Fédération
Aéronautique
Internationale

Agenda

of the Plenary Meeting of the FAI Aeromodelling Commission

To be held in Lausanne, Switzerland on 23 & 24 March 2007

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AGENDA
CIAM PLENARY MEETING 2007

to be held at the Olympic Museum - Lausanne (Switzerland)
on Friday 23 March & Saturday 24 March 2007, at 09:15

1. **PLENARY MEETING SCHEDULE AND TECHNICAL MEETINGS**

According to the rules, and after confirmation at the 2006 CIAM December Bureau Meeting by the relevant Subcommittee Chairmen, the following scheduled Technical Meetings will be held: F1, F3A, F3B, F3C, F3D, Education and F2 will hold an interim Technical Meeting. F5 will also hold an interim Technical Meeting because of the number of safety proposals.

The Technical Meetings will take place on Friday morning.

2. **DECLARATION OF CONFLICTS OF INTEREST**

Declarations, according to the FAI Code of Ethics (ANNEX 1) will be received.

3. **MINUTES OF THE MARCH 2006 BUREAU & PLENARY MEETINGS AND OF THE DECEMBER 2006 BUREAU MEETING**

3.1. **2006 March Bureau**
- 3.1.1. Corrections
- 3.1.2. Approval
- 3.1.3. Matters Arising

3.2. **2006 Plenary**
- 3.2.1. Corrections
- 3.2.2. Approval
- 3.2.3. Matters Arising.

3.3. **2006 December Bureau**
- 3.3.1. Corrections
- 3.3.2. Approval
- 3.3.3. Matters Arising

4. **MINUTES OF THE MARCH 2007 BUREAU MEETING**

Distribution and comments of the March 2007 Bureau Meeting.

5. **ELECTION OF BUREAU OFFICERS AND SUBCOMMITTEE CHAIRMEN**

5.1. **CIAM Officers**
President
1st Vice President
2nd Vice President
3rd Vice President
Secretary
Technical Secretary
Assistant Secretary

5.2. **Subcommittee Chairmen**

F1 Free Flight
F2 Control Line
F3A RC Aerobatics
F3BJ RC Soaring
F3C RC Helicopter
F3D RC Pylon
F4BC CL/RC Scale
F5 RC Electric
F7 RC Lighter-than-Air
Space Models
Education

6. **REPORTS**

6.1. **2006 FAI General Conference, by the FAI Secretary General, Max Bishop**

6.2. **2006 CASI Meeting, by CIAM President, Sandy Pimenoff**

6.3. **2006 World Championships, Jury Chairmen (ANNEX 2)**

6.3.1. F1A, F1B, F1P Juniors in Germany: Ian Kaynes
6.3.2. F1D Seniors and Juniors in Romania: Emil Giezendanner
6.3.3. F2A, F2B, F2C, F2D Seniors and Juniors in Spain: Gerhard Woebbeking
6.3.4. F3J Seniors and Juniors in Slovakia: Tomas Bartovský
6.3.5. F4B, F4C in Sweden: Narve Jensen
6.3.6. F5B, F5D in Romania: Sandy Pimenoff
6.3.7. Space Models Seniors and Juniors in Russia: Srdjan Pelagic

6.4. **2006 Sporting Code Section 4: CIAM Technical Secretary, Mrs Jo Halman (ANNEX 3)**

6.5. **2006 Subcommittee Chairmen (ANNEX 3)**

6.5.1. Free Flight: Ian Kaynes;
6.5.2. Control Line: Laird Jackson;
6.5.3. R/C Aerobatics: Bob Skinner;
6.5.4. R/C Gliders: Tomas Bartovský;
6.5.5. R/C Helicopters: Horace Hagen;
6.5.6. R/C Pylon: Bob Brown;
6.5.7. Scale: Narve Jensen;
6.5.8. R/C Electric: Emil Giezendanner;
6.5.9. Space Models: Srdjan Pelagic;
6.5.10. Education: Gerhard Woebbeking.

6.6. **2006 World Cups, by World Cup Coordinators (ANNEX 4)**

6.6.1. Free Flight: Ian Kaynes;
6.6.2. Control Line: Jean Paul Perret;
6.6.3. Thermal Soaring and Duration Gliders: Tomas Bartovský;
6.6.4. R/C Electric: Emil Giezendanner.
6.6.5. Space Models: Marian Jorik.
6.6.6. Space Models International Ranking Report: Srdjan Pelagic

6.7. **2006 Trophy Report, by CIAM Secretary, Massimo Semoli (ANNEX 5)**

6.8. **Aeromodelling Fund - Budget 2007, by 3rd Vice President Andras Ree**

6.9. **CIAM Flyer, by the Editor, Emil Giezendanner**

6.10. **World Air Games, by CIAM President, Sandy Pimenoff.**

7. **2006 WORLD CUPS PRIZEGIVING CEREMONIES.**

INVITATION TO THE
PRIZEGIVING CEREMONY FOR

The 2006 World Cup awards for classes F1A, F1A junior, F1B, F1C, F1E, F1E junior, F2A, F2B, F2C, F2D, F3B, F3J, S4B, S6B, S7, S8E/P and S9B,

The 2006 F1E Continental Championships Awards

The F2C World Championship Junior Medals

will be held on Friday, 23 March, 2007, at 16.30

in the Auditorium of the Olympic Museum.

8. **PLENARY MEETING VOTING PROCEDURE**

Confirmation of the voting procedure for the Plenary Meeting.

9. **NOMINATIONS FOR FAI-CIAM MEDALS AND DIPLOMAS (ANNEX 6)**

Alphonse Penaud Diploma
Radojica Katanic (Serbia)
Popescu Marian (Romania)
Pavel Fencl (Czech Republic)

Andrei Tupolev Diploma
No nomination received.

Antonov Diploma
Daniel Petcu (Romania)

Frank Ehling Diploma
Otto Hints (Romania)
Ottar Stensboel (Norway)
Jordan Kovacevic (Serbia)

Andrei Tupolev Medal
Popa Aurel (Romania)

FAI Gold Medal
Miroslav Sulc (Slovak Republic)
Tze Law Chan (Singapore)
G. Harry Stine (USA)
Jiri Havel (Czech Republic)
Antonis Papadopoulos (Greece)

10. **JUDGES AND SUBCOMMITTEES LISTS**

To receive any corrections to the Judges and Subcommittee lists accepted by CIAM Bureau at the 2006 December Bureau Meeting.

11. SPORTING CODE PROPOSALS.

The Agenda contains all the proposals received by the FAI Office according to rules A.6 and A.7. Those proposals not eligible to be voted on at the 2007 Plenary Meeting under rule A.12 are presented for information and discussion only in the Deferred Section at the end of the Agenda.

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

11.1 Bureau Proposals Volume ABR, Section 4A & 4B

Section 4A

A.2 Procedure for CIAM Plenary Meetings

a) A.2.1

Add a new second paragraph as follows:

The Technical Meeting of the Education Subcommittee should be scheduled in such a way that it does not interfere with attendance at that meeting by other Subcommittee members.

Reason(s): Members of other Subcommittees should be given the opportunity to attend the Education Subcommittee Technical Meeting.

A.3 Bureau

b) A.3.2.b & A.3.2.c

Amend the paragraph as follows:

b) The control of organisation of World **and Continental** Championships;

c) The approval of World **and Continental** Championships juries and judges;

Reason(s): Continental Championships are under Bureau jurisdiction too.

c) A.3.2.c

Amend the paragraph as follows:

The approval of World Championships **J**uries and **J**udges **including the Range Safety Officer (RSO) at Space Modelling Championships.**

Reason(s): The RSO at a Space Modelling Championship is the officer in charge of the range and carries the full responsibility of determining when a competitor may launch his rocket, whether any transgression have been committed and whether a flight should be disqualified. This level of authority is similar to that of a judge and, as such, needs be a person sufficiently qualified and as Bureau approves judges, so it should approve RSOs.

d) A.3.7

*Add a new paragraph at **A.3.7** entitled **Publication of Emergency Safety Notices & Safety Rules***

A.3.7 Publication of Emergency Safety Notices & Safety Rules

A.3.7.1 Publication of Emergency Safety Notices

a. NACs shall be informed of any safety notice by email within five days of the end of the Plenary meeting or the agreement of a majority of the CIAM Bureau in the case of safety notices that need to be generated between Plenary meetings.

b) Any safety notice shall appear on the CIAM homepage of the FAI website within five days of the end of the Plenary meeting or the Bureau decision to issue such a notice taken between Plenary meetings.

c) All safety notices shall be the responsibility of the Technical Secretary who may liaise with the appropriate Sub-Committee Chairman regarding the formulation of any such notice.

d) It will be the responsibility of the CIAM Technical Secretary, or in his absence, the CIAM Secretary, to liaise with the FAI office as necessary regarding the formal promulgation of any safety notice.

Reason(s): A formal procedure has become necessary.

e) A.3.7.2

*Add a new sub-paragraph **A.3.7.2 Emergency Safety Rules***

A.3.7.2 Emergency Safety Rules

a. See A.3.7.1 a & b.

b. New or amended safety rules shall be effective one calendar month from the end of the Plenary meeting of that year or for the next CIAM approved competition, in the category affected, whichever is the sooner.

c. Any amended or new safety rule(s) shall appear in the Organiser Bulletins of the appropriate Championship(s) being held that year.

d) All safety rules shall be the responsibility of the Technical Secretary who shall liaise with the appropriate Sub-Committee Chairman regarding specific safety rule(s).

e. See A.3.7.1.d

Reason(s): A formal procedure has become necessary.

f) A.9 Contest Calendar

A.9.1.

Amend the structure of the paragraphs and add text as shown:

Requests for contests to be put on the FAI International Contest Calendar must be received by the FAI Office no later than the 15 November, with the name, address, telephone, fax etc. of a contact person for additional information. The form to be used is shown in Annex 2 of this section.

All applications for contests must be accompanied by a fee to CIAM. The amount of this fee is determined annually by CIAM as defined in paragraph A.13.1. **Payment may be made by credit card or bank transfer but in any case, the remitter pays all card or bank charges.** If the fee is not received by 15 November, the contest will be deleted from the calendar.

Open International contests may be requested for approval in between CIAM meetings, if submitted at least three months in advance to the FAI Office with copies to the CIAM President and Technical Secretary. Open International applications received by the FAI office later than 15 November will not be eligible for inclusion in a World Cup for the following year.

Sanction fees and documents for World and Continental Championships **and World cup competitions** must be received by the FAI by 15 November **of the year preceding the Championships or World Cup competition.**

Reason(s): To reduce the costs to a NAC of registering an international competition; to improve the speed of receipt of fees and to reduce the potential for payments to be mislaid.

Section 4B

g) B.5 Organisation of International Contests
B.6 Contest Information and Entry Fees

Re-structure the paragraphs, insert some paragraph titles, add or delete text as shown, and re-number subsequent paragraphs appropriately.

Reason(s): To rationalise, improve and clarify the existing B5 & B6.

B.5.1. Organisation

Add a title to B.5.1

h) B.5.2. Local Rules

Re-number from B.5.3

i) B.5.3 Entry Forms

Re-locate paragraphs to do with entry forms and give a paragraph title and number and add and delete text as follows.

~~For open international contests,~~ **E**ntry forms must include **sections for**:

Name - First name - Date of Birth **(Juniors only)** - Postal address - Nationality - FAI Licence **Number** - Class(es) entered.

For World and Continental Championships, entry forms must be supplied by the organisers.

For Open Internationals an entry form must be supplied to any competitor requesting one from the organiser's contact details published on the FAI Contest Calendar.

The organiser must acknowledge receipt of the entry form and entry fee.

j) B.5.4. Results

Re-locate from B.6.5, give a paragraph title and number and add and delete text to the first and last paragraphs as follows.

Results must be despatched to the FAI and NACs taking part in the event within a month. For events included in a World Cup, the results must be despatched to the relevant World Cup ~~organiser~~ **Co-ordinator** within a month.

Results submitted to the FAI or World Cup ~~organiser~~ **Co-ordinator** must be in electronic form to allow for publication on the official FAI website.

k) B.6. ORGANISATION OF WORLD AND CONTINENTAL CHAMPIONSHIPS EVENTS

Re-locate from B.5.2 and add text to the title.

l) B.6.1 Bids to the CIAM

Re-number from B.5.2., add a title and separate the paragraphs for clarity, add and delete text as follows:

The CIAM will decide which event shall be held as a World Championship and Continental Championship and to which NAC shall be delegated the responsibility for the organisation of this event. Bids to host Championships may be submitted at any time in advance of a chosen year.

The firm acceptance of a bid will normally be made by vote of the CIAM Plenary meeting two years in advance of the year of the proposed Championships. In exceptional circumstances, the decision for awarding World and Continental Championships may be taken more than two years in advance of the year of the proposed Championships, providing a request is made by November 15 and published in the Agenda of the following Plenary Meeting.

In order to be eligible for selection, all bids must include the ~~full~~ details **required** in ~~the Guide at~~ Annex A1 to Section 4a **except for Jury and Judges names**. In the event that no acceptable bid is available two years in advance, the decision may be postponed to the Plenary meeting in the year before the Championship. If no bid is accepted at that

meeting, the Plenary Meeting may exceptionally delegate the decision to the CIAM Bureau meeting at the end of that year. This is the latest time at which the decision can be made to proceed with a Championship for the following year.

Before the ~~end of August~~ **15th November latest** of the ~~previous~~ year **prior to the Championships**, the dates and place of the Championship should be presented to the FAI office for publishing on the FAI website.

m) B.7. CONTEST INFORMATION AND ENTRY FEES

Re-number from B.6 and existing subsequent paragraphs B.7-B.19require re-numbering, too.

n) B.7.1. Information

Re-number from B.6.1, add a paragraph title and amend the paragraph as follows and re-locate the final paragraph to B.5.3:

A first memorandum of information **(Bulletin 1)** and entry forms must be despatched to the NACs, also to Jury members and judges, **after the Bureau meeting at which Bulletin 0 was presented and approved and** at least three months before the contest. ~~For open international contests, entry forms supplied by the organisers must include:~~

~~Name - First name - Date of Birth (Juniors only) - Postal address - Nationality - FAI Licence - Class(es) entered.~~

o) B.7.2. Entry Fees

Re-number from B.6.2., add a paragraph title, add and delete text, and split the very long paragraph as shown for clarity:

The entry fee will consist of an obligatory fee to be paid by all competitors and team managers and an optional fee that covers accommodation and food.

The organiser may specify a closing date for the receipt of fees. Entries received after this date may be subject to a penalty fee or may be refused by the organiser.

If an obligatory fee is required for official helpers and official supporters it must not exceed 20% of the obligatory fee for competitors.

Accredited representatives of the media shall not be required to pay an entry fee.

Items contributing to the calculation of the Basic Entry Fee are (applicable depending on local circumstances):

- **c**ontest site - rent and cost ~~for preparing~~ **of preparation**; ~~and organisational costs~~;
- organisational costs - ~~consist of~~ meetings/travel of organising committee; rent or purchase, if not already available, of contest equipment such as timing devices, lap counters, sighting apparatus, processing equipment, score board, walkie-talkies, frequency control equipment, score sheets, flags, flag poles, etc. Cost of instruction and briefing session of contest officials and Jury, licences and permits (PTT, local authorities); station**e**ry, postage (information bulletins, correspondence); rent of tents. The

cost of any Official opening ceremony. ~~must be included in the items to be taken into account when calculating the basic entry fee~~.

- In the event **that** a person is serving in more than one position (team manager, competitor, helper, mechanic, etc), he will be charged only one fee**:** that which represents the highest fee of **the** ~~those~~ positions to be served. If ~~on~~ **at** the same event, there is a senior and junior classification, any junior competitor may be a member of the senior team as well. In that case this competitor is required to pay only the entry fee for the junior's class.

p) B.7.3 Sponsorship

Re-number from B.6.3, add a paragraph title and amend the paragraph as follows:

It might be possible to obtain a sponsor for one or more of the above items. This will result in a lower basic fee, therefore sponsoring is highly recommended. However, sponsoring can only be taken into account if it is absolutely ~~sure~~ **certain** that it will be obtained, otherwise a loss can be expected. Sponsoring negotiations should start as early as **is** practical.

q) B.7.4. Additional Fees

Re-number from B.6.4, add a title and amend the paragraph as follows:

Separate additional fees will be offered at choice for: lodging **(**hotel and camping**)**; food (banquet not included) and banquet (and possible other additional events).

Maximum fee = basic fee + lodging (hotel) + food + banquet.

The maximum possible fee is 600 Euro for seven nights, except for events which require a large number of judges or more than seven nights.

For World Championship events that require more than five international judges, a separate additional fee may be charged to each contestant to cover the actual cost of travel, lodging and meals for those judges in excess of five. The additional fee is limited to a maximum of 165 Euro per contestant.

The cost of hotel accommodation must be kept reasonable. Keep in mind that hotel accommodation is often the only possibility for overseas participants. **Using the international standard of stars (*)** accommodation **to two stars (**) is sufficient.** ~~of acceptable middle class standard will be sufficient~~. ~~There is no need for any luxury. The same applies to the food.~~

Details of an ~~All~~ awarded offer~~s~~ must be submitted **in Bulletin 0, via the FAI office**, by November 15th to the relevant Sub-committee Chairman and the CIAM Secretary for review of the fee structure prior to consideration at the **following** Bureau Meeting..

~~The offers~~ **Bulletin 0** must contain a clear explanation of the **hotel, food & banquet costs per person per day in Euros.** ~~total costs in Euro to the participants.~~

Bulletin 0, after approval and including any corrections required by the Bureau meeting, shall be issued as Bulletin 1 by the organiser to the appropriate NACS as specified in B.7.1 or earlier if possible.

11.2 Volume ABR, Section 4B
(General Rules for International Contests – page 29)

a) B.7.4 Free Flight Subcommittee

Paragraph 1.

Remove the following sentence:

~~For Free Flight models, the flying schedule is F1A, F1B and F1C.~~

Reason: The order had been specified at a time when performance differences between classes meant that it was advantageous to the timescale of reaching a result to have F1C on the last day. There is currently little difference between the classes that requires a set flying order. With different flying order a fairer situation can occur whereas in the current order F1A flyers always have least preparation time. Organisers would be free to choose the order to suit particular circumstances. If there are no other factors it would be preferred by the FFSC to have a rotation of flying order, for example order BCA in championships in 2008 and 2009, CAB in 2010 and 2011, etc.

b) B.8.1 Free Flight Subcommittee

Amend as follows:

Starting positions are indicated by markers, spaced at least 10 meters apart along the starting line. In the case of F1A, the helpers shall launch the model at this pole. Each country and the reigning champion, if not a member of his national team, is allotted a starting position for the first round by draw. In each successive round, all countries **move a defined number** of ~~three~~ starting positions along the line in the same direction; upon reaching the end of the line, a country takes its next position at the other end of the line. **The number of starting positions to be moved is the nearest whole number to the number of starting poles divided by the number of official flights.** Each competitor in the fly-off is allotted a starting position by draw for each fly-off round. Spectators are not allowed within 25 m from the starting line.

REASON: The present requirement of moving 3 poles between rounds means that some teams may stay near the middle of a long starting line while others are near one end and then the other. Varying the movement according to the number of starting positions ensures more equality in start conditions for each team.

c) B.8.1 Free Flight Subcommittee

Add the following sentence to the end of paragraph B.8.1 paragraph 2, after "Spectators are not allowed within 25 m from the starting line"

During the rounds test flying is not allowed near the starting line or upwind of the starting line. The Organiser may specify an area to be used for test flying during the rounds.

Reason: The Sporting Code does not state a limit on the location for test flights. By established practice these should be away from the starting

line. This provides the means to enforce this. The possibility of enforcing a specific general limit (e.g. at least 200m from the line) was not followed since this entails another quantity to measure and mark if such a rule was to be observed. The option for the organiser is to specify a test flying area if he chooses to make more explicit the location.

d) B.8.1 Free Flight Subcommittee

Paragraph 3. Amend as follows:

In Free Flight contests for class F1E, provide a **straight** starting line facing the wind with, on both ends, one perpendicular parallel line following the slope. The timekeepers have to remain behind the starting line whereas the competitor can launch his model in any position on the slope between the parallel lines **and below the starting line**.

Reason: Clarifications of the existing rule.

1) That the starting line must be a straight line and not face in multiple directions;
2) That the launching area is below where the timekeepers position.

This is the standard practice in F1E events but is not specified in the current rule.7.ABR.f).

e) B.12 Great Britain

Add new paragraph to B.12.

B.12.3 Prohibition of Thermal Detection Devices

All mechanical, electronic and other devices that are used to detect the presence of thermal activity are prohibited on the flight line and within 800 metres of the designated line. A single streamer per competitor for the indication of wind direction is allowed. The streamer is not to exceed 2 metres in length and may not be flown higher than 2 metres above the ground.

The devices prohibited will be:

All electronic meters/recorders that indicate and or record changes in wind speed or temperature.

Bubble generating machines

Streamers other than provided for within the rule

Natural materials such as "fluffies" the airborne seeds of bull rushes

Any other devices that augment the natural ability of the flyers to detect thermal activity

A wind speed meter shall be provided by the organiser to ensure that the wind speed limitation rule can be applied. This equipment must be retained by the Contest Director and use of such equipment by any other person on the flight line or within 800 metres shall not be permitted.

Unrestricted use of wind speed meters is allowed for F1E where the knowledge of wind speed is integral to the class.

Reason: This rule change proposal recognises that whilst thermal detection equipment assists in the scoring of maximums the development, deployment and use of such devices does not add value to

the sport of model flying, nor to the technical challenge of model development.

Their removal will create a more level playing field for competitors and will also meet the need for a reduction in overall performance by make the scoring of maxes on a consistent basis more difficult to achieve and thus reducing the numbers in the fly off.

There is the added benefit of making transportation logistics simpler, bearing in mind the possible security requirements now being placed upon overseas travel.

f) B.15 Processing of model aircraft **Free Flight Subcommittee**

Amend as follows:

A sticker, also provided by the FAI or marking to the pattern of this sticker, shall appear on each model **(except for indoor and free flight models)**. An example of how to fill out and handle the Model Specification Certification Sticker is shown at Annex B.1.b..

Reason:
1) Clarification that indoor models are not required to carry the sticker.
2) To remove the requirement for the sticker on free flight models.

By B.15.10 Free Flight models are required to carry the licence number or national identification number of the competitor. In conjunction with the model identification codes on each part of the model (B.15.8) this completely identifies all components of the model with the competitor and it is difficult to see any additional function served by the sticker.

11.3 Volume ABR, Section 4C, Part One
(General Regulations for Model Aircraft – page 52)

a) 1.2 General Characteristics of Model Aircraft — Scale Subcommittee

Add one line for turbines after Electric Motors and add turbines to be excepted from noise check, page 52:

Electric Motors power source max. no load voltage 72 volts

Maximum thrust of turbines 25kg (250 Newton)

Noise limits do not apply to model aircraft with electric motors **or equipped with turbines**.

Reason: We have omitted to include turbines in our general definition of model aircraft. Models of modern jets needs to have a power to weight ratio of 1:1 to be able to do scale manoeuvres and as the maximum weight is 25 kg we propose to have the turbine thrust at the same limit.

b) 1.3.1. Free Flight Category F1 - Free Flight — Russia

Remove last sentence:

This is a flight during which there exists no physical connection between the model aircraft and the competitor or his helper. Radio control functions are allowed only when specifically stated in the rules for the relevant class. ~~Closed loop control systems with active sensors and operating aerodynamic flight controls are not allowed, except for steering in F1E~~**.**

Reason:
1) Presence of "the closed loop control systems with active sensors and operating aerodynamic flight controls" on the model does not contradict spirit of Free Flight.
2) Check of presence of "the closed loop control systems with active sensors" onboard model is technically a challenge even in the World and continental championships. Development and miniaturization of electronics will make practically impossible in the near future to define presence of active sensors and flight control systems onboard model without serious and expensive research of the model. If something is very difficult for checking up, it is better to permit it.

Supporting Date: Creation of flight control systems of model is the most interesting task. On the one hand the cancellation of an interdiction on "the closed loop control systems with active sensors" can involve new people in Free Flight and increase interest to Free Flight models. On the other hand, even creation of "an ideal flight control system" will not provide a victory over 100 % in Free Flight as exist lift-to-drag ratio of model, the engine (energy of start) etc. with which any control system cannot replace.

11.4 Section 4C Volume F1 – Free Flight

F1A Gliders

a) 3.1.2 Characteristics of Gliders F1A **Russia**

Note: This proposal is from the 2006 Deferred Section

Amend 3.1.2 as follows.

Maximum length of launching cable loaded by 5 kg …… **40 m**

Reason(s): The current characteristics of the model are enough high. Decreasing of the start condition permit to decrease duration of flight and to improve timekeeping because of less distance. It is very important, particularly in fly off when it is deciding first places.

Modern F1A model can fly without thermal activity about 5 min. If take into consideration wind speed 4 m/s (less than average in fly off) then we get distance about 1200 m from start place to the end of flight. There are not too many fields for free flight which permit such flight without any barrier. It is obvious the timekeeping condition is better if the distance is less at the same other conditions.

b) 3.1.7 Duration of Flights **Free Flight Subcommittee**

Amend paragraph 2 as follows:

In the event of ~~exceptional meteorological conditions or glider recovery problems~~ **glider recovery problems or to suit meteorological conditions** the Jury may permit the maximum for a round to be changed. Such a modified maximum must be announced before the start of the round.

Reason(s): This allows more freedom to extend the maximum if weather is suitable. This allows the maximum advantage to be taken of times when wind, thermal activity and visibility are suitable for such a maximum. The present wording of “exceptional meteorological conditions” is more directed to reducing the maximum if the weather is exceptionally bad, only allowing for an increased maximum if good weather is regarded as exceptional.

F1B Extensible Motors

c) 3.2.2 Characteristics of Model Aircraft with Extensible Motors **Russia**

Note: This proposal is from the 2006 Deferred Section

Amend as follows.

Minimum weight of model aircraft less motor(s) ……**205 g**

Maximum weight of motor(s) lubricated……**.25 g**

Reason(s): The current characteristics of the model are enough high. Decreasing of the start condition permit to decrease duration of flight and to improve timekeeping because of less distance. It is very important, particularly in fly off when it is deciding first places. Modern F1B model can fly without thermal activity about 7 min. If take into consideration wind speed 4 m/s (less than average in fly off) then we get distance about

1700 m from start place to the end of flight. There are not too many fields for free flight which permit such flight without any barrier. It is obvious the timekeeping condition is better if the distance is less at the same other conditions.

d) 3.2.7 Duration of Flights — Free Flight Subcommittee

Amend as follows:

In the event of ~~exceptional meteorological conditions or model aircraft recovery problems~~ **model aircraft recovery problems or to suit meteorological conditions** the Jury may permit the maximum for a round to be changed. Such a modified maximum must be announced before the start of the round.

Reason(s): As for F1A, see a) 3.1.2).

F1C Piston Motors

e) 3.3.2 Characteristics of Model Aircraft with Piston Motors — Russia

Note: This proposal is from the 2006 Deferred Section

Amend 3.3.2 as follows.

Maximum duration of motor run: …**4 seconds** from release of model.

Reason(s): The current characteristics of the model are enough high. Decreasing of the start condition permit to decrease duration of flight and to improve timekeeping because of less distance. It is very important, particularly in fly off when it is deciding first places.

Modern F1C model can fly without thermal activity till 10 min. If take into consideration wind speed 4 m/s (less than average in fly off) then we get distance about 2400 m from start place to the end of flight. There are not too many fields for free flight which permit such flight without any barrier. It is obvious the timekeeping condition is better if the distance is less at the same other conditions.

f) 3.3.7 Duration of Flights — Free Flight Subcommittee

Amend as follows:

In the event of ~~exceptional meteorological conditions or model aircraft recovery problems~~ **model aircraft recovery problems or to suit meteorological conditions** the Jury may permit the maximum for a round to be changed. Such a modified maximum must be announced before the start of the round.

Reason(s): As for F1A, see a) 3.1.2).

g) 3.4.7.e Steering **Great Britain**

Note: *it was agreed at the December Bureau meeting that this proposal may be included on the agenda for the Plenary Meeting 2007.*

Update the current rule for appointment of a substitute steerer by replacing the entire paragraph.

The decision to steer is the responsibility of the competitor who must steer the model unless a substitute steerer has been agreed with the contest officials.

In the case of poor sight, a medical doctor's affidavit certifying that the competitor's corrected vision is inadequate can be submitted under the following conditions:

a) The better eye's vision is no less than 6/12 (metres).

or

b) The results of a binocular vision test show that the competitor's
binocular vision is either medium or non-existent.

Submission of this affidavit to the contest organiser or event director will permit the competitor to appoint a substitute steerer.

Reason(s): The current rule does not take into account deficiencies in binocular vision that compromise the judgement of distance thus making it impossible to competently steer a model when it is at high altitude.

Supporting Data: Discussions with oculists have revealed that binocular visual capability is a very individual characteristic and that it is not necessarily dependent on both eyes having similar vision. There is now available a standard test that oculists can carry out to assess a person's binocular vision. This test assesses the binocular visual capability as being good, medium or non-existent. The oculist advised that, by this test, good binocular vision would be required for steering.

It should be noted that the metric equivalent of the current expression used in the Sporting Code, 20/40, (USA grading, expressed in feet) is 6/12.

h) 3.H.2 Characteristics of Gliders F1H **Germany**

Page 17, replace by:

~~Minimum weight .....220 g~~

Minimum loading 12 g/dm2

Reason(s): There are simple F1H-models for beginners smaller than 18 dm^2. It is unfair to demand a minimum weight of 220 g of them.

i) 3.J.2 Characteristics of Model Aircraft with Piston Type Motors
Free Flight Subcommittee

Amend as follows:

Maximum duration of motor run……~~7~~ **5** seconds from release of model

Reason(s): The performance of the models is too great with 7 seconds motor run.

j) 3.P.2 Characteristics of Model Aircraft with Piston Type Motors
Free Flight Subcommittee

Amend as follows:

Maximum duration of motor run…… ~~10~~ **7** seconds from release of model

Reason(s): The performance of the models is too great with 10 seconds motor run.

l) 3.P.2 Characteristics of Model Aircraft with Piston Type Motors
Germany

Add minimum diameter paragraph, page 24:

Minimum diameter of the propeller(s) .....180 mm

Reason(s): Reduce of model performance to an amount which may easily can be handled by a junior.

k) 3.Q.2 Characteristics **Free Flight Subcommittee**

Add at end of this paragraph:

F1Q models may use radio control only for irreversible actions to restrict the flight, that is motor stop or dethermalisation. Any malfunction or unintended operation of these functions is entirely at the risk of the competitor.

Reason(s): To allow the same option as is available for the piston motor class F1C.

l) Annex 1, Rules for World Cup Events, 1. Classes **Germany**

Paragraph 1 Addition, page 28:

The following separate classes are recognised for World Cup competition: F1A, F1B, F1C, F1E, F1Q, F1A Junior, F1B Junior**, F1P Junior** and F1E Junior. **Instead of a model according to the F1C-definition, it is allowed to fly with a model according to the current F1P-definition.**

Reason(s): F1P Juniors should be given the opportunity to compete in international contests, not in International Championships only. Flying and competing F1P and F1C together would have impact for:

a) sharing experience from “old” F1C-Pilots to Junior-Pilots
b) optimization of the (F1P-)designs
c) sharing competitors in one class
d) comparing performance with some more participants
e) waking up interest for “older” F1C-Pilots to build and fly with F1P-models
f) reduce the risk by model crash because of a lower wing load

11.5 Section 4C Volume F2 – Control Line

F2A Speed

a) 4.1.6 Line Test **Great Britain**

Add a new second paragraph

4.1.6. Line Tests (to be made before each attempt for an official flight)

The radius is measured from the axis of the pivot on the pylon, to the axis of the propeller. Where two propellers are employed, the axis of symmetry is taken as the reference for measurement.

A load to a maximum of 1Kg may be applied during the line length check.

A load test shall be applied to the assembled control handle, lines and model aircraft equal to 50 times the weight of the model aircraft and this test shall be applied separately to the safety strap when attached to the competitor's wrist.

In each case the pull shall be applied three (3) times, slowly increasing to maximum load and releasing rapidly. The pull test should be made on the handle grip, not near the point of attachment of the lines (see sketch).

The diameter of the lines shall be checked at random distances on at least three points along the length of each line.

Reason(s): Clarification of the rule to ensure that excessive load is not applied in an attempt to make under-length lines fit the line length check.

b) 4.1.10 Definition of an Official flight **Great Britain**

Change paragraph 4.1.10 as shown

4.1.10 Definition of an Official Flight

The flight is official when the ~~timekeepers start the watches~~ **timing commences.**

Reason(s): To clarify when a flight is official.

c) 4.1.13 Starting of Timing **Great Britain**

Change paragraph 4.1.13 as shown

The timing commences officially when the competitor has placed his handle in the pylon fork and the model aircraft having made 2 complete circuits again passes the **electronic sensor, or the** height marker on the edge of the circuit directly opposite the timekeepers.

Reason(s): To clarify the rules to prevent or resolve situations such as those that arose at the 2006 World Championships.

d) 4.1.16 Number of Timekeepers and Judges **Great Britain**

Change paragraph 4.1.16 as shown:

c) For World and Continental Championships, a senior judge ~~will~~ **shall** be appointed to supervise the conduct of the timekeepers and judges. The senior judge ~~will~~ **shall** be selected from a list of persons who are nominated by NACs for their proficiency and experience and approved by the CIAM.

Reason(s): To emphasise the mandatory nature of the rule.

e) 4.1.17 Classification **Great Britain**

Change paragraph 4.1.17 b) ii) as shown.

b) ii) In the case of an optical electronic system, the senior speed judge ~~should~~ **shall** check the result by looking at the logged individual lap times of the official flight, as well as the laps before and after the official flight. If there is any anomaly, the backup system ~~should~~ **shall** be consulted. If the backup system is manual and both timekeepers report a mistake (they may have timed one lap short), **or if the backup system is electronic and it shows an anomaly, or if both electronic systems fail,** the competitor ~~should~~ **shall** be given a replacement attempt. If the backup time, either manual or secondary electronic, is within 12/100 of the primary system time, the primary system time is used. If the backup time, either manual or secondary electronic, differs by more, but is in itself consistent, its time should be used. If an uncertainty in excess of 12/100 seconds remains, then the competitor has the choice of choosing the slowest recorded speed or being allowed a replacement attempt. His decision must be given to the Circle Marshal without delay, and is irrevocable. **Replacement attempts shall be scheduled to take place within one hour of the original attempt.**

Reason(s): To clarify the rules to prevent or resolve situations such as those that arose at the 2006 World Championships.

F2B Aerobatics

f) 4.2.1 Definition of an Aerobatic Model Aircraft **F2 Subcommittee**

Amend as follows, page 10:

Powered control line aerobatic model aircraft **as per SC. Vol. ABR.06 Paragraph 1.3.2.,** in which all aerodynamic surfaces **remain fixed during flight** (except for the propeller plus that/those surface/s used to control the flight path). ~~remain fixed during flight.~~

Reason(s): Clarification and ease of use due to cross-reference to ABR.

g) 4.2.10 Scoring F2 Subcommittee

Amend the Note related to flip-over on landing, page 15:

Note: if the model aircraft flips over **or noses-down** during the ground rollout phase points may be awarded for the landing manoeuvre if in the opinion of the judges, the flip over **or nosing-down** was due to adverse wind conditions, or poor ground surface conditions affecting what could otherwise have been predicted as the model aircraft's normal ground roll after touching down.

Reason(s): Clarification. From experience of the 2006 World Championship in Valladolid it was obvious that, despite the organizers providing a grass surface mown down to the recommended height of 2.5 cm nosing-down can not always be prevented by the pilot. This should not lead to the marking of 0 (zero) points for the Landing Manoeuvre.

h) 4.2.10 Scoring F2 Subcommittee

Re-insert the conditions of when the mark 0 (zero) point should be awarded. List starts on page 14 and goes on page 15:

All judges shall award a mark 0 (zero) for:

- Manoeuvres omitted or not attempted at all.

- Manoeuvres started but not completed.

- Manoeuvres with an incorrect number of repeat figures (either too few or too many).

- Manoeuvres flown out of the sequence.

- Manoeuvres flown without a minimum of 11/2 laps interval after the previous manoeuvre.

- Manoeuvres performed after the maximum flight time of 7 minutes has elapsed.

When a manoeuvre is omitted or not attempted…

Reason(s): Clarification. This condition was part of the originally submitted draft for the revised rule. It was accidentally omitted in the process of writing the finally published version.

i) 4.2.12 Classification F2 Subcommittee

Clarify the result rounding procedure, page 16-17:

a.) (...) The result will be rounded ~~down~~ **off** to two decimal places to produce the competitor's final score per official flight.

c.)(...) The final placing of the finalists will be processed as follows: each competitor's two highest fly-off round scores shall be added together and the resulting total shall then be divided by two. The result shall be rounded ~~down~~ **off** to two decimal ~~points~~ **places**. In case of ties…

Reason(s): Clarification. The term "rounding down" has led to misunderstandings. "Rounding off" describes the commonly used procedure to modify numbers with more than two decimal places to the two significant decimal places.

j) 4.2.13 Starting Procedure F2 Subcommittee

Replace all of 4.2.13 with the following text, Page 17:

a.) Each competitor shall be officially called to enter the contest flight circle. Failure to enter within 3 minutes from being called shall be considered as being an attempt for the due flight.

b.) From the moment he is officially called to enter the contest flight circle, each competitor shall be allowed 3 minutes preparation time to enter, to place his model aircraft at the selected starting position, to position the judges panel and to prepare for motor(s) start.

c.) The official timing of the 3 minutes preparation time shall start from whichever of the following occurs first:

the moment the competitor steps into the flight circle

or

the moment the preceding competitor has cleared his model aircraft, lines and handle from the contest circle

The timekeeper shall signal the beginning of the 3 minute period to both the competitor and the judges.

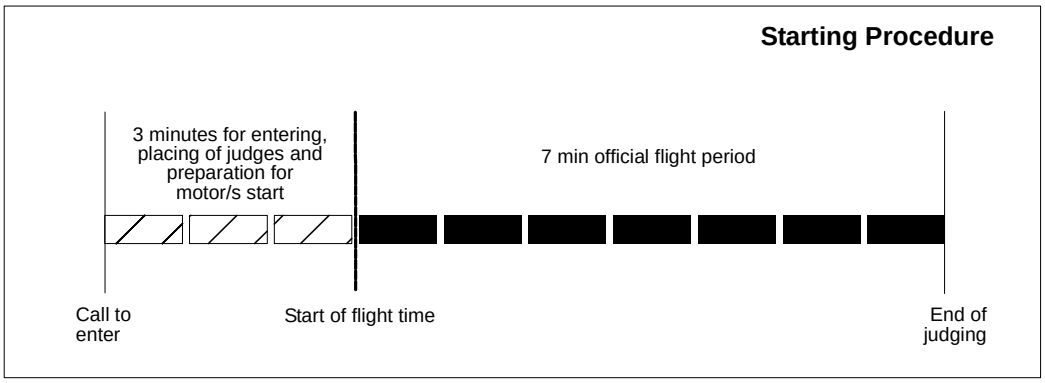
d.) Within the 3 minutes, the competitor gives a clear hand signal to the timekeeper, indicating that he is ready to start the motor/s. The timekeeper acknowledges the hand signal and begins the timing of the 7 minutes flight period. At the same time, the timekeeper signals the beginning of flight timing to both the competitor and the judges.

e.) If the competitor has not given a clear hand signal by the time that the 3 minutes preparation time has elapsed then the timekeeper shall begin the timing of the 7 minutes flight period. At the same time, the timekeeper signals the beginning of flight timing to both the competitor and the judges.

f.) If the competitor starts his motor/s without having given a clear hand signal, then the timekeeper shall begin the timing of the 7 minutes flight period, even if the motor/s start has taken place within the 3 minutes preparation time. At the same time, the timekeeper signals the beginning of flight timing to both the competitor and the judges. The timekeeper notifies the judges that no hand signal was given.

g.) The timing of an official flight shall stop at the moment when the model aircraft has come to a full stop at the end of the ground roll that completes the Landing Manoeuvre.

*Replace diagram with the one below/overleaf (file format *.wmf):*



Reason(s): Simplified procedure.

Supporting Data: Experience gained at the 2006 W/C in Valladolid and observations made at a number of open international contests earlier this year have shown that the procedures as described in the current version of 4.2.13 are difficult to understand and follow. This has led to misunderstandings between competitors, timekeeper and judges. The suggested procedure returns to the original rule while still removing the unnecessary time delays found within the original rule.

k) 4.2.14 Execution and Sequence of Manoeuvres F2 Subcommittee

Clarify the intervening laps (between each manoeuvre), page 18:

Every competitor shall leave at least 11/2 laps ~~plus~~ **(including** the recommended entry and exit procedure detailed for each manoeuvre) to create a pause period between the end of one manoeuvre and the start of the next. The **1**1/2 intervening laps shall be flown at a height of between 1 and 3 metres. Judges shall not however officially observe any of these pause periods but instead shall use this time to enter the score awarded for the previous manoeuvre onto the competitor's score sheet before the next manoeuvre is started.

Reason(s): Clarification. The term "plus" has led competitors fly more than 1½ intervening laps between manoeuvres. This was not the intention of the rule authors and should be corrected. Also, a typographic error (a missing 1) at the begin of the second sentence needs to be eliminated.

l) 4.2.15.4. Reverse wing-over manoeuvre F2 Subcommittee

Amend as follows, page 20:

b.) The first "vertical" climb and dive segment: the model aircraft should turn sharply into a "vertical" climb and should then maintain a "straight line" climb that is at right angles to the ground. It should pass ~~directly~~ over the flyer's head (...)

d) The second "vertical" climb and dive segment: the model aircraft should turn sharply into a "vertical" climb and should then maintain a "straight line" climb that is at right angles to the ground. The model aircraft should pass ~~directly~~ over the flyer's head (...)

Reason(s): Clarification. The term "directly" creates controversy in relation to the definition of "vertical" (=perpendicular to ground) as per 4.2.15.1 Terminology and wording.

m) 4.2.15.16.j Four-leaf clover manoeuvre **F2 Subcommittee**

Amend as follows, page 28:

j) End of manoeuvre: at the end of the last "vertical" climb, as the model aircraft passes through a point ~~directly~~ above the centre of the circle.

Reason(s): Clarification. The term “directly” creates controversy in relation to the definition of “vertical” (=perpendicular to ground) as per 4.2.15.1 Terminology and wording.

n) 4.2.15.17 Landing Manoeuvre **F2 Subcommittee**

Clarify power-off definition, page 28:

g) Start of manoeuvre: as the model aircraft leaves a height of 1.5 metres, plus/minus 30 cm, and with the motor/s **and propeller/s stopped** ~~(gliding flight)~~

h.) The descent segment: the model aircraft should fly for 1 full gliding lap ~~(power off condition~~ **with the motor/s and propeller/s stopped)**, measured from the start of the descent at the 1.5 metres plus/minus 30 cm height, until the point of touchdown.

Reason(s): With electric motors being used in F2B competition since January 1st 2006 it has become difficult for judges to recognise whether, at the beginning of the descent segment, the electric motor was actually completely shut off or not. A stopped propeller/s is a visual indication that the motor/s has been cut and is not driving the propeller/s.

Supporting Data: Effective date: January 1st 2008 to allow for the development of suitable motor controllers and/or propeller brakes.

o) 4.2.4 Line Test **F2 Subcommittee**

Adjust time frame for pull test, page 11:

b. Not less than ~~20~~ **15** minutes and not more than ~~1 hour~~ **30 minutes** before every contest flight a test load of 10 times…

Reason(s): At a typical time of 10 minutes per flight, the current 40 minutes time frame requires the availability of 4 ready boxes. Since existing F2B sites are typically equipped with 3 ready boxes only, it is necessary to adjust the time frame accordingly.

p) 4.2.4 Line Test **F2 Subcommittee**

Add new subparagraph d.) and re-number subsequent paragraphs, page 11:

d.) In case the competitor fails to make his model aircraft available for the pull test in the ready boxes and within the time frame given, his flight shall be considered as an attempt.

Reason(s): Safety. Clarify the consequence of not making the model aircraft available for the pull test.

q) 4.2.7.d Contest Flights **F2 Subcommittee**

Amend as follows 4.2.7.d.i, page 13:

i) the competitor did not pass through the entrance to the contest flight circle within ~~2~~ **3** minutes of being officially called to perform a contest flight.

Reason(s): Simplified procedure.

r) 4.2.7.d Contest Flights **F2 Subcommittee**

Add new subparagraph iv) to paragraph 4.2.7.d, page 13:

iv) or if competitor fails to make his model aircraft available for the pull test in the ready boxes within the time frame given.

Reason(s): Safety. Clarify the consequence of not making the model aircraft available for the pull test.

s) 4.2.7.h Contest Flights **F2 Subcommittee**

Amend as follows 4.2.7.h, page 13:

A re-flight shall be offered to a competitor if in the opinion of the ~~Circle Marshall~~ **Head Judge.**

Reason(s): Contest experience has shown that in some cases the expertise and background of a Circle Marshall may not be adequate to support such decisions. It is therefore suggested that the related decisions shall be taken by the Head Judge instead.

t) 4.2.9 Definition and Number of Helpers **F2 Subcommittee**

Amend as follows 4.2.9, page 14:

Each competitor is entitled to ~~two~~ **three** helpers for each contest flight.

Reason(s): 1) Where ground conditions may be dangerous for the lines an additional person serving as "handle holder" does increase safety.

~~2) Engine start for multi-engine model aircraft may also need more than the present two helpers.~~

F2C Team Race

u) 4.3.5 Controls – Technical Verification **Great Britain**

Change paragraph 4.3.5 as shown, page 29:

a) Line Length: The radius of the flight circle is 15,92 m. It is measured, **with a line tolerance of -0mm/+25mm** from the axis of the control handle to the axis of the propeller for a single motor model aircraft and to the axis of symmetry for a multi-motor model aircraft. **A maximum load of 1kg may be applied during the line length check.**

Reason(s): Safety:

(Line length tolerance) – currently there is no maximum line length. Instituting a maximum line length will reduce the potential danger to the pitmen. Additionally, on models that incorporate a retractable undercarriage, the length of the lines changes when the mechanism is activated and a +25mm tolerance allows for this.

(Line length load) - a maximum load of 1kg is sufficient to tension the lines of a model with a retractable undercarriage wheel, without activating the retracting mechanism, to ensure an accurate line length check.

F2D Combat

v) 4.4.5, 4.4.6, 4.4.12, 4.4.15 F2 Subcommittee

Add the following paragraph to section 4.4.5:

The aircraft or engine(s) shall be equipped with a device (shutoff) to stop the engine in the event of lines break or other incident which allows the aircraft to leave the flying circle. The device must remain functional for the entire flight period and must be repaired or replaced before take off if it becomes non-functional during the match.

Make the indicated change to section 4.4.6.c:

c) Line Tests: Before each heat any sets of lines which may be used must be checked for length and diameter. A pull test shall be applied to the assembled handle(s), control lines and model aircraft for all equipment to be used in that heat. The pull test shall be equal to 150 N. **Demonstration of engine shutoff may be required by the judges before each heat. The engine shutoff device must stop the engine within 2 seconds of activation. Additional demonstrations may be required by the judges after the heat.**

Make the indicated changes to section 4.4.12.b:

b) In the event of a model aircraft fly-away **where the engine-stopping device has worked properly,** as a result of the lines having been severed by his opponent's model aircraft, lines or engine, and in which the model aircraft and streamer may not be retrievable due to the distance flown, the circle marshal asks the affected pilot whether he wants a new attempt or not. If the pilot wants to continue the flight he must use a new full-length streamer. The pilots should be informed before the beginning of the competition where the fly-away area is defined. This area should be clearly defined by the organisers.

Make the indicated changes to section 4.4.15:

An entrant will be eliminated from the heat and his opponent declared the winner, subject to 4.4.12.c), if:

c) he attempts to fly a model aircraft which at the time of launch does not have a strong effective control mechanism, or does not have a secure engine attachment **or does not have a functional shutoff device** or does not have a running engine;

y) in the event of a flyaway where the shutoff device does not stop the engine within 2 seconds.

Reason(s): Safety. Flyaways are the most dangerous part of F2D competition. Although competitors and helpers are generally aware of the conditions and action at the competition circle, and have some safety precautions in place, more distant spectators and the surrounding environment is not so protected. The use of fuel shutoffs will prevent the model aircraft from leaving the competition site at a velocity which would be dangerous.

Supporting Data: Fuel shutoff devices have been in use in combat events in the US for some time and have proved workable and effective in reducing model aircraft flyaways and the danger they present.

F2 Annexes

w) Annex 4A – Class F2A Judges' Guide **Great Britain**

Change the 8th bullet point & insert two new bullet points as shown, page 43:

Draw for Flying Order

It is recommended that the draw should be arranged so that competitors fly at five minute intervals.

The draw should be arranged so that competitors from one nation are not required to fly within fifteen minutes of each other.

After the draw has taken place, it should be split into three equal groups, A, B and C.

For round one, group A flies first, followed by group B and then group C.

For round two, group B flies first, followed by group C and then group A.

For round three, group C flies first, followed by group A and then group B.

There should be a ten minute break at the end of each hour of flying.

Re-flights **(second attempts)** should take place at the end of each round.

Replacement attempts may take place at the end of the group in which the attempt was scheduled, or in the scheduled ten minute break at the end of each hour of flying.

Replacement attempts and second attempts shall be taken in the original draw order.

Reason(s): To clarify the rules to prevent or resolve situations such as those that arose in F2A at the 2006 World Championships.

cont overleaf…/ x)

x) Annex 4A - Class F2A Judges' Guide **Great Britain**

Change the 3rd bullet point & insert a new bullet point as shown, page 44:

4.1.13 Start of Timing

The chief timekeeper should determine when the pilot has placed his handle in the pylon - NOT the judge who is observing the conduct of the pilot.

The chief timekeeper must call when the pilot has placed his handle in the pylon.

For manual timekeeping ~~H~~**h**e will call "two" when, after the pilot has placed his handle in the pylon, the model aircraft first passes the height marker. He will then call "one" as the model aircraft again passes the height marker.

The timekeepers start timing the next time the model aircraft passes the height marker.

The timekeepers should preferably be positioned one behind the other, not side by side.

When an electronic timing system is used, the chief timekeeper will initiate the primary timing device when he observes that the pilot has placed his handle in the pylon. As he does so he will call "in" and the backup timekeeper will immediately initiate the backup system.

The judge who is observing the pilot must call if the pilot removes the handle from the pylon.

The timekeepers and circle judges must use the official practice session to train in their individual and collective duties.

Reason(s): To clarify the rules to prevent or resolve situations such as those that arose in F2A at the 2006 World Championships.

y) Annex 4E –Control Line Organisers' Guide **Great Britain**

Change paragraph 6.5.1.6 as shown, page 63:

6.5.1.6. Just outside the entrance there shall be a line control ~~square~~ **area** fenced off with a low fence or a rope. In this ~~square~~ **area** the line length ~~15,92~~ **17.69m** will be marked by marks firmly fixed to the ground. The marks should preferably be of the edge type, and the edges not wider than 2 mm.

Insert a new paragraph 6.5.1.14 as shown

6.5.1.14 When a duplex electronic timing system is used, the sensors shall be placed in a shaded area facing away from the sun. Care should be taken to ensure that no moving shadows cross the sight path of the sensors.

Reason(s): To bring the Organisers' Guide in line with previously agreed rule changes and to ensure that a duplex electronic timing system is properly situated.

z) Annex 4E – Control Line Organisers' Guide F2 Subcommittee

Replace all of 6.5.2. (6.5.2.1 – 6.5.2.5) with the following, page 67:

6.5.2.1 Contest organisers shall provide a site with one or more Contest Flight Circle/s that are horizontal within plus/minus 30 cm across the entire diameter of each circle. Contest Flight Circles shall also be flat and have smooth and ridge-free surfaces. If surfaced in asphalt, concrete, or similar hard material, the surface should be dust-free (that is: not packed gravel or sand, nor paved or tiled with openings between the paving material). Hard surfaces should, as a minimum, provide sufficient hard area to include at least the whole of the pilot's circle plus a "ring" for model aircraft to use during Take-off and Landing (see diagram below). During contest flying all grass, soil, etc, lying between these 2 areas shall be kept short enough and level so as not to interfere with control lines when model aircraft are Taking-off and Landing.

6.5.2.2 If Contest Flight Circle/s are wholly grass (or similar), the same requirements as in paragraph a) above shall apply, and also, the centre (pilot's) circle and Take-off and Landing area should have an underlying surface which is free from any bumps and/or holes. The standard required shall be better than that of a typical local sports field (a football field for example), and should be as close as possible to a high quality, level, well-tended and well-drained domestic lawn. The length of grass shall be kept to a maximum of 2.5 cm over the complete Contest Flight Circle during contest flying.

6.5.2.3 The diagrams below show the recommended dimensions for Contest Flight Circles and also show recommended markers erected to display every $^{1}/_{8}^{th}$ of a lap interval, plus the normal level flight height (together with their related upper and lower height tolerances). As a minimum standard all Contest Flight Circle/s shall have the centre (pilot's) circle and outer diameter circle clearly marked with lines of 10cm width. The erection of a safety fence (or other suitable barrier) around the outside of all Contest Flight Circles as shown below is also highly recommended.

6.5.2.4 The use of "Ready Box"/es is recommended at all contests. These should be clearly marked, segregated from general access by barriers, and be large enough to contain a model aircraft with full-length lines attached. Ideally three such Ready Boxes should be provided if the site is large enough. It is also recommended that one "Exit Box" is also provided. This should be positioned on the opposite side of the Contest Flight Circle to the Ready Box/es, of a similar size to the Ready Box/es, and similarly marked and segregated.

6.5.2.5 At World and Continental Championships and other limited international contests, organisers shall also provide Practice Circle/s. These shall be located at the contest site itself, but in any event shall not require more than 30 minutes of normal travelling time to reach from the contest site. Organisers should provide a minimum of one Practice Circle for every 50 registered contestants. All Practice Circles shall be freely open and available for use by all

contestants for at least the duration of the contest, plus also for a suitable time before the start of the contest. All Practice Circles should be as close as possible to the standard and maintenance conditions set out at paragraphs a) and/or b) above; but except for the marking of the centre of the centre (pilot's) circle and the outside diameter circle, the marking of circles as described at paragraph c) above shall not be required. However if the Practice Circle/s site is open to public access then organisers shall also erect suitable safety barrier/s and warning signs in the local language.

Reason(s): Providing of adequate sites for World and Continental Championships and other limited international contests.

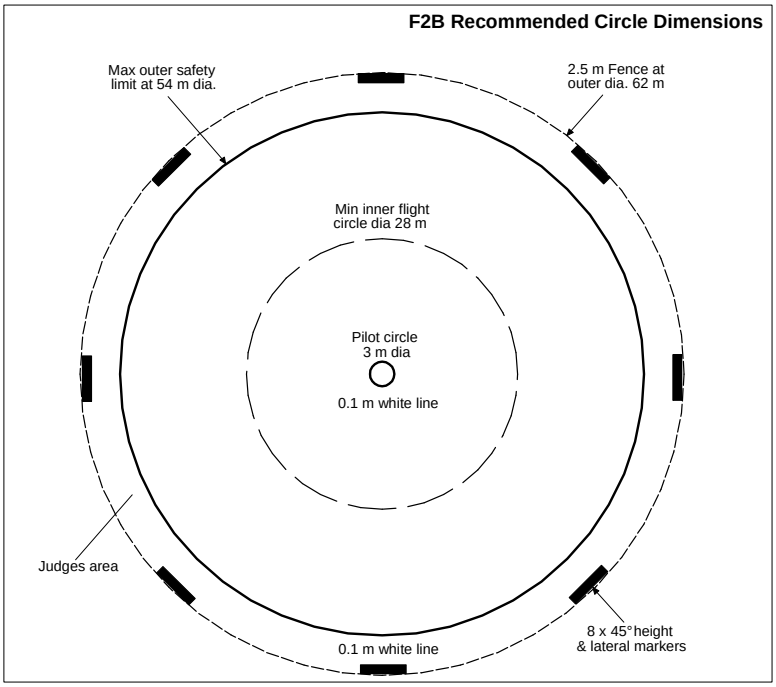
aa) Annex 4E – Organisers' Guide **F2 Subcommittee**

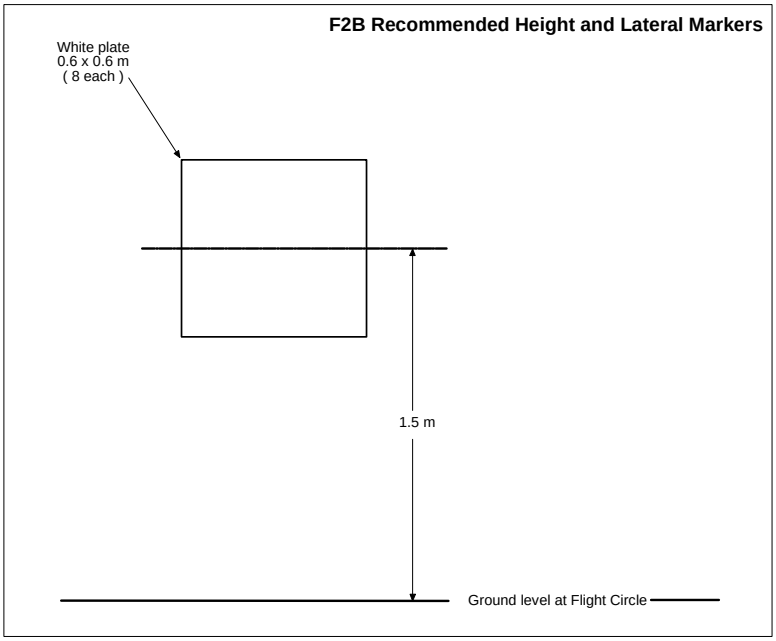
Amended Appendix I & new Appendix III

Remove Aerobatics Circle from APPENDIX I diagram.

and

Add new APPENDIX III, page 74: (As overleaf)



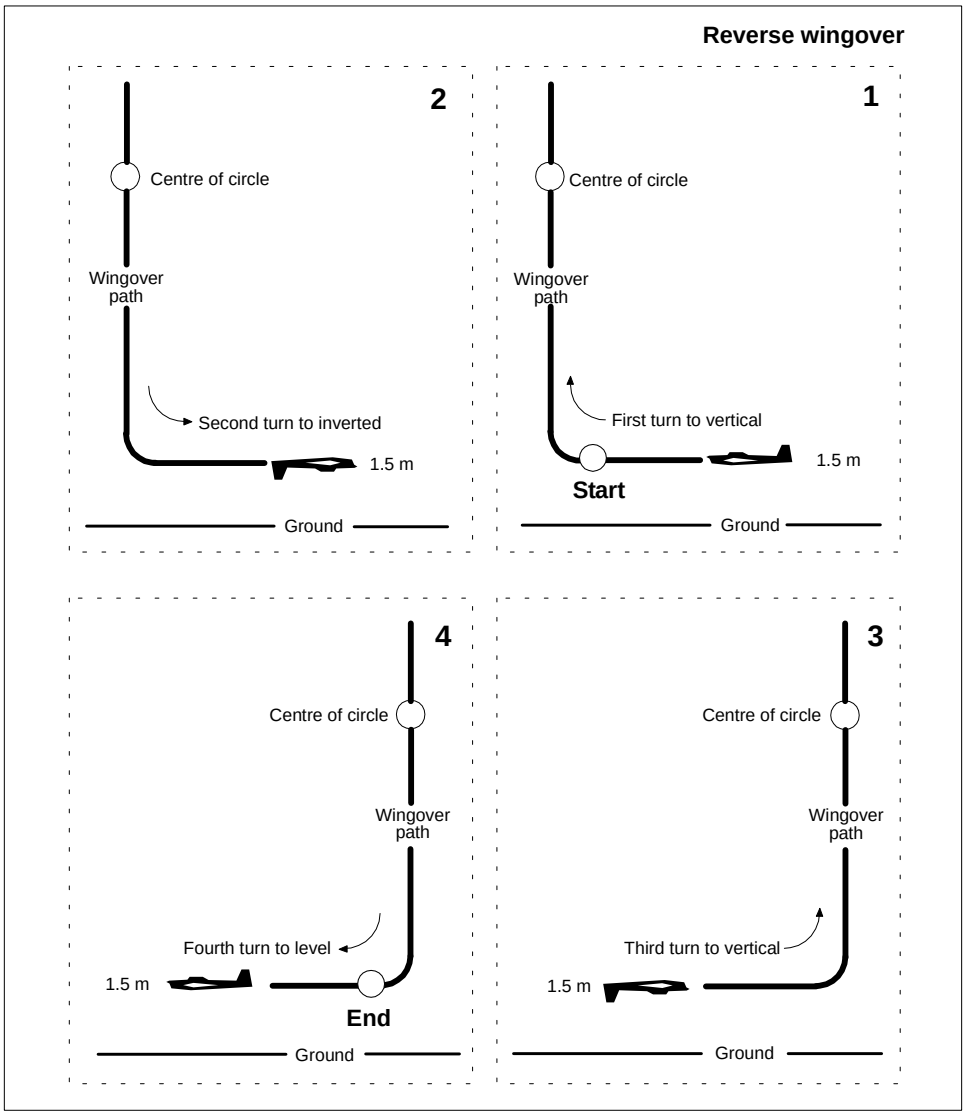


Reason(s): Diagrams belonging to new F2B circle description as per 6.5.2. CL Organisers Guide.

ab) Annex 4h – F2B Manoeuvre Diagrams F2 Subcommittee

4H.2. Reverse Wingover (4.2.15.4)

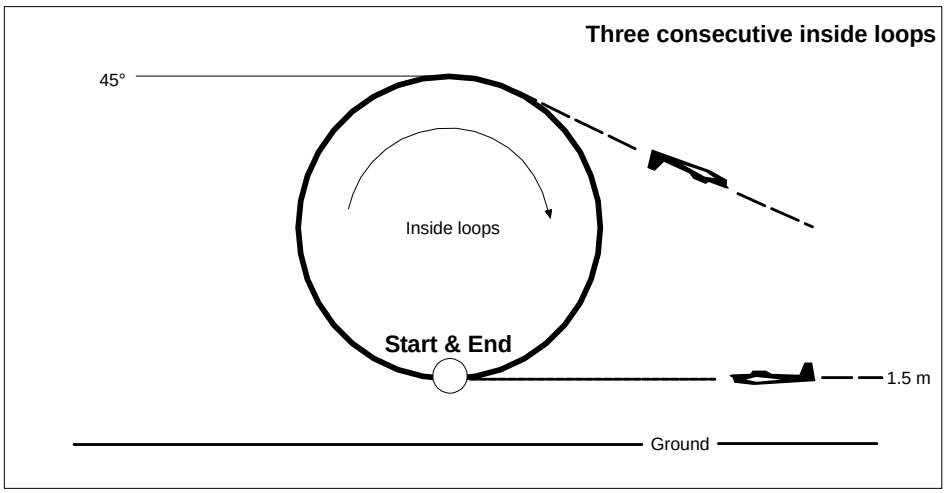
*Replace diagram with the one below/overleaf (file format *.wmf), page 7:*



Reason(s): Clarification. The four manoeuvre elements are now shown in actual flight direction and sequence.

4H.3. Three Consecutive Inside Loops (4.2.15.5)

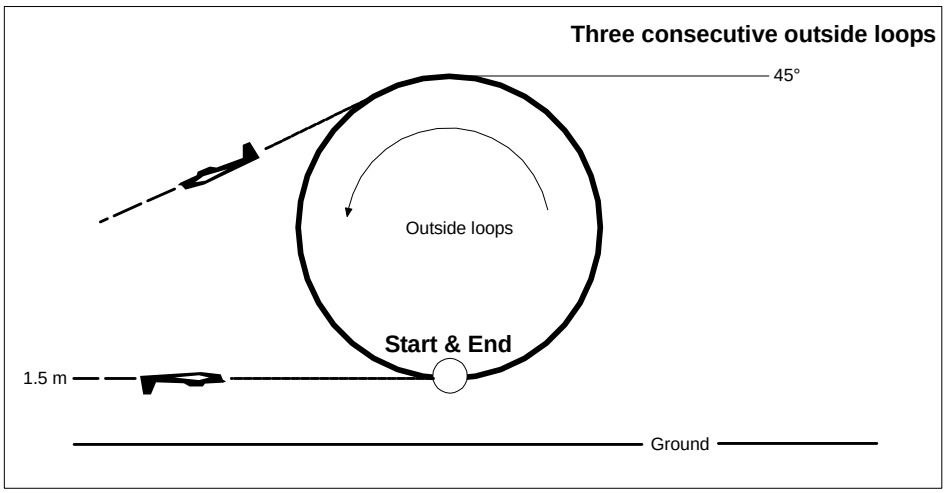
*Replace diagram with the one below/overleaf (file format *.wmf), page 8:*



Reason(s): Clarification. Manoeuvre over-defined in original version of Annex H.

4H.5. Three Consecutive Outside Loops (4.2.15.7)

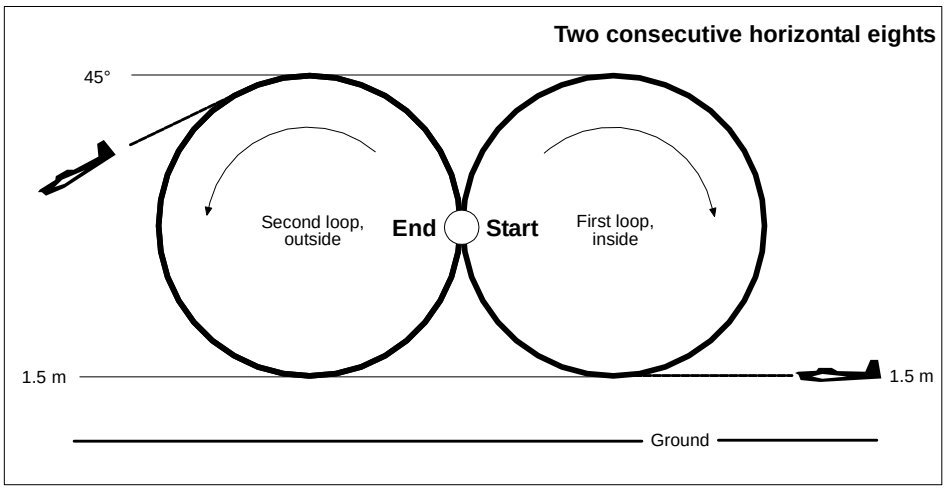
*Replace diagram with the one below (file format *.wmf), page 9:*



Reason(s): Clarification. Manoeuvre over-defined in original version of Annex H.

4H.9. Two consecutive horizontal eight (4.2.15.11)

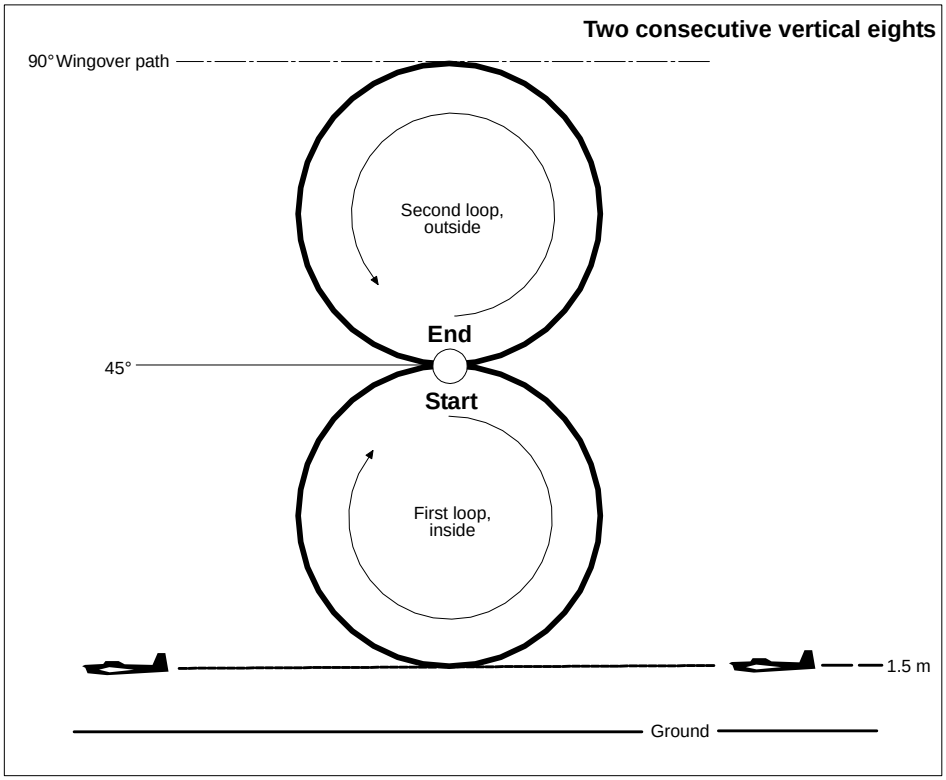
*Replace diagram with the one below/overleaf (file format *.wmf), page 11:*



Reason(s): Clarification. Manoeuvre over-defined in original version of Annex H.

4H.11. Two Consecutive Vertical Eight (4.2.15.13)

*Replace diagram with the one below/overleaf (file format *.wmf), page 12:*



Reason(s): Clarification. Manoeuvre over-defined in original version of Annex H.

11.6 Section 4C Volume F3A – RC Aerobatics

a) 5.1.2 General Characteristics of Radio Controlled Aerobatic Power Models **Switzerland**

Amend third line of the paragraph as follows, page 7:

Maximum total weight…….~~5 kg~~ **6 kg** without fuel

Reason(s): The weight of today's models is in average about 4.9 kg. The proposal will create scope for:

- innovative engines (reduced nitromethane consumption, e.g. twin-cylinder gasoline engines),
- alternative and less expensive electric power sources,
- design of more robust and thus safer model structure.

b) 5.1.2 General Characteristics of Radio Controlled Aerobatic Power Models **F3A Subcommittee**

Amend complete paragraph 5.1.2 as follows, page 7:

Maximum overall span ~~2 m~~ **2 000mm**

Maximum overall length ~~2 m~~ **2 000mm**

Maximum total dry weight, with batteries ~~5kg~~ 5 000g ~~without fuel~~

A tolerance of 1.00% to be allowed for all measurements.

~~Power~~ **Propulsion** source limitations: Any suitable ~~power~~ **propulsion** source may be utilised except 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** volts for the propulsion circuit, **measured less load, and prior to flight while the competitor is in the ready box.**

Paragraph B.3.1. of Section 4b (Builder of Model aircraft) is not applicable to class F3A.

The maximum **sound/**noise level **of the model aircraft and its propulsion source** will be 94**.00** dB(A) measured at 3m from the centre line of the model aircraft with the model aircraft placed on the ground over concrete or macadam, **grass, or bare earth** at the ~~flying site~~ **flight line.** With the **propulsion source/**motor running at full power, measurement will be taken 90 degrees ~~to the flight path~~ on the right hand side **with** ~~and downwind from~~ the **nose of the** model aircraft **pointing into the wind.** The **Class 1 SLM (Sound Level Meter)** microphone will be placed on a stand 30 cm above the ground in line with the **propulsion source/**motor. **Other than the helper restraining the model aircraft and the sound steward**, no **sound** ~~noise~~ reflecting **or sound absorbing** objects **or persons,** shall be nearer than 3m to the model aircraft or **the** microphone. The **sound/**noise measurement will be made **immediately** prior to each flight. If a concrete or macadam surface is not available then the measurement may be taken over bare earth or very short grass in which case the maximum noise level will be 92 dB(A). **The sound test area must be located in a position that does not create a safety**

hazard to officials and other competitors. In the event **of** a model aircraft ~~fails~~ **failing** the **sound/**noise test, no indication **of the result or the reading** shall be given to the ~~pilot~~ **competitor**, and/or his team, or the judges and both the transmitter and the model aircraft shall be impounded by the flight line official immediately following the flight. No modification or adjustment to the model aircraft shall be permitted (other than refuelling **or battery recharging). The competitor and his equipment shall remain under supervision of the flight line director.** The model aircraft shall be retested **within 30-minutes** by a second sound/noise steward using a second **Sound Level Meter**, ~~noise meter~~ and in the event that the model aircraft fails the retest, the score for the preceding flight shall be zero. **The score for the flight may be tabulated but not made public until the result of the retest is communicated to the tabulators.**

The flight time will be interrupted while the **sound/**noise **test** ~~check~~ at the flying site is being made. The competitor shall not be delayed more than 30 seconds for the **sound/**noise **test** ~~check~~.

Radio equipment shall be of the open loop type (i.e. no electronic feedback from the model aircraft to the ground). Auto-pilot control utilising inertia, gravity or any type of terrestrial reference is prohibited. Automatic control sequencing (pre-programming) or automatic control timing devices are prohibited.

Example: Permitted:

1. Control rate devices that are manually switched by the pilot.
2. Any type of button or lever, **switch or dial** control that is initiated or **activated** and terminated by the **competitor** ~~pilot.~~
3. Manually operated switches **or programmable options** to couple **and mix** control functions.

Not permitted:

1. Snap **roll** buttons with automatic timing mode.
2. Pre-programming devices to automatically perform a series of commands.
3. Auto-pilots **or gyros** for automatic wing levelling or other stabilisation of the model aircraft.
4. Propeller pitch change with automatic timing mode.
5. Any type of voice recognition system.
6. **Conditions, switches, throttle curves, or any other mechanical or electronic device that will prevent or limit maximum power or rpm of the motor or propulsion device during the sound/noise test.**
7. Any type of learning function involving manoeuvre to manoeuvre or flight to flight analysis.

Reason(s): Clarification on several issues. Better definition of specifications. Improved method of sound/noise measurement.

c) 5.1.3 Definition and Number of Helpers F3A Subcommittee

Amend as follows complete paragraph 5.1.3, page 8:

A helper may be a Team Manager**, his assistant,** another competitor or an officially registered supporter. Each **competitor** ~~pilot~~ is permitted one helper **(usually the caller)** during the flight. Two helpers may be present **and assist** during the starting of the motor(s). One person ~~The second,~~ **either a** helper**, or the team manager, or his assistant, or the caller**, may place the model aircraft for take-off and retrieve the model aircraft following the landing. **In exceptional circumstances, another helper may join the competitor and caller/helper during the flight, but only to hold a sun-shield as protection from direct sunlight. These protection devices must not interfere with the judges' vision of the manoeuvres. Except for communication between the caller and the competitor, no other performance-enhancing communication with helpers is permitted during the flight.**

Reason(s): Better definition of who may assist the competitor, and prohibition of outside sources/remote communication to enhance performance.

d) 5.1.4 Number of flights F3A Subcommittee

Amend as follows, page 8:

Competitors have the right to the same number of preliminary, semi-final, or finals flights. Only completed rounds will be counted. **Only when all competitors in the preliminary, semi-final, and final rounds, have had the opportunity to complete the same number of rounds, can the results of the rain-interrupted competition (or other delay) be determined.**

Reason(s): Clarification to ensure a fair result in the event of adverse weather.

e) 5.1.5 Definition of an Attempt F3A Subcommittee

Modify wording of paragraph regarding definition of an attempt, page 8:

There is an attempt when the competitor is given permission to start. Note: If the model aircraft fails to start its take-off run ~~motor fails to start~~ within the three minutes allowed, the competitor **must be instructed to** immediately make room for the next competitor. If the motor**/propulsion device** stops after the take-off has begun, **the attempt will be deemed complete**~~. but before the model aircraft is airborne, it may be restarted within the 3-minute starting period.~~

Reason(s): Modification of wording as a result of the new timing requirements of paragraph 5.1.11.

f) 5.1.6 Number of Attempts **F3A Subcommittee**

Modify wording of paragraph regarding number of attempts, page 8:

Each competitor is entitled to one attempt for each official flight.
Note: An attempt can be repeated at the contest director's discretion only when for any unforeseen reason ~~outside~~ **beyond** the control of the competitor the model aircraft fails to start (e.g. there is radio interference). Similarly, in a flight that is interrupted by any circumstance beyond the control of the competitor, the competitor is entitled to a **reflight, with the entire schedule being flown and judged,** ~~refly~~ but only the manoeuvre affected and the unscored manoeuvres that follow will be **tabulated.** ~~judged.~~ **This reflight should take place within 30 minutes, in front of the same set of judges, or be the first flight after the judges' break, or, if it involves a protest, as soon as the jury has deliberated and communicated the outcome of the protest to the contest director. The result of the reflight will be final.**

Reason(s): Better definition of repeated flights as a result of interruptions.

g) 5.1.8 Marking **Czech Republic**

To change in first sentence of the paragraph the mark increments from whole numbers to 0.5 increments, page 8:

Each manoeuvre may be awarded, in ~~whole number~~ **0.5** increments, between 10 and 0 by each of the judges during the flight.

Reason(s): The skill of the pilots is continuously growing and namely top pilots are flying very precisely almost without failures. The 0.5 points increments could give to the judges better chance to evaluate the performances of the pilots more correctly.

The general antipathy to 0.5 points started in the past, when it was necessary to calculate the results from judging sheets by manual calculators. In current PC era it does not play role any more.

Supporting Data: The measure for judging with whole number increments is too rough to evaluate small failures namely in the area between 8 and 10. For example very small visible failure could be good reason to not award the mark 10, but the mark 9 would be too heavy decrease and for such case 9.5 would be perfect solution.

h) 5.1.8 Marking **F3A Subcommittee**

Amend complete paragraph 5.1.8 as follows, page 8:

Each manoeuvre may be awarded marks, in whole numbers ~~increments~~, between 10 and 0, by each of the judges during the flight. **During tabulation**, these marks are multiplied by a coefficient **(K-factor)** which varies with the difficulty of the manoeuvre, **usually from one to five.** Any manoeuvre not completed, **or flown out of sequence with the stated manoeuvre on the judge's score sheet,** shall be scored zero (0). **Zero scores need not be unanimous, except in cases where an entirely wrong manoeuvre was performed. Judges must confer after the flight in these cases, bringing it to the attention of the jury member on site.** Manoeuvres must be performed where they can be seen clearly by the judges. If a judge, for some reason outside the control of the

competitor, is not able to follow the model aircraft through the entire manoeuvre, he may set the “Not Observed” (N.O.) mark. In this case, **the scoring tabulators will enter** the judge’s mark for that particular manoeuvre ~~will be~~ **as** the average of the numerical marks given by the other judges, **rounded up to the nearest whole number.**

Centre manoeuvres should be performed in the centre of the manoeuvring area, while turn around manoeuvres should not extend past a line 60 degrees left and right of centre. Vertical height should not exceed 60 degrees. Also, manoeuvres should be performed along a line of flight approximately 150m in front of the ~~pilot~~ **competitor’s position.** Infractions of this rule will be cause for downgrading by each judge individually and in proportion to the degree of infraction. **Exceptions to this rule are for the rolling circle manoeuvres, which of necessity may deviate from the 150m line of flight.**

The manoeuvring area **shall** ~~will~~ be clearly marked with white **(or contrasting colour to the background)** vertical poles, **approximately** ~~a minimum of~~ 100 mm in diameter and **approximately** ~~a minimum of~~ 4m high, placed on centre, and 60 degrees each side of centre on a line 150m in front of the **competitor’s position** ~~pilots.~~ Flags, streamers, or boards ~~and/or streamers~~ of contrasting colour **to the background**, should be mounted on the poles to improve visibility. White (or contrasting) lines, originating at the ~~pilot's~~ **competitor’s** position and extending outward at least 50m **shall** ~~will~~ also be used to mark the centre and extreme limits (60 degrees left and right of centre) of the manoeuvring zone. **No** audible and visual signals to indicate violations of the manoeuvring zone **must be used.** ~~are not to be employed.~~

The judges shall be seated not more than 10m, and not less than 7m behind the ~~pilot's~~ **competitor’s** position (the apex of the 60 degree lines) and within an area described by the extension of the 60 degree lines to the rear of the ~~pilot~~ **competitor. The judges must be seated abreast, usually separated by 2m, with scribes or score secretaries separating them. The judges’ line is also the zero line, and any part of a manoeuvre performed behind this line, will result in a zero score for that manoeuvre.**

If a model aircraft is in the opinion of the judges unsafe or being flown in an unsafe manner, they may **bring this to the attention of the flight line director, who may** instruct the pilot to land.

At the conclusion of the flight, each judge ~~will~~ **must** independently consider if the in-flight noise**/nuisance** level of the model aircraft is too noisy/**loud.** If a majority of the judges consider the **in-flight sound level of the** model aircraft too noisy/**loud,** the flight score will be penalized **by** 10 points for each ~~counting~~ judge **on that panel during the flight. If, during a flight, the sound level of the model aircraft increases perceptibly as a result of an equipment malfunction, or of a condition initiated by the competitor, the flight line director may request a sound re-test. If an equipment malfunction during the flight (like mechanical failure of the exhaust/muffler system) causes excessive noise, the flight line director may request the competitor to land his model aircraft, and scoring will cease from the point of malfunction.**

The **individual manoeuvre** scores given by each judge for each competitor ~~shall~~ **must** be made public at the end of each round of competition. **The team manager must be afforded the opportunity to check that the scores on each judge's score sheet corresponds to the tabulated scores (to avoid data capture errors). The score board must be located in a prominent position at the flight line, in full view of the competitors and the public.**

All preliminary flight results before the completion of all rounds must either be ranked alphabetically, or by country, or by contestant number, but not in order of performance or placing.

Reason(s): Several modifications as a result of observations during the last four years of world and continental championships.

i) 5.1.9 Classification **F3A Subcommittee**

Amend complete paragraph 5.1.9 as follows, page 9:

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** ~~team placing~~. All scores, preliminary, semi-final and final, will be normalised to 1000 points as described below. The top one third, 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. The top ten competitors of the semi-finals **of a world or continental championship where there was an entry of more than 40 competitors,** will then have four additional flights to determine the individual winner. **For a world or continental championship with less than 40 competitors, the top five competitors will advance to the finals.** Two final flights will be the current known finals schedule **(F)** and two will be unknown schedules (two different schedules, **UK1 and UK2**) (see **5.5** ~~Annex F~~) ~~flown one time each~~. The known and unknown schedules **must** ~~should~~ be flown in alternating sequence, **starting with the known finals schedule (F).** The best score from the known schedule will be combined with the best score from the unknown schedules for final classification. In the case of a tie the semi-final score will be used to decide the higher classification.

The team classification is established at the end of the competition (after the finals) by adding the numerical final placing of the 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 case of a tie, the best individual placing decides the team ranking.

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** ~~and~~ approved by the CIAM Bureau can be used at World and Continental Championships. All scores for each

round, preliminary, semi-final and finals, will then be normalised as follows. When all competitors have flown in front of a particular group of judges (i.e. 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 winner's score.

$$Points_X = \frac{S_X}{S_W} \times 1000$$

$Points_X$ = points awarded to competitor X

S_X = score of competitor X

S_W = score of winner of round.

Note 1: Final and semi-final flights to determine the individual winner are **usually** only required for World and Continental Championships. For **open international events, national championships, and domestic competitions,** ~~smaller contests~~ the total of the three best preliminary flights may be used to determine the individual winner and team placing. **Further flights of Schedule F may be planned, depending on local conditions and time available.**

Organisers of Open International and National events may schedule more, or less than four preliminary rounds/flights, depending on local conditions and time available. In such cases, at least one round/flight should always be able to be discarded to determine the final results.

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.

Note 2: The TBL **score tabulation** system can only be applied for events with at least 10 competitors and 5 judges. For those smaller events that are not scored with the TBL system, the high and low scores for each manoeuvre will be discarded if four or more judges are used.

Reason(s): Several modifications as a result of observations during the last four years of world and continental championships, and requirements for other events that usually do not follow the format of a world or continental championship.

j) 5.1.10. Judging F3A Subcommittee

Amend complete paragraph 5.1.10 as follows, page 9,10:

For World Championships, the organiser must appoint four panels of five judges each (a total of twenty judges). The judges must be of different nationalities and must be selected from a current list of **FAI** International Judges. 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. **For a World Championship with fewer than 72 competitors, and for a Continental Championship with an entry of more than 40 competitors, the organiser must appoint two panels of five judges each (a total of ten judges). The judges must be of different nationalities and must be selected from a current list of FAI International Judges. Judge assignment to the two panels will be by random draw. For Continental Championships with less than 30 competitors, the organiser must appoint a single panel of five judges, with the same selection criteria as above.**

The invited judges **for a World or Continental Championship** must have had **a reasonable amount of** F3A judging experience **of both current P and F schedules,** ~~within the previous twelve months~~, and must submit a résumé of his/her judging experience to the organiser **during the nomination process.** ~~when accepting the invitation to judge at a World Championship.~~ The organiser must in turn submit the résumés to the CIAM Bureau along with the judges' list for approval.

For World Championships with fewer than 72 competitors, **and for a Continental Championship with an entry of more than 30 competitors,** two panels of five judges may be used for the preliminary and semi-final rounds, and one panel of ten judges for the final rounds. **For a Continental Championship with less than 40 competitors, one panel of five judges may be used for preliminary, semi-final, and final rounds. When a panel of four or more judges is used, and the TBL statistical averaging scoring system is not used, the high and low score for each manoeuvre will be discarded.**

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

For the final rounds of a World Championship **(with more than 72 competitors)** the twenty judges will be arranged in three groups; a left hand group of **five** ~~six~~ judges, a centre group of **ten** ~~eight~~ judges, and a right hand group of **five** ~~six~~ judges. The centre group of ten judges will judge only the centre manoeuvres, and the left and right hand groups of judges will judge all the 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 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.

Before every World and Continental Championship, there shall be a briefing for the judges, followed by training flights by non-competitors. The purpose of the briefing and training sessions for judges will be to ensure the same interpretation of the Sporting Code. The briefing session is not an opportunity to change rules. Also, warm-up flights for ~~the~~ each panel of judges ~~should~~ must be flown by non-competitors before the first official preliminary flight each day. For the semi-finals the two highest placing non-semi-finalists, (one at each site, in the case of a World Championship) and for the finals the highest placing two non-finalists should be awarded the honour of performing the warm-up flights. If these competitors are not available, the next lower ranking competitors may be asked to perform the warm-up flights. Warm-up flights should be judged but under no circumstances should they be tabulated. Any deviations from the above procedures must be stated in advance by the organizers and must have prior approval by the CIAM or the CIAM Bureau.

Reason(s): Qualification of number of judges required depending on the size of the event. Re-distribution of workload for judges in finals rounds.

k) 5.1.11 Organisation for Radio Controlled Aerobatics Contests

F3A Subcommittee

Amend complete paragraph 5.1.11 as follows, page 10:

For transmitter and frequency control see Section 4b, Para. B.8.

The draw for flight order will be done for each flight line, ~~except when possible,~~ **so that frequencies are separated with two competitors in between** ~~will not follow frequency~~. ~~nor~~ Team **members will not be drawn to fly directly after each other.** ~~follow team member~~. ~~Also~~ Team members on separate flight lines will be separated by at least two competitors. **Competitor identification numbers will only be assigned after this flight order draw, by pilot group, and in numerical ascending order.**

For flights two, three and four of the preliminary rounds, the flight order, will start 1/4, 1/2 and 3/4 down the flight order respectively. **Organisers must take care to avoid a flight draw which will cause competitors to fly at approximately the same time each day.**

The flight order for the first semi-finals round will also be by random draw. The second semi-finals flight will start 1/2 down the semi-finals flight order. The flight order for the first round of the finals will be established by a random draw as above. The flight order for flights two, three and four will start 1/4, 1/2 and 3/4 down the finals flight order.

Competitors must be called **by a flight line official** at least five minutes before they are required to occupy the starting area. If ~~his~~ **the** frequency is clear, the competitor **or his team manager will be allowed to withdraw** ~~his~~ **the** transmitter from the transmitter impound. The competitor **and his helpers** then occupy ~~when he occupies~~ the starting area so that **a radio check can be performed to verify the correct functioning of the radio control equipment.** ~~he can perform a radio check.~~ If there is a frequency conflict, ~~he~~ **the competitor** must be allowed a maximum of one minute for a radio check before the start of the 3 minute starting time. The timer will **audibly** notify the competitor when the

minute is finished and immediately start timing the 3-minutes starting time, ~~which is also the start of the 10-minute flight time~~. Electronic timing displays must be able to be interrupted for the sound/noise test. The starting time ceases when the model aircraft commences its take-off roll. The timing device is re-started when the model aircraft commences its take-off roll, and time will stop when the model aircraft first touches the runway after completion of the flight. The total flight time allowed is 8-minutes.

Engines/motors may not be started, unless the competitor has been instructed by a flight line official to do so. Deliberate starts at the flight line during official flying to check the engine/motor, will be subject to disqualification from that round. No public address or commentary should be made during flights.

During the flight the competitor **and his helper/caller (if required)** must stay in the ~~proximity of the judges~~ **designated position in front of the judges, at the convergence of the ground markings,** and under the supervision of the flight line director. **The competitor must wear or display his identification/start number.**

Reason(s): New timing procedure as a result of shorter schedules. Other clarifications as a result of observations during recent world and continental championships.

l) 5.1.12 Execution of Manoeuvres F3A Subcommittee

Amend complete paragraph 5.1.12 as follows, page 10:

The manoeuvres must be executed during an uninterrupted flight, in the order in which they are listed **on the score sheet/score card.** The competitor may make only one attempt at each manoeuvre during the flight. The ~~pilot~~ **competitor** has three minutes to start ~~his~~ **the engine**/motor **and for the model aircraft to commence its take-off roll. The competitor has eight minutes to complete the flight, starting with the take-off roll, and ending when the model aircraft first touches the runway after completing the flight.** ~~and ten minutes to complete his flight, both the three minutes and the ten minutes to start when the competitor is given permission to start his motor~~

The model aircraft must take-off and land unassisted, that is, no hand launched flights. If any part of the model aircraft is dropped during the flight, scoring will cease at that point and the competitor **must be instructed by the flight line director to** immediately land his model aircraft. ~~must be landed immediately.~~ **Usually, the judges will be able to determine when a part has been dropped from the model aircraft. They should bring this to the attention of the jury member on site and the flight line director.**

The flight ends when the **model aircraft touches the ground after the flight.** Scoring will cease with the expiration of the **eight** ~~ten~~ minute time limit**, except for the in-flight sound score, which is done after the flight is completed, irrespective of the time**.

Reason(s): New timing procedure as a result of shorter schedules.

m) 5.1.13 Schedule of Manoeuvres F3A Subcommittee

Replace entire paragraph 5.1.13 at page 10-13 with new manoeuvre schedules

See Agenda ANNEX 7 F3A Manoeuvre Schedules

5.1.13. Schedule of Manoeuvres

For ~~2004-2005,~~ **2008-2009**, Schedule ~~P-05~~ **P-09** will be flown in the preliminaries. Schedule ~~F-05~~ **F-09** will be flown in the semi-finals, as well as in the finals, alternating with unknown schedules.

For ~~2006-2007,~~ **2010-2011,** Schedule ~~P-07~~ **P-11** will be flown in the preliminaries. Schedule ~~F-07~~ **F-11** will be flown in the semi-finals, as well as in the finals, alternating with unknown schedules.

For the description of the manoeuvres, judging notes, and Aresti diagrams, see **5.2. For** the Judges' Guide, see **5.3.** ~~is at Annex 5B~~.

Reason(s): New manoeuvres schedules required for 2008 to 2011.

Annex 5A

n) Annex 5A Description of Manoeuvres F3A Subcommittee

Amend paragraph as shown and re-number Annex 5A as new 5.2:

5.2 General Criteria

The shape of all manoeuvres is judged on the flight path of a model aircraft, and manoeuvres must start and finish in straight and level upright or inverted flight of **recognisable distance**. Centre manoeuvres must start and finish on the same heading, while turn-around manoeuvres must finish on a heading 180 degrees 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.

All manoeuvres which have more than one loop or parts of loops must have the loops and parts of loops the same diameter and in the case of consecutive loops, in the same place. Similarly, all manoeuvres that have more than one continuous roll must have the same roll rate. All manoeuvres that have more than one point roll, must have the same roll rate, and the points must be of equal duration. Where there is a combination of continuous rolls and point rolls within a manoeuvre, the roll rate for the point rolls does not necessarily have to be the same as the roll rate for the continuous rolls. All consecutive rolls (continuous and/or point rolls, **or a combination**) on a horizontal line must be at the same altitude and heading.

All manoeuvres with rolls, part rolls, point rolls, or snap-rolls, or combinations of same, must have lines of equal length before and after the rolls or combinations, except when specified otherwise. Barrels rolls and axial rolls instead of specified snap rolls must be scored zero. Spiral dives instead of specified spins must be scored zero. Snap-roll entries to spins must be scored zero. Wing-overs instead of stall turns must be scored zero.

Any violation of the above will be reason for downgrading**. This is** in addition to the downgrades for deviations from the manoeuvre

descriptions and the judging notes in **5.2** ~~Annex 5A~~, the Judges Guide **5.3** ~~(Annex 5B)~~ and any official **sub-committee-approved** judge training material. Note that these lists are not all-inclusive.

Manoeuvre descriptions for P-09, P-11, F-09, and F-11 will follow if the manoeuvre schedules are approved by Plenary meeting.

Reason(s): Enhancement of general criteria. Paragraph re-numbering, due to annexes becoming obsolete.

o) Annex 5A Description of Manoeuvres **F3A Subcommittee**

Insert Aresti drawings for new manoeuvre schedules P-09, P-11, F-09, F-11 and Aresti explanations in new paragraph 5.2. No text changes.

See Agenda ANNEX 7 F3A Manoeuvre Diagrams

Reason(s): Aresti-drawings to complement manoeuvre descriptions.

p) Annex 5B Aerobatics Judges' Guide **F3A Subcommittee**

Substitute entire Judges' Guide with new and re-number Annex 5B as 5.3, with sub-paragraph sequential numbering as indicated.

See Agenda ANNEX 7 RC Aerobatics Judges Guide

Reason(s): Complete revision of Judges' Guide is necessary to comply with rule changes to manoeuvres and manoeuvre schedules.

q) Annex 5G Unknown Manoeuvre Schedules for Finals Flights **F3A Subcommittee**

Replace Annex 5G with new and re-number Annex5G as 5.4 and sub-paragraph sequential numbering.

See Agenda ANNEX 7 F3A Unknown Manoeuvre Schedules

Reason(s): Enhancements to procedure for unknown manoeuvre selection and composition. Paragraph re-numbering is necessary as a result of Annex becoming obsolete.

r) 5.5 F3A World Cup **F3A Subcommittee**

New World Cup section

See Agenda ANNEX 7 F3A World Cup Rules

Reason(s):
a) Making F3A internationals competitions more popular.
b) Giving an interest to competitors to do internationals competitions, especially for juniors flyers.

cont overleaf…/ s)

s) Annex 5L – 5.L.1.3 General Characteristics of large RC Aerobatic Power Model Aircraft Czech Republic

Delete the wording of sub-paragraph d) and replace it by proposed new wording:

~~d) All dimensions may be checked. A tolerance of +/- 10% is allowed.~~

d) Measuring to confirm the semi-scale appearance of the model Control measuring could be performed by jury only on the base of the official protest of any competing pilot against of the scale appearance of any single model in the given contest. Only following points can be measured, allowed tolerances are +/- 10%:

Plan view:

A - Wing span (base to calculate the scale)

B - Wing depth on the root

C - Wing depth on the tip

D - Elevator span

E - Elevator depth on the root

F - Elevator depth on the tip

G - Maximum width of the fuselage

Side view:

H - Fuselage length over all

I - Maximum height of the fuselage

J - Height of the fin + rudder

K - Maximum depth of the rudder

L - Distance between wing and horizontal stabilizer (*)

M - Allocation of the wing (**)

N - Allocation of the horizontal stabilizer (**)

(*) - Measured from the wing root leading edge to the root horizontal stabilizer leading edge

(**) - Measured from wing (or stabilizer) root front tip to the nearest upper contour of the fuselage

Reason(s):

1) Current measurement of all sizes is too complicated and as obligatory measurement of all models (by EC or WC) it would be increasing a lot the load on the contest organizers.

2) F3M is not scale category and we have to insist only on semi-scale appearance of the models.

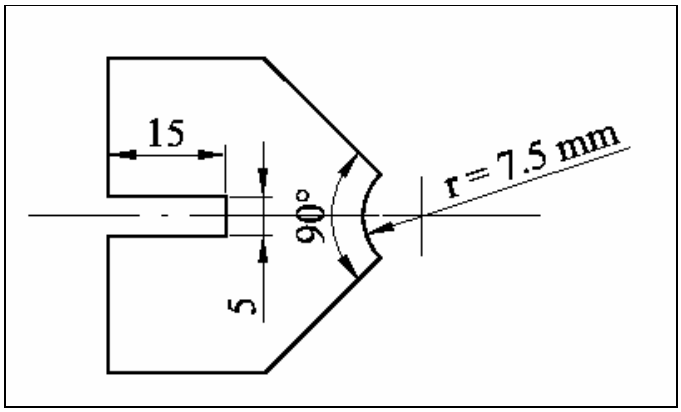
Supporting Data: We have to simplify the administrative work on the contests and compulsory measurement of all dimensions of all competing models would be a lot of not necessary work for jury and organizers. Giving right only to the pilots to initiate the control measurement by means of the official protest will decrease the number of controls on minimum.

11.7 Section 4C Volume F3BJ – RC Soaring

F3B Thermal Soaring Gliders

a) 5.3.1.3 Characteristics of RC Gliders F3B RC Soaring Subcommittee

Exchange the drawing and pertinent legend:



F3B nose and tow hook template.

Reason(s): Clarification.

b) 5.3.1.7 Cancellation of a Flight and Disqualification Germany

Amend paragraph b) as follows:

b) The flight in progress is annulled if the model aircraft loses any part during the launch or the **whole** flight ~~time~~. ~~The losing of a part during landing (i.e. in contact with the ground) is not taken into account.~~

Reason(s): Only in task A (Duration) the launch is directly followed by the flight time. In the tasks B (Distance) and C (Speed) the flight time starts later, that means that there is a not defined time gap in which the model aircraft also should not lose any part. Loosing any part during should be also forbidden because is not typical for a landing.

c) 5.3.1.7 Cancellation of a Flight and Disqualification Germany

Amend paragraph b) as follows:

~~b) The flight in progress is annulled if the model aircraft loses any part during the launch or the flight time. The losing of a part during landing (i.e. in contact with the ground) is not taken into account.~~

b) The flight in progress **will be penalised with 100 points if the model aircraft loses any part during the launch or the whole flight. The losing of a part in a collision with another model aircraft** ~~or during landing (i.e. in contact with the ground)~~ **is not taken in account. The penalty of 100 points will be a deduction from the competitor's final score and shall be listed on the**

Reason(s): When the model aircraft loses a fairing part (canopy, servo covers, fuselage rear end covers) during the launch or the whole flight it's not adequate to cancel the flight. 100 points penalty are enough. Loosing

any part during should be also forbidden because is not typical for a landing.

d) 5.3.1.7 Cancellation of a Flight and Disqualification Germany

Amend paragraph e) as follows:

e) **The upwind turn around device must be fixed safely to the ground. If the pulley comes loose from its mounting support or the turn around device is torn out of the ground, the competitor gets a penalty of 1000 points. The penalty of 1000 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 occurred.**

Reason(s): If the pulley comes loose from its mounting support or the turnaround device is torn out of the ground it's very dangerous for all people on the flying field. The existing rule allows discarding this zero result, when more than five rounds are flown. There should be no opportunity to reduce the penalisation for this severe violation of the safety.

e) 5.3.1.7 Cancellation of a Flight and Disqualification Germany

Amend paragraph f) as follows:

f) **The winch must be fixed safely to the ground. If the winch is torn out of the ground or rotating parts of the winch are separated (excluding parts of the tow-line) the flight is penalised with 1000 points. The penalty of 1000 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 occurred.**

Reason(s): If the winch is torn out of the ground or rotating parts of the winch (mostly heavy parts of the drum) are ejected its very dangerous for all people standing around. The existing rule allows discarding this zero result, when more than five rounds are flown. There should be no opportunity to reduce the penalisation for this severe violation of the safety.

f) 5.3.1.8 Organisation of Starts Germany

Amend paragraph b) as follows:

b) The composition of the groups must be changed every round in order to have different combinations of competitors. For task A (duration), there must be a minimum of five competitors **in a group**. For task B (distance) there must be a minimum of three competitors in a group. ~~For task C (speed) a group may consist of a minimum of eight competitors or all competitors.~~ **For task C (speed) the starting order is identical with the inverted ranking calculated out of the results of all tasks flown until that moment. For the first round the starting order for task C is identical with the starting order of task A.**

Reason(s): At the very beginning of F3B there was no group scoring at any task. In the moment we have group scoring for all tasks, but it is the only a absolute good solution for task A (duration) and task B (distance); group scoring for task C (speed) does not really help very much to reduce the influence of the weather changes in short time intervals.

The only way to reduce the weather influence (not to eliminate the weather influence like in task A and task B) is to fly task C in the currently ranking of the competition at that moment. To make it a little more interesting, task C should be flown in the opposite currently ranking.

When using this system the competitors which are placed one besides the other have nearly the same weather conditions during their speed flights. We use this system at many competitions in Europe with a great success.

g) 5.3.1.8 Organisation of Starts RC Soaring Subcommittee

Add to the third sentence the words:

b) (...) **in a group.**

Reason(s): Clarification.

h) 5.3.1.8 Organisation of Starts Germany

Amend paragraph c) as follows:

c) The result of a group is annulled if only one competitor ~~is not entitled to a new working time. In this case,~~ **has a valid result. In this case,** the group will fly again and the result will be the official result.

Reason(s): Clarification.

i) 5.3.10 Safety Rules Belgium

Add following paragraph at the end of 5.3.1.10 as follows:

In the case the line breaks at the moment of the release of the model by its launcher, and the model subsequently lands in the area of the winch lines, the 100 points penalty is not applicable.

Reason(s): Breakage of the line at the moment of the launch happens rarely and is generally totally beyond the control of the flying team.

j) 5.3.1.10 Safety Rules Germany

Amend paragraph b) as follows:

~~b) Except in the circumstances described in paragraph 5.3.1.5 b) items 1, 2, 3, and 5, after release of the model aircraft from the hand of the pilot or helper, the contact of the model aircraft with any object (earth, car, stick, plant, line, etc.) or a person within the safety area will be penalised. The number of contacts during one flight does not matter (maximum one penalty for one flight). The penalty will be a deduction of 100 points from the competitor's final score and shall be listed on the score sheet of the round in which the contact occurred.~~

b) Except in the circumstances described in paragraph 5.3.1.5 b) items 1, 2, 3, and 5 or in the case of a line break in the moment of release of the model aircraft, after release of the model aircraft from the hand of the competitor or helper, the contact of the model aircraft with any object (earth, car, stick, plant, tow- line, etc.) within the safety area will be penalised with 200 points; the contact with a person within the safety area will be penalised with 1000 points. If a model is caught by someone in order to prevent physical injury, the penalty is reduced to 200 points. The number of contacts during one

flight does not matter (maximum one penalty for one flight). The penalty will be a deduction of 200 or 1000 points from the competitor's final score and shall be listed on the score sheet of the round in which the contact occurred.

Reason(s): In the past the safety area was not enough respected by the competitors, therefore it is necessary to increase the penalty for hitting an object up to 200 points. Hitting a person must be penalised higher with 1000 points. In case of a line break in the moment of release of the model the competitor should be not penalised because this is an unexpected event, outside the competitor's control.

k) 5.3.2.2 Launching **Germany**

Amend paragraph c) as follows:

c) The winch shall be fitted with a single starter motor. The starter motor must come from serial production. It is allowed to fit the arbour of the rotor with ball or needle roller bearings at each end. The drum must be driven directly by the motor. Any further change of the original motor will lead to disqualification according to paragraph B.18.1. The drum must have a fixed diameter. ~~and the width between winch drum flanges shall be 75 mm minimum.~~

Reason(s): The width between the drum flanges of 75 mm minimum was fixed during the period of the power winches with a lot of torque to prevent a quick increase of the diameter. Nowadays with the low torque we use winches with extremely wide drums to keep the diameter nearly constant during the high start; out of this reason it makes no sense to stay on a minimum width between the drum flanges nowadays.

l) 5.3.2.2 Launching **Belgium**

Amend paragraph h) to read:

h) **The internal resistance of the motor must be at least 18.0 milliohms. The allowed resistance may be obtained by adding a fixed resistor(s) to the motor. The design must not allow an easy change of the total resistance at the launch line (e.g. by shorting the resistor, or resistors) except opening and closing the circuit. Resistance measurement shall be made at ambient temperature corrected to 20℃ using the formula**

$R(20℃) = R(T)/(1+0.003 \times (T - 20℃)$

Reason(s): The current rule is not acceptable, as measuring with different apparatus and without taking into account the effect of temperature produces unacceptable inequalities.

m) 5.3.2.2 Launching **Germany**

Amend paragraph k) to read:

k) For the test a digital voltage-measuring instrument (accuracy less or equal **to** 1%) is used, which enables the measurement of the voltage of the battery and the output voltage from the I/U-transducer 300 ms (+-30 ms) after the current to the winch is applied. The transducer for measuring the current may be a clamp transducer (range 0-600 or 0-1000A, accuracy less or equal **to** 2%) or a calibrated resistor (0.1 mΩ,

accuracy less or equal **to** 0.5%) in the negative path of the circuit. The resistance is calculated with the formula:

Measurement with clamp transducer

$R_{tot} = 1000 \times U_b/I_{300}$

Measurement with shunt

$R_{tot} = (1000 \times U_b/I_{300}) - 0.1$

R_{tot} in mΩ , U_b in V, I_{300} in A

Reason(s): The original formula is physically incorrect in case of the shunt measurement. The shunt resistance must be subtracted, when the shunt is removed from the circuit.

n) 5.3.2.2 Launching **Germany**

Amend paragraph l) as follows:

~~l) One measurement will be taken. If the result of the first measurement is more than the limit and less than 1.3 times the limit then the winch is declared as being in accordance with the rules. If not, three more measurements will be made and the resistance of the complete circuit is the average of three consecutive measurements.~~

l) A first measurement is taken in order to check the correct functioning of the measuring equipment and is discarded.

Three subsequent measurements should be made with an interval of at least two minutes after the previous test or launch. The total resistance of the winch equipment is the average of these three respective results.

The winch equipment is declared as being in accordance with the rules if its total resistance is at least 23 mΩ.

Reason(s): One measurement is not enough to decide if a winch equipment is in order or not. On the other side the first measurement can be totally wrong, if the battery comes directly from the charger (test before the competition). To make more measurements when a winch equipment has an extremely high resistance makes no sense and is waste of time. We should go back to the old rule and make a first measurement to check the measurement equipment and than make three subsequent measurements.

o) 5.3.2.2 Launching **Belgium**

Amend paragraph n) as follows:

n) **The organiser must appoint at least two processing officials, who will process all winches before the contest with a single measuring apparatus, or several measuring apparatus proven to produce reproducible results within a tolerance of 0.5 %. For any complete team, the organiser should measure a maximum of seven winches and seven corresponding batteries. Approved winch-battery combinations have to be marked and should not be checked on the field. Compliance to the rules of unprocessed winch-battery combinations can be checked at random on the field during the contest.**

Reason(s): The reason for changing the first sentence is to prevent measurements with inconsistent measuring apparatus. The intent of the second part of the paragraph is to limit the number of batteries, winches and peripheral hardware used by any team. Long distance travellers and financially less endowed teams are in clear disadvantage when the amount of towing hardware is unlimited.

p) 5.3.2.2 Launching **Germany**

Amend paragraph o) as follows:

~~o) There must be a quick release mechanism on the power lead to the battery in order to remove power from the motor in an emergency. (Connections to the battery must be removable without the need for tools).~~

o) For safety reasons there must be two solenoid switches in a serial arrangement in the high current circuit. Each of these solenoid switches must be operated by a separate hand operated pushbutton. To check the right function of the solenoid switches the two pushbuttons must be operated separately one after the other; if the winch can be operated only by one pushbutton, than the solenoid switch of the other pushbutton sticks and must be changed.

Reason(s): The less problems with our winches we have with sticking solenoid switches; it can happen, but it's very seldom. More problems we have with the foot operated push buttons lying in the grass; out of this reason we should realise a safety system that considers all eventualities and is save itself. The two hand operated pushbuttons can be integrated in one unit and can therefore be operated by one hand.

Supporting Data: See the diagram in ANNEX 7 F3B Winch Wiring Circuit.

q) 5.3.2.2 Launching **Germany**

Amend paragraph p) as follows:

~~p) The penalty for using a winch-equipment not in accordance with the rules results in zero score for the competitor for the task flown before the test.~~

p) The flight is penalised with 1000 points if the winch is not in accordance with the rules; this is valid for the flight before the test. The penalty of 1000 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 occurred.

Reason(s): To use a winch that is not in accordance with the rule is a severe violation of the rule. The existing rule allows discarding this zero result, when more than five rounds are flown. There should be no opportunity to reduce the penalisation for this severe violation of the rules.

r) 5.3.2.2 Launching **Belgium**

Add new paragraph:

s) In the case of Continental and World championships, a maximum of six winches and six batteries may be used on the field by any complete team (3 pilots). Interchanging among winches and batteries while keeping compliance with the minimum resistance rule is totally under the responsibility of the team.

Reason(s): Like in proposal to change paragraph n), the intent is to limit discrimination between teams based on number of helpers, financial means, etc.

s) 5.3.2.5 Task C - Speed **Germany**

Amend paragraph h) as follows:

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

~~The flight is annulled if, when sighted by means of an optical aid, the safety line is crossed by any part of the model aircraft.~~

The flight will be penalised with 100 points, when sighted by means of an optical aid, the safety line is crossed by any part of the model aircraft. 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 occurred.

Reason(s): To annul such a flight is not in order, because there is in the most cases no real danger for the people. 100 points penalty for this infraction is enough.

t) 5.3.2.8 Classification **Germany**

Amend as follows:

If only five rounds are flown, the competitor's classification is determined by the sum of all Total Scores for each round. ~~For each task, which is flown more than five times, the lowest Partial Score is omitted from the sum of all Partial Scores.~~ I**f more than five complete rounds are flown the lowest partial score of each task is omitted from the sum of all partial scores.**

To decide the winner when there is a tie, the two (or all who have the equal score) competitors will fly an additional round (three tasks).

Reason(s): It makes no sense to discard tasks which are flown more than five times. We should discard only the lowest partial score of each task if we have more than five complete rounds.

u) Class F3K RC Hand Launch Gliders **Germany**

Replace the whole of the current F3K (Provisional) rules with those specified in Agenda ANNEX 7 F3K

Reason(s): The current F3K rules are based on the standards of F3K flying of the late 90ties. Many things have changed and must be specified

with new wording. Many of the old flying tasks must be cancelled due to the technical development of F3K models.

Many explanations to the organization of competitions, also under aspect of future championships, are detailed with the new proposal. It's easier to replace the complete rule, instead of a change of every rule according F3K.

v) Class F3K (Provisional) - RC Hand Launch Gliders **Germany**

Change Class Status as follows:

~~PROVISIONAL RULES~~

CLASS F3K - RADIO CONTROLLED HAND LAUNCH GLIDERS

Reason(s): The class meets the requirements to become an official FAI rule, after the last amendment of the SC ABR, paragraph A.14.2 "Where there is great demand for a class, the Plenary Meeting may decide to waive the conditions contained in paragraph A.14.1 and adopt the provisional rules as official rules, effective from the following January."

Supporting Data: German Open Nationals F3K was very successful over the years, 2006 with a record of competitors coming from 13 nations. In order to comply with the conditions of International Championships the F3K rules had been revised (proposal from Germany). They will be accompanied by a bid to held F3K World Championships 2008 in Germany.

11.8 Section 4C Volume F3C – RC Helicopter

a) 5.4.11 Classification **F3C Subcommittee**

Replace third sentence 5.4.11, page 9:

~~The results of the best three preliminary rounds for the top 15 (normalised to 500 points) will count as one score.~~

The normalised results of the preliminary rounds for the top 15 pilots will count as one score by dropping the lowest scoring round, adding the remaining rounds together, and dividing the resulting total by the number of counting preliminary rounds.

Reason(s): Clarification.

Supporting Data: At the 2006 European F3C Championship it was discovered that the method of combining the scores from the preliminary and fly-off rounds was open to three interpretations each resulting in a slightly different result. This clarification makes it very clear as to how to combine the results.

b) 5.4.11 Classification **F3C Subcommittee**

Replace first sentence of second paragraph 5.4.11, page 9:

~~Only completed flights, where all manoeuvres are flown in the right order and without infringement of the judges' line, will be counted.~~

Incomplete flights, where one or more manoeuvres receive a zero score, or where the judges' line is infringed, will not be counted.

Reason(s): Clarification.

Supporting Data: At the 2006 European F3C Championship it was discovered that the method of specifying completed flights was open to interpretation.

c) 5.4.11 Classification **F3C Subcommittee**

Replace first sentence of second paragraph 5.4.11, page 9:

~~Only completed flights, where all manoeuvres are flown in the right order and without infringement of the judges' line, will be counted.~~

Incomplete flights, where two or more consecutive manoeuvres (which must include the final manoeuvre - autorotation) receive a zero score, or where the judges' line is infringed, will not be counted.

Reason(s): Clarification.

Supporting Data: At the 2006 European F3C Championship it was discovered that the method of specifying completed flights was open to interpretation.

d) 5.4.11 Classification **F3C Subcommittee**

Amend as follows, page 9:

After the completion of four official (preliminary) rounds, the best three scores will be used to determine the team standings. The top 15 then compete in three fly-off rounds to determine the final individual classification. The results of the best three preliminary rounds for the top 15 (normalised **again** to 500 points) will count as one score. This score, plus the three fly-off scores, provide four normalised scores with the best three to count for the final individual classification. The fly-offs to determine the individual classification are only required for Continental and World Championships. If the competition is interrupted during the preliminary rounds, the final team classification will be determined by counting all completed preliminary rounds and dropping the lowest. If the competition is interrupted during the fly-off rounds, the final individual classification will be determined by counting all completed fly-off rounds plus the results from the preliminary rounds and dropping the lowest. All scores for each round will be normalised by awarding 500 points to the average scoring **of the best 20%** flights. The remaining scores are then normalised to a percentage of the 500 points as follows:

$$\text{Points}_{(X)} = \frac{\text{Score}_{(X)} \times \text{Total}_{(A)}}{\text{Score}_{(A)}} \times 500$$

Where: $\text{Points}_{(X)}$ = Points awarded to competitor X

$\text{Score}_{(X)}$ = Score of competitor X

Score (A) = Total sum of the scores of ~~all~~ **the best 20% (Total $_{(A)}$)** flights.

$\text{Total}_{(A)}$ = **20% of the** total number of pilots **at the start of the competition (rounded up in case of an odd number)**

~~Only completed flights, where all manoeuvres are flown in the right order and without infringement of the judges' line, will be counted.~~ **The number Total (A) stays unchanged during the competition, either for preliminary or Fly-Off rounds and regardless of dropouts during the competition.** When ~~multiple~~ **two** flight lines are used the scores will be normalised for each flight line and each day **separately. In that case Total (A) is replaced by one half of Total (A) (rounded up in case of an odd number) only for the preliminary rounds.**

If only one round is possible then the classification will be based on that one round. Ties for any of the first three places will be broken by counting the highest throwaway score. If the tie still stands a "sudden death" fly-off must take place within one hour.

Reason(s): Clarification.

Supporting Data: At the 2006 European F3C Championship it was discovered that the method of combining the scores from the preliminary and fly-off rounds was open to three interpretations each resulting in a slightly different result. This clarification makes it very clear as to how to combine the results.

The definition of incomplete flights gave room for misinterpretations. With this clarification, incomplete flights do not matter for the calculation and this sentence can be removed.

Also the new normalization system based on the average score (500 System) has exhibited some anomalies at competitions with few competitors. These problems are solved by taking into account only the best 20% of all competitors for the average calculation.

e) 5.4.13 Organisation **F3C Subcommittee**

Add new sub-paragraph, page 10:

INTERRUPTION OF A COMPETITION

If the wind component perpendicular to the flight line exceeds 8m/s for a minimum of 20 seconds during a flight, the competition must be interrupted.

Reason(s): Safety.

Supporting Data: During the hovering portion of some of the flights at the 2005 F3C World Championships the wind was measured at 9m/s with peaks of 12m/s. Judges chairs / umbrellas were blown out onto the course almost impacting the pilots / mechanics and certainly distracting the pilots. In addition, some of the models were blown toward the judges creating a potentially dangerous situation.

f) Annex 5D - 5D.4 Schedule C **F3C Subcommittee**

Modify Manoeuvre C10, page 19:

As the model crosses the plane again but downwind it ~~performs a quick 180° pirouette and enters a backward~~ **enters another** descending 180° turn toward the pilot and lands.

Reason(s): Safety.

Supporting Data: During further tests of this manoeuvre in severe cross-wind conditions many models have crashed resulting in parts flying toward the judges. In addition, the manoeuvre is difficult enough without the quick 180º pirouette.

g) Annex 5F - F3N Freestyle (Provisional) **F3C Subcommittee**

Replace original F3N (2004) with new (2006) manoeuvre schedule.

See ANNEX 7 F3N

Reason(s): Some of the original manoeuvres were not challenging enough.

Supporting Data: At the 2006 F3N competition in Munich the new manoeuvre schedule was found to be a much better match with the current pilot skill levels.

11.9 Section 4C Volume F3D – RC Pylon Racing

a) Volume F3D **Netherlands**

Replace the existing Volume by the proposed new Volume shown in Agenda ANNEX 7 F3D Rules.

Note: The proposed new rules with explanatory comments may be found in Agenda ANNEX 7 F3D Comments.

Reason(s): After the discussions about the F3D rules, especially on safety and noise at the CIAM Plenary meeting march 2006 is was decided to develop the F3D rules for better safety and to develop noise rules.

Supporting Data: Rob Metkemeijer from the Netherlands was appointed by the CIAM Bureau to act as a special consultant on these matters. He considered it necessary, in order to integrate these important issues properly, to bring the rules into a new framework after being in use, almost unchanged, for a long time.

It proved not practicable to use the “strike-through and additions as bold underlined “format for changes, since the whole Volume was rearranged, however without changing its original intentions and formulations. The complete revision was done to make them more complete, clearer and less subject to (local) interpretation.

Safety and speed issues are identified and made explicit. Added is a tool to prevent unlimited speed increase in the future due to technical development. This tool is included in paragraph 5.2.1, the definition of the pylon racing class.

In the proposed rule set presented here, all safety issues as approved in the CIAM 2006 March meeting are included without effective change. Some additions were made to bring these new rules into effect.

A new noise emission rule proposal is added as part of the technical specifications in order to bring down exhaust noise to approximately the level of propeller noise.

Guide lines for organisers and judges, descriptions of tasks of people that run a competition and requirements for flying sites are added in annexes, not as new rules, but to increase the general level of organisation and safety of the competitions.

In 2006 a start was made to monitor crashes and race accidents especially to acquire statistical information about safe and unsafe areas on the pylon race site. The conclusions of this first evaluation are included in a separate document. (Agenda ANNEX 7 F3D Analysis.)

A proposed layout and zoning of a pylon racing competition site, Annex 1, is based on this.

It is proposed to yearly assess all race incidents and report to the F3D subcommittee as a standard procedure for organisers in order to adjust the rules and the site lay out for improved safety.

The new F3D rule book is presented in two versions. One is the code itself, the other includes reasons, comments and clarifications (in Italic characters in yellow) in cases where the proposed rules are interpretations or modifications to the current rules where it was necessary to make them consistent.

The proposal was reviewed prior to submission by Jo Halman, CIAM Technical Secretary.

b) 5.2.1. Definition of RC Pylon Racing Model Aircraft Czech Republic

Delete the last sentence of the second paragraph about the need to justify the unusual or unconventional features of the model. Second paragraph of 5.2.1, page 7:

The model aircraft must be of conventional design with forward wing and an aft empennage with the general lines of a full size aircraft. ~~Unusual or unconventional features must be justified with three view drawings or photographs of similar features used on full size aircraft.~~

Reason(s): Currently is this rule intentionally ignored by all F3D pilots, officials and responsible authorities so that there is no need to keep such sentence in the rules.

Supporting Data: This sentence is the residue of the past rules strictly requiring the similarity of F3D models to real full size racing aircrafts. Technical progress in F3D category during last years is leading the designers to create just single purpose racing models which are no more similar to existing full size racers.

11.10 Section 4C Volume F4 – SCALE MODEL AIRCRAFT

a) 6.1.3 Competition Programme **Norway**

Instruction: Add to the end of the fourth paragraph, page 9:

If there are more than 40 competitors by official closing date (...) Under these circumstances the R/C event will commence with static judging. Flight judging will commence once the first 10 models have been statically assessed. **In this case all competitors shall have their static judging done before their first flight.**

Reason(s): The present paragraph has been discussed because of not stating the obvious by people not to familiar with the background for the rule.

11.11 Section 4C Volume F5 – RC Electric Flight

F5B Electric Powered Motor Gliders

a) 5.5.4.1 Definition **F5 Subcommittee**

Amend as follows 5.5.4.1.b), page 12:

b) Model Aircraft specifications:

Minimum weight without battery ……~~900 g~~ …… **1'000 g**

Type of battery……~~NiCd or~~ NiMH **or Lithium Polymer**

Maximum size of ~~(only) cylindrical cells.24 mm diameter, 45 mm length (including pole)~~

Maximum number of NiMH cells ……~~16~~ …**14**

Maximum weight of battery pack ……**900 g**

Power limitation by an electronic logger……max. 1750 Watt/min

Reason(s): Safety. The proposed limitation of the power for the glider class must be effective as soon as possible. At WCH 06 we hade some very dangerous situations with overpowered model airplanes.

b) 5.5.2.2 and 5.5.4.1 **Germany**

Amend 5.5.2.2.a) as follows, page 8:

5.5.2.2 Cancelling of a Flight and Disqualification

a) If the pilot uses a model aircraft, **type of battery, max. number of cells, max. number of battery packs** not confirming (...)

Amend as follows 5.5.4.1.b), page 12:

5.5.4.1 Definition

b) Model aircraft specifications:

Type of battery: NiCd, NiMH, **Li-Polymer**

For NiCd and NiMH only: max. No. of cells 14; Maximum size of (only) cylindrical (...)

For Li- Polymer max. 4 serial – max 2 parallel;

min. weight 450 grams, max. weight 600 grams

Additionally for all cell types a watt limiter has to be used, set to 1750 watt / minute

Reason(s): Li- Polymer batteries are widely spread among the electric model fliers and in the meantime robust designed. Therefore the introduction in F5B in addition to the NICD or NIMH batteries is overdue.

A maximum 4 serial and maximum 2 parallel type of LIPO batteries is proposed because most likely the existing model and motor/controller unit can be further used, just the Watt/minute limiter has to be added.

Except of the weight this unit compares also very good in terms of power with 14 NIMH batteries. To keep the usable power at a reasonable level AND to protect the batteries (NIMH; NICD; LIPO) from damage AND ensure a long life a watt limiter set to a level of 1750 Watt/minute has to be used.

The introduction of a Watt/minute limiter is essential for safety reasons to prevent to much abuse to the batteries. NIMH and LIPO batteries easily can deliver up to 400A for a short time period but making use of this capability could reduce the life of the battery to only one flight (or less). This is dangerous, expensive and not the intention of the F5 subcommittee.

Supporting Data:
Watt/minute limiter for F5B
F5B power systems have become powerful enough to pose a safety and reliability concern. Batteries are failing in dramatic fashion and airframe structure is being pushed to the limits with the power systems that exist under the current set of rules.

The proposed watt/minute limiter presented here is intended to impose a limit on the amount of power that is available for a F5B flight now that high performance lithium batteries are being considered for F5B use. Some of the planes at the 2006 WC were running 2400 watt/minutes of power. It is proposed that the device that is being presented here limit the available power to 1750 watt/minutes, which is about the same amount of power that was available for the WC 2004. Such a device would add to the strategy aspect of the event by requiring the pilot to consider trading short very high power climbs or longer climbs using a little less power.

The proposed device would be a very small micro controller that would have inputs available to record both current and voltage of the battery providing power the motor. The device would have plugs to allow the control signal from the onboard receiver to be routed through the device and then on to the motor controller.

The watt/minute limiter would features:

- Record and store the amount of watt/minutes used from being reset.
- When 1750 watt/minutes have been used by the motor the limiter will shut the motor down by reducing the control signal to the off position.
- The watt/minute limiter would allow up to 3 additional 1 second motor on periods after the 1750 watt/minutes had been reached as a way to allow for the safe landing of the model and to avoid a unsafe off field landing.
- The device function and calibration could be checked by the contest officials using a small interface box and a laptop computer.
- Current could be measured with a Hall type current probe or a current shunt.
- Voltage would be measured with the onboard A/D converter.
- As proposed the device would weigh less than 10 grams
- Device should cost less than $50 to produce
- Designs could be shared so a number of suppliers could build devices.
- The device would be powered from the same battery that supplies power to the motor.

c) 5.5.4.1 Definition **Switzerland**

Amend as follows 5.5.4.1.b), page 12:

b) Model aircraft specifications:

Minimum weight without battery ……~~900 g~~ **1'000 g**

Type of battery……..……~~NiCd or NiMH~~ **Lithium Polymer Cells**

Maximum size of ~~(only) cylindrical cells.24 mm diameter, 45 mm length (including pole)~~ **600 g**

Maximum number of cells in row ……~~16~~ **4 S**

Power limitation by an electronic logger……max. 1750 Watt/min

Reason(s): Reduction and limitation of power in case of safety. Competitors will manage better the model aircrafts.

d) 5.5.4.1 Definition **Great Britain**

Amend as follows 5.5.4.1.b), page 12:

b) Model aircraft specifications:

~~Type of battery NiCd or NiMH~~

~~Maximum size of (only) cylindrical cells. 24 mm diameter, 45 mm length (including pole)~~

~~Maximum number of cells 16~~

Type of battery - NiMH or LiPo
Maximum 10 cylindrical NiMH cells up to 24mm diameter, 45mm length (including pole)
Maximum 600gms of Lithium Polymer cells.
Maximum battery energy allowed per flight - 1750 watt minutes

Reason(s): Lithium Polymer cells are rapidly becoming the preferred option for electric flight in all classes and should be allowed as an option in F5B. Their charge characteristics will make the F5B contest easier to run both for the competitors and organisers.

NiMH cells have greatly increased in power, and are still improving, so that 10 cells will give plenty power for F5B in 2008, be safer, and cost less.

600 gms of Lithium Polymer cells is less that the approximately 700gms of the NiMH option, but as the new entrant it is reasonable to demand a better power to weight ratio. A maximum battery energy limit will make the flight independent of the battery characteristics to a first order.

cont overleaf…/ e)

e) 5.5.4.1 Definition **FRANCE**

Amend as follows 5.5.4.1.b), page 12:

Minimum weight without battery ~~900 g~~ **1000 g**

Max energy for one flight 1750 Watt/1 mn

Type of battery ~~NiCd or~~ NiMH **or LiPo**

NiMH : Maximum number of cells ~~16~~ **14**

Maximum size of (only) cylindrical cells.24 mm diameter, 45 mm length (including pole)

LiPo : Number of cells : 4 or 5

Maximum weight 700 g Minimum weight 400 g

Maximum 1 battery / 2 round

Minimum surface 26.66 dm2

Maximum surface loading 75 g/dm2

Reason(s): Safety. Security (Safety) is no longer guarantied with the current rule because of a too high available power combined with the high surface loading . Because of very rapid performance evolution of the cells , it is impossible to manage the rules of this class with only limitations on the number or the size or the weight of the batteries it is why we propose a limitation of the available energy for a flight : 1750 watt for a minute is a reasonable energy quantity which fit well with security and with the spirit of this class . With this limitation , it is possible to introduce the LiPo batteries without risk if the weight and the number of cells are fixed (4 or 5 cells , between 400 g and 700 g) . The interest of introducing the LiPo is that these batteries are much more lighter and the effect on the current very high surface loading will be very positive for security . To keep the option to use NiMH batteries , 14 cells will also give a lighter battery weight than previously with the positive impact on the surface loading . A limitation of the number of batteries will push the competitor to be more careful and this will contribute to more security. A minimum model weight of 1000 gram will ensure a better structural integrity. These specifications have a good compatibility with existing equipment and are far from any borderline, in consequence we will not be pushed to modify the rules again in emergency and as often than previously.

f) 5.5.4.1 Definition **F5 Subcommittee**

Add new paragraph 5.5.4.1.d), page 12:

d) Maximum number of battery packs to enter the contest: ……1 pack for 2 rounds.

A reflight is 1 round.

The charged batteries must be impounded before the start of the contest. One battery pack can be released with the transmitter 20 minutes before the flight

Reason(s): Safety. With less batteries the competitor will not risk his battery with heating and overcharging.

g) 5.5.4.1 Definition **Switzerland**

Add new paragraph 5.5.4.1.d), page 12:

d) The competitor must use not more then 1 battery pack for 3 flights. One additional pack is reserved for reflights. As soon as the flight has ended, the competitor must immediately return his battery pack to the official transmitter impound.

Reason(s): Safety. The power must also be reduced if the battery packs must serve for more than one flight.

h) 5.5.4.1 Definition **Germany**

Add new paragraph 5.5.4.1.d), page 12:

d) The number of battery packs is limited for the contest and therefore the battery packs have to be marked and checked by the organizer before the contest. The number of batteries is independent from the use of a second "B"-Model.

At least two rounds in individual order have to be flown with one battery pack. A reflight counts as an additional round. E.G. "Normal weekend competitions" with 4 rounds: 2 battery packs are allowed plus an additional one for one or two reflights. It is of course allowed to fly more than two rounds with one battery. pack. The two rounds flown by one pack can be randomly. E.G. Pack1: round 1 and 2 or round 1 and round 3 etc. The correct use of the batteries has to be checked at least by chance.

In the case that it turns out during the contest that one ore more rounds can not be flown e.g. bad weather, the allowed amount of batteries at the beginning of the contest is unchanged. In this case no pilot has an disadvantage because all pilots can use the same amount of batteries.

Reason(s): Additional procedure to reduce the amount of current taken from the battery and mainly to reduce the costs of batteries per contest. E.g. 2 batteries for 4 rounds plus one in spare for one or two reflights instead of 4 batteries for 4 rounds plus one in spare for each reflight for "weekend" competitions or twice of that including the "B-Model".

cont overleaf…/ i)

F5D Electric Powered Pylon Racing Aircraft

i) 5.5.6.2 Technical Specifications & 5.5.6.9 Scoring F5 Subcommittee

Amend as follows 5.5.6.2 b), page 19.

b) Battery

Type of battery NiMH or Li-Polymer.

1) ~~NiCd or~~ NiMH

Battery is limited by either weight or number of cells **and dimensions:**

1.1) Maximum weight**:** 425 g

Weight of battery is including soldering, insulations, cables and connectors.

or

1.2) Maximum number of only cylindrical cells**:** 7

Maximum diameter: 24 mm

Maximum length (including pole): 45 mm

2) Li-Polymer

Battery is limited by weight, number of cells in serial connection and electric power. Weight of battery is including soldering, insulation, cables and connectors. The electric power has to be logged during flight. The logging device has to be placed in the electric circuit between the battery and motor controller. The pilot has to provide technical equipment to analyse the log with a resolution of minimum 10 Watt and minimum 2 logs per second (log frequency ≥ 2 Hz).

Weight: 350 - 425 g

Number of cells in serial connection: 3 - 5

Maximum average power within 60 seconds: 800 W

Add new paragraph 5.5.6.9.d) and re-number subsequent paragraphs, page 21:

d) If Li-Polymer battery is used the electric power log has to be checked by one Official. The average power analysis may be taken arbitrary at any flight time in the log. Any 60s period in the log has to be within the limit. Exceeding the electric power limit within 5,0% is scored as one infringement (cut), exceeding more than 5,0% means disqualification from that heat.

Reason(s): Safety. NiCd is not used any more and Cadmium is environmental poison. Li-Polymer battery technology has to be restricted by used electric power, voltage and weight for reason of safety to avoid collapsing batteries. The proposal restricts the amount of energy used (48 kJ/minute) and leaves it up to the pilot how he controls that his power train does not consume more power than allowed. By just taking 60 seconds engine run time out of the complete flight log for checking, the official can choose individually the most critical sequence of every flight.

The minimum numbers of cells in serial connection is to avoid very high currents which can be less accurate logged and the maximum number is to avoid more efficient high voltage setups which cause additional cost.

With 3-5 cells in serial connection most pilots can use their existing gears which are already in use with NiMH batteries.

j) 5.5.6.2 Technical Specifications **Great Britain**

Amend paragraph b) as follows, page 19:

~~Battery is limited by either weight or number of cells.~~ **Battery is limited by weight.**

Reason(s): This is on the grounds of safety but will also have a positive effect on the promotion of F5D and electric flight in general.

Supporting Data: Battery technology improvements have resulted in greater capacity being available from sub C cells at substantially greater weight per cell than when the rules were originally drafted and there are indications that there is more development to come.

Greater capacity means increasing amp draws from the 7 cells which is resulting in higher temperature battery operation and this is becoming potentially dangerous (ref. similar problems in F5B).

k) 5.5.6.3 Safety Rules **F5 Subcommittee**

Delete phrase "with a chin strap" in paragraph c), page 19:

c) All officials on the race course and all competitors must wear a crash helmet ~~with a chin strap.~~

Reason(s): Safety. The industrial standard crash helmets are designed to fit the head (variable diameter) and only correct use provides protection. Additional chin strap allows wrong use of the helmet having maladjusted diameter. The result is loss of crash protection. A crash helmet has to be used as it is designed (with/without chin strap) and just then the crash helmet fulfils the function in any case.

l) 5.5.6.5 Helper/Caller **F5 Subcommittee**

Amend as follows, page 20:

5.5.6.5 Helper~~/Caller~~

a) All competitors must be accompanied by one only helper (caller~~/mechanic~~) for reasons of safety. The **helper** ~~caller~~ can be the team manager, another competitor from the same team, or a third party. The pilot or **helper** ~~mechanic~~ of one team may act as helper in one or more other teams.

Reason(s): Clarification.

m) 5.5.6.7 Starting Procedure **F5 Subcommittee**

Add "for the first time" to paragraph 5.5.6.7.a and delete „Timing shall start when the model aircraft crosses the start/finish line for the first time." in paragraph 5.5.6.9.b, page 21: See proposal b) below.

a) Starting positions in all races will be determined by draw with No.1 position being closest to the No. 2 pylon. Model aircraft will be flagged off the starting line at 1 second intervals with timing commencing when the model aircraft crosses the start/finish line **for the first time.**

n) 5.5.6.9 Scoring **F5 Subcommittee**

Amend the paragraph as shown if m) is passed by Plenary

b) The flight of each model aircraft shall be timed with electronic stopwatch or timing device measuring to at least 1/10 second by a lap counter/timekeeper. ~~Timing shall start when the model aircraft crosses the start/finish line for the first time.~~

Reason(s): Clarification. Redundant.

Note: There are no proposals for Volumes F6, Airsport Promotion Classes, F7 Lighter-than-Air models, Space Models or Education.

11. **WORLD AND CONTINENTAL CHAMPIONSHIPS 2008 – 2011**

WORLD CHAMPIONSHIPS

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2008	F1A, F1B, F1P Juniors		POLAND
	F1D (Seniors and Juniors)		SERBIA
	F2A, F2B, F2C, F2D (Seniors and Juniors)		FRANCE
	F3J (Seniors and Juniors)		TURKEY
	F4B, F4C, F4B JUNIORS		POLAND
	F5B, F5D	Ukraine (firm)	
	SPACE MODELS (Seniors and Juniors)		SPAIN
	F3P	Belgium (firm)	

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2009	F1A, F1B, F1C	Serbia (firm)	
	F1E (Seniors and Juniors)	Germany (firm) Romania (firm)	
	F3A	Poland (firm) Portugal (firm)	
	F3B	Czech Republic (tentative)	
	F3C	Italy (firm) USA (firm)	
	F3D	Germany (firm) Sweden (tentative)	

cont overleaf…/ 2010

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2010	F1A, F1B, F1P Juniors	Romania (firm) Slovakia (firm)	
	F1D (Seniors and Juniors)	Romania (firm)	
	F2A, F2B, F2C, F2D (Seniors and Juniors)	Hungary (firm) Serbia (firm)	
	F3J (Seniors and Juniors)	Czech Republic (firm)	
	F4B, F4C	Czech Republic (firm) Poland (firm)	
	F5B, F5D	Offers invited	
	SPACE MODELS (Seniors and Juniors)	Poland (firm) Serbia (firm)	

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2011	F1A, F1B, F1C	Bulgaria (firm) Poland (firm)	
	F1E (Seniors and Juniors)	Slovakia (firm)	
	F3A	Offers invited	
	F3B	Offers invited	
	F3C	Offers invited	
	F3D	Offers invited	

cont overleaf…/ Continental Championships

CONTINENTAL CHAMPIONSHIPS

YEAR	CONTINENTAL CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2008	F1A, F1B, F1C		BULGARIA
	F1E (Seniors and Juniors)		GERMANY
	F3A		ITALY
	F3B	Offers invited	
	F3C		FRANCE
	F3D	Offers invited	
	F3A Asian-Oceanic	Offers invited	

YEAR	CONTINENTAL CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2009	F1A, F1B, F1P Juniors	Romania (firm) Serbia (firm) Ukraine (firm)	
	F1D (Seniors and Juniors)	Offers invited	
	F2A, F2B, F2C, F2D (Seniors and Juniors)	Poland (tentative)	
	F3J (Seniors and Juniors)	Poland (firm) (Turkey has withdrawn in favour of Poland)	
	F4B, F4C	Norway (tentative)	
	F5B, F5D	Offers invited	
	SPACE MODELS (Seniors and Juniors)	Serbia (firm) Ukraine (firm)	

cont overleaf…/ 2010

YEAR	CONTINENTAL CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2010	F1A, F1B, F1C	Serbia (firm)	
	F1E (Seniors and Juniors)	Romania (firm)	
	F3A	Offers invited	
	F3B	Offers invited	
	F3C	Offers invited	
	F3D	Offers invited	
	F3A Asian-Oceanic	Offers invited	

YEAR	CONTINENTAL CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2011	F1A, F1B, F1P Juniors	Poland (firm)	
	F1D (Seniors and Juniors)	Offers invited	
	F2A, F2B, F2C, F2D (Seniors and Juniors)	Offers invited	
	F3J (Seniors and Juniors)	Romania (firm) Slovakia (firm)	
	F4B, F4C	Offers invited	
	F5B, F5D	Offers invited	
	SPACE MODELS (Seniors and Juniors)	Romania (firm)	

12. **ANY OTHER BUSINESS**

13. **NEXT CIAM MEETINGS**

cont overleaf…/ Annexes to the Agenda

ANNEXES TO THE AGENDA OF THE 2007 CIAM PLENARY MEETING

ANNEX FILE NAME	ANNEX CONTENT
ANNEX 1	FAI Code of Ethics
ANNEX 2 (a-g)	2006 World Championship Reports
ANNEX 3 (a-k)	2006 Subcommittees' & Technical Secretary Reports
ANNEX 4 (a-f)	2006 World Cup Reports
ANNEX 5	2006 Trophy Report
ANNEX 6 (a-k)	FAI-CIAM Medals & Diplomas: Nominee Forms
ANNEX 7 F3A Manoeuvre Schedules	F3A Manoeuvre Schedules
ANNEX 7 F3A Manoeuvre Diagrams	F3A Manoeuvre Diagrams
ANNEX 7 RC Aerobatics Judges Guide	RC Aerobatics Judges Guide
ANNEX 7 F3A Unknown Manoeuvre Schedules	F3A Unknown Manoeuvre Schedules
ANNEX 7 F3A World Cup Rules	F3A World Cup Rules
ANNEX 7 F3B Winch Wiring Circuit	F3B Winch Wiring Circuit
ANNEX 7 F3K	Class F3K - Replacement Section (Vol. F3BJ)
ANNEX 7 F3N	Class F3N - Manoeuvre Schedule
ANNEX 7 F3D Rules	Class F3D - Replacement Volume
ANNEX 7 F3D Comments	Class F3D - Replacement Volume Comments
ANNEX 7 F3D Analysis	F3D Safety Analysis

cont overleaf…/ Deferred Section

DEFERRED SECTION

This section contains all proposals received by the FAI Office according to rules A.6 and A.7, but not eligible to be voted on at the 2007 Plenary Meeting: rule A.12 applies. They are presented here for information and discussion and will be placed on the next appropriate Plenary Meeting agenda.

DEF a) SC General Section - 5.2.2.3 Unsporting behaviour

F3A Subcommittee

General Section, Chapter 5, Complaints, Penalties, Disqualifications, and Protests. Add second paragraph below existing paragraph.

Any conscious effort by a competitor, or a team member or supporter directly involved with a national team, to influence, intimidate, or threaten contest officials or other competitors or teams, with the intent of gaining an advantage over other competitors or teams, irrespective if this occurs directly before, during, or directly after the sporting event, shall be considered unsporting behaviour, and may result in disqualification of the individual or the team from the championship.

Reason(s): Recent experiences during world and continental championships, have had isolated incidences where competitors, team managers, and supporters/helpers have exhibited intimidating and threatening behaviour, with the intent of gaining an unfair competitive advantage. The addition of this paragraph will help to prevent this behaviour and renew an awareness of the consequences.

F2 Control Line

DEF b) Annex 4D – Control Line World Cup Rules **Russia**

4D.3 Contests

Add at the end of the sentence, page 61:

a) a maximum of two contests in each class may be selected for any one country ***with its territory including less than 3 hour zones.***

Reason(s): To encourage large countries, such as USA, China, Russia, etc. to organize a greater number of World Cup events for competitors to be able to participate in World Cup events with no need to cover great distances in order to promote sports aeromodelling developing in a widely spread scale.

Supporting Data: Such addition has already been approved by the Spacemodelling Sub-Committee for the Spacemodelling World Cup Rules, which will be effective from January 1, 2007.

DEF c) 4.4.4 Competitor **Russia**

Amend as follows:

The ~~pilot~~ **crew consisting of one pilot and one mechanic**, who shall be the entrant and known as the competitor, may employ a maximum of ~~two mechanics~~ **one helper** in any one heat. (In exceptional circumstances of wet or extremely windy weather, an additional helper may be used as a streamer holder and must perform no other function for the duration of that combat period).

For World and Continental Championships, the helpers, a maximum of ~~six~~ **three** other than team members or the team manager (or assistant team manager), must be registered for no more than one national team, from the beginning of the competition throughout to the end. During active combat periods, the pilot and his mechanic~~(s)~~ **and his helper** must wear protective headgear fitted with an effective retaining strap.

Reason(s): Success in a bout to a great extent depends on the actions of the mechanic concerned. The majority of pilots participate in competitions jointly with their regular mechanics. These mechanics are worthy of being awarded just as their pilots. Safety: The fourth member of the crew is to be removed from the starting site for the period of an active combat.

DEF d) 4.4.9 Method of Starting **Russia**

Add new paragraph i):

i) If a model aircraft flies away with or without lines, the heat shall continue, as if the model aircraft has landed (see 4.4.11.f and 4.4.15.n).

Reason(s): To cancel an attempt in the event of a model aircraft fly-away.

DEF e) 4.4.10 Termination of the Contest **Russia**

Amend paragraph c) as follows:

c) The Circle Marshal shall signal both pilots to fly level and anti-clockwise and to cease combat when both streamer strings have been cut. If one pilot has only the string remaining he may request the circle marshal instruct both pilots to fly level and anti-clockwise and to cease combat. This decision may not be reversed, ~~once made~~ **while his model is flying. If the pilot's model lands and then flies up, he can ask the Circle Marshal once more to draw the models apart, or to permit the pilots to resume the combat after the signal to combat is given: 4.4.9.h .**

Reason(s): Safety. This will allow the pilot to be more sure in deciding to reject the combat and will prevent his opponent from provoking him for cutting the lines of the models.

DEF f) 4.4.15 r) Cancellation of the Flight **Russia**

Amend as follows:

r) if the model aircraft lands with no streamer string ~~and the streamer retaining device is missing or bent~~, but not as a result of a mid-air collision;

Reason(s): A streamer attachment device should keep a streamer safely in all conditions of a bout, except mid-air collisions of models. If a model lands without a string and this happens not as a result of a mid-air collision, the competitor –violator shall be withdrawn from the bout not depending on whether the streamer attachment device is damaged or not.

DEF g) 4.4.16 Classification **Russia**

Amend as follows:

j) Previous opponents and competitors of the same nationality shall be drawn apart if possible with competitors of the same nationality to fly against each other only if there are no remaining opponents Defending champions, not members of their national team, ~~are considered as individuals not possessing any specific nationality~~ **shall be drawn apart with their team members in just the same way, as if they were members of their national team.**

Reason(s): This will exclude the team's pressing on the reigning champion to sacrifice his individual classification to the benefit of a team classification.

F3J Thermal Duration Gliders

DEF h) 5.6.1.3 Characteristics of RC Gliders F3J **Germany**

Amend paragraph 5.6.1.3.f as follows:

f) For the sake of randomness for the starting order among the successive rounds, each competitor must enter **(three)** different frequencies with 20kHz minimum spacing. **The organizer is entitled to use any of these three frequencies for setting the flight matrices. Once the competitor is given one of these three frequencies he must not change to another frequency during the whole preliminary rounds in any case other than reflights. In case of a reflight** ~~. T~~ **t**he competitor can be called to use either of these **three** frequencies **for only this reflight,** so long as the call is made at least ½ hour prior to the beginning of **the reflight** in written form to the pilot (or team manager when applicable)

Reason(s): Safety. To avoid crashes of models and to set the safety level as high as possible not changing frequencies is the more reasonable way than penalizing a pilot for having forgotten to change his frequency.

Several Incidents due to that issue occurred in the recent years especially during Continental- and World Championships, which showed the necessity of not having the pilots to change frequency during the preliminary rounds of the contest. Flight paths of models out of control

because operated with the wrong frequency for it has not been changed are not predictable and the possibility of a crashing model into the competitors or visitor spectator area is way too dangerous.

DEF i) 5.6.10 Scoring **Germany**

Amend 5.6.10.5 as follows, page 19:

5.6.10.5 A landing bonus will be awarded in accordance to the distance from the landing spot marked by the organisers according to the following tabulation:

Distance from Spot (meters) up to m	Points
~~1~~	~~100~~
~~2~~	~~95~~
0,2	**100**
0,4	**99**
0,6	**98**
0,8	**97**
1,0	**96**
1,2	**95**
1,4	**94**
1,6	**93**
1,8	**92**
2	**91**
3	90
4	85
5	80
6	75
7	70
8	65
9	60
10	55
11	50
12	45
13	40
14	35
15	30
over 15	0

Reason(s): Dividing the inner two meters of the 15m concentric landing zone leads to more appropriate separation of the results. Timing tenth of a second but rewarding the landing meter wise - and thereby in steps of five points – occurs not to be equalized level of fight and landing credit.

The more precision needed for a 20cm-wise landing task leads towards less speed needed for a proper approach.

DEF j) 5.6.10 Scoring **Belgium**

Add following sentence to 5.6.10.5, page 19:

No landing points are awarded if the model remains stuck in the ground and the tail of the model is not touching the ground after coming to rest. No landing points are awarded if the model ends up inverted after landing.

Reason(s): Return to the essence of landing a model. Landing a glider nearly vertically into the ground should not be awarded with bonus points for craftsmanship.

F4 Scale Model Aircraft

DEF k) 6.1.4 Judges **SCALE Subcommittee**

Instruction: First paragraph, add to the end, page 9:

The organiser of a Scale C/L World or Continental Championship (F4B) shall appoint five judges, of whom three will be nominated to do the static judging, but all five will judge the flying once static judging is complete. **If the number of entries by the official closing date is less than 20, the organisers only need to appoint three judges to do both static and flying.**

Reason(s): To reduce organiser's cost when the number of entry is very low.

DEF l) 6.1.4 Judges **SCALE Subcommittee**

Instruction: First paragraph, add to the end, page 9:

The organiser of Scale R/C World or Continental Championship (F4C) shall appoint three (or six for two panels) judges to do static judging, plus a separate panel of five to judge the flying. **If the number of entries by the official closing date is less than 20, the organisers only need to appoint three judges to do the flight judging.**

Reason(s): To reduce organiser's cost when the number of entry is very low.

DEF m) 6.3.1 General Characteristics **SCALE Subcommittee**

Instruction: Replace the turbine power 10kg (100 Newton) with the new limit of 15kg (150 Newton), page 18:

Maximum weight of the complete model aircraft without fuel in flying condition including any dummy pilot: 15kg (150 Newton)

Motive Power:

b) The maximum thrust for a turbine engine shall be ~~10kg. (100 Newton)~~**15kg (150 Newton)**

Reason(s): The Power limit of the turbines was not raised at the same time as the maximum weight was raised from 10 to 15kg and a model of a modern jet need to have a power to weight ratio of 1:1 to perform scale manoeuvres.

F5B Electric Powered Motor Gliders

DEF n) 5.5.4.1 Definition **Germany**

Amend as follows 5.5.4.1.c), page 12:

c) Starting order for world and continental championships: the starting order

Starting order for other competitions: Pending on the number of pilots and planned rounds the organizer may try to divide the random starting order of the first round by the number of planned rounds to fly and shift the starting order accordingly. E.g. 24 pilots, 4 rounds. Starting order 1st round: 1….24; starting order 2nd round: 7….24, 1…6; starting order 3rd round: 13….24, 1….12 and so on.

Reason(s): The regulation for world or continental championships is too complicated for regular “weekend” competitions. However it should be tried to mix the starting order somewhat to reduce the weather impact pending on the local situation.

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