flight to confirm that these are within the specification.

Change also to be applied to F1L in 3.L.2 as item (d), to F1M in 3.M.2, to F1R in 3.R.2

Reason: To provide identification of the model with the competitor and to add a check of the number to the indoor processing requirements. As a new rule it is appropriate to introduce this specifically for the FAI ID number and not include the licence number alternative allowed under the long established rules for outdoor models.

ac) 3.H.5. Definition of an Unsuccessful Attempt Denmark

F1H: Delete paragraph a). The subsequent paragraphs will be renumbered as a consequence.

An attempt is classed as unsuccessful if the model is launched and at least one of the following events occurs. If this happens on the first attempt then the competitor is entitled to a second attempt.

~~a) The flight duration is less than 20 seconds~~.

b) The model returns to the ground without release of the cable.

c) The moment of release of the cable cannot properly be established by the timekeepers.

d) A part of the model becomes detached during the launch or during the flight time.

e) It is apparent to the timekeeper that the competitor has lost contact with the cable and the competitor chooses to declare an attempt.

Change also to be applied to F1J in 3.J.5. - delete paragraph (a), to F1P in 3.6.5. - delete paragraph (a), to F1Q in 3.Q.5. - delete paragraph (c).

Reason: A flight of 20 seconds or less must be regarded as successful and must not entitle the competitor to a second attempt. It is possible to dethermalize models

with a radio-D/T-system to make a bad start last less than 20 seconds. This is not the intention of the rules, so it should be prohibited.

ad) 3.7.2 Characteristics **F1 Subcommittee**

F1N: Add new paragraph at the end of 3.7.2:

The model shall carry the FAI unique ID number of the competitor on the upper surface of the wing.

Reason: To provide identification of the model with the competitor. As a new rule it is appropriate to introduce this specifically for the FAI ID number and not include the licence number alternative allowed under the long established rules for outdoor models.

ae) 3.6.3 Number of flights **F1 Subcommittee**

F1P: Replace paragraph a) as follows:

a) ~~Each competitor is entitled to seven official flights.~~ **See 3.1.3.a.**

Reason: To keep the number of flights flown in F1P consistent with F1A, F1B and F1C, particularly significant at Junior Championships for F1A, F1B, F1P.

af) 3.6.8 Classification **F1 Subcommittee**

F1P: Modify paragraph (c) as follows:

c) Starting positions will be decided by a draw for each fly-off. The organiser will establish a ~~10~~ **7** minute period during which all fly-off competitors must start their engines and launch their model. Within these ~~10~~ **7** minutes the competitor will have the right to a second attempt in the case of an unsuccessful attempt for an additional flight according to para 3.6.5.

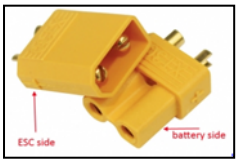
Reason: To make the flyoff a greater challenge by giving less time to find good air.

ag) 3.Q.2. Characteristics **Denmark**

F1Q: Amend paragraph 6 in the section 3.Q.2. Characteristics as follows:

Models must have provision for connecting a Static Energy Test (SET) device between the battery and the model's system via ~~3.5 mm male and female bullet connectors~~ **XT30 connector**. ~~The connectors from the battery should be male positive and female negative.~~ It is the responsibility of the competitor to supply any adapters needed to connect to the SET.

XT30 Connector ->



Reason: **SAFETY**.
The connector combination as currently required by the F1Q rules may very easily be connected wrongly.
For example, it is possible to short-circuit the Lipo-battery (the plus and minus terminals are connected with each other by an error), or - again by an error connect two batteries to each other.
Both of these possible errors connections will result in a short circuit of the battery with serious consequences (see 'Electrical Shorts' below)
Furthermore, the current connector can be error-connect to the SET ("Joule-tester"), so that it has reverse polarity.
XT30 connector will eliminate possible errors – The XT30 connector is "foolproof".

Electrical Shorts
An electrical short is caused when any of the positive and negative wires in your power system contact each other unintentionally. When this happens with a sufficiently large wire, it can cause the battery to discharge at rates far exceeding its rating. This sets off a chain reaction whereby the battery starts to heat up and expands, increasing its internal resistance and thereby causing it to heat up and expand faster. At some point, one or all of the cells will rupture from the expansion, causing a release of hot smoke and possibly a fireball.

https://www.youtube.com/watch?v=EseOhC8n7ro

ah) 3.Q.2. Characteristics **Germany**

F1Q: Amend paragraph 5 in the section 3.Q.2. Characteristics as follows:

The motor run time will be determined by a maximum energy amount. In addition, motor runs over ~~40~~ **30** seconds are regarded as overruns. The energy budget of each model is 4 **3** joules per gram of the total weight. For energy calculations, weight exceeding ~~500~~ **600** grams is to be ignored.

Reason: The energy budget reduced to 3 Joules per gram AND max 600 grams in energy calculation. Reduce the model performance and balancing the energy budget between different model designs to avoid that any models will be obsolete under the new requirements. Balancing the calculation weight will not add more energy for heavier models compared to today. Also for these the reducing to 3 J/g will decrease the absolute energy amount to reduce the performance.

ai) 3.Q.2. Characteristics **Denmark**

F1Q: Amend paragraph 5 in the section 3.Q.2. Characteristics as shown below:

The motor run time will be determined by a maximum energy amount. In addition, motor runs over 40 seconds are regarded as overruns. The energy budget of each model is 4 **3** joules per gram of the total weight. For energy calculations, weight exceeding ~~500~~ **600** grams is to be ignored.

Reason: The energy budget reduced to 3 Joules per gram AND max 600 grams in energy calculation. Reduction of F1Q model performance.

Technical Secretary Note: *Please also see proposal (ah) from Germany regarding this paragraph.*

aj) 3.Q.2. Characteristics **Denmark**

F1Q: Amend the paragraph a) in the section 3.Q.2. Characteristics as follows. Delete the majority of paragraph b) except for the last sentence:

~~a) For models with energy limiters.~~ The allowed energy amount starts to be calculated with the release of the start button and finishes when the ESC has stopped supplying energy to the motor. The energy limiter has to calculate the energy consumed in real time. After coming to the end of the limited energy supply, the motor(s) must stop irreversibly.

For energy limit verification, a SET is to be connected to the model to allow measurements to confirm the energy used between the release of the start button and until the ESC has stopped supplying energy to the motor. To synchronise the time of release of the start button the model must include a cable connected in parallel with the start button and terminated with a 2-pin, 2.54mm pitch female connector.
The SET must store and display energy **amount used and motor run time.** ~~or store the time and power data.~~

~~b) For models without energy limiters the motor run will be controlled by a timer. The motor run is calculated as the allowed energy divided by the measured power and rounded down to the nearest whole second below. After the motor has reached full power, the power is measured with a Wattmeter at a time equal to half the planned motor run. A fully charged battery (4.2V per cell for lithium, 1.2V for NiMH) should be used for the power measurement. The calculated motor run should be clearly marked on the model. The motor run will be timed statically on the ground by timing from the start button release to the motor cut-off.~~ The motor run will not be timed in flight.

Reason: Simple, reliable and fair - as well as limiters are now available on the market.

Technical Secretary Note: *Will the previous sentence need to be amended as part of this proposal viz.* Energy limitation will be by an energy limiter ~~or by a motor run limit related to measured power~~.

ak) 3.Q.2. Characteristics **Germany**

F1Q: Amend the paragraph a) in the section 3.Q.2. Characteristics (including the previous sentence) as follows: Delete paragraph b) totally:

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

~~a) For models with energy limiters.~~ The allowed energy amount starts to be calculated with the release of the start button and finishes when the ESC has stopped supplying energy to the motor. The energy limiter has to calculate the energy consumed in real time. After coming to the end of the limited energy supply, the motor(s) must stop irreversibly. **The energy limiter must interrupt the impulse signal from the timer to the ESC and cuts of the motor(s) when the given energy limit is reached, without need of interaction of other devices. The ESC must always operate via its serial connection to the energy limiter and not**

with direct connection to the timer. The timer stays independent, but the energy limiter may inform the timer about the end of the energy supply.

For energy limit verification, a SET is to be connected to the model to allow measurements to confirm the energy used between the release of the start button and until the ESC has stopped supplying energy to the motor. To synchronise the time of release of the start button the model must include a cable connected in parallel with the start button and terminated with a 2-pin, 2.54 mm pitch female connector. The SET must store and display energy **amount used and motor run time.** ~~or store the time and power data.~~

~~b) For models without energy limiters the motor run will be controlled by a timer. The motor run is calculated as the allowed energy divided by the measured power and rounded down to the nearest whole second below. After the motor has reached full power, the power is measured with a Wattmeter at a time equal to half the planned motor run. A fully charged battery (4.2V per cell for lithium, 1.2V for NiMH) should be used for the power measurement. The calculated motor run should be clearly marked on the model. The motor run will be timed statically on the ground by timing from the start button release to the motor cut-off. The motor run will not be timed in flight.~~

Reason: The measurement method of the motor run in models without limiter is very complicate and difficult applicable in practice. As in this case the motor run is not to be timed in flight, the compliance of the correct run time is not possible. A rule which cannot be controlled should not to be used.

Energy limiters are approved devices also in other aeromodelling categories. Reliable limiters which meets the requirements are available on the market and also as an open source project for self-made (for saving costs). The stored data are replicable and verifiable. Limiter can be verified by the CIAM EDIC commission.

The independence from the other electronic control components (timer) is required to avoid manipulations by software.

Battery conditions (temperature, internal resistance) have big influence of the result of motor time by ground measurement. These parameters cannot be validated for the official flight by timekeeper. So it can be easy that a battery pack has more energy output during the official flight compared to the ground measurement.

Because an energy limiter calculates the used energy amount in real time, none of the battery parameters have influence of the used energy.

al) 3.Q.2. Characteristics **USA**

F1Q: Add text to the end of the paragraph as shown below:

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

Lithium type battery packs must be in “as manufactured” condition with the covering around the cell surface. If more than one cell is used a balancer connector must be fitted.

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

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

The motor run time will be determined by a maximum energy amount. In addition, motor runs over 40 seconds are regarded as overruns. The energy budget of each model is at most 4 joules per gram of the total weight. For energy calculations, weight exceeding 500 grams is to be ignored.

Flyoffs: If required, the jury or contest director may reduce the energy budget by 0.5Joules/gram decrements together with 5 second decrements in the maximum motor run for flyoffs as follows:

3.5J/gr with 35 sec maximum motor run

3.0J/gr with 30 sec maximum motor run

2.5J/gr with 25 sec maximum motor run

Reason: The rule proposal retains the energy multiplier and the max motor run, but allows their proportional reduction in flyoffs, if the need arises. The reductions are in 12.5% steps, corresponding to 3.5J/gr and 35 second max motor run, 3.0J/gr and 30 sec, 2.5J/g and 25 sec. Reducing the energy and the motor run ceiling by 12.5% steps means that 40-second cruisers will satisfy the 3.5J/gr energy multiplier with a 35 second motor run. Had the max motor run remain pegged at 40 seconds, there is an incentive to develop specialized models for that combination.

F1Q models are processed prior to contest and their energy level or the motor run for models without an energy limiter (EL) is recorded. Because ELs and e-timers are not sealed they can be reset during a contest, a timer or the contest director can ask a competitor to demonstrate the programmed energy level or motor run prior to the flight. Since motor run are recorded, albeit inaccurately, it serves as a benchmark when the energy multiplier is reduced in a flyoff. For example, dropping the energy multiplier by 25% should correspond to a similar drop in the motor run relative to the motor runs in the regular flights. Otherwise, the model can be impounded and reprocessed after the fact. Of course, motor runs exceeding the max motor run are overruns.

In 2016, a F1Q flyoff in Rinkaby was decided by DTing the models at the end of their motor run. A perfect solution would have been to simply reduce their energy multiplier and motor runs proportionally – translated to shorter motor runs.

am) 3.Q.8. Classification **Germany**

F1Q: Add text to 3.Q.8. d) and delete paragraph e) as follows:

d) In the event of exceptional meteorological conditions or model recovery problems, the Jury may permit the maximum for a round to be changed that given under 3.Q.8.b. **and decrease the maximum energy amount up to 2 J/g AND the motor run time linear up to 20 seconds** according to conditions.

~~e) The energy and motor run limits remain as defined in 3.Q.2.~~

Reason: Extend reducing of model performance for fly off rounds. To avoid model damages or losses by landing outside of the flying field or difficulties by observation the model by timekeeper it should give the possibility for CD to reduce the model performance for fly off rounds. This can be done very easy by reducing the energy amount and motor time linear. Nor changes for model trim are necessary.

an) 3.Q.9. Timing **Denmark**

F1Q: Section c) removed:

~~c) The motor run must be timed by two timekeepers with quartz controlled electronic stopwatches with digital readout, recording to at least 1/100 of a second. The motor run is determined as the average of the two registered times, and this average is reduced to the nearest 1/10th of a second below.~~

Reason: Section c) is in direct conflict with 3.Q.2 third last paragraph (..”*the motor run will not be timed in flight”..*)
- Probably it is an editing error in the rules at the last revision?

ao) ANNEX 1 Rules for Free Flight World Cup **Poland**

Paragraph 3. Contests as shown below including additional text:

Contests included in the World Cup must appear on the FAI contest calendar and be run according to the FAI Sporting Code. The contests to be counted for a World Cup in one year are to be nominated at the CIAM Bureau meeting at the end of the preceding year and are to be indicated on the FAI contest calendar. A maximum of two contests may be selected for any European country. A maximum of three contests may be selected for countries outside Europe. A country may choose to fly a World Cup event at a flying site in another country provided that the organising country submits the FAI calendar registration for the event and the name of the organising country is included in the title of the event.

Additional requirements:

Additionally, any country may host a maximum of one competition in each class on behalf of another organising country regardless of whether or not the host country extends over three or more time zones.

Reason: Too many competitions organized in one country. Because of transportation problems in competitions compete competitors from an organizing country only. It distorts the final World Cup results and virtually eliminates cup winning by competitors from other continents.

With immediate possible effect

ap) ANNEX 2, Appendix B – Outdoor Free Flight Timekeeper Briefing Instructions **The Netherlands**

3.A2B.6. Disputes*: Add a new paragraph towards the end as shown:*

A dispute that cannot be resolved between the timekeepers and the team manager must be referred to the contest director or the FAI Jury. The timekeepers should not leave their post during a dispute but should continue to time as required by other competitors at the pole. If a dispute is not resolved during a round and the competitor could be entitled to a reflight if his protest is upheld, then the timekeepers should time a reflight. The time should be recorded separately in case it is required when the dispute has been settled. This must be done before the end of the round.

In fly-offs, a dispute can be solved by data as recorded by an electronic altimeter. This dispute must be marked on the scorecard for the disputed flight-time of the fly-off round.

Reason: Addition of disputes and electronic altimeter in relation to new proposal B13.6.2 (the Netherlands).

See supporting data from new proposal B13.6.2 (the Netherlands).

Volume F2 Control Line begins overleaf

14.7 Section 4 Volume F2 - Control Line

F2A

a) Annex 4A 4.1.7 **F2 Subcommittee**

Control Handle and Pylon Fork

Amend paragraph c) as shown:

c) The important factor is that the cross bar stays in contact with **both of** the fork **prongs** throughout the flight.

Reason: **Clarification**: The change is required to clarify that the crossbar must be in contact with both of the prongs of the pylon fork.

There was a protest at the 2016 F2A World Championships which highlighted a lack of clarity in the F2A judges' guide.

F2C

b) 4.3.3.1.d Characteristics of a Team Racing Model Aircraft **F2 Subcommittee**

Add two sentences in existing paragraph d) as follows:

d) There shall be no supplementary air induction except for sub piston induction to a maximum height of 0.6 mm at the exhaust port. **The sub piston induction shall be measured with a cylindrical no-go gauge pin 0.61 mm diameter. This gauge pin must not be able to enter the opening below the piston in the exhaust port**. **The gauge pin must be able to be presented at the cylinder bore and piston face working surfaces, any other points of the cylinder, crankcase or other components of the engine must not obstruct the gauge pin.** A single round supplementary fuel jet with a maximum diameter of 0.4mm may be used between the venturi and the induction port of the engine.

Reason: **Clarification**: To clarify how to measure allowed sub piston induction.

F2F

c) 4.H.4. Characteristics of a Diesel Profile Racing Model Aircraft **New Zealand**

Add the words as shown to 4.H.4 d):

d) Profile fuselage: minimum height: 100 mm; maximum width: 20 mm

The engine must be side mounted. The engine must be fully exposed from the centreline of the shaft outwards. The addition of any form of cowl, ducting, cover or shield, whether attached to the engine or the model airframe, is forbidden.
Engine cooling may be modified by adding rubber O rings, or string to the cooling fins.

Reason: F2F models are required to be 'profile' models. This is not currently well defined in the rules and people are finding ways to exploit this by adding cowls to

engines. We need to clarify this to return F2F to the original intent and spirit of the rules.

Pictures of an F2F model with excessive cowling that breaks the spirit of the existing rules.

Picture of an F2F model meeting spirit of existing rules.

F2G (Electric Speed – Provisional Class)

d) 4.K.2 Characteristics of an Electric Speed Model Aircraft Switzerland

Amend paragraphs a) to d) with changed text as shown below:

a) ~~Maximum voltage of power supply 42 volts off load.~~ **Maximum voltage of power supply 27 volts off load**

b) ~~Minimum total projected area 5 dm2~~. **Minimum total projected area 6 dm2**

c) ~~Maximum loading 100g/dm2.~~

d) Maximum weight, **including battery - (ies)** ~~600 g~~.**700 g**

Reason: The current rule for F2G does not fully serve its intended purpose of attracting new entry-level flyers. Consequently, the growth of participants is slow. Contributing to improvement, SUI suggests adjusting the rules in order to make F2G easier to build and safer to fly.

Reduction of max. voltage
As the use of batteries with more than 6 cells impractical, the rule shall support the use of commercially available max. 6-cell batteries. Advanced technology Lipo high-voltage batteries with 4.35 V per cell, i.e. 26.1 V fully charged, are now available.

Weight limit up to 700 Grams

A typical F2G power train weighs approx. 75 % of the total weight permitted. Building a fuselage structure solid enough to withstand today's (and possibly tomorrow's) forces within the current weight limit is a serious challenge, very difficult to master by even expert builders, not to speak of the target group of F2G, entry level-speed flyers. In SUI, several incidents where fuselages disintegrated in flight have alerted the community and we therefore consider the current 600 Gr weight limit for F2G as a critical safety risk.

Minimum Area 6 dm^2

To improve flyability at take-off.

Lines load

Following the setting in force of 17.69 metres flight radius by Jan. 1st 2017, the load will be reduced by approx. 10%. At 700 Grams max. weight we consider the strength of Music Spring Steel Wire "Röslau-Extra-Extra" 0.4 mm lines as being safe for speeds of up to 300 Km/h.

Volume F3 Aerobatics begins overleaf

14.8 Section 4C Volume F3 - RC Aerobatics

F3A

a) 5.1.2 General Characteristics of Radio Controlled Aerobatic Power Models
USA

Modify the following section b) as outlined below:

b) Propulsion device limitations: Any suitable propulsion device may be utilised. Propulsion devices that are not permitted are those requiring solid expendable propellants, gaseous fuels (at room temperature and atmospheric pressure), or liquefied gaseous fuels. Electric powered model aircraft are limited to a maximum of ~~42.56~~ **51.072** volts for the propulsion circuit, measured off load, and prior to flight while the competitor is in the ready box.

Reason: Running 12s significantly lowers the amperage draw required to deliver the same wattage to the system. Doing so decreases the role that resistance plays in the system and this will reduce heat significantly, increase efficiency, and reduce the wear, and likelihood of failure.

The complexity of the manoeuvres has been increasing steadily over the past several years and we've already noticed that competitors that use electric motors are at a disadvantage toward the end of a sequence especially during windy conditions when an increase in power is needed in order to fly the plane. Increasing the voltage will allow competitors to use 12 cell packs with lower mAH resulting in less of a power loss during the sequence. Competitors that do not use electric power maintain their power consistency throughout the flight without experiencing any decrease in power.

F3C has moved to 12s battery packs already since they were facing the same/similar issues that F3A has with regard to the complexity of the manoeuvers and the amount of amperage drawn during the flight.

b) 5.1.2 General Characteristics of Radio Controlled Aerobatic Power Models
United Kingdom

Amend the paragraphs e) and g) as shown below:

e) The maximum sound/noise level of the model aircraft and its propulsion device, shall be 94 dB(A) measured at 3m from the centre line of the model aircraft with the model aircraft placed on the ground over concrete, macadam, grass, or bare earth at the flight line. **The test shall be carried out with a sound level meter (SLM) complying with IEC 61672 Class 2, or IEC 60651 Type 2.**

g) With the propulsion device running at full power, the measurement will be taken 90 degrees on the right-hand side, with the nose of the model pointing into wind. The ~~Class 1~~ SLM ~~(sound level meter)~~ microphone shall be placed on a stand 30cm above the ground in line with the propulsion device.

Reason: The cost of providing 1 meter with a backup (or 2 for World Championships) Class 1 or Type 1 sound level meters is costly for the hosts.

Class 2 or Type 2 meters are sufficiently accurate for our purposes.

With new technology a modern certified Class 2 or Type 2 meter is arguably as good as an older Class 1 or Type 1 sound level meter.

Countries NAC may find it difficult to fund Class 1 meters.

Due to the cost F3A pilots may not be able to test models for noise level prior to arriving at competitions.

c) 5.1.2 General Characteristics of Radio Controlled Aerobatic Models
F3 Aero Subcommittee

Add text to paragraph h) as follows:

h) Radio equipment shall be of the open loop type (ie no electronic feedback from the model aircraft to the ground except for the stipulations in CIAM General Rules C.16.2.3). Auto-pilot control utilising inertia, gravity or any type of terrestrial **or non-terrestrial** reference is prohibited. Automatic control sequencing (pre-programming) or automatic control timing devices are prohibited.

Reason: To explicitly exclude model aircraft control i.e. by satellite guidance.

d) 5.1.3 Definition and Number of Helpers **USA**

Add text to the title of the section and a new paragraph before the existing paragraph as follows:

5.1.3. Definition of a Team and Number of Helpers

An aerobatics team from a country shall:

a) Consist of no more than three pilots and three callers plus a junior pilot and their caller. The caller for a pilot may be the team manager, another competitor from the same national team or a third party. In all cases the caller must be the holder of an FAI license, not necessarily issued by the NAC of the pilot, and must have paid a helper entry fee.

b) Each pilot and their caller shall be registered as a team from the beginning of the competition through to its end.

c) Not withstanding b) above, the pilot or caller from one team may act as the caller in one or more of the maximum of four teams permitted in a national team (this includes the junior pilot). However, once registered, pilot/caller roles may not be interchanged in a team nor may a caller registered with one national team act as a caller for any other national team. The only exception to this rule is if the designated caller for a pilot is unable to fulfill those duties during the competition because of illness or other valid reason.

A helper may be a Team Manager, another competitor, or an officially registered supporter. Each competitor is permitted one helper (usually the caller) during the flight. Two helpers may be present and assist during the starting of the motor(s). …

Reason: The caller/helper for a pilot in an aerobatic event has become an integral part of the team and the pilot is extremely reliant on the caller/helper to call out the manoeuvres so that the pilot can perform them correctly. The pilot has trained with the caller/helper and as such the caller/helper should be integrated into the team.

Some NAC's help fund their World Championship teams by funding the team members and team manager. If the caller is included as part of the team, then this will allow the NAC to fund their participation as well and will alleviate some of the costs incurred by the team.

F3D has embraced the caller as part of the team now for a number of years and provides the same level of assistance to the pilot as an F3 aerobatics caller would for their respective pilot.

e) 5.1.8 Marking **F3 Aero Subcommittee**

Amend sub-paragraph 5.1.8 b) with the deletion and addition of text as follows:

b) Each manoeuvre may be awarded marks, ~~in whole numbers, between 10 and 0~~ by each of the judges during the flight. **Every manoeuvre starts with the mark of 10 points and will be downgraded for each defect during the execution of the manoeuvre in one or multiple 0.5 point steps, depending on the severity of the defect. The remaining points result in the mark for the manoeuvre.** During tabulation, these marks are multiplied by a coefficient (K-Factor) which relates to the difficulty of the manoeuvre.

Reason: To emphasize the downgrading method in scoring and to enable judges more graduated=fairer scoring of manoeuvres in a wider spread score range. In conjunction with available electronic data capture devices, costly scribes may be replaced, as well as instant data processing for public relation purposes etc. are possible.

Alternatively the Subcommitttee discussed downgrading steps in 0.5 increments, but with the resulting mark uprounded to a full number. 5 votes were for and 12 votes against this in an exact reversal as stated here above. Consequently all 17 votes cast were in favor of 0.5 increments, but the majority did not want the resulting mark to be uprounded to a full number.

f) 5.1.9. Classification **F3 Aero Subcommittee**

Amend sub-paragraph 5.1.9 a) with the addition of text as follows:

a) For World and Continental Championships, each competitor will have four preliminary (Schedule P) flights, with the best three normalised scores counting to determine the preliminary ranking. The top half, but not more than 30 competitors, will then have two additional semi-final flights flying the known finals schedule. The total of the best three preliminary flights (normalised again to 1000 points) will count as one score along with the two semi-finals scores to provide three scores, the best two to count for semi-finals classification. **In the event of adverse weather where flying of all rounds is not possible the classification would be determined on rounds completed as follows: Preliminaries: one round=one flight counts, two rounds= best one flight**

counts, three rounds= best two flights count.
Semifinals: one round=the total of the counting preliminary flights (normalised again to 1000 points) with the one semifinals flight count.
Finals: one round=one flight counts, two rounds=two flights count, three rounds, best one flight out of first and third round with flight of second round count.

Reason: To add appropriate procedures for semifinals and finals.

g) 5.1.9. Classification F3 Aero Subcommittee

Amend sub-paragraph 5.1.9 c) with the addition of text as follows:

c) The team classification is established at the end of the competition (after the finals) by adding the numerical final placing of the best three team members of each nation. Teams are ranked from the lowest numerical scores to the highest, with complete three-competitor teams, ahead of two-competitor teams, which in turn are ranked ahead of one-competitor teams. In the case of a tie, the best individual placing decides the team ranking. **All competitors matching the junior definition as per CIAM General Rules C.15.6.1 are ranked in an additional junior classification.**

Reason: To add our junior classification to the rules as practised.

h) 5.1.9. Classification F3 Aero Subcommittee

Amend sub-paragraph 5.1.9 d) with the addition of text as follows:

d) For World and Continental Championships, the scores for all rounds, preliminary, semi-finals and finals, will be computed using the Tarasov-Bauer-Long (TBL) statistical averaging scoring system. Only computer tabulation systems containing the TBL algorithm and judge analysis programs that have been Subcommittee approved can be used at World and Continental Championships. **To be eligible for approval a computer tabulation system has to deliver in traceable test runs copies of the official results of one World Championship and one European Championship held within the previous five years at the date of application.**

Reason: To add an appropriate procedure for the approval of computer tabulation systems.

i) 5.1.9. Classification F3 Aero Subcommittee

Amend sub-paragraph 5.1.9 e) with the deletion and addition of text as follows:

e) All scores for each round, preliminary, semi-final and finals, will then be normalised as follows. ~~When all competitors have flown~~ **The average score of the top half of competitors flown** in front of a particular group of judges (ie a round) ~~the highest score~~ shall be awarded 1000 points. The remaining scores for that group of judges are ~~then~~ normalised to a percentage of the 1000 points in the ratio of actual score over **this average score** winner's score.

SW = **average** score of **top half of competitors** ~~winner~~ of round

Reason: The current system sets the highest score of a round to 1000 normalized points. Effectively only this one competitor's performance acts as a reference for the scores of all other competitors. Experience tells that this can be unfair in cases there is ie. a larger gap between the highest score and the following ones etc. By that it can happen that other competitors' best scored flights in a competition would be discarded for the final result or a winner of a competition would be found even before the final rounds are flown, etc. With the normalization method proposed the reference for all competitors is the average of the performance of the top half of competitors per round which delivers a more fairly levelled relation of their score differences. Good competitors get near 1000 points, while the best ones achieve points above 1000, others below 1000. As another consequence, competitions get more thrilling, because the 1000 point reference won't be determined already when the best competitor has finished his flight in a round. The latter fact is very important to boost the desired public relation of our sport. For that purpose scoring systems should be programmed in a way that they instantly calculate and display each momentarily normalised result after every score flight performed, saying to currently determine the (flowing) average score of the top half of competitors and normalising all scores captured after every single score flight.

j) 5.1.9. Classification **F3 Aero Subcommittee**

Delete sub-paragraph 5.1.9 f) as shown:

~~f) In the event of adverse weather conditions where no further flying is possible, the preliminary classification may be determined as follows:~~
~~One round/flight completed by each competitor: round/flight to count~~
~~Two rounds/flights completed by each competitor: best round/flight to count~~
~~Three rounds/flights completed by each competitor: best two rounds/flights to count~~
~~Four rounds/flights completed by each competitor: best three rounds/flights to count.~~

Reason: Now covered in 5.1.9 a).

k) 5.1.10. Judging **USA**

Modify the following sections as outlined below:

a) For a World or Continental Championship with more than 80 competitors, the organiser must appoint four panels of **four** ~~five~~ judges each (a total of **sixteen** ~~twenty~~ judges). The judges must be of different nationalities. Those selected must reflect the approximate geographical distribution of teams participating in the previous World Championship with the final list approved by the CIAM Bureau. At least one third, but not more than two thirds of the judges must not have judged at the previous World Championship. Judge assignment to the four panels will be by random draw.

c) For the semi-final rounds of a World Championship the judges will be arranged in two groups of **eight** ~~ten~~ judges. Assignment to the two groups will be by random draw.

i) For the final rounds of a World or Continental Championship with more than 80 competitors, the **sixteen** ~~twenty~~ judges will be arranged in three groups, a left hand group of five judges to judge only the left turn-around manoeuvres, a centre group of **six** ~~ten~~ judges to judge only the centre manoeuvres and a right hand group of five judges to judge only the right turn-around manoeuvres. Judge assignments to the three groups will be by random draw for rounds one and two (one known and one unknown round) with a second draw for rounds three and four, except a judge will not serve in the same group as in the previous draw. For each competitor, the score from the three groups (following TBL computation) will be combined for a total score for the flight.

Reason: The cost of hosting a World or Continental Championship has become prohibitively expensive especially when the hosting country is located a long distance (for than 5000km) from the majority of the judges pool (Europe). The cost of bringing in judges via airline can range from $1500 to $1800 each and then the cost of the accommodation and food costs per judge can easily exceed $170 per day. By changing the number of judges from 20 to 16, an organizer can save about $13000 at a minimum for the event. This can make a difference between breaking even in actual costs and losing money on the event. In 2011, the total airfare costs for the judges was $26500 averaging $1325 per ticket. Costs have increased since then where a roundtrip ticket would average closer to $1800.

l) 5.1.11. Organisation for Radio Control Aerobatics Contests F3 Aero S-C

Amend sub-paragraphs 5.1.11 b), c), h) as follows:

b) **Only spread spectrum radio control systems are allowed.** ~~For transmitter and FM frequency control see CIAM General Rules, paragraph C.16.2.~~

c) The draw for flight order will be done for each flight line, ~~so that FM frequencies are separated with two competitors in between.~~ Team members will not be...

h) ~~If the FM frequency is clear the competitor or his team manager will be allowed to collect the FM transmitter from the transmitter pound.~~ The competitor and his helper(s) then occupy the starting area so that a radio check can be performed to verify the correct functioning of the radio control equipment. ~~If there is a FM frequency conflict,~~ the competitor must be allowed a maximum of one minute for a radio check before the beginning of the starting time.

Reason: FM radio systems have not been used anymore for some time, and for safety reasons should be banned from now on. Also, it exempts organizers to eventually provide some transmitter impound and according personal.

m) 5.1.13. Schedule of Manoeuvres F3 Aero Subcommittee

Change wording as follows, delete obsolete schedule A-16, add new schedule A-20:

~~For 2015-2016 Schedule A-16 is recommended to be flown in local competitions so as to offer advanced pilots a suitable way to achieve skills to step-up to P-17 Schedules.~~

For 2017-2018 Schedule A-18 is recommended to be flown in local competitions so as to offer advanced pilots a suitable way to achieve skills to step-up to P-19 Schedules.
For 2019-2020 Schedule A-20 is recommended to be flown in local competitions so as to offer advanced pilots a suitable way to achieve skills to step-up to P-21 Schedules.

ADVANCED SCHEDULE A-20 (2019-2020)	**K-Factor**
A-20.01 Vertical 8	**K 3**
A-20.02 Stall Turn with consecutive two ¼ rolls	**K 3**
A-20.03 Square Loop on Corner	**K 4**
A-20.04 Figure 9	**K 3**
A-20.05 Knife-Edge flight with ¼ roll, ¼ roll	**K 5**
A-20.06 Inverted Split S with ½ roll	**K 2**
A-20.07 Golf Ball	**K 5**
A-20.08 Shark Fin with ½ roll	**K 3**
A-20.09 Double Immelman with ½ roll, ½ roll, ½ roll	**K 5**
A-20.10 Push-Push-Push Humpty-Bump with ½ roll (Option: with ¾ roll, ¼ roll)	**K 3**
A-20.11 Roll	**K 4**
A-20.12 Top Hat with spin	**K 4**
A-20.13 Figure Z	**K 4**
A-20.14 Comet with ½ roll	**K 3**
A-20.15 Roll Combination with consecutive two ½ rolls	**K 3**
A-20.16 Half Square Loop on Corner	**K 2**
A-20.17 Avalanche	**K 4**
	Total K =60

Reason: F3A schedules change every two years.

n) 5.1.13. Schedule of Manoeuvres **F3 Aero Subcommittee**

Change wording as follows, delete obsolete schedule P-17, add new schedule P-21.

~~For 2016-2017 Schedule P-17 will be flown in the preliminaries.~~
For 2018-2019 Schedule P-19 will be flown in the preliminaries. Schedule F-19 will be flown in the semi-finals, as well as in the finals, alternating with unknown schedules.
For 2020-2021 Schedule P-21 will be flown in the preliminaries.

PRELIMINARY SCHEDULE P-21 (2020-2021)	**K-Factor**
P-21.01 Vertical 8 with ½ roll, ½ roll	**K 3**
P-21.02 Stall Turn with consecutive two ¼ rolls	**K 3**
P-21.03 Square Loop on Corner with ½ roll, ½ roll	**K 4**
P-21.04 Figure 9 with consecutive two ½ rolls in opposite directions	**K 3**
P-21.05 Knife-Edge flight with consec. ¼ , ½ roll in opposite directions, consec. ½ , ¼ roll in opposite directions	**K 5**
P-21.06 Inverted Split S with consecutive two ½ rolls	**K 2**
P-21.07 Golf Ball with ½ roll integrated	**K 5**
P-21.08 Shark Fin with consecutive two ¼ rolls	**K 3**
P-21.09 Double Immelman with ½ roll, consecutive four 1/8 rolls, ½ roll	**K 5**

P-21.10 Push-Push-Push Humpty-Bump with ½ roll (Option: with ¾ roll, ¼ roll) K 3
P-21.11 Roll Combination with consecutive ½ roll, roll, ½ roll in opposite directions K 4
P-21.12 Top Hat with ½ roll, inverted spin (Option: with ¼ roll, ¼ roll) K 4
P-21.13 Figure Z with roll K 4
P-21.14 Comet with consecutive two ¼ rolls in opposite directions, ½ roll K 3
P-21.15 Roll Combination with consecutive four ¼ rolls K 3
P-21.16 Half Square Loop on Corner with ¼ roll, ¼ roll K 2
P-21.17 Avalanche K 4
Total K = 60

Reason: F3A schedules change every two years.

o) 5.1.13. Schedule of Manoeuvres F3 Aero Subcommittee

Change wording as follows, delete obsolete schedule F-17, add new schedule F-21.

~~For 2016- 2017...Schedule F-17 will be flown in the semi-finals, as well as in the finals, alternating with unknown schedules.~~
For 2018-2019 Schedule P-19 will be flown in the preliminaries. Schedule F-19 will be flown in the semi-finals, as well as in the finals, alternating with unknown schedules.
For 2020-2021 ...Schedule F-21 will be flown in the semi-finals, as well as in the finals, alternating with unknown schedules.

FINALS SCHEDULE F-21 (2020 – 2021) K-Factor
F-21.01 Golf Ball with ¾ roll, snap roll, ¾ roll K 4
F-21.02 Half Reverse Cuban 8 with consecutive three ¼ rolls, with the third in opposite direction, ¾ roll K 3
F-21.03 Horizontal Circle with two ½ rolls opposite in opposite directions integrated K 4
F-21.04 Top Hat with consecutive three ¼ rolls, ¾ snap-roll K 4
F-21.05 Pull-Push-Push Humpty-Bump, ¼ roll integrated, roll, consecutive two ½ rolls in opp. Dir., ¼ roll integr. K 5
F-21.06 Three Quarter Vertical 8 with ½ roll integrated K 4
F-21.07 Stall-Turn with consecutive ¼ , ½ rolls, ¾ roll K 4
F-21.08 Figure 9 with 1 ½ snap-roll K 4
F-21.09 Top-hat with ¾ roll, roll, ¼ roll K 6
F-21.10 Half Square Loop with ½ roll, consecutive ½ roll, roll K 3
F-21.11 45° Downline with ¼ roll, consecutive two snap-rolls in opposite directions, ¼ roll K 6
F-21.12 Half 8-sided Loop with ½ roll, ½ roll K 3
F-21.13 Loop with consecutive two rolls in opposite directions integrated K 5
F-21.14 Spin with 2 ½ turns K 3
F-21.15 Roll Combination with consecutive 1/2 roll, four ¼ rolls in opposite direction, ½ roll in opposite direction. K 3
F-21.16 Fighter turn, ¾ roll, ¾ snap-roll. K 4
F-21.17 Horizontal Square Circle with ¼ roll, ½ roll, ½ roll, ½ roll, ¼ roll K 5
Total K = 70

Reason: F3A schedules change every two years.

p) ANNEX 5A - Description of F3A Manoeuvres F3 Aero Subcommittee

*Delete the existing schedules A-16, P-17, and F-17 and replace with A-20, P-21 and F-21. Refer to Agenda **Annex 7c**.*

Reason: F3A schedules change every two years.

q) Annex 5B.2 General USA

Replace wording as follows below:

The flight path of a model aircraft is used to judge the shape of all manoeuvres, and manoeuvres must be entered and exited with straight and level upright or inverted flight of recognisable length. Centre manoeuvres start and finish on the same heading, while turn-around manoeuvres finish on a **track** ~~heading~~ 180 degrees **from the** ~~to~~ entry. When appropriate, entry and exit of centre manoeuvres must be at the same altitude, unless specified otherwise. Positioning adjustments in altitude are allowed in turn-around manoeuvres.

Reason: Wind correction during the entry and exit lines of a turn-around manoeuvre, especially in cross wind situations, the “heading” of the plane on exit will not be 180 degrees from the entry. By using track instead of heading, the clarification makes the statement of 180 degrees accurate. In a cross-wind situation if the pilot crabs 15 degrees into the wind and is flying due south (180 degrees) on entry into the turn-around, the aircraft heading will either be 165 degrees or 195 degrees depending on which way the cross wind is blowing, and on exit flying due north, the plane will head either in the 345 degrees heading or 015 degrees heading. So the correct terminology to use is the aircraft “track” not its heading.

r) Annex 5B.4. Principles F3 Aero Subcommittee

Change percentages as shown below:

1. Geometrical accuracy of the manoeuvre; (weighting approximately **60** ~~50~~%).
2. Smoothness and gracefulness of the manoeuvre; (weighting approximately **20** ~~25~~%).
3. Positioning of the manoeuvre within the manoeuvring zone; (weighting approx. **10** ~~12,5~~%).
4. Size of the manoeuvre; (weighting approximately **10** ~~12,5~~%).
5. Proportion of the manoeuvre outside of the manoeuvring zone (in addition to the above).

Reason: Geometrical accuracy is the fairest and most objective principle in judging aerobatic manoeuvres and therefore should get a higher weight.

s) Annex 5B.5. Downgrading System for Judging Manoeuvres F3 Aero S-C

Modify the paragraph as shown below:

cont/:

Every manoeuvre starts with the mark of 10 points and will be downgraded for each defect during the execution of the manoeuvre in one or multiple 0.5 point steps, depending on the severity of the defect. The remaining points result in the mark for the manoeuvre. ~~Each judge gives a mark for each manoeuvre during a flight. Assuming the highest mark 10 at the start of each manoeuvre, every defect is subject to downgrade of the mark in whole numbers~~. A high score should remain only if no substantial, severe or multiple defects are found. **A mark resulting from downgrading steps must not be upgraded again in any case, ie. because the manoeuvre contained „something nice".**

Reason: Consequence of rule 5.1.8 b).

t) Annex 5B.5. Downgrading System for Judging Manoeuvres France

Modify the second last sentence as shown:

Each judge gives a mark for each manoeuvre during a flight. Assuming the highest mark 10 at the start of each manoeuvre, every defect is subject to downgrade of the mark in whole numbers (or in half numbers for slight defects~~, but in sum resulting in up-rounded whole numbers~~). **When half number downgrade is used, the mark of the manoeuvre is up rounded to a whole number.** A high score should remain only if no substantial, severe or multiple defects are found.

Reason: Clarification of the way to round the note of a manoeuvre if using the possibility to downgrade the mark with half number.

u) Annex 5B.8.2-11. Geometrical Accuracy of the Manoeuvre F3 Aero S-C

Annex 5B.10. Positioning of the Manoeuvre within the Manoeuvring Zone

Amend sub-paragraphs 5B.8.2-11 and paragraph 5B.10. as shown in Agenda ***Annex 7d****:*

Reason: Consequence of rule 5.1.8 b).

v) Annex 5B.8.4 Loops USA

Modify the wording in the second sub-paragraph as follows:

Loops and part-loops within one manoeuvre must have the same radius. Each occurrence of a slight difference in radius must downgrade the manoeuvre by 1 point, while more severe deviations may downgrade it by 2 or 3 points for each occurrence. ~~The radius of the first loop or part-loop, determines the radii of subsequent loops or part-loops within one manoeuvre.~~ **The first radius of a manoeuvre does not define the radii for the remaining radii of a manoeuvre but it is a starting point. As the manoeuvre progresses, the judge will compare each radius that was just flown to the last radius flown and if there is a difference, then a downgrade will be given based on the severity of the difference.**

Reason: It is very difficult for a judge to remember the size of the initial radius (first) on a manoeuvre that has multiple radii and to evaluate them for the correct size. By

comparing the just flown radius to the radius prior is a much easier reference point for the judge and will allow them to accurately assess the radius to ensure it is identical in size to the prior one. For example, in a square loop, the first radius flown will be compared to the second radius only. If the first and second radii are different a downgrade is applied. The third radius flown is then compared to the second radius and if it is the same then no additional downgrade is applied. The fourth radius flown is then compared to the third radius and if different then a downgrade is applied, otherwise no downgrade is given.

Now compare the situation in the current P-17 sequence where there is a six-sided loop. The judge will have to make an evaluation after every radius to compare it to the first one and to make a deduction or not. If the rule is modified, then the judge compares the just flown radius with the one prior and makes a deduction (or not).

w) Annex 5B.8.5 Rolls **USA**

Add the following text:

If there are roll combinations with relevant roll directions, the manoeuvre description will state if rolls go in opposite directions. If the description does not state opposite roll directions, then rolls must go in the same direction.

Reason: To provide clear clarification on how to judge roll combinations when the manoeuver description does not state roll direction.

Technical Secretary Note: *Direction is needed from the Technical Meeting regarding how this paragraph is to be incorporated with the final paragraph of this section.*

x) Annex 5B.8.11 Stall-Turns **F3 Aero Subcommittee**

Add the following text to the sentence indicated below:

…If the model aircraft shows a pendulum movement after the pivot, the manoeuvre is downgraded by 1 point. Similarly, if the model aircraft should “skid” **or not stop** before reaching the stall turn…

Reason: Addressing a missing „stop“.

y) Annex 5B.13 Examples **F3 Aero Subcommittee**

Amend the various sub-paragraphs in 5B.13. as shown in Agenda ***Annex 7e****:*

Reason: Consequence of rule 5.1.8 b).

z) Annex 5N.3. Contests **F3 Aero Subcommittee**

Add the following text where indicated:

d) rounds should be organised in one of the following combinations, while rounds of F-Schedules may be run for a limited number of competitors only as a "fly-off" :
- Three rounds of P-Schedule with the best two flights counting

- Two rounds of P-Schedule with the best one flight plus one round of F-Schedule counting
-Three rounds of P-Schedule with the best two flights plus one round of F-Schedule counting

P- and F-Schedules must be performed in full, 17 manoeuvres each

e) rounds scheduled have to be published in Bulletins and all rounds completed have to count for the only one overall result of each World Cup competition".

Reason: Results of the various World Cup contests should be as comparable as possible for the overall summarized result at the season's end. Therefore a systemized round organization should be introduced.

aa) Annex 5N.4. Points Allocation **F3 Aero Subcommittee**

Modify the following text as shown:

The points to be allocated to competitors will depend on the number (N) of competitors who have completed at least one flight in the event with a normalised result of minimum 750.00 points.

They ~~Points~~ are allocated ~~to competitors who have completed at least one flight in the event,~~ according to their placing in the results, as given in the following tables.

Reason: Simplified wording.

F3P – Radio Control Indoor Aerobatic Aircraft

ab) Schedule F3P-AFM **Poland**

New provisional status is proposed:

Remove the subclass F3P-AFM from the class F3P rules and confer a new provisional status marked for instance F3E or F3G with the name Indoor Flying to Music Power Model Aircraft. We propose this move to correspond to the situation in the classes F3C (Aerobatic) and F3N (Freestyle) for model helicopters.

Reason: Many potential competitors are very interested in Indoor Flying to the Music and so in future this standalone "new class" can get the first class status. The provisions enclosed in existing Sporting Code are not optimal. Attending in the F3P-AFM subclass do no effect with the results at all. **This subclass seems to be "sports dead" if it stays a part of the F3P class.** We can observe increasing numbers of competitions for RC indoor models in Europe with running Aerobatics and Flying to Music. The visitors and the media very like the indoor freestyle and music and we have a duty to fully connect it with the sport. This proposal will significantly contribute a development of an Indoor Aeromodelling generally.

Technical Secretary Note: *Direction was requested by Poland regarding how this proposal might be actioned if accepted in principle. The proposed name for the new provisional class would need to adhere to the current naming of classes scheme.*

ac) 5.9.11. Organisation for R/C Indoor Aerobatic Contests **F3 Aero S-C**

Change wording with deletions as follows:

~~If his FM frequency is clear~~ the competitor ~~will be given his FM transmitter when he~~ occupies the starting area so that he can perform a radio check. ~~If there is a FM frequency conflict~~ he must be allowed a maximum of one (1) minute...

Reason: As the consequence of rule change 5.1.11 b).

ad) 5.9.13. Schedule of Manoeuvres **F3 Aero Subcommittee**

Add the following text:

ADVANCED SCHEDULE AA-17 (2016-2017, **2018-2019**)

PRELIMINARY SCHEDULE AP-17 (2016-2017, **2018-2019**)

FINAL SCHEDULE AF-17 2016-2017, **2018-2019**)

Reason: Validity of schedules has to be extended for another two years.

ae) Annex 5M Description of Manoeuvres **F3 Aero Subcommittee**

Add the following text:

(2016-2017**, 2018-2019**)

Reason: Validity of schedules has to be extended for another two years.

F3M – Radio Controlled Large Aerobatic Aircraft

af) 5.10.14 b) Sequences of figures **Bureau**

Change the wording with the addition of text as follows:

The **~~K~~known** sequence**s (Unlimited and Unlimited Alternate)** ~~is~~ **are** valid for a one year period.

They are sourced from the International Miniature Aerobatic Club (IMAC) and will be published on CIAM website as soon as possible. They will be effective 1st January of the year.

Unlimited Alternate sequence is used when the local airfield has restricted aerobatic airspace on Y axis.

The organiser must inform the competitors before the competition which known sequence will be flown.

Reason: Introduction of paragraph 5.10 mentions: “The rules which follow contain material sourced from the AMA Scale Aerobatics Rulebook (2015) and the Known and Unknown Sequences. Permission has been granted to use this material by the International Miniature Aerobatic Club (IMAC).”

The known sequences are changed by IMAC every year and are normally available before the end of the preceding year.

To fly same known sequences both in IMAC and F3M events, it is necessary to publish on the CIAM website the known sequences as soon as they are available from IMAC. So, it is not appropriate to continue to include them in the Volume F3 R/C Aerobatics.

This clarification must be effective 1st January 2017 if possible in order to fly the same known sequences in 2017 both in IMAC and F3M events.

ag) 5.10.14 h) Sequences of figures **Bureau**

Remove paragraph 5.10.14 h):

~~The known sequences with form A: Score sheet, B and C: Wind directions are given at Annex 5L.~~

Reason: According to proposal on paragraph 5.10.14 b) known sequences (Unlimited and Unlimited alternate) will be published on the CIAM website and no more included in the Volume F3 R/C Aerobatics.

This clarification must be effective 1st January 2017 if possible as consequence of proposal paragraph 5.10.14.b.

ah) Annex 5L F3M Known Sequences **Bureau**

Remove Annex 5L:

Reason: According to proposal on paragraph 5.10.14 b) known sequences (Unlimited and Unlimited alternate) will be published on the CIAM website and no more included in the Volume F3 R/C Aerobatics.

This clarification must be effective 1st January 2017 if possible as consequence of proposal paragraph 5.10.14.b.

ai) F3M Radio Controlled Large Aerobatic Aircraft **Bureau**

*For information, please refer to Agenda **Annex 7f** for the 2017 Known Sequences.*

F3S – Radio Controlled Aerobatic Jet Model Aircraft

aj) 5.12.13 Schedule of Manoeuvres **F3 Aero Subcommittee**

Add the following text:

Schedule S-15 (2011-2015, 2016-2017, **2018-2019**)

Reason: Validity of the schedule has to be extended for another two years.

Volume F3 Helicopter begins overleaf

14.9 Section 4C Volume F3 - Helicopter

F3C

a) 5.4.8 Number of flights. Need also to adapt 5.4.11 Switzerland

*Modify both paragraphs in order to reflect a new, more attractive flight mode for continental and world championships. Please refer to Agenda **Annex 7g** for a detailed schedule as envisioned for F3C EC 2018 and WC 2019.*

At Continental and World Championships, each competitor is entitled to four (4) official preliminary flights. After completion of the preliminary flights the top ~~15~~ **24 / 48 pilots (continental championships with 1 contest area / world championships with 2 contest areas)** are entitled to ~~three fly-off~~ **four semi-final** flights. **After completion of the semi-final flights the top 15 pilots are entitled to three final flights**. At national and Open International Competitions the preliminary/~~fly-off~~ **semi-final/final** system is not mandatory.

Reason: In order to make a F3C Continental or World Championship more attractive for the pilots having an average ranking we suggest a new execution mode with an additional semi-final. With this mode more pilots could be motivated to participate at a Continental or World Championship. The bigger the participants field, the more the (financial) interest of the organizer grows.

b) 5D.2 Schedule P, P2 CUP F3 Heli Subcommittee

Change Judging criteria as shown:

P2: Cup (UU) K=1.5

MA takes off vertically from the helipad and ascends to 2 m while performing simultaneously a 180° pirouette. It hovers there for at least 2 seconds, ascends flying backwards describing the lower left **(right)** quarter of a circle with 5 m radius while simultaneously performing a 180° pirouette in any direction, stops over the flag for at least 2 seconds, hovers to the other flag while simultaneously performing two ~~360°~~ **180°** pirouettes that are in opposite direction, stops and hovers over the flag for at least 2 seconds, descends describing the lower right **(left)** quarter of a circle with 5 m radius while simultaneously performing a 180° pirouette in any direction, stops over the centre line for at least 2 seconds, descends and lands into the helipad while simultaneously performing a 180° pirouette in any direction.

Note 1: The change of the pirouettes direction must be done smoothly on the centre line.

Reason: To make the manoeuvre according to the preliminary schedule.

c) Annex 5E.6.11 – F3C Judges' Guide F3 Heli Subcommittee

Change judging criteria:

Technical Secretary Note: *This 'autorotations' section was rewritten for clarification last year and early implementation was requested for 01/05/16.*

5E.6.11. AUTOROTATIONS

~~The autorotation begins when the helper announces the figure with „now“ and ends with the landing and the helper calling „finished“. The figure autorotation may contain additional manoeuvres.~~

~~The manoeuvre description must state clearly the moment when the engine has to be powered off or set to idle position. In order to obtain the maximum score of 10 points the MA must have executed the flying manoeuvres exactly as described in the manoeuvre description. The MA must land smoothly inside the 1 m circle, it must be parallel to the judges line and the engine has to be powered off or set to idle position.~~

~~Scoring:~~

~~Flying manoeuvres incl. smooth landing parallel to the judges line = max. 6 points~~

~~Scoring for the landing:~~

~~Rotor shaft is inside the 1 m circle = + 4 points~~

~~Rotor shaft points to the line of the circle= + 3 points~~

~~Rotor shaft is inside the 3 m circle= + 2 points~~

~~Rotor shaft points to the line of the 3 m circle= + 1 point~~

~~Rotor shaft is outside the 3 m circle. + 0 points~~

~~Note: If a flying manoeuvre is missed out or if the engine is not powered off (or not set to idle position), the score for the complete figure shall be zero.~~

An autorotation begins when MA crosses an imaginary plane that extends vertically upward from a line drawn from the centre judge out through the centre of the 1m helipad. MA must be in the autorotation state when it cuts this plane, the engine power must be reduced to idle (or off) at this point and the MA must be descending. During the manoeuvre, the forward speed and rate of descent should be constant, which means that the angle of the flight path is also constant. After landing the MA must be parallel to the judges' line. If the flight path is stretched, shortened or deviated from, to reach a circle the manoeuvre must be downgraded. The original flight path gives a basic maximum score according to the description and there will be additional downgrades of 1 or 2 points depending of the severity of the deviation. For example: If the flight path clearly points to a landing close to flag 1 (2) and the path is stretched to reach a circle, the score can only be a maximum of 6 (outside the circles) and there will be an additional downgrade of 2 points for the stretch, so the score can only be a maximum of 4. If the model lands without stretching, the maximum score would have been a 6. Therefore, stretching the flight path must never lead to a higher score.

Scoring criteria for Autorotation landings:

Landing gear inside 1m circle = Maximum 10 points.

Rotor shaft points to inside of 1m circle = Maximum 9 points.

Landing gear inside 3m circle = Maximum 8 points.

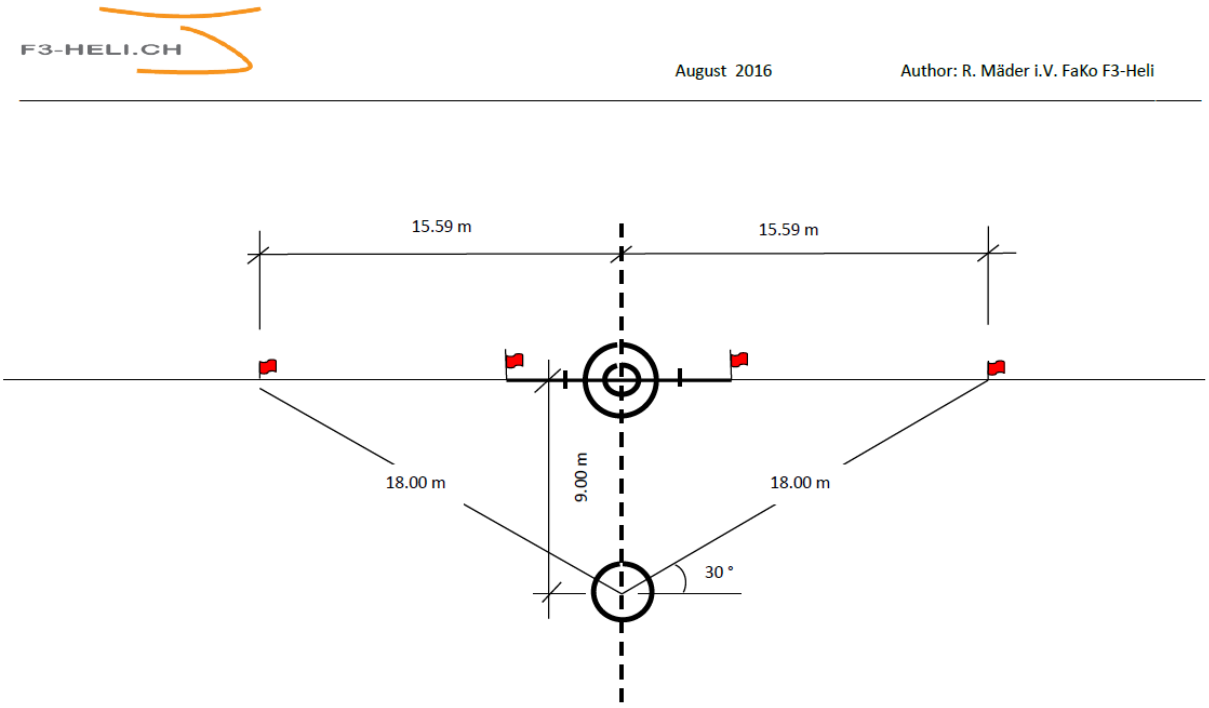
Rotor shaft points to inside of 3m circle = Maximum 7 points.

Rotor shaft points to outside of 3m circle = Maximum 6 points.

Reason: Clarification. The change of scoring of the autorotations revealed an unforeseen result of execution of these manoeuvres. Stretching and hard landing is not what we want to see in this manoeuvre.

d) Figure 5.4.A - F3C Contest Area Layout **Switzerland**

Figure 5.4.A is modified in order to reflect the suggested change (two additional flags to mark the 120 degree window for the pilot):



Marking the 120 ° sector for the pilot with flags

Note: The 120° sector for the judges is marked as in the past.

Reason: In order to have the pilot see the window in which he has to place his manoeuvres we suggest two additional flags (see drawing).

F3N

e) 5.11.6 - The Official Flight **F3 Heli Subcommittee**

Change text as shown below:

5.11.6 The Official Flight

There are three different flight programs: Set Manoeuvre flight, Freestyle flight and Music Freestyle flight. Before the flight the pilot has to be officially called. The MA can be flown or be carried to the flying area. ~~The Set Manoeuvre flights begin when the MA leaves the start box. The Freestyle flights begin with the announcement of the start.~~ **The flight time begins when the pilot or his helper gives a distinctive hand signal, and finishes with another distinctive hand signal.**

Reason: Clarification to unify all flight programs.

f) 5.11.9 Preparation Time **F3 Heli Subcommittee**

Change text as shown below:

Preparation Time: A competitor must be called at least 5 minutes before he is required to enter the start box. The MA may be hovered only up to 2m in the start box. After the preceding competitor has finished his flight, the competitor is given another minute (two minutes in Freestyle) to make last minute adjustments or checks~~, and then his flight time starts~~.

~~If the model leaves the start box earlier the flight time starts at that moment.~~

Reason: Clarification to unify all flight programs.

g) Annex 5F: F3N Set Manoeuvre Descriptions F3 Heli Subcommittee

*Change all the set manoeuvres with those as shown in Agenda **Annex 7h**:*

Reason: Changing manoeuvres and orders of the manoeuvres.

h) Annex 5F: F3N Set Manoeuvre Descriptions F3 Heli Subcommittee

Change text with immediate implementation:

~~**1.28 Duus Igglo K=9.5**~~

~~MA is hovering upright tail in on centre line. Model then performs half rainbow, while also doing fully integrated half pirouette. At top of rainbow model makes sharp quarter right aileron roll, and completes second half of the rainbow parallel with flight line while making another half pirouette. MA hovers upright shortly, now with boom parallel to flightline. Same sequence is then repeated another 3 times, until MA is back at starting point. Viewed from above the top of the half rainbows, the manoeuvre will look like a +.~~

1.28 Duus Iglo K=9.5

Viewed from above, the manoeuvre shows an X. The center point of the X is on the center line. MA enters in 1 of the 4 outer points in the X in upright hovering and boom pointing to center of X. Model then performs half pulled rainbow, while also doing an integrated half pirouette. Top of rainbow must be the center of the X. Here model makes sharp quarter aileron roll, and completes second half of the rainbow while making another integrated half pirouette until model hovers inverted shortly. The boom still points to center of the X, but now in another of the 4 outer points. Same sequence is then repeated 3 more times, until MA is back at starting point. Notice hovering is inverted after first and third sequence.

Reason: Rule change due to safety. **Implementation 2017.**

i) Annex 5G.8 - Criteria for Judging Freestyle and Music Freestyle F3 Heli Subcommittee

Change text as shown:

5G.8 CRITERIA FOR JUDGING FREESTYLE FLIGHT AND MUSIC FREESTYLE

For freestyle and music freestyle flights the entire flights will be judged according to the table below:

Criterion	Max Points Freestyle	Max Points Music Freestyle
Difficulty	~~60~~ **20 k=3**	~~40~~ **20 k=2**
Harmony	20 **k=1**	~~50~~ **20 k=2.5**
Creativity	20 **k=1**	~~50~~ **20 k=2.5**
Precision	~~60~~ **20 k=3**	~~40~~ **20 k=2**
Safe presentation	20 **k=1**	20 **k=1**

~~For both the Freestyle and Music Freestyle flights the judges can give up to the maximum points (for Freestyle - 60 for difficulty, 60 for precision and 20 for the other criteria).~~

~~For Music Freestyle only, the points for Difficulty are multiplied by a K-factor of 2/3 and the points for Harmony are each multiplied by a K-factor of 5/2. Creativity points are multiplied by a K-factor of 5/2.~~

~~For Precision the points are multiplied by a K-factor of 2/3 in music freestyle.~~

~~The scores are given after the flight for all five criteria. It is important, that the scores for each criterion reflect the entire flight, not only some details of the flight.~~

For freestyle and music freestyle flights the judges can give maximum 20 points to all criteria. The valence of each criterion is regulated by k-factors.

The scores are given after the flight for all five criteria. It is important, that the scores for each criterion reflect the entire flight, not only some details of the flight.

Reason: Further clarification.

j) Annex 5G.8.1 F3 Heli Subcommittee

Add text as shown:

5G.8.1 DIFFICULTY

This criterion evaluates the level of difficulty of the freestyle flight **and music freestyle flight**. It is important, that the entire flight is to be judged, not only some highlights. So the score reflects the average level of difficulty. The K-factors of the set manoeuvres may give some reference values for the difficulty, but during the calibration flights and by watching practice flights the judge should get a clear impression of the range of difficulties of possible manoeuvres. Risky manoeuvres should never be mistaken as difficult manoeuvres. Risky manoeuvres must not lead to higher scores for difficulty, but result in a downgrade for safety.

Reason: Clarification.

Volume F3 Pylon begins overleaf

14.10 Section 4C Volume F3 - Pylon

F3T – RC Semi-Scale Pylon Racing with Controlled Technology Aeroplanes

a) Annex 5.X – 5.X.4.2 Cross-sectional shape and features: **F3 Pylon Racing Subcommittee**

Replace sub-paragraph 5.X.4.2. c) with new text as shown:

(c~~) The front end of the fuselage shall be configured so that the engine head and cylinder protrude and are fully exposed for at least 19.0 mm, not including the glow plug, and the exhaust system which is fully exposed for its entire length. However, the fuselage may incorporate a shallow channel, dimple or trough to provide clearance for the exhaust system. In addition, the access hole for the engine crankcase and mounting lugs may be covered with a piece of fibreglass, Mylar, or other stiff material that restores the original contours of the fuselage in that area.~~

The front end of the fuselage shall be configured so that the engine head and cylinder protrude on all sides 1.94 inches (1-15/16”) above the centerline of the crankshaft of the engine, measured perpendicular to the plane of the engine mount flanges. The exhaust system is to be fully exposed to air for its entire length. However, the fuselage may incorporate a shallow channel, dimple or trough to provide clearance for the muffler. In addition, the access hole for the engine crankcase and mounting lugs may be covered with a piece of fiberglass, Mylar, or other stiff material that restores the original contours of the fuselage in that area, , as long as it adheres to the engine exposure requirement above.

Reason: The proposal is being made to dimension the fuselage height around the engine so that all approved engines will be legal in all approved airframes.

b) Annex 5.X – 5.X.6 Engine **F3 Pylon Racing Subcommittee**

Add to paragraph 5.X.6 an extra sub-paragraph at the end:

It is not allowed to have a system on board of the aircraft to supply power to the glow-plug of the engine. All electrical connections to the engine's glow plug from a power supply must be removed prior to takeoff.

Reason: Controlling this type of technology limits the potential power of the engine and reduces complexity.

Volume F3 Soaring begins overleaf

14.11 Section 4C Volume F3 - RC Soaring

F3B – RC Multi-Task Gliders

a) 5.3.1.3. Characteristics of Radio Controlled Gliders F3B **Germany**

Add a minimum wing-loading in line 3:

a) Maximum surface area	150 dm^2
Maximum flying mass	5 kg
Wing-Loading (including wing and elevator area)	**32 to** 75 g/dm^2
Minimum radius of fuselage nose template)	7.5 mm (see

Reason: By introducing the altimeter in Task A-Duration to make it more selective it is necessary to fix a minimum wing-loading to prevent models with significant less mass than nowadays because these models will become much more expensive. (example in class F5J with a minimum wing-loading of $12g/dm^2$)

The report “Duration task F3B is not selective enough” including some proposals who to save this problem which was posted some weeks ago to 150 F3B-pilots worldwide and to all members of the SC-soaring.

b) 5.3.1.7 Cancellation of a Flight and Disqualification **Germany**

Strike out and add some words in line 1 and 2; add some words in line 3 and 4; strike out line 4-7:

b) The flight in progress ~~will be penalised with 100 points~~ **is annulled and recorded as a zero score** if the model aircraft loses any part either during the launch, ~~or~~ the flight, except when this occurs as the result of a mid-air collision with another model aircraft or towline, **or during the landing** . ~~The loss of any part in a collision with another model aircraft or during landing (i.e. in contact with the ground) is not taken into account. The penalty of 100 points will be a deduction from the competitor’s final score and shall be listed on the score sheet of the round in which the penalisation was applied.~~

Reason: If a model loses any part during launch, flight should be penalized with a zero-score like in F3J (see 5.6.5.1.b)). For both classes this would be also necessary for the landing to try to reduce the “stick-landings”.

c) 5.3.1.11 Weather Conditions / Interruptions (new paragraph) **Germany**

Add a new paragraph:

5.3.1.11. Weather Conditions / Interruptions

a) The maximum wind speed for F3B contests is twelve (12) m/sec. The contest has to be interrupted or the start delayed by the contest director if

the wind speed exceeds twelve (12) m/sec measured three (3) times for at least twenty (20) seconds in a time interval of five (5) minutes two (2) metres above the ground at the start and landing area.

b) In the case of rain, the contest director can interrupt the contest during task A and task B. When the rain stops, the contest starts again with the group that was flying, which receives a re-flight.

c) In the case of rain, the contest director must interrupt the contest during task C. When the rain stops the contest start again with the pilot that was flying, which receives a re-flight.

The whole group of task C must be divided in three (3) or four (4) groups depending on the total number of competitors before the task starts. If the weather is stable only one group is evaluated; if the competition must be interrupted more than thirty (30) minutes than the interrupted group must start from the beginning and the results are evaluated for each group.

Reason: Especially for F3B the new paragraph 5.3.1.11. "Weather Conditions / Interruptions" is very important because there is a big difference at rainy weather between the tasks A/ B and task C.

The paragraph B.15.1.a) i) can stay as it is written but the special rules for the Soaring Classes are implemented to the specific rule in the rule book.

Technical Secretary Note: *Weather conditions/interruptions has been deleted from the CIAM GR volume for 2017.*

d) 5.3.2. Rules for Multi-task Contests **Germany**

Amend the sub-paragraph b) as shown below:

5.3.2.1. **Definition**
a)
b) The combination of task A, B and C constitutes a round. A minimum of ~~two rounds~~ **one (1) round and one (1) task must be flown that the competition is valid.** ~~Except at World and Continental Championships the last round may be incomplete, i.e. only one task or any combination of two tasks. In the case of a~~ **The result of a** World or **Continental** Championship~~s each competitor is entitled a minimum of five rounds subject to the provision of rule B.13, Section 4B.~~ **is valid if five (5) complete rounds are flown; if more than five (5) complete rounds are flown, see paragraph 5.3.2.8. Classification.** At the discretion of the ~~organiser~~ **contest director** any task may be flown first in a scheduled round.
c)

Reason: Two complete rounds are too much for big competitions and bad weather conditions; one round and one task are the right value. The minimum of five complete rounds should be also valid for a Continental Championship.

e) 5.3.2.3.b) Task A - Duration **Germany**

Add text in sub-paragraph 5.3.2.3.b) as follows:

5.3.2.3. **Task A - Duration**

a)

b) One point will be awarded for each full second from the time the model aircraft is free flying to the time the model aircraft comes to rest **on the defined flying site**, up to a maximum of 600 points (i.e. 10 minutes maximum), for each full second of flight within the working time; **if the model does not land on the defined flying site the whole flight is zero.** No points will be awarded for flight time in excess of working time. The free flying of the model aircraft commences when the model aircraft is released from the towline.

Reason: Normally the model lands on the defined flying site because the landing spots are in this area. If for what reasons ever the model lands outside the defined flying site the result of this flight must be zero. A radio controlled model must come back to the area from where it has been started.

Please read the rules from F3K 5.7.3. Definition of the flying field

f) 5.3.2.3.d) Task A - Duration **Germany**

Add the table from F3J 5.6.10.5. as shown below – delete the existing table:

d) Additional points will be awarded for landing, depending upon the distance from the spot marked by the organizer, according to the following table:

Distance from spot [m]	Points	Distance from spot [m]	Points
up to meter		up to meter	
0,2	100	5	80
0,4	99	6	75
0,6	98	7	70
0,8	97	8	65
1,0	96	9	60
1,2	95	10	55
1,4	94	11	50
1,6	93	12	45
1,8	92	13	40
2,0	91	14	35
3	90	15	30
4	85	Over 15	0

Reason: There is no sufficient differentiation in the results of F3B task A - Duration because the distribution of the landing points is too rough.

At the moment we try additionally to find a solution concerning the flight time; but the step changing the distribution of the landing points would be a first step in the right direction.

g) 5.3.2.3. Task A-Duration with Altimeter **Germany**

Add 2 words in the heading as shown above:

Reason: By introducing the altimeter in Task A-Duration to make it more selective it is necessary to adapt the heading. The report “Duration task F3B is not selective

enough" including some proposals who to save this problem which was posted some weeks ago to 150 F3B-pilots worldwide and to all members of the SC-soaring.

h) 5.3.2.3. Task A-Duration with Altimeter Germany

Add paragraph f), g) and h) as shown:

f) The recorded start altitude in metres shall be rounded down to the nearest metre.

g) Each metre of the recorded start altitude results in a deduction of half (0,5) a point / metre.

h) Where the score is negative (below zero), a zero score will be recorded. Note that any penalty points applied in the round will remain effective.

Reason: By introducing the altimeter in Task A-Duration to make it more selective it is necessary to introduce the necessary explanations. The report "Duration task F3B is not selective enough" including some proposals who to save this problem which was posted some weeks ago to 150 F3B-pilots worldwide and to all members of the SC-soaring.

***Technical Secretary Note**: The section 5.3.2.3. already contains sub-paragraph f), so these sub-paragraphs if accepted will be numbered g), h) and i).*

i) 5.3.2.3. Task A-Duration with Altimeter Germany

Add a new paragraph 5.3.2.3.1. Technical equipment:

5.3.2.3.1 Technical equipment

a) Each model must be fitted with a tow-hook with sensor which measures the release of the tow-line.

b) Additionally each model must be fitted with an approved AMRT in accordance with the Technical Specification published in F3B Altimeter Technical Documentation.

The essential function of the AMRT is to record and display the maximum altitude attained (start altitude), above a ground level reference between the beginning and after ten (10) seconds from the release of the tow-line.

Installation of the AMRT in the model shall be in accordance with the requirements as detailed in the Technical Guidance Documentation.

c) Proper operation of the AMRT including any associated display and its compatibility with other control equipment installed in the model is the responsibility of the individual competitor.

d) To facilitate initial technical processing, all AMRTs must be easily removable for compliance checking.

The receiver command signal connection to the AMRT must be easily accessible so that at any time during the competition the organisers have the option of installing a monitoring AMRT via a branching Y lead.

To enable the timekeeper to record data required for scoring purposes there must be easy access to the display or the connector for a plug in display. It

must not be necessary to disconnect the AMRT from the receiver or to remove it from the model,

The use of an additional extension cable is permitted for connecting the display. It is the responsibility of the competitor to ensure that any incorrect connection does not result in damage to the AMRT or the display.:

Reason: By introducing the altimeter in Task A-Duration to make it more selective it is necessary to describe the needed technical equipment. The report “Duration task F3B is not selective enough” including some proposals who to save this problem which was posted some weeks ago to 150 F3B-pilots worldwide and to all members of the SC-soaring.

j) 5.3.2.4.c) Task B - Distance **Germany**

Add words in sub-paragraph c) as shown:

c) A visual system or a combined audiovisual system announces to the competitor when his model aircraft crosses the Base A or Base B (imaginary vertical planes). The absence of a signal will indicate that the model aircraft has failed to correctly cross the base. The instruments used to check the crossing of the vertical planes must assure the parallelism of such planes. Timing and signalling shall occur when any part of the **complete** model aircraft **in flight** crosses the base. If an audiovisual system is used, signalling is also valid when the audio system fails.

Reason: Any part means that this is a part of a complete model in flight, but not any part of a crashed model.

k) 5.3.2.4.d) Task B - Distance **Germany**

New wording for 5.3.2.4.d):

~~d) The model aircraft must be identified by the contest director or the flight-line manager to the judges at Base A and B during the launch. For this procedure the competitor or his helper must announce clearly the intention to start by calling their allocated signal (alpha, bravo. charly delta, echo or foxtrot). When he receives permission from the contest director or the flight-line manager to start, he must do so immediately otherwise another competitor will receive permission to start. If a competitor starts without official permission he will be called back and must land and again request permission to start.~~

d)The models will be identified by flags of different colours for each competitor in the group. When the competitor intends to start his helper waves the flag; when the model is identified by the associated helpers at base A and base B they wave the flag with the corresponding colour as well. At that moment the pilot can launch.

The competitor must stay within a distance of 10 metres either side of Base A during the timed flight.

Reason: The advantage of this system is, that the competitor can start at the moment he intends to start and must not wait for the permission of the flight-line manager.

l) 5**.3.2.4. f) Task B - Distance** **Germany**

Strike out some words in sub-paragraph 5.3.2.4. f) in line 2, 3 and 4 and add some words in line 2 and 3:

e)
f) After having completed the task, the model aircraft must land ~~in the area(s) determined by the contest director outside the safety area(s)~~ **on the defined flying site** otherwise the flight ~~will be penalised with 100 points~~ **is zero**. ~~The penalty of 100 points will be a deduction from the competitor's final score and shall be listed on the score sheet of the round in which the penalisation was applied.~~

Reason: The model must land on the defined flying site from where it has been started. If for what reasons ever the model lands outside the defined flying site the result of this flight must be zero. A radio controlled model must come back to the area from where it has been started.

Please read the rules from F3K 5.7.3. Definition of the flying field.

m) **5.3.2.5. c) Task C - Speed** **Germany**

in sub-paragraph c) add a sentence in row two:

a)
b)
c) The flight time is recorded to at least 1/100 s**ec** when in flight the model aircraft first crosses Base A **at the predetermined side of the safety-plane** and completes four legs of the 150 metre course.
d)

Reason: In the actual wording it is not clearly stated on which side of the safety plane the counted flight has to be performed.

n) **5.3.2.5. d) Task C - Speed** **Germany**

Add words in sub-paragraph d) as shown:

d) An audio system will inform the competitor when the model aircraft crosses the Base A or Base B (imaginary vertical planes). The absence of a signal will indicate that the model aircraft has failed to correctly cross the Base. The instruments used to check the crossing of the vertical planes must assure the parallelism of such planes. The signal is given when any part of the **complete** model aircraft **in flight** crosses the base. The source of the signal (horn, loudspeaker) must not be further then 30 metres away from the intersection of base A and the safety plane.

Reason: Any part means that this is a part of a complete model in flight, but not any part of a crashed model.

o) **5.3.2.5. f) Task C - Speed** **Germany**

Strike out some text in paragraph 5.3.2.5. sub-paragraph f) and add words as shown:

e)
f) After having completed the task, the model aircraft must land ~~in the area(s) determined by the contest director outside the safety area(s)~~ **on the defined flying site** otherwise the flight ~~will be penalised with 100 points~~ **is zero**. ~~The penalty of 100 points will be a deduction from the competitor's final score and shall be listed on the score sheet of the round in which the penalisation was applied~~.

Reason: The model must land on the defined flying site from where it has been started. If for what reasons ever the model lands outside the defined flying site the result of this flight must be zero. A radio controlled model must come back to the area from where it has been started.

Please read the rules from F3K 5.7.3. Definition of the flying field.

p) 5.3.2.5. h) Task C - Speed **Germany**

Amend sub-paragraph h) as shown by changing 'shall' to 'must' and making the other two changes as shown:

g)
h) During task C the timed flight ~~shall~~ **must** take place ~~to~~ **at the predetermined** ~~one~~ side of the safety plane, whilst all judges/time-keepers ~~shall~~ **must** remain on the other side of the safety plane. The side which is to be flown shall be indicated by the ~~organisers~~ **organiser** taking into account the direction of the sun, etc.

The flight will be penalised with 300 points, when sighted by means of an optical aid, the safety plane is crossed by any part of the model aircraft. The instrument used to check the crossing of the vertical safety plane must also assure that the safety plane is orthogonal to Base A and Base B. The penalty of 300 points will be a deduction from the competitor's final score and shall be listed on the score sheet of the round in which the penalisation was applied.

Reason: In the actual wording it is not clearly stated on which side of the safety plane the counted flight has to be performed. The wording "must" instead of "shall" is the more precise wording to express what the intention is.

q) 5.3.2.6. Partial Scores **Germany**

Add a new formula for Partial Score a):

5.3.2.6. Partial Scores

For each task the winner of each group receives 1000 points.

a) Partial Score A for each competitor is determined as follows:

$$A = 1000 \times P1/Pw$$

$P1 = \text{Flight time [s]} - 0{,}5 \times \text{height start altitude [m]}$ (see 5.3.2.3.)

PW = points of the winner in the related group.

Reason: By introducing the altimeter in Task A-Duration to make it more selective it is necessary to adopt the calculation of the points. The report "Duration task F3B is

not selective enough" including some proposals who to save this problem which was posted some weeks ago to 150 F3B-pilots worldwide and to all members of the SC-soaring.

r) 5.3.2.9 Team Classification **F3 Soaring Subcommittee**

Add new heading and new paragraph Team Classification and renumber the paragraph 5.3.2.9. Site to 5.3.2.10. Site:

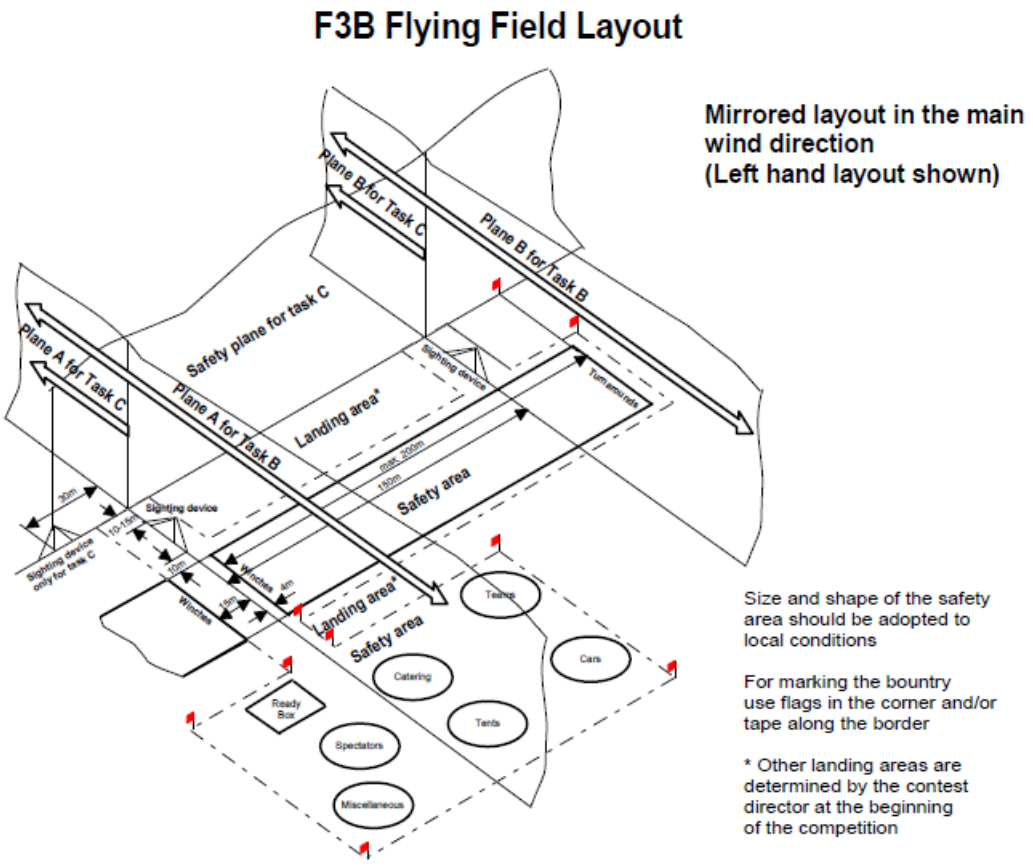
5.3.2.8. Team Classification

To establish the ranking for international team classification, add the final individual scores of three best members of the team. Teams are ranked according to the highest numerical score to lowest. In the case of a national team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, the best individual placing decides.

Reason: The paragraph C.15.6.2. National Team Classification in Volume CGR offers two methods for team classification. In the volume containing the rules for the class one from these two options must be selected. Until now at all championships the sum of scores was used, but the written statement for class F3B was missing.

s) 5.3.2.9. Site **Germany**

New diagram of F3B Flying Field Layout:



Reason: It makes no sense that the setup is made before each task because the wind direction can change also during the task. That means that the conditions for all pilots are not equal at all; remember our sport takes place outdoor.

The most flying fields are mostly orientated in the main wind directions and are therefore not suitable for other wind directions, because they are not wide enough.

The correction of the course would be much trouble for the organizer and additionally wasted time at all.

The additionally changes should be an explanation at which side of the safety plane the different tasks must take place. See the proposal F3B 5.3.2.5.h). GER 2016.

Technical Secretary Note: *If proposal (r) is accepted, the above proposal (if accepted) becomes 5.3.2.10.*

F3J – Thermal Duration Gliders

t) 5.6.11.5. Team Classification **F3 Soaring Subcommittee**

Add new paragraph 5.6.11.5. Team Classification:

5.6.11.5. To establish the ranking for international team classification, add the final individual scores of three best members of the team. Teams are ranked according to the highest numerical score to lowest. In the case of a national team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, the best individual placing decides.

Reason: **Clarification.** The paragraph C.15.6.2. National Team Classification in Volume CGR offers two methods for team classification. In the volume containing the rules for the class from these two options one must be selected. Until now at all championships the sum of scores was used, but the written statement for class F3J was missing.

F3K – Hand Launch Gliders

u) 5.7.1. General **Germany**

Amend this paragraph as shown below:

5.7.1. General
This event is a multitasking contest where **the** RC gliders must be hand-launched and ~~accomplish~~ **perform** specific tasks. ~~In principle the contest should consist of at least five rounds. The organiser may~~ ~~announce more rounds to be flown before the start of the contest. In certain situations (for example~~ ~~bad weather conditions) the jury may decide that fewer rounds than initially announced will beflown. In these cases, the number of rounds may be fewer than five and all the rounds shall be considered as the final result.~~

Reason: The minimum number of rounds should be clearly defined in paragraph 5.7.10 “Scoring”.

v) 5.7.5. Weather Conditions / Interruptions **Germany**

Add a word to the heading and amend the paragraph as shown:

5.7.5. Weather conditions / Interruptions

The maximum wind speed for F3K contests is **eight** (8) m/s**ec**. **The start of the contest must be delayed** or the contest has to be interrupted ~~or the start delayed~~ by the contest director ~~or the jury~~ if the wind speed exceeds **eight** (8) m/s**ec** measured ~~for at least one minute~~ **three (3) times for at least twenty (20) sec in a time interval of five (5) minutes** at two **(2)** metres above the ground at the start and landing field. In the case of rain, the contest director ~~must immediately pause~~ **can interrupt** the contest. When the rain stops, the contest starts again with the group that was flying, which receives a re-flight.

Reason: The original wording says that for the “wind speed” the contest director or the jury are responsible for the “rain” only the CD.

My opinion is that for both only the CD is responsible. If the jury takes a wrong decision and there is a protest who should deal with this protest? In the “Jury handbook” is clearly stated that the jury should be independent and should only act if there is a protest.

The measurement of the wind speed with a simple anemometer over a time interval of one minute is too long.

Perhaps the better measurement procedure would be: Three (3) times over twenty (20) sec in a time-interval of five (5) minutes.

w) 5.7.7. Flight time **Germany**

Add a restriction for maximum sum of flight times:

5.7.7. Flight time
The flight time is measured from the moment the model glider leaves the hands of the competitor until a landing of the model glider as defined in 5.7.6. or the working time expires.

The flight time is measured in full seconds. Rounding up is not applied.

The flight time is official if:

> The launch happened from inside the start and landing field and the landing is valid according to 5.7.6. and the launch happened within the working time of the task.

This means that if the airplane is launched before the beginning of the working time then that flight receives a zero score.

In those tasks, where maximum or target flight times are specified, the flight time is scored up to this maximum or target flight time only. **The sum of all flight times per task must not be greater than the working time minus the number of valid landings in seconds.**

Reason: With the truncation of flight times to full seconds and normal timing accuracy it is only theoretically possible to “lose” less than 1 second per turnaround (hand landing and immediate relaunch). Pilots sometimes still claim total turnaround

times of 4s in task G (5x2min), for example. The addition to the rule effectively prevents that luck or cheating factor.

x) 5.7.10. Scoring **Germany**

Replace the full sentence.

5.7.10. Scoring

~~Each competitor must fly at least 3 rounds which have to be completed in order to get a valid final score.~~

A minimum of five (5) rounds with different tasks must be flown that the competition is valid.

Reason: Valid wording that a minimum of five rounds must be flown (see 5.7.1. General) that the results of a competition are valid.

y) 5.7.10.1 Final Score **Germany**

Amend the sub-paragraph as shown below to clarify:

5.7.10.1. Final score
The final score is the sum of **the** normalised scores of **all** rounds minus penalty points.
If **five** (5) or more rounds are flown then the lowest score is dropped.
~~Penalty points must be shown in the results list with an indication of the round in which they were levied.~~
The penalty points will be a deduction from the competitor's final score and shall be listed on the score sheet of the round in which the penalisation was applied.
The penalty points are retained even if the score of the round in which the offence occurred is dropped.

Reason: Clearer wording.

z) 5.7.10.4. Team Classification **F3 Soaring Subcommittee**

Add new paragraph 5.7.10.4 Team Classification.

5.7.10.4. Team Classification

To establish the ranking for international team classification, add the final individual scores of three best members of the team. Teams are ranked according to the highest numerical score to lowest. In the case of a national team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, the best individual placing decides.

Reason: **Clarification**. The paragraph C.15.6.2. National Team Classification in Volume CGR offers two methods for team classification. In the volume containing the rules for the class from these two options one must be selected. Until now at all championships the sum of scores was used, but the written statement for class F3K was missing.

aa) 5.7.11. Definitions of tasks **Denmark**

Add a sentence to the Task C definition as shown below:

5.7.11.3. Task C (All up, last down)

All competitors of a group must launch their model gliders simultaneously, within 3 seconds of the acoustic signal. The maximum measured flight time is 180 seconds.

The official timekeeper takes the individual flight time of the competitor according to 5.7.6 and 5.7.7 from the release of the model glider and not from the start of the acoustic signal. Launching a model glider before or more than 3 seconds after the start of the acoustic signal will result in a zero score for the flight.

The number of launches (3 to 5) must be announced by the organiser before the contest begins.

The preparation time between attempts is limited to 60 seconds after the end of the landing window. During this time the competitor may not perform test flights.

The competitor is not allowed any help during the flight testing time, working time or landing window.

The flight times of all attempts of each competitor will be added together and will be normalised to calculate the final score for this task.

No working time is necessary.

Reason: The reason is to make the task harder. The pilot must rely only on his own input and knowledge, and the pilot must fly this task on his own. It has been used to good effect in Germany at, among other contests, the “Vest Pokal” contest for some years (Ulrich Freitag). Since everybody launches at the same time and lands without a sudden relaunch, there will be no safety issues with this change in this task.

ab) 5.7.11. Definitions of tasks **Denmark**

Add and delete text to the task definition for Task E as shown below:

5.7.11.5. Task E (Poker - variable target time)

Each competitor has an unlimited number of flights to achieve or exceed up to five target times. Before the first launch of a new target, each competitor announces a target time to the official timekeeper. He can then perform an unlimited number of launches to reach or exceed, this time.

If the target is reached or exceeded, then the target time is credited and the competitor can announce the next target time, which may be lower, equal or higher, before he releases the model glider during the launch.

If the target time is not reached, the announced target flight time can not be changed. The competitor may try to reach the announced target flight time until the end of the working time. ~~Towards the end of the working time, the competitor must still announce a real time specified in minutes and/or seconds. Calling only "until the end of the working time" is not permitted.~~

For the competitors last flight he may announce “end of working time”. For this specific call the competitor has ONLY one attempt.

The target time must be announced clearly in the official contest language or alternatively shown to the timekeeper in written numbers (e g 2:38) by the competitor's helper **immediately after the launch.**

If the competitor calls "end of working time" the competitor's helper writes the letter "W".

The target(s) (1 - 5) with achieved target times are scored. The achieved target times are added together.

This task may be included in the competition program only if the organiser provides a sufficient number of official timekeepers, so that each competitor in the round is accompanied by one official timekeeper.

Working time is 10 minutes.

Reason: The reason is to add the possibility of making a nonspecific call "To the end of the working time" as either the ONLY (=first AND last) or the LAST call.

When the working time is approaching the end, pilots and helpers tend to look at the official clock and either say that time minus 1-2-3 seconds when they launch OR saying something in a language foreign to the official timekeeper, and lets the pilots helper write the time shown on the official clock at launch minus 1 second.

This rule change about making "end of working time" a valid call once, removes this subtle cheating, and sets everybody equal.

At the last 2 World Championships a "local rule" with a maximum of 9:58 total for this task has been introduced, to remove the possibility of a "hitting the button on the clock" mistake from the official timekeeper that can lead to a 0-score. Introducing the call "end of working time" / written call "W" removes the need for a maximum called time for this task, since the previous (local rule) call 9:58 now will be substituted by "end of working time".

F3F – Slope Soaring Gliders

ac) 5.8.14. Team Classification **F3 Soaring Subcommittee**

Add new paragraph 5.8.14. Team Classification.

5.8.14. Team Classification

To establish the ranking for international team classification, add the final individual scores of three best members of the team. Teams are ranked according to the highest numerical score to lowest. In the case of a national team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, the best individual placing decides.

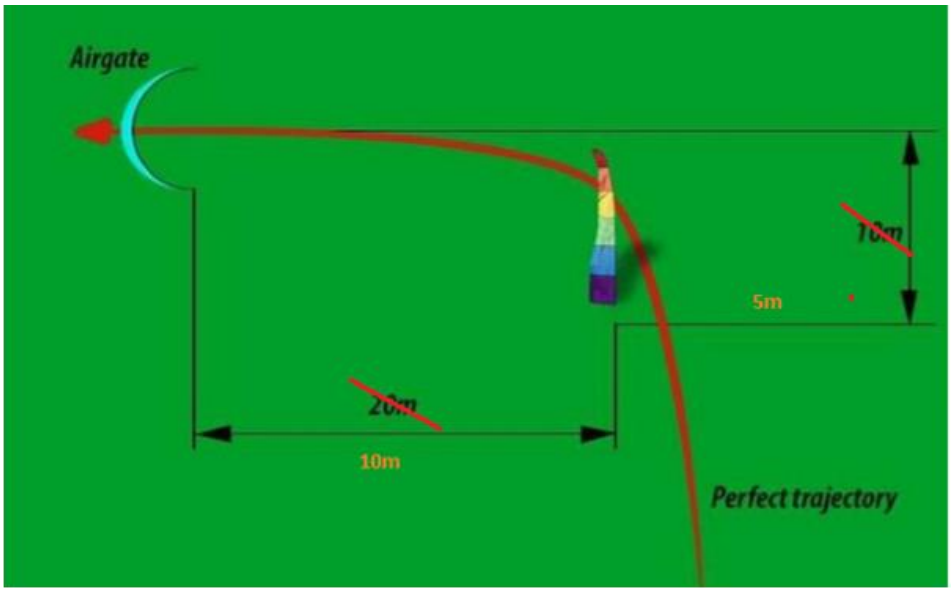
Reason: **Clarification**. The paragraph C.15.6.2. National Team Classification in Volume CGR offers two methods for team classification. In the volume containing the rules for the class from these two options one must be selected. Until now at all championships the sum of scores was used, but the written statement for class F3F was missing.

Volume F3 FPV Racing begins overleaf

14.12 Section 4C Volume F3U – FPV Racing

a) 2.4. Air gates **Belgium**

Replace dimensions 20m and 10m in the drawing by respectively 10 and 5 m:



Reason: The dimensions listed on the original instruction above are sometimes too restrictive in terms of technical circuit, hence we propose this amendment on the size in order to create more technical circuits.

b) 4.2. Elimination stage **Belgium**

Amend note at end of 4.2.b) as indicated:

b) Option 2

Note: For this option, the time penalties system defined in § 4.4 is ~~not appropriate because it could be difficult in some situations to define the ranking of competitors who have a difference of one circuit lap. So, it is recommended not to use option 2 when the configuration of the circuit requires application of the time penalties system~~. **applicable.**

Reason: We have extensively tested this point and we can confirm that having pilots re-try to pass the obstacles is not an issue. However to implement this method we will need to take the timing on the elimination stage.

c) 4.2. Elimination stage **Belgium**

Add note at end of paragraph staring with the words: "Similarly, if a race…":

Selection methods for the next rounds

Similarly, if a race doesn't permit the defined number of competitors to be selected, a new flight … if the number of competitors required for the final is not reached.

Note: In the case of the final, if we do not have the number of pilots required for the next round, the pilot who has the most flight time will be the one qualified (example: flight time from pilot 1 is 2min, pilot 2 has fly 1m 48s, pilot 3 has fly 1m 33s – pilots 1 and 2 are qualified in the case where two pilots were required to complete the group).

Reason: This will avoid unnecessary re-flights and a potential issue with the schedule.

d) 4.2. Elimination stage **Belgium**

Replace tables with the following ones:

Composition of the groups for the first round

	1/8th final round																	
	8 pilots/group								6 pilots/group						4 pilots/group			
Group A	1	9	17	25	33	41	49	57	1	9	17	25	33	41	1	9	17	25
Group B	5	13	21	29	37	45	53	61	5	13	21	29	37	45	5	13	21	29
Group C	7	15	23	31	39	47	55	63	7	15	23	31	39	47	7	15	23	31
Group D	3	11	19	27	35	43	51	59	3	11	19	27	35	43	3	11	19	27
Group E	4	12	20	28	36	44	52	60	4	12	20	28	36	44	4	12	20	28
Group F	8	16	24	32	40	48	56	64	8	16	24	32	40	48	8	16	24	32
Group G	6	14	22	30	38	46	54	62	6	14	22	30	38	46	6	14	22	30
Group H	2	10	18	26	34	42	50	58	2	10	18	26	34	42	2	10	18	26

	1/4th final round																	
	8 pilots/group								6 pilots/group						4 pilots/group			
Group A	1	5	9	13	17	21	25	29	1	5	9	13	17	21	1	5	9	13
Group B	3	7	11	15	19	23	27	31	3	7	11	15	19	23	3	7	11	15
Group C	4	8	12	16	20	24	28	32	4	8	12	16	20	24	4	8	12	16
Group D	2	6	10	14	18	22	26	30	2	6	10	14	18	22	2	6	10	14

Reason: The order of the pool has to be changed, to have a better repartition of the pilots, example: avoid having top pilots on group 1 and 2 only.

e) 4.6. Reflight **Belgium**

Add paragraph below as additional paragraph to 4.6:

In the case of a model colliding another model from behind, a re-flight option can be requested. The re-flight can only be guaranteed after a discussion between the involved pilots, the race manager and the contest director. A confirmation can be requested using the tools at our disposal during the competition (Digital Video Recording). The re-flight only affects the scores of the pilots whose models were impacted by the collision. The re-flight will only be taken into consideration if the result is impacting the position of the pilots in 1st, 2nd or 3rd position of the race.

Reason: During our championship, we had some case where a re-flight needed to be guaranteed due to a model coming from the rear of the first model and hurting it, in a result of the first pilot being out of the qualification or finals. We want to avoid this in future competition hence having a re-flight option available in such condition is a must in the rules.

f) Annex FPV Racing World Cup Rules **France**

4- Points Allocation

Amend first sentence as shown:

In a contest, points for the World Cup will only be allocated if the competitors who have completed a flight are from at least ~~three~~ **two** different countries.

Reason: A maximum of two countries is required in other World Cups.

Volume F4 Scale begins overleaf

14.13 Section 4C Volume F4 – Scale

a) 6.3.1. General Characteristics **F4 Subcommittee**

After "Motive Power: Rocket or pulse jet engines may not be used." Add the following:

Radio Equipment:

Permitted:
The use of electronic stability augmentation devices or gyros with or without speed related automatic gain control derived from a GPS signal.

The transmission of information from the model aircraft to the pilot on the ground of Propulsion and Receiver system health monitoring. Any other data stream or telemetry is forbidden.

Not Permitted:

The use of autonomous or pre-programmed flight manoeuvres using sensors which provide altitude, heading or speed hold or any type of terrestrial reference (e.g.GPS).

Reason: A ban on the use of gyros was in place in the F4 Rule Book before 2010. A proposal to lift the ban was accepted for implementation in 2010. The deleted sentence was unfortunately not replaced with one to state that the use of gyros was permitted. Notwithstanding the preceding history, this situation has given rise to bickering and debate at various events where the anti-gyro faction cite the definition of Radio Control in the ABR Section (soon to be the General Rules) as support for their stance.

This urgent clarification is requested in order to clarify the position as soon as possible before the 2018 Scale World Championships and also to clarify the situation regarding newer technologies.

b) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

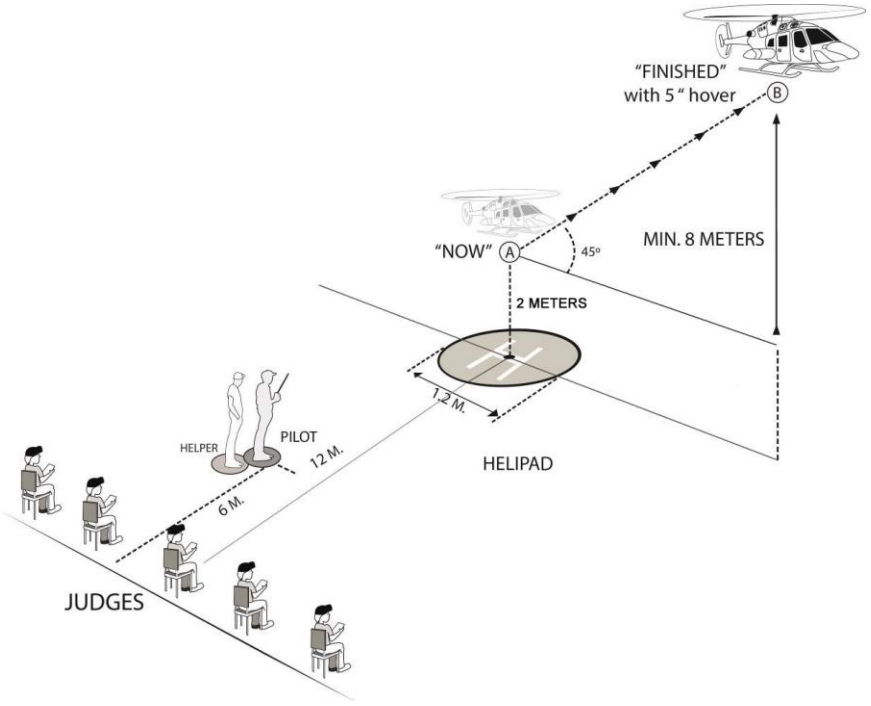
6G.2.2B 45^0 Climb out

Replace diagram as shown below:

Reason: **Clarification**. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

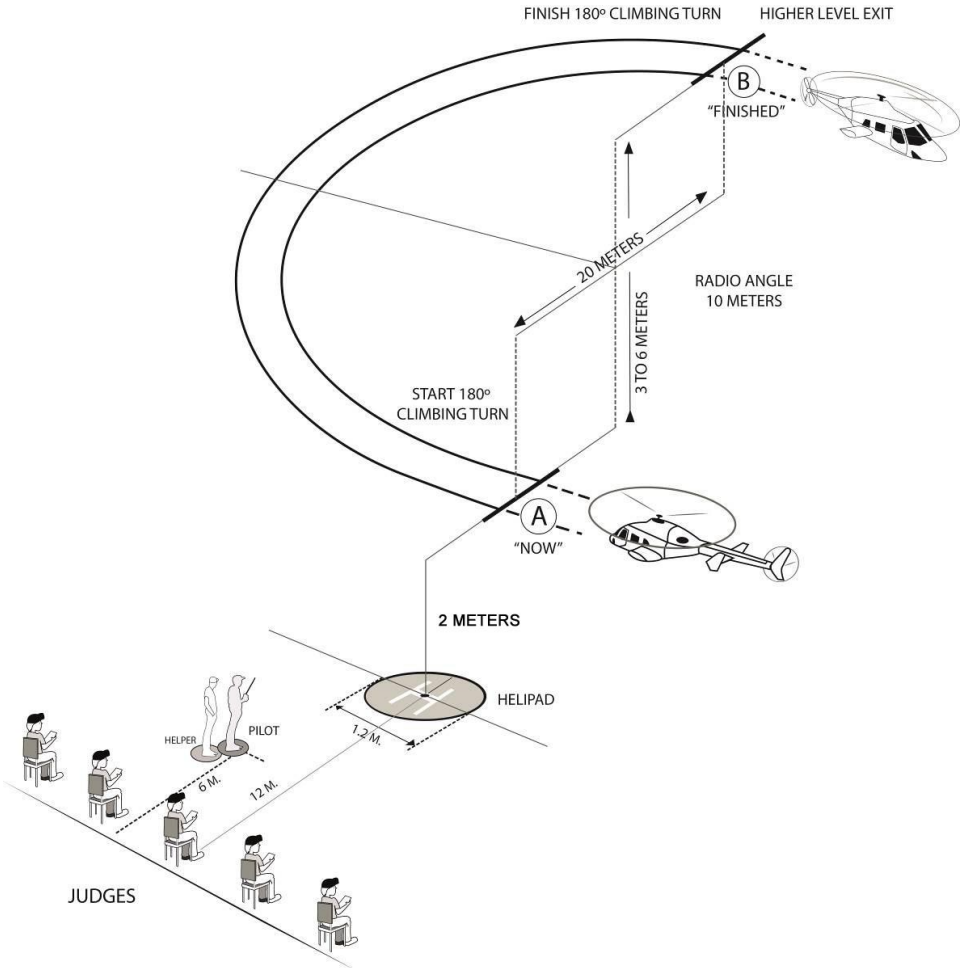
Note: Diagram follows:



c) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

6G.2.4A Chandelle

Replace diagram as shown below:



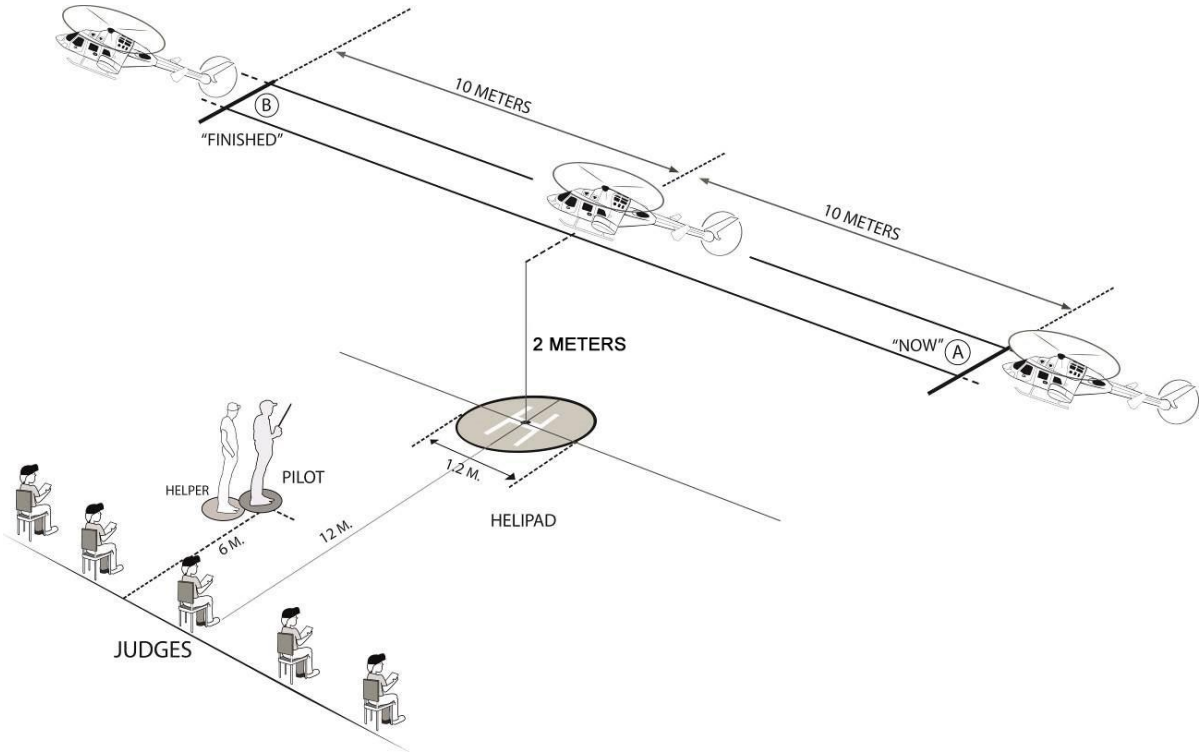
Reason: **Clarification**. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

d) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

6G.2.4B Fly Past at Constant Height

Replace diagram as shown below:



Reason: Clarification. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

e) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

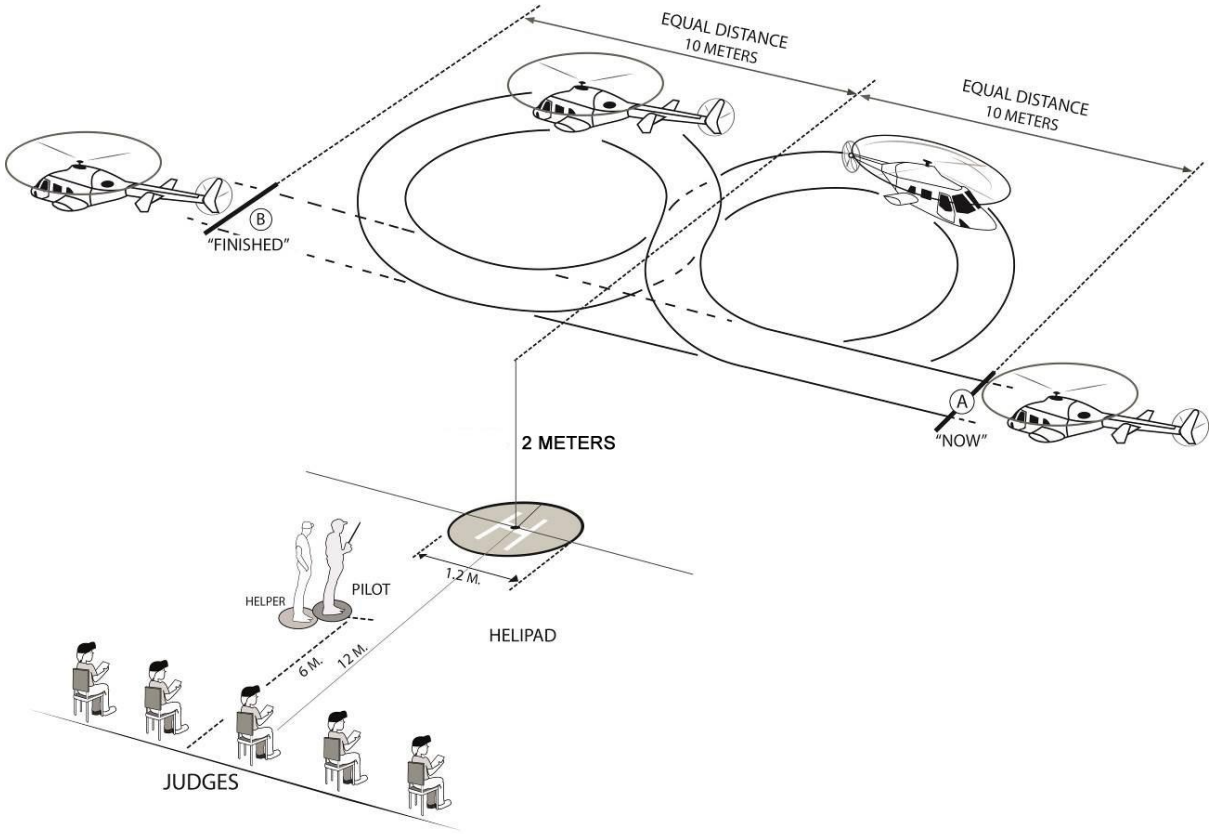
6G.2.4C Figure Eight

Replace diagram as shown below:

Reason: **Clarification**. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

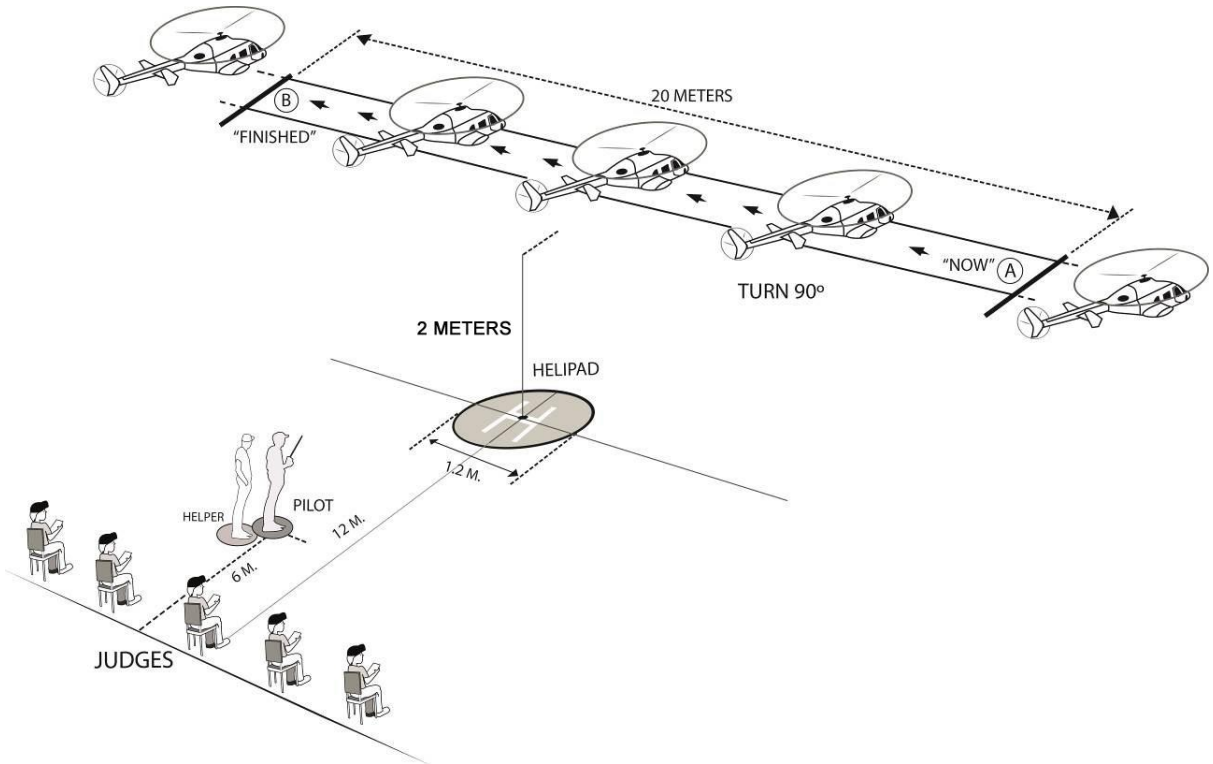
Note: Diagram follows.



f) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

6G.2.4D Sideways Flight

Replace diagram as shown below:



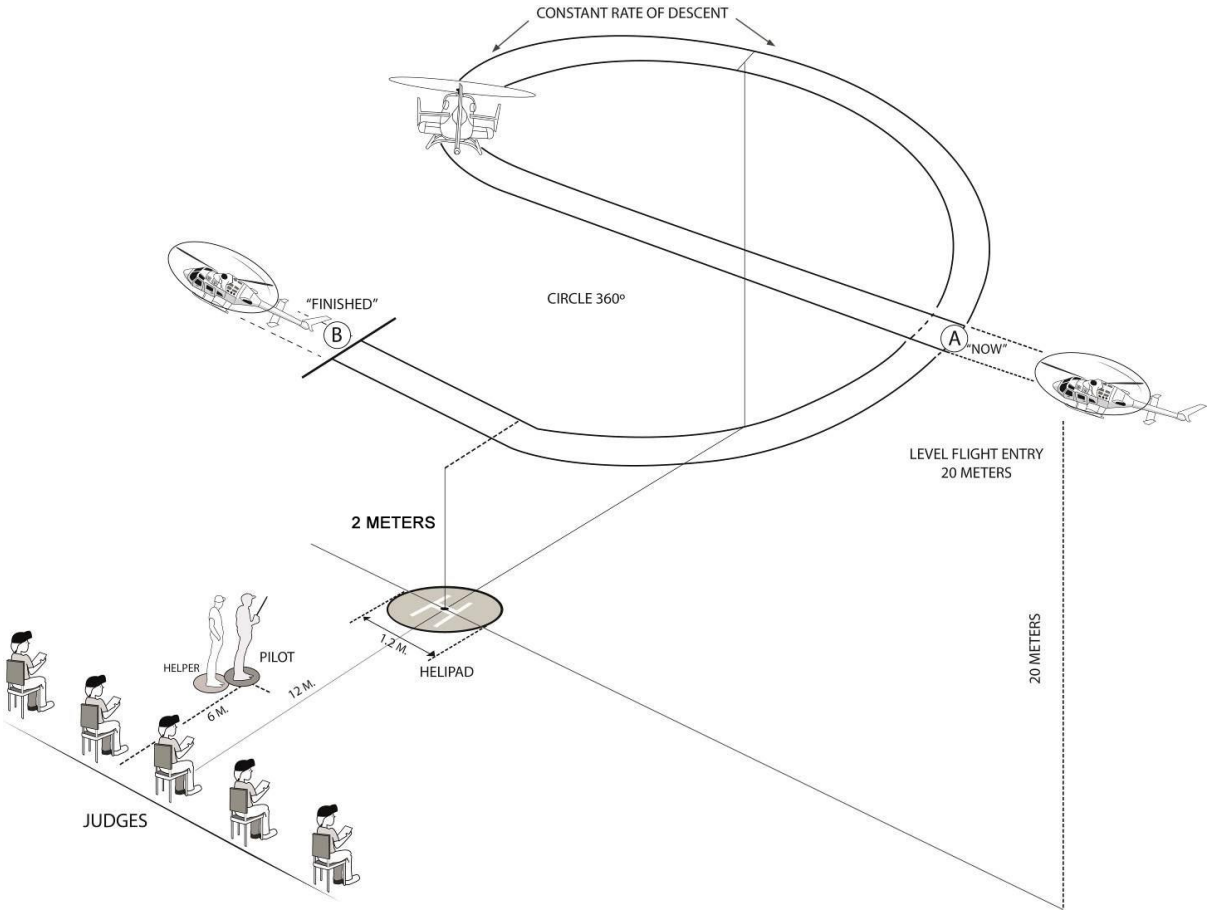
Reason: **Clarification**. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

g) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

6G.2.4H 360^0 Descending Circle

Replace diagram as shown below:



Reason: **Clarification**. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

h) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

6G.2.4I Lazy Eight

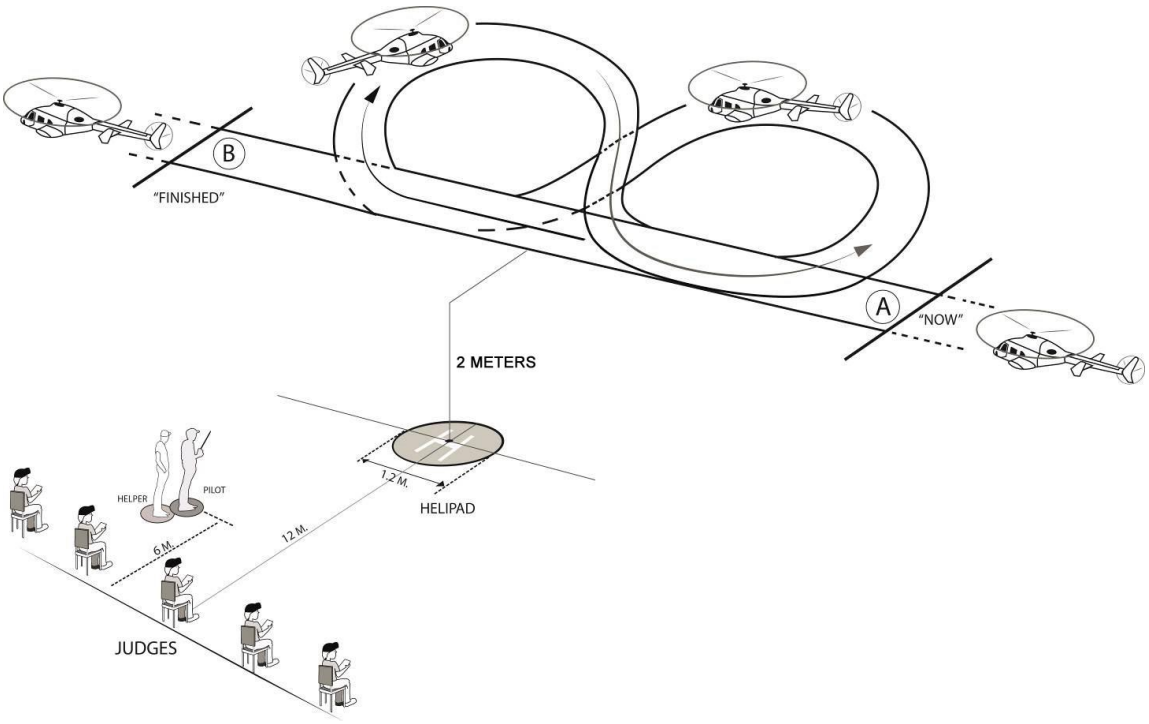
Replace the second diagram as shown below:

Reason: **Clarification**. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

Note: Diagram follows.

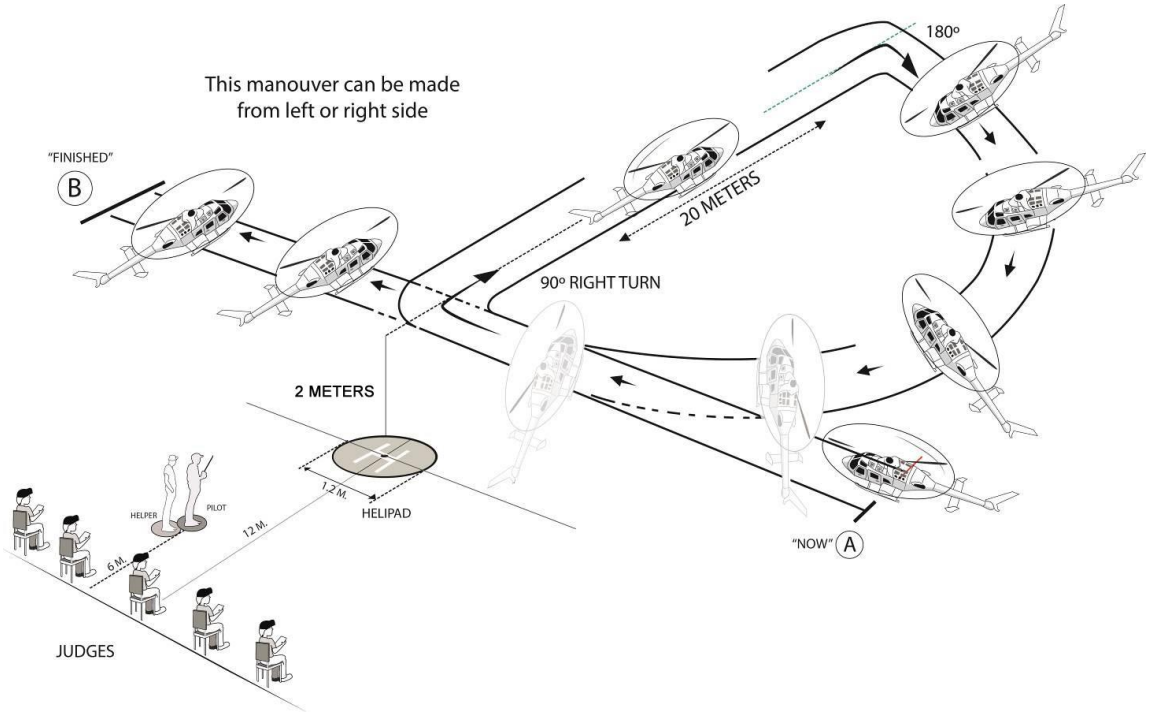
View 2 of the figure



i) Annex 6G Class F4K Judges' Guide **F4 Subcommittee**

6G.2.4J Procedure 90° with Straight Flight and 180° Angle

Replace diagram as shown below:



Reason: **Clarification**. Changes made to clarify conflicting and confusing details between description, diagram and list of errors.

Early implementation requested.

14.14 Section 4C Volume F5 – Electric

F5F – 6 Cell Motor Gliders (Provisional)

a) 5.5.8.1 Model Aircraft Specifications **Germany**

Add the following paragraphs to this section:

The max. number of serially connected cells shall be limited to 6.

The energy consumption of the motor shall not exceed 900 Watt x min. An electronic device shall limit (or at least monitor) the energy consumption.

Reason: With the current rules for the classes F5F and F5B, a clear distinction between the two classes is no longer given. The conduction current in class F5F with its 4 cell batteries and about 4kW power is much higher than in typical F5B setups with its 10S batteries and 6kW+ power. Limiting the power consumption to 900Watt x min. will decrease the motor current to not more than 100A allowing for less expensive motor controllers and other equipment. This, together with less than 40 legs during the distance task and therefore no need for climbs for a 6 leg sequence will clearly outline F5F as self-contained beginner class.

End of Agenda Item 14

15. ELECTION OF SUBCOMMITTEE CHAIRMEN

15.1. Subcommittee Chairmen

F1 Free Flight
F3 RC Aerobatics
F3 RC Soaring
F3 RC Helicopter
F3 RC Pylon Racing

16. FAI WORLD AND CONTINENTAL CHAMPIONSHIPS 2017 – 2021

VERY IMPORTANT: Each NAC/country/Delegate presenting a bid prior to voting for the award of the Championships may make a presentation of the championship organisation, lasting a MAXIMUM of 2 minutes only. Presentations for bids with only one candidate will be performed only if any of the Delegates requests so. Bidders are requested to distribute important information prior to the meeting, to each of the NACs/delegates by electronic means. This is to enable Delegates to study the contents of the bid, so that they may make informed decisions at the meeting.

FAI WORLD CHAMPIONSHIPS

2017 FAI World Championships for…	Awarded to	Location and Actual Dates
F1A, F1B, F1C Seniors	**HUNGARY**	Szentes, 6 – 12 August
F1E (Seniors and/or Juniors)	**ROMANIA**	Turda, 22 – 25 August
F3A (Seniors and Juniors)	**ARGENTINA**	Villa Gesell, 4 – 11 November
F3B (Seniors and Juniors)	**CZECH REPUBLIC**	Mikulovice, 6 – 12 August
F3CN (Seniors and Juniors)	**POLAND**	Wloclawek, 21 – 29 July
F3M (Seniors and Juniors)	No Offers	
F3D (Seniors and Juniors)	**SWEDEN**	Dala-Jäma, 25 – 29 July
F3K (Seniors and/or Juniors)	**UKRAINE**	Lviv, 21 – 29 July
F3P (Seniors and Juniors)	**FRANCE**	Starsbourg, 19 – 25 February

2018 FAI World Championships for…	Awarded to	Location and Actual Dates
F1A, F1B, F1P Juniors	**BULGARIA**	Pazardzhik , 22 - 27 July
F1D (Seniors and/or Juniors)	**USA**	West Baden Spring, Indiana, 18 – 22 March
F2A, F2B, F2C, F2D (Seniors and Juniors)	**FRANCE**	Landres, 13 – 21 July
F3F (Seniors and Juniors)	Romania (for info)	To be awarded in 2017
F3J (Seniors and/or Juniors)	**ROMANIA**	Buzau, July or August
F4CH (Seniors and Juniors)	**SWITZERLAND**	Meiringen, 5 – 14 July
F5B, F5D (Seniors and Juniors)	Japan (firm)	To be awarded in 2017
SPACE MODELS (Seniors and Juniors)	**POLAND**	Nowy Targ, Malopolska 25 August – 2 September

2019 FAI World Championships for…	Bids From	To be Awarded in 2017
F1A, F1B, F1C Seniors	Serbia (firm)	
F1E (Seniors and/or Juniors)	Offers invited	
F3A (Seniors and Juniors)	Offers invited	
F3B (Seniors and Juniors)	Offers invited	
F3CN (Seniors and Juniors)	Offers invited	
F3M (Seniors and Juniors)	Offers invited	
F3D (Seniors and Juniors)	Australia (tentative)	
F3K (Seniors and/or Juniors)	Offers invited	
F3P (Seniors and Juniors)	Greece (tentative)	

2020 FAI World Championships for…	Bids From	To be Awarded in 2018
F1A, F1B, F1P Juniors	Offers invited	
F1D (Seniors and/or Juniors)	Offers invited	
F2A, F2B, F2C, F2D (Seniors and Juniors)	Bulgaria (firm)	
F3F (Seniors and Juniors)	Offers invited	
F3J (Seniors and/or Juniors)	Offers invited	
F4CH (Seniors and Juniors)	Norway (firm)	
F5B, F5D (Seniors and Juniors)	Offers invited	
SPACE MODELS (Seniors and Juniors)	Offers invited	

2021 FAI World Championships for…	Bids From	To be Awarded in 2019
F1A, F1B, F1C Seniors	Offers invited	
F1E (Seniors and/or Juniors)	Offers invited	
F3A (Seniors and Juniors)	Offers invited	
F3B (Seniors and Juniors)	Offers invited	
F3CN (Seniors and Juniors)	Offers invited	
F3M (Seniors and Juniors)	Offers invited	
F3D (Seniors and Juniors)	Offers invited	
F3K (Seniors and/or Juniors)	Offers invited	
F3P (Seniors and Juniors)	Offers invited	

FAI CONTINENTAL CHAMPIONSHIPS

2017 FAI Continental Championships for…	Awarded to	Location and Actual Dates
F1A, F1B, F1P Juniors	**FYR OF MACEDONIA**	Prilep, 25 – 29 July
F1D (Seniors and/or Juniors)	**ROMANIA**	Slanic Prahova, 14 – 17 March
F2A, F2B, F2C, F2D (Seniors and Juniors)	**HUNGARY**	Bekescsaba, 6 – 11 August
F3F (Seniors and/or Juniors)	No Offers	
F3J (Seniors and/or Juniors)	**SLOVAKIA**	Martin, 16 – 22 July
SPACE MODELS (Seniors and Juniors)	**POLAND**	Nowy Targ, Malopolska 20 – 25 August

2018 FAI Continental Championships for…	Awarded to	Location and Actual Dates
F1A, F1B, F1C Seniors	**HUNGARY**	Szentes, 23 – 30 July
F1E (Seniors and/or Juniors)	**SLOVAKIA**	Martin, 26 July – 31 August
F3A (Seniors and Juniors)	Belgium (firm)	To be awarded in 2017
F3A Asian-Oceanic (Seniors and Juniors)	Offers invited	To be awarded in 2017
F3B (Seniors and Juniors)	Offers invited	To be awarded in 2017
F3CN (Seniors and Juniors)	Offers invited	To be awarded in 2017
F3CN Asian-Oceanic (Seniors and Juniors)	Offers invited	To be awarded in 2017
F3K (Seniors and/or Juniors)	**SLOVAKIA**	Martin, 15 -21 July
F3P (Seniors and Juniors)	Offers invited	To be awarded in 2017

2019 FAI Continental Championships for…	Bids from	To be Awarded in 2017
F1A, F1B, F1P Juniors	Romania (firm)	
F1D (Seniors and/or Juniors)	Czech Republic (firm)	
F2A, F2B, F2C, F2D (Seniors and Juniors)	Offers invited	
F3F (Seniors and/or Juniors)	Offers invited	
F3J (Seniors and/or Juniors)	Offers invited	
SPACE MODELS (Seniors and Juniors)	Offers invited	

2020 FAI Continental Championships for…	Bids from	To be Awarded in 2018
F1A, F1B, F1C Seniors	Offers invited	
F1E (Seniors and/or Juniors)	Offers invited	
F3A (Seniors and Juniors)	Offers invited	
F3A Asian-Oceanic (Seniors and Juniors)	Offers invited	
F3B (Seniors and Juniors)	Offers invited	
F3CN (Seniors and Juniors)	Offers invited	
F3CN Asian-Oceanic (Seniors and Juniors)	Offers invited	
F3K (Seniors and/or Juniors)	Offers invited	
F3P (Seniors and Juniors)	Offers invited	

2021 FAI Continental Championships for…	Bids from	To be Awarded in 2019
F1A, F1B, F1P Juniors	Offers invited	
F1D (Seniors and/or Juniors)	Offers invited	
F2A, F2B, F2C, F2D (Seniors and Juniors)	Offers invited	
F3F (Seniors and/or Juniors)	Offers invited	
F3J (Seniors and/or Juniors)	Offers invited	
SPACE MODELS (Seniors and Juniors)	Offers invited	

17. ANY OTHER BUSINESS

18. NEXT CIAM MEETINGS

The table of Agenda Annexes appears overleaf.

ANNEXES TO THE AGENDA OF THE 2017 CIAM PLENARY MEETING

ANNEX FILE NAME	ANNEX CONTENT
ANNEX 1 (a-b)	FAI Code of Ethics, Nomination Form for Office Holders
ANNEX 2 (a-m)	2016 FAI Championship Reports
ANNEX 3 (a-s)	2016 Subcommittee Chairmen Reports, Technical Secretary, Treasurer Reports, CIAM Flyer, EDIC WG, Scholarship
ANNEX 4 (a-m)	2016 World Cup Reports
ANNEX 5 (a-d)	2016 Trophy Reports
ANNEX 6 (a-i)	FAI-CIAM Awards: Nominee Forms
ANNEX 7a	Sporting Code Section 4 Aeromodelling - Volume Records 2018 Edition DRAFT
ANNEX 7b	Explanations to accompany Volume Records 2018 Edition DRAFT
ANNEX 7c	F3A Annex 5 Description of Manoeuvres
ANNEX 7d	5B.8.1-10 Geometrical Accuracy of the Manoeuvre
ANNEX 7e	5B.13 Examples
ANNEX 7f	F3M-Known Sequences 2017
ANNEX 7g	F3C 5.4.8 Number of flights
ANNEX 7h	Annex 5F - F3N Set Manoeuvre Descriptions
ANNEX 8 (a-f)	Scholarship Candidates

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