Fédération Aéronautique Internationale

Agenda

of the Plenary Meeting of the FAI Aeromodelling Commission

To be held in Lausanne, Switzerland on 3 & 4 April 2020

Issue 1

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AGENDA
CIAM PLENARY MEETING 2020

to be held in Lausanne (Switzerland)
on Friday 3 April and Saturday 4 April 2020, at 09:15

1. PLENARY MEETING SCHEDULE AND TECHNICAL MEETINGS

According to the rules, and after confirmation at the 2019 CIAM December Bureau Meeting by the relevant Subcommittee Chairmen, the following scheduled Technical Meetings will be held: F2, F3FJ, F4, F5B, Space Models and Education. Interim Meetings will be held for F9.

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

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

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

3. PRESENTATION IN MEMORIAM

4. MINUTES OF THE APRIL 2019 BUREAU & PLENARY MEETINGS, AND OF THE DECEMBER 2019 BUREAU MEETING

4.1. **2019 April Bureau**
- 4.1.1. Corrections
- 4.1.2. Approval
- 4.1.3. Matters Arising

4.2. **2019 Plenary**
- 4.2.1. Corrections
- 4.2.2. Approval
- 4.2.3. Matters Arising.

4.3. **2019 December Bureau**
- 4.3.1. Corrections
- 4.3.2. Approval
- 4.3.3. Matters Arising

5. APRIL 2020 BUREAU MEETING DECISIONS

Distribution and comments of the April 2020 Bureau Meeting decisions.

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

6.1. **CIAM Officers**

President
1st Vice President
2nd Vice President
3rd Vice President
Secretary
Technical Secretary

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

Subcommittee Chairmen to be elected

- F2 Control Line
- F4 RC Scale
- F5 RC Electric
- F7 RC Aerostats
- F9 Drone Sport
- S Space Models
- Education

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

6.2. **Subcommittee Chairmen to be confirmed**

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

7. REPORTS

7.1. **2019 FAI General Conference, by the FAI office representative**

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

- ASC Presidents meetings May and December 2019
- CASI meeting December 2019
- WAG 2022
- World Games 2021
- Bureau activities

7.3. **2019 FAI World and Continental Championships, Jury Chairmen (ANNEX 2)**

7.3.1. 2019 FAI F1 Seniors World Championship for Free Flight Model Aircraft. USA. Ian Kaynes

7.3.2. 2019 FAI F1E World Championship for Model Gliders. Slovakia. Andras Ree

7.3.3. 2019 FAI F3A World Championship for Aerobatic Model Aircraft. Italy. Peter Uhlig

7.3.4. 2019 FAI F3B World Championships for Model Gliders. Czech Republic. Tomas Bartovsky

7.3.5. 2019 FAI F3CN World Championship for Model Helicopters. Germany. Stefan Wolf

7.3.6. 2019 FAI F3D-F5D World Championship for Pylon Racing Model Aircraft. Australia. Kevin Dodd

7.3.7. 2019 FAI F3K World Championships for Model Gliders. Hungary. Tomas Bartovsky

7.3.8. 2019 FAI F3P World Championships Indoor Aerobatics Model Aircraft. Greece. Peter Uhlig

7.3.9. 2019 FAI F5J Electric Model Aircraft World Championship. Slovakia. Emil Giezendanner

7.3.10. 2019 FAI World Drone Racing Championship Grand Final. China. Bruno Delor

7.3.11. 2019 FAI F1 Juniors European Championships for Free Flight Model Aircraft. North Macedonia. Ian Kaynes

7.3.12. 2019 FAI F1D European Championships for Indoor Model Aircraft. Czech Republic. Andras Ree

7.3.13. 2019 FAI F2 European Championships for Control Line Model Aircraft. Bulgaria. Massimo Semoli

7.3.14. 2019 FAI F3J European Championship for Model Gliders. Poland. Tomas Bartovsky

7.3.15. 2019 FAI S European Championships for Space Models. Romania. Narve Jensen

7.4. 2019 Sporting Code Section 4: CIAM Technical Secretary, Mr Kevin Dodd (ANNEX 3)

7.5. 2019 Subcommittee Chairmen (ANNEX 3)

7.5.1. Free Flight: Ian Kaynes

7.5.2. Control Line: Ferenc Orvos

7.5.3. RC Aerobatics: Peter Uhlig

7.5.4. RC Gliders: Tomas Bartovsky

7.5.5. RC Helicopters: Stefan Wolf

7.5.6. RC Pylon: Rob Metkemeijer

7.5.7. RC Scale: Pal Linden Anthonisen

7.5.8. RC Electric: Emil Giezendanner

7.5.9. Aerostats: Johannes Eissing

7.5.10. Drone Sport: Bruno Delor

7.5.11. Space Models: Zoran Pelagic

7.5.12. Education: Per Findahl

7.6. 2019 World Cups, by World Cup Coordinators (ANNEX 4)

7.6.1. Free Flight World Cup: Ian Kaynes

7.6.2. Control Line World Cup: Jo Halman

7.6.3. RC Aerobatics World Cup: Rob Romijn

7.6.4. RC Thermal Soaring and Duration Gliders World Cup: Martin Weberschock

7.6.5. RC Slope Soaring World Cup: Erik Schufmann

7.6.6. RC Thermal Duration Gliders World Cup: Sotir Lazarkov

7.6.7. RC Hand Launch Gliders World Cup: Friedman Richter

7.6.8. RC Aerobatic Helicopter World Cup: Ian Emery

7.6.9. RC Freestyle Aerobatic Helicopter World Cup: Ian Emery

7.6.10. RC Indoor Aerobatics: Michal Gryglas

7.6.11. RC Electric Powered Motor Gliders World Cup: Wolfgang Schulz

7.6.12. RC Electric Powered Thermal Duration Gliders World Cup: Sotir Lazarkov

7.6.13. RC Multi-Rotor Drone Racing World Cup: Bruno Delor

7.6.14. Space Models World Cup: Andrija Ducak

7.7. **2019 Trophy Report, by CIAM Secretary, Massimo Semoli (ANNEX 5)**

7.8. **Aeromodelling Fund- Budget 2020, by the Treasurer, Andras Ree (ANNEX 3)**

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

7.10. **EDIC WG report, by Chairman, Manfred Lex (ANNEX 3)**

8. PRESENTATION OF 2019 FAI WORLD CHAMPIONSHIPS MEDALS COUNT PER NATION

9. PRESENTATION OF 2019 WORLD CUP AWARDS CEREMONY

INVITATION TO THE PRESENTATION CEREMONY FOR

The 2019 World Cup awards for classes F1A, F1A junior, F1B, F1B junior, F1C, F1E, F1E junior, F1P junior, F1Q, F2A, F2B, F2C, F2D, jF2A, jF2B, jF2C, jF2D, F3A, F3B, F3F, F3K, F3J, F3C, F9U, F5J, S4A, S6A, S7, S8E/P and S9A

will be held on Friday, 3 April 2020, around 16.30.

10. PLENARY MEETING VOTING PROCEDURE

Confirmation of the voting procedure for the Plenary Meeting.

11. SCHOLARSHIP SELECTION APPROVAL (ANNEX 8)

- Kristina IVANOVA (Bulgaria)
- Karl MANNIK (Estonia)
- Wojcich KOSZELSKI (Poland)
- Mykola ZABARA (Ukraine)
- Michal ZITNAN (Slovak Republic)

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

Alphonse Penaud Diploma

- Jan SEDLACEK (Czech Republic)

Andrei Tupolev Diploma

- No Candidates

Antonov Diploma

- Peter Halman (GBR)

Frank Ehling Diploma

- No candidates

Andrei Tupolev Medal

- Jan SEDLACEK (Czech Republic)

FAI Aeromodelling Gold Medal

- Ingemar LARSSON (Sweden)
- Bogdan WIERZBA (Poland)

13. OPEN FORUM

The subjects will be:

- Event Registration application

- Regulations about UAVs and coordination between NACs
- Safety in Aeromodelling events

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

14. SPORTING CODE PROPOSALS

The Sporting Code proposals begin overleaf.

14. SPORTING CODE PROPOSALS

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

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

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

Each section begins on a new page.

The text of the submitted proposals may have been changed to correct the English grammar or to improve clarity and understanding. Technical Secretary notes should be addressed, if required, at the Technical meetings.

14.1 Volume CIAM General Rules, Section 4A
(CIAM Internal Regulations)

a) A.8 TECHNICAL EXPERTS ~~LIST~~ NOMINATION **Bureau**

Amend Section A.8, changing the heading and with deletions and additions to sub-paragraphs a), b) and Table e) as shown below:

a) Nominations for persons to be put on the ~~list~~ **data base** of technical experts must **be submitted electronically with the use of the FAI on line application** ~~received by the FAI Office~~ no later than 15th November. ~~The nominations may be submitted on paper, by email or by using the on-line submission procedure available on the FAI web site.~~ **The nomination period starts every year on September 15th.**

b) **The validity period is defined by the NAC concerned and it can be one (1) year or more.** ~~The list is valid for two years starting the following January and is updated annually. If no list is presented by the deadline in any year, then the old list stands for one more year.~~ Subcommittee members should be chosen from the ~~list~~ **data base**. ~~The nomination must contain the information requested by the FAI Office on the electronic forms it sends to NACs.~~

c) To comply with the principle of NACs and Airsports Persons, NACs are only permitted to submit names of persons of their own NAC.

d) The Subcommittees' terms of office will be between Plenary Meetings.

e) Technical experts may be nominated for **the following** ~~each~~ categories ~~in the following classes~~:

Free Flight ~~F1A, F1B, F1C, F1D, F1E~~	Control Line ~~F2A, F2B, F2C, F2D~~
RC Aerobatics ~~F3A, F3M, F3P, F3S~~	RC Helicopter ~~F3C, F3N~~
RC Soaring ~~F3B, F3F, F3J, F3K~~	RC Pylon Racing ~~F3D, F5D~~
Scale	Electric Flight ~~F5B, F5J~~
Aerostats	Drone Sport
Space Modelling	Education

Reason: To allow the switch from paper forms to the use of the new application which was launched officially in 2019.

b) A.10 Submission of Proposals to the CIAM **Bureau**

Amend sub-paragraph A.10 g) and add two new sub-paragraphs f) and g), renumbering f) and g) as h) and i) as shown below:

~~g)~~ **i)** All rule proposals, guides and whatever items accepted for the Agenda must be made available electronically in ~~rich text format (RTF)~~ ~~or~~ any ~~other~~ **kind of format that can be edited by MS-Word** ~~97-2003~~ to facilitate compilation of the Agenda.

Reason: MS-Word is currently the FAI standard document editor and other formats are not carrying forward the proper formatting and this is adding extra workload to convert and fix the submitted documents or email back to the proposer and ask for the documents to be submitted in a useable format. Documents which are incorrectly named are also adding to the time it takes to prepare the large number of proposals for review.

Add the following:

e) All technical amendments must be accompanied by supporting data.

f) Proposed amendments which affect the specifications or requirements set by the EDIC Working Group for any electronic device used in competition, must include a recommendation from the EDIC WG Chairman in writing for the proposal to be accepted for the Plenary Agenda.

g) Proposed amendments to the EDIC Volume are undertaken at the request of CIAM Bureau or a CIAM Subcommittee Chairman and should not be submitted for the Plenary Agenda.

~~f)~~ **h)** Submit each proposal on a separate document regardless of category.

i) All rule proposals, guides and whatever items accepted for the Agenda must be made available electronically in ~~rich text format (RTF) or~~ any ~~other~~ **kind of format that can be edited by MS-Word** ~~97-2003~~ to facilitate compilation of the Agenda.

Reason: It was noticed that last year proposals were adopted without prior notice or confirmation of the EDIC WG. Those proposals are not yet implemented because the relevant S/C hasn't yet asked the EDIC WG to work on them, to apply the necessary fixes to the specifications and also approve new devices. Proposals were received this year for the EDIC Volume itself, which cannot be agreed by the Plenary meeting.

c) A.14 Aeromodelling Scholarship — Education Subcommittee

Amend sub-paragraph A.14 e) as follows:

e) Payment

i) The FAI will transfer the Scholarship award of ~~2,000~~ **2,500** Euros to the awarded student, or his/her parents or his/her guardians after all valid receipts which justify the full amount of the Scholarship have been submitted.

Reason: To keep the value and status of the scholarship we must follow the changes of value of money over time. The amount of 2,000 Euros has stayed the same since the scholarship was first started and it's quite a few years back in time. So we think 2,500 is a good amount to keep the same status of the Scholarship today as when it started.

Volume CIAM General Rules, Section 4B begins overleaf

14.2 Volume CIAM General Rules, Section 4B
(General Specifications for CIAM Classes)

<u>Technical Secretary Note:</u> Proposals received for amendments to B.2.2 – Classification of Space Models, will be dealt with as a consequence of the related Space proposals.

Volume CIAM General Rules, Section 4C begins overleaf

14.3 Volume CIAM General Rules, Section 4C
(General Rules for International Events)

a) C.3 FAI Sporting Calendar **Bureau**

Modify the section with the deletions and additions as shown below:

a) Except where stated below, registration for sporting events must be ~~sent to the FAI office~~ **submitted electronically with the use of the FAI on line application,** ~~using the appropriate registration form~~ no later than 15th November in the year prior to the event. ~~The information submitted must include the name, address, telephone, fax number etc. of a contact person.~~

~~*Note: The registration form is downloadable from "Documents" section of the CIAM website http://www.fai.org/ciam-documents.*~~

b) All applications for sporting events must be accompanied by a sanction fee to CIAM. The amount of this sanction fee is determined annually by CIAM as defined in **Error! Reference source not found.**. Payment may be made by credit card**,** ~~or~~ bank transfer**, PayPal or any other method available from the FAI on line application**, but in any case, the remitter pays all card or bank charges.

Sanction fee for World and Continental Championships and World Cup contests must be received by the FAI by 15th November of the year preceding the championship or World Cup contest. If the fee is not received by 15th November, the event may be deleted from the calendar.

c) Open International **events** for which registration has been received by the FAI Office after 15th November of the year immediately preceding the year of the contest may be considered for the FAI Sporting Calendar but will not be eligible for inclusion in a World Cup for that or the following year. However, such an Open International must be submitted **electronically with the use of the FAI on line application** at least three months in advance of the contest date with the appropriate fee payment to the FAI Office, ~~and on the appropriate registration form with copy to the President and Secretary who will inform the relevant Subcommittee Chairman.~~ Inclusion in the FAI Sporting Calendar of any Open International submitted after 15th November will be granted only with the ~~written~~ approval of the relevant Subcommittee Chairman. **For Drone Sports Open International events, the November 15th deadline to be eligible for inclusion in the World Cup of this class, is not applicable.**

Reason: To allow the switch from paper forms to the use of the new application which was launched officially in 2019. Also to include in the rules the CIAM decision to allow World Cup event submission throughout the year.

b) C.7 Contest Officials **Bureau**

*In **C.7.1 FAI Jury**, modify sub-paragraph (d) as follows:*

d) The Jury President at each international contest must submit a report to the FAI within one month of the contest. This report must include descriptions of any

deviation from the FAI Sporting Code and any exceptional circumstances that arose. In the situation where a new world record is set during a World or Continental Championship, it is the responsibility of the FAI Jury for that event to notify the FAI ~~Headquarters~~ **Secretariat** within seven (7) days of the record accomplishment and remind the competitor and organisers of the need to assemble proper documentation within the prescribed time limit for homologation.

Reason: To be in line with the FAI Sporting Code General Section.

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

Modify this section - sub-paragraphs (a), c), d) and f) as follows:

a) Nominations for persons to be put on the ~~list~~ **database** of international judges must be **submitted electronically with the use of the FAI on line application** ~~received by the FAI Office~~ no later than 15th November. **The nomination period starts every year on September 15th. The validity period is defined by the NAC concerned and it can be one (1) year or more** ~~nominations are valid for two years~~ starting the following January and can be updated annually. ~~If no list is returned by the deadline in any year, then the old one stands for one more year. The nominations may be submitted on paper, by email or by using the on-line submission procedure available on the FAI web site.~~

b) Any judges appointed for a championship must be on the current or upcoming ~~list~~ **database** at the time of selection.

c) For Category-1 events all judges must be chosen from the ~~list~~ **database** and be of different nationalities.

d) For Category-2 events:
   i) Where three or four judges are to be used, a maximum of two judges may be of the same nationality; where five judges are to be used, a maximum of three judges may be of the same nationality.
   ii) if using four or five judges, a minimum of three judges must be selected from the official FAI ~~list~~ **database**.
   iii) if using three judges, a minimum of two judges must be selected from the official FAI ~~list~~ **database.**
   iv) the remaining judges should be experienced and recommended by the organiser of the Category-2 event.

e) For subjective judging, a proportion of the judges chosen to judge at a championship must not have judged at the previous equivalent championship. This proportion to be as defined in the class rules.

f) To comply with the principle of NACs and Airsports Persons, NACs are only permitted to submit names of persons of their own NAC.

Note: International judges are currently listed for the following classes:

F2A	*F2B*	*F2C*	*F2D*		
F3A	*F3C*	*F3M*	*F3N*	*F3P*	***F3S***
F4	*S*				

Reason: To allow the switch from paper forms to the use of the new application which was launched officially in 2019. F3S is also introduced to this section.

d) C.10 Number of Models Eligible for Entry **Bureau**

*In **C.10.1 Class F – Model Aircraft**, modify one line as shown below:*

F2A, F2B, F2C, F3B, F3D, F3J, F5D, F3F, F3P **A**, **F3P AFM**, F5J, F9U Three (3) only

Reason: F3P class has 2 subclasses and this is a clarification.

e) C.12 Model Processing **F2 Subcommittee**

Add a new sub-paragraph (f) as follows:

f) If the competitor refuses the processing of his model (engine) during the contest, the competitor will be disqualified from the contest.

Reason: The CIAM general section does not regulate appropriately such issues. The new additional rule paragraph is for preventing those unclear situations in the future.

*Technical Secretary Comment: See C.19.1 c) which defines 'deliberate attempts to deceive or mislead officials' as 'unsporting behaviour', and states that this 'should, as a guide, result in disqualification from the contest'. In addition, d) states that 'all competitors making use of a model, equipment or fuel which does not conform in all respects to the rules and regulations of the event or **which have not been verified by the organiser** shall be disqualified from the contest.'*

f) C.12 Model Processing **France**

Add a new sub-paragraph (f) as follows:

f) If a competitor (team) refuses the processing of his model or engine, or refuses to comply with the FAI jury's request during a processing procedure, it will be disqualified from the competition.

Reason: During the 2019 Control Line European Championships one team was refusing processing their model (engine) and the CIAM general section does not regulate appropriately such issues. The new additional rule is for preventing those issues in the future.

Technical Secretary Comment: The word 'it' is ambiguous. Is the intention that the model is disqualified, the competitor is disqualified or that the team is disqualified?

Volume CIAM Records begins overleaf

14.4 Volume CIAM Records

a) 4.5.3 Homologation Requirements (Space Models) Serbia

Amend the section of 4.5.3.1 as shown below:

4.5.3.1. The competition flight card of the submitted record attempt shall be marked, "Record Attempt." ~~Tracking station angular~~ **Record attempt result** data must be entered in ink.

In addition see the following proposal b)

b) Forms: Application for record confirmation – Space Models Serbia

In this suite of forms, available from the 'Documents' section of the CIAM website, delete pages 4 & 5 (Table V Sheet 1 & 2) and replace with a single page form. Refer to ***Agenda Annex 7a****:* ***Space Altitude Record Attempt Form****.*

Reason: Electronic altimeters have been used for altitude measurements in space models altitude classes S1, S2 and S5 for last ten years. Triangulation Method is not being used anymore because of slow procedure and limited accuracy of calculated altitudes in comparison with electronic measurements. Therefore it is necessary to change this form in relation with present situation.

c) Forms: Record Dossier Check Form – Space Models Serbia

In this suite of forms, available from the 'Documents' section of the CIAM website, amend the above form. Refer to ***Agenda Annex 7b****:* ***Record Dossier Check List****.*

Reason: CIAM Sporting Code 4 was reorganized several years ago. So all paragraphs on aeromodelling and spacemodelling records were moved from Volume ABC Section C and Volume Space Models Chapter 14 to a new Volume CIAM Records. However, reference paragraphs in the Record Dossier Check Form - Space Models were not renumbered and that is necessary to do now to allow interconnection between this form and homologation requirements and homologation data defined in Volume Records, which should be submitted to CIAM for confirmation of records.

Volume EDIC begins overleaf

14.5 Volume EDIC – Electronic Devices in Competition

Technical Secretary Note: The following proposals have been included for information only. The EDIC Volume is not subject to Plenary meeting approval. All projects undertaken by the EDIC Working Group are at the request of CIAM Bureau or a CIAM Subcommittee Chairman. The EDIC Volume is under the direct control of CIAM Bureau on recommendation from the EDIC WG and may be updated at any time during the year.

Section 4 – F5B Real-Tect System

a) 5.3 Test Sequence for Checking WM Calibration (Test 32) Switzerland

Amend sub-paragraph e) as follows:

e) After a period of 70 seconds, both the load and the stop watch will be stopped simultaneously. GDGT WM shall display between ~~1715 and 1785 WM. <this is ± 2%>~~ **1732 and 1768 WM. <this is ± 1%>**.

Reason: Lowering of the tolerance of the energy measuring device from+/-2% (total =70Wmin) to +/-1% (total = 35Wmin.), can be achieved by better calibration or pre-selection of devices. As energy management will be critical for the distribution of points the logger devices need to be more accurate. In regional or national competitions standard, commercially available, off-the-shelf, devices with +2% can be allowed by the organizers. In international competitions where the devices are provided by the organizer the devices shall be calibrated to +1% or pre-selected to +1%.

b) Section 4 – F5B OEM and REAL-TECT System Netherlands

Amend the heading of Section 4 adding a new sub-section (as Number 2) for the Onboard Energy Monitor (OEM), with renumbering of the subsequent sections:

New heading: **4 Performance Requirements Definition for FAI-F5B/F5F Onboard Energy Monitor (OEM) and Real Time Energy Consumption Telemetry (REAL-TECT) System Compatible with Existing GASSENSOR Equipment**

*See **Annex 7r – EDIC - Section 4 F5B OEM and REAL-TECT System**.*

Reason: Parallel to the F5B REAL-TECT System an additional system is required, the so called Onboard Energy Monitor (OEM), owned by the pilot and not delivered by the organizer of the competition, similar to the F5J altimeter.

By far the majority of F5B/F5F competitions have used such OEM-type devices, providing thrilling and fair competitions. This includes many national competitions, Eurotour events and World Cups. Homologating OEM devices will allow these competitions to be executed within the scope of the rules as stated for relevant classes.

Volume F1 – Free Flight begins overleaf

14.6 Section 4 Volume F1 - Free Flight

a) F1.1.2 Provision of Timekeepers **F1 Subcommittee**

Add a new sentence to F1.1.2 a) as follows:

a) In Free Flight events, provide each starting position with two time keepers in Championships. **At Open Internationals each starting position should be provided** ~~or~~ with at least one timekeeper ~~for other contests~~**, but if the organisers are unable to provide official timekeepers they must announce this in advance in a bulletin.** For fly-offs an additional timekeeper must be provided (i.e. three for Championships, at least two for other contests). All time keepers must have binoculars. Each starting position must be equipped with at least one tripod for supporting binoculars.

Reason: This emphasises that organisers should provide at least one time keeper at each starting position. However, some competition organisers do not manage to meet this basic need and it is important that competitors know in advance if there will be no official timekeepers. They can then make a decision in advance of whether to attend the event.

b) Annex 1 – Rules for Free Flight World Cup **F1 Subcommittee**

Add a new World Cup class: F1Q Junior:

1. Classes

   The following separate classes are recognised for World Cup competition: F1A, F1B, F1C, F1E, F1Q, F1A Junior, F1B Junior, F1P Junior, **F1Q Junior,** and F1E Junior.

Reason: To encourage junior participation in F1Q. This is the only Free Flight World Cup category without a related Junior class.

c) Annex 1 – Rules for Free Flight World Cup **F1 Subcommittee**

Modify item (c) and (e) as shown below. All other items (a, b, c, d, f, g) in Paragraph 4 remain unchanged.

4. Points Allocation

   c) The number of points awarded is 500 for the winner and linearly decreases to zero for the highest place competitor receiving no points. For the competitor in place P this is expressed by:

   $$\text{points} = 500 * [\ 1 - (P-1)/H\ ]$$

   The points calculated are rounded up to the nearest whole number of points. **Additional points are awarded for the top three places subject to the requirement (b) to be in the top half of the results. Place 1 receives 75 extra points, place 2 receives 50 points and place 3 receives 25 points.**

e) Each competitor awarded placing points is also eligible for one bonus point for each competitor they have beaten in the competition. The number of people beaten by someone in place P is (N-P). ~~The winner is awarded an additional 25% bonus points, that is he receives 1.25*(N-P) points, rounded up to the nearest whole number of points.~~

Reason: The new scoring system introduced evenly graduated points from first place down to half way down the results. In a large competition this results in only a few points difference between the top places. The proposal makes a clearer reward for people placing on the podium of any event.

Volume F2 Control Line begins overleaf

14.7 Section 4C Volume F2 – Control Line

F2A – Control Line Speed

a) 4.1.17 Timing **Slovak Republic**

Clarify by the addition of a sub paragraph c):

c) Immediately after finishing the actual flight, the competitor or the team manager can ask for the complete time sheet (including the times of each lap) or after finishing the round (the flights that day), the team manager(s) on request, will be provided with complete time sheets (including the times of each lap).

Reasons: As the electronic timing systems allows to provide detailed overview of entire flight - lap by lap, and at the last actual European Championships it was very positively received, when the organizer provided these time sheets for each individual team manager and or pilot on request.

The background was, on requests from pilots to get detailed time information of the particular flight.

F2B – Control Line Aerobatics

b) 4.2.2 Characteristics of an Aerobatic Model Aircraft **Italy**

Delete sub-paragraph 4.2.2 e):

~~e) The use of a pilot activated power shutdown device to define the point of the beginning of the power-off descent in the landing manoeuvre is not permitted.~~

Reasons: In Section 4 General Rule Volume para B.1.2.2 Category F2 - Control Line Flight, d) the use of external termination device is authorized:

d) For permanent shutdown of the engine(s), any device or system is permitted including the use of 2.4 GHz Spread Spectrum technology legal for use in the concerned country. The competitor will determine the suitability for use of the chosen system.

Technical Secretary Comment: The use of an external termination device is certainly authorized, but it should be pointed out that the purpose of 4.2.2 e) above, is ***to prohibit its use to define the point of the beginning of the power-off descent in the landing manoeuvre****. Therefore, 4.2.2 e) is not contradicting CGR B.1.2.2 d) as is claimed.*

c) 4.2.6 Noise Testing **F2 Subcommittee**

Delete all of 4.2.6 Noise Testing content and replace by:

a) If requested by the F2B Contest Director, or the Head Judge, or an FAI Jury member present at the contest site, the noise level of any competitor's model aircraft shall be officially measured. Such requests shall only be made during or immediately after an official flight and if, in the opinion of

the official requesting the noise test, the model aircraft concerned seems to have a noise level higher than 96 dB(A) when measured at exactly 3 metres. All requests for an official noise test shall be made only to the F2B Contest Director who then shall arrange a noise test to be performed on the model aircraft in its unchanged flying condition. Measuring equipment used shall be calibrated and the limit must not be exceeded by more than 2 dB(A).

b) If the model airplane fails to pass the noise test, the scores received in the related official flight are nullified.

c) The pilot may ask for a second official noise test. If the noise is then found to be within limits the model airplane may be used for further official flights.

d) A model aircraft failing to pass the second official noise test will be banned from further flying at the contest.

Reason: The F2B Working Group of the F2 Subcommittee notes that there have been virtually no exceedances of the currently applicable noise limits at World and Continental Class F2B Championships over the past 12 years. The F2B Working Group therefore recommends maintaining the existing noise limit and considerably simplifying the corresponding procedure.

The international F2B Working Group of the F2 SC has voted 6 For and 2 Against on this proposal.

d) 4.2.11 Judging **F2 Subcommittee**

Amend sub-paragraphs l) and m) with the deletions and additions of the text shown, then add a new sub-paragraph n):

l) All contest organisers shall arrange at least one judges' meal break per contest day. ~~If the judging panel/s request it, extra.~~ Further time shall ~~also~~ be scheduled for ~~additional~~ judges' breaks ~~(for example breaks of approximately 10 of approx.~~ of approximately 15 minutes duration at approximately 2 hour intervals throughout each round.

m) ~~In any contest,~~ **No** judge shall be scheduled ~~to judge more than 50 contest flights or~~ to perform a total of more than ~~10~~ **9** hours of judging duty ~~(whichever is the longer)~~ within any single contest day. This time shall include ~~the above judges'~~ calibration flight(s) **and briefings** but shall not include the breaks.

Add:

n) Under extraordinary circumstances only, and with the unanimous approval of the judges' panel(s), the organiser may extend the time limit of the judges' workload.

Reasons: At World and Continental Championships in previous years, the large number of F2B participants has led to a very high daily workload for the judges. In order to limit the resulting risk of fatigue of the judges, the F2B Working Group of the F2 Subcommittee suggests to limit the daily working time of the judges and to prescribe obligatory rest breaks of sufficient duration.

The international F2B Working Group of the F2 SC has voted 5 For and 2 Against on this proposal.

e) 4.2.15 Description of Manoeuvres F2 Subcommittee

In the manoeuvres listed below, make the replacement of text as shown. Note: If adopted, ANNEX 4B CLASS F2B – JUDGE'S GUIDE: 4.B.5 and 4.B.7 must be adapted accordingly. See Item g) below.

4.2.15.4 Reverse Wing-over Manoeuvre	p 26
4.2.15.8 Two Consecutive Inside Square Loops Manoeuvre	p 27
4.2.15.9 Two Consecutive Outside Square Loops Manoeuvre	p 28
4.2.15.10 Two Consecutive Inside Triangular Loops Manoeuvre	p 29
4.2.15.12 Two Consecutive Horizontal Square Eights Manoeuvre	p 30
4.2.15.14 Hourglass Manoeuvre	p 32

Replace

Note: ~~All turns in this manoeuvre should be between 1.5 metres and 2.1 metres radius.~~

by: **All corners in this manoeuvre must be smooth, precise and shall be of a tight radius.**

Reason: The specification of a precisely defined turn radius value developed in the USA in the 1970's, has since then repeatedly led to substantially different assessments of the quality of turns by the judges. In 2018, the AMA rule in the USA was therefore changed as specified in this proposal. In the interest of a globally uniform regulation, an appropriate adaptation of the FAI rule is recommended.

The international F2B Working Group of the F2 SC has voted 11 For and 1 Against on this proposal.

f) 4.2.15.16 Four-leaf Clover Manoeuvre F2 Subcommittee

*Remove all sub-paragraphs describing this manoeuvre and replace with the text shown in **Annex 7c – F2B Four-leaf Clover Manoeuvre Description & Diagram**. In ANNEX 4J – CLASS F2B MANOEUVRE DIAGRAMS, remove the old diagram and replace with the diagram also shown in **Annex 7c**.*

Reason: Using accurate methods, it was proven that the current description and diagram of the manoeuvre is not compatible with the rules of spherical geometry. To eliminate this contradiction from the Rule, the F2B Working Group of the F2 SC has adjusted both the description and the diagram. For flight safety reasons an optional alternate manoeuvre entry procedure was added at the same time.

The international F2B Working Group of the F2 SC has voted 16 For and 2 Against on this proposal.

g) Annex 4B – F2B Judges' Guide F2 Subcommittee

*In paragraph **4.B.5. General Comments on the Marking of Manoeuvres**, replace all of sub-paragraph g) with the text below and*

*In paragraph **4.B.7. Judging Subjective Errors**, replace all of sub-paragraph b).*

This is as a consequence of the acceptance of Item f) - 4.2.15. Four-leaf Clover Manoeuvre above.

4.B.5. General Comments on the Marking of Manoeuvres

g) ~~Recognition of "maximum 2.1 metres radius" as an abrupt change of direction with the resulting requirement for the model to fly the tightest (sharpest) possible corner (see also 4.B.8).~~

g) Recognition of a turn in corners as an abrupt change of direction with the requirement for the model to fly the tightest (sharpest) possible corner (see also 4.B.7).

4.B.7 Judging Subjective Errors

b) Turn radii

~~Similarly, judges should recognise that the intent of the manoeuvre descriptions regarding the radius of corners in manoeuvres such as square loop, square eight, triangle, etc, is that models should turn as sharply (tightly) as possible. Therefore, although it is not possible for judges to accurately measure whether a model has or has not made a turn of between 1.5 and 2.1 metres radius, the intent is clearly that models should turn as tightly as possible when making such turns. Therefore judges should award the highest marks to models turning the tightest (sharpest) corners (provided that the required line elevation angles and/or the required model pitch attitude has also been achieved), and they should award the lowest marks to models making the largest (softest) such turns~~.

b) Turn radii

Judges should recognise that the intent of the Rule regarding corner radii in manoeuvres such as Square Loops, Square Eights, Triangles, etc. is that model aircraft should turn as sharply (tightly) as possible. Therefore judges should award the highest marks to model aircraft turning the tightest (sharpest) corners (provided that the required line elevation angles and/or the model aircraft's pitch angles have also been achieved) and they should award the lowest marks to model aircraft making the largest (softest) such turns.

Reason: Consequential change to adjust the rules to the rule change 4.2.15.16.

h) Annex 4B – F2B Judges' Guide — Italy

Delete the entire paragraph 4.B.12. Results Awareness and consequently renumber the following paragraphs.

~~4.B.12. Results Awareness~~

~~In order to prevent influence of any kind, no judge should look at tabulated results scores and/or at contestants' "placing" until after the completion of a contest. Neither should judges discuss individual official flights, nor the execution of maneuvers; nor the marks awarded, nor the tabulated results (placing) or scores, with anyone at all during the whole contest. This includes discussions with the other judges, with any contestant, with any Team Manager, and with all spectators. The Head Judge should ensure that all members of the judging panel are aware of this requirement and that they all observe these requirements throughout the contest.~~

Reason: This requirement is obsolete, taking into consideration the social networks (e.g. Facebook, Twitter, Instagram, Whatsup,etc.) where the preliminary results are made available in real time, therefore it is quite impossible to avoid that a judge will not have access to the preliminary result.

We have to trust on the Judges' professionalism and fair behaviour that can be controlled through analysis of the score sheets.

F2C – Control Line Team Racing

i) 4.3.1 Team Racing Event — Italy

Amend the paragraph with the addition and deletion shown below:

A team racing event is a contest where all races start with three model aircraft (hereinafter called 'the model') except when, in exceptional cases, a race may begin with two **models** ~~or one model(s)~~. The models are flown simultaneously in the same circuit, for a specified number of laps. …

Reason: Flying as a single pilot is not in the spirit of Team Racing Competition.

j) 4.3.5 Team Racing Event — Italy

Amend the sub-paragraph b) with the addition and deletion shown below:

b) When a qualifying race does not contain three teams per rule 4.3.5.a), the judges shall ask for volunteers (from different nations in the case of World or Continental Championships) to allow the remaining race to start with three teams.

If there are sufficient or more, volunteers for a qualifying race, the Judges shall conduct a blind draw to start the race with three teams and shall conduct a separate draw for the segment choice order. The volunteer team(s) shall not be eligible to have a time registered or to be granted a re-flight from this race.

If there are insufficient volunteers, the competing ~~team(s)~~ **teams** will be allowed to start the race **with ~~almost~~ 2 (two) teams** ~~fewer than three teams~~ to complete their qualifying or semi-final race.

Reason: Flying as a single pilot is not in the spirit of Team Racing Competition.

Technical Secretary Comment: You can't have 'almost' two teams. Delete the word 'almost' or substitute with 'at least'. Consequence of previous proposal.

k) 4.3.3 Team Racing Model, Engine and Control System — F2 Subcommittee

Amend the engine characteristics sub-paragraph 4.3.3.1 e) with the additional text shown below:

4.3.3.1

e) The maximum exhaust outlet area is 60 mm^2 projected at the cylinder exhaust port or crankcase exhaust outlet whichever is smaller. If a silencer is used the exhaust outlet measurement is taken at the exhaust outlet end of the silencer**.**

The minimum length of a silencer (if used) must be 60mm and the minimum volume must be 15 cm^3.

Reason: The current sporting code does not contain a definition for silencer measurements i.e. a 2 mm long silencer can be defined as a silencer. To avoid loopholes, a minimum length and volume must be added.

l) 4.3.3 Team Racing Model, Engine and Control System — France

Amend the model characteristics sub-paragraph 4.3.3.2 i) with the deletion and additional text shown below:

4.3.3.2

i) The landing gear shall permit normal take-off and landing. ~~It may be retractable during flight, but must return to its extended position before landing.~~ **The only movement of the permanently extended leg that is allowed, is for shock absorption.**

Reason: The majority of top teams uses it, so the 0.3 sec speed difference per km is equal to all teams. The suppression of this highly critical item will not be unfair to the top teams, but help new teams to come closer to them. This will help to make racing more attractive. Adding 0.3sec for 10 laps will help make races safer and easier to judge for the F2C Jury members. Building a model without retractable undercarriage is cheaper, easier and safer. It's a useless and expensive gadget that does not improve the classification, but makes the models more fragile in case of slightly hard landings. Makes progression to the top more difficult for new teams. Nowadays, a retractable undercarriage adds 200 to 350 Euros to the cost of the F2C models.

m) New Annex – Annex 4N — F2 Subcommittee

*Add a new Annex 4N: F2C Engine Extra Air Intake Processing Guide that outlines a Method for Testing F2C Engine Crankcase Leakage. Refer to **Annex 7d** for the text of the Guide.*

Reason:

Issue at hand

When 3.0 mm venturi rule for F2C was applied effective January 1, 2015 as part of the noise suppression effort, this severely restricted the ability of the F2C engine to pump air into the crankcase, thereby reducing engine power output and associated noise level.

Concerns have been raised recently that competitors may be tempted to exploit ways to create a controlled air leakage path into the crankcase through the crankshaft to crankshaft interface. At the 2019 European Championships, the controls processing official detected an engine that appeared to have varying degree of leakage through the crankshaft interface as the crankshaft is being rotated. Without clear guidelines of what constitutes acceptable variation in leakage, the official requested for the engine to be disassembled including removal of the crankshaft. The Team Manager refused to comply, claiming concerns about risk of their technology being copied, and the competitor subsequently withdrew from the competition.

It is envisaged that there are a few possible ways to create a controlled air leakage path into the crankcase through the crankshaft to crankcase interface. These are difficult or impossible to be detected visually without removal of the crankshaft from the engine.

Since crankshaft removal is a very complicated undertaking at the competition field, a practical method for evaluating what constitute acceptable leakage at the flying field is needed, so that crankshaft removal is to be performed as a last resort.

Examples of inexpensive DC 12V vacuum pumps available for purchase on eBay:

F2F – Control Line Diesel Profile Team Racing

n) Annex 4H: F2F Control Line Diesel Profile Team Racing — F2 Subcommittee

Amend the paragraph 4.H.3.2 Model Characteristics b) shown below:

4.H.3.2 Model Characteristics

b) Weight

i) Total maximum weight with empty tank is 700 g.

~~ii) Total minimum weight with empty tank is 400 g~~.

ii) Total minimum weight with empty tank is 350 g.

Reason: The competitors' existing models weigh average +360 grams. Due to the 400 g minimal weight limit the competitors need to load models to meet the current rule, which shall modify model characteristics.

o) 4.H.4 Fuel — F2 Subcommittee

Delete the entire paragraph and replace with the text shown below:

4.H.4 Fuel

No fuel restrictions.

Reason: Any fuel substitutes (like lead) don't improve the performance anymore with the current engine (venturi) and propeller rule restrictions. Use of any fuel mixture will simplify organiser tasks.

p) 4.H.8 Definition of an Official Flight **F2 Subcommittee**

Delete the note as shown below:

a) An official flight is completed when the conditions in 4.H.7 are met.

~~Note: In F2F, finishing a race at less than 50 laps is allowed, because the objective of the race is not the time flown, but the position in the race.~~

Reason: None given.

q) 4.H.6, 4.H.7 and 4.H.10 **F2 Subcommittee**

Delete existing rules as shown below:

4.H.6. Organisation of Races
delete the existing rules from ~~4.H.6. a-e~~
and replace by **See 4.3.5.**

4.H.7. Race from Start to Finish
delete the existing rules from ~~4.H.7 a-b~~
and replace by **See 4.3.6.**

4.H.10.Classification
delete the existing rules from ~~4.H.10. a-h~~
and replace by **See 4.3.9.**

Reason: The new (2019) rules have resulted in high disinterest in the F2F category. All organisers have replaced the existing rules with the 2018 rules and flown the competitions during the 2019 calendar season with the old rules.

This resulted in cancellation of the F2F events from the World Cup ranking.

F2F class is an entry class of F2C; and classification and race definitions should meet the F2C definitions.

F2G – Control Line Electric Speed

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

Delete all of 4.K.2 and replace by the following:

4.K.2 Characteristics of a Speed Model Aircraft driven by electric motor(s)

a) Maximum off-load voltage of power supply 42 V

b) Maximum weight of battery (or batteries) 200 g (incl. battery cables and connectors

c) Minimum total projected area 5.0 dm^2

d) Maximum total projected area 6.0 dm^2

e) Maximum wing loading 100 g/dm^2

f) Maximum wingspan 100 cm

Note: To determine the wingspan of an asymmetric model aircraft refer to CIAM General Rules B.4.27 and regard one point being at the thrust line of the aircraft.

g) The model aircraft must take off from the ground.

h) For safety reasons a radio control system as defined by CIAM General Rules B.1.2.2 c) may be used to control the start of the motor, in-flight power and the shutdown of the motor. A person other than the pilot may operate this system.

i) After shutdown the aircraft must be retained until its power system has been secured against accidental motor start.

k) An external manually operated device to disconnect the battery must be fitted to enable total shut-off of the power when the model aircraft is not airborne.

l) The pilot or a helper must connect the motor power battery to the ESC whilst preparing the model for flight inside the flying circle.

Safety Note: Whenever the battery is connected to the ESC the model aircraft must be either retained or the pilot must hold the handle in the centre of the flying circle.

Reason: Based on experience gained throughout the period of provisional validity of the F2G rules, the suggested modifications are considered to be prerequisite for the future safe operation of control line electric speed model aircraft.

s) 4.K.7 Definition of an Attempt — Switzerland

Amend the paragraph with the addition shown below:

4.K.7 Definition of an Attempt

It is considered an attempt when the pilot does not engage the control handle in the pylon fork within 3 minutes after the starting signal. **It is also considered an attempt if the electric motor does not start within 3 minutes from the starting signal.**

a) For electric speed model aircraft the starting sequence (signal) begins when the battery is connected to the ESC.

Reason: Based on experience gained throughout the period of provisional validity of the F2G rules, the suggested modifications have been found to be useful for the future conduct of F2G contests.

t) 4.K.8 Number of Attempts — Switzerland

Amend the paragraph with the addition shown below:

4.K.8 Number of Attempts

In the case of an unsuccessful first attempt for an official flight, the competitor is entitled to a second attempt. **In accordance with the pilot, second attempts shall be scheduled to take place within the shortest possible time needed to re-establish flight condition.**

Reason: Based on experience gained throughout the period of provisional validity of the F2G rules, the suggested modifications have been found to be useful for the future conduct of F2G contests.

Volume F3 Pylon begins overleaf

14.8 Section 4C Volume F3 - RC Pylon

F3E

a) F3E (former class F5D) New Rules **F3 Pylon Racing Subcommittee**

Complete new set of rules. Consequential deletion of references to F5D in the F5 Volume.

*See **Annex 7g** for Volume F3 Pylon Racing. Note: The relevant pages from the Volume, including the F3E Annexes (but not including F3D) have been provided.*

Also note that the numbering and layout of the Volume is provisional at this stage.

*See **Annex 7h** for Volume F5 General Rules, minus references to F5D. The complete F5D section and consequential headings throughout will also be removed.*

CIAM General Rules consequential changes have been made for the 2020 Volume.

Reason: Moving Electric Pylon from F5 to F3 Pylon Volume.

F3 Pylon Racing

b) Annex 5.Y – Pylon Racing World Cup Rules **Netherlands**

Add a new Annex 5.Y – Pylon Racing World Cup Rules.

*See **Annex 7i** for the new Annex 5.Y – Pylon Racing World Cup Rules.*

Reason: To introduce World Cup rules for Pylon Racing and to expand the existing Eurocup worldwide.

Volume F3 Soaring begins overleaf

14.9 Section 4C Volume F3 - RC Soaring

F3F – RC Slope Soaring Gliders

a) 5.8.3 Competitor and Helper **Germany**

Revise the heading (making Helper plural) and revise paragraph 5.8.3 with the deletion and additional sentence shown below:

5.8.3 Competitor and Helpers: The competitor must operate his radio equipment personally. Each competitor is permitted one helper. ~~The~~ **This** helper is only to assist and advise the competitor until the model is passing Base A in the direction to Base B for the first time and after the timed flight is completed. **An additional helper for launching might be permitted by the CD in case of strong wind and/or difficult terrain.**

Reason: In some situations, that may be strong wind and/or difficult terrain, it is safer if a “launch helper” starts the model.

b) 5.8.5 Number of Attempts **Germany**

In sub-paragraph d), delete the reference to radio frequencies:

d) any part of the model fails to pass above a horizontal plane, level with the starting area, within five (5) seconds of exiting the course, due to circumstances beyond the control of the competitor, duly witnessed by the official judges.

The repeated flight (“re-flight”) shall happen as soon as possible considering the local conditions ~~and the radio frequencies~~.

Reason: Nowadays it is no longer necessary to look for frequencies. If a pilot uses the old equipment (seldom happens), it is very easy to coordinate frequencies.

c) 5.8.5 Number of Attempts **Germany**

In sub-paragraph d), add an additional paragraph at the end as shown below:

d) any part of the model fails to pass above a horizontal plane, level with the starting area, within five (5) seconds of exiting the course, due to circumstances beyond the control of the competitor, duly witnessed by the official judges.

The repeated flight (“re-flight”) shall happen as soon as possible considering the local conditions ~~and the radio frequencies~~.

If a pilot announces a protest against the result of his flight and this protest for a “re-flight” cannot be decided by the jury before the end of the running round, the pilot will obtain a “provisional re-flight” (with all consequences regarding penalties) in order to achieve a countable score. The jury will then decide whether the original score or the score of the “provisional re-flight” will count. After carrying out the “provisional re-flight”, the protest cannot be withdrawn.

Reason: Added “provisional re-flight”, because sometimes it´s not possible to wait for the decision of the jury, e.g. before the end of the round or of nightfall, without the danger to invalidate the round/group. Therefore it´s the best solution to give the pilot a “provisional re-flight” that will be used for scoring (or not) depending on the final decision of the jury.

It is also good to eliminate the danger of an invalid round that has to be repeated (as happened in Denmark 2016) because of a difficult decision of the jury.

d) 5.8.7 Organisation of Starts **Germany**

Delete the final sentence:

If the model has not entered the speed course (i.e. first crossing of Base A in the direction of Base B) within the thirty (30) seconds, the scored flight will commence at the moment the thirty (30) seconds expire. ~~If the model has not entered the speed course within the thirty (30) seconds, this is to be announced by the contest director.~~

Reason: This announcement makes no sense, but it can cause irritations.

e) 5.8.8 Task **Denmark**

Revise the paragraph with the deletion and addition as shown below:

The task is to fly ten (10) legs on a closed speed course of one hundred (100) metres in the shortest possible time from the moment the model first crosses Base A in the direction of Base B. If some irremovable obstacles do not allow one hundred (100) metres the course may be shorter but not less than eighty (80) metres. This exception does not apply for world or continental championships.

~~The competitor’s model must be~~ **It is the responsibility of the competitor, that the model is** visible to the appropriate judge on the turns at Bases A and B.

Reason: To clarify that the competitor is responsible of the visibility of the model. As the text is today it may be the responsibility of the team setting up the bases or the judges in the bases. The rule was clarified and agreed on as mentioned above at the World Championship 2016.

f) 5.8.8 Task **Denmark**

Add a sentence at the end of the paragraph:

… to the appropriate judge on the turns at Bases A and B. **If the model cannot be seen crossing the base, by the judge in the base, the judge shall not give the signal before any part of the model is visible outside of the course.**

Reason: To clarify when the judges shall give the turning signal on a model out of sight, or partly out of sight.

g) 5.8.8 Task **Germany**

Revise the final sentence with the deletion and addition as shown below:

… The competitor's model must be visible to the appropriate judge ~~on the turns~~ **while passing** at the Bases A and B.

Reason: It has to be clearly defined, that the signal is only given when the model is visible to the judges while passing at the Bases A and B.

h) 5.8.9 The Speed Course **Denmark**

In the second paragraph, delete the word 'intact':

Base A is the official starting plane. At Base A and Base B, an Official announces the passing of any part of the ~~intact~~ model in flight with a sound signal when the model is flying out of the speed course. Furthermore, a signal announces the first time the model is crossing Base A in the direction of Base B.

Reason: It is not the responsibility of the officials in the bases to determine whether a model is intact or not. If it is, they have only a fraction of a second to determine whether the model is complete or not. The judge shall have this responsibility.

*Technical Secretary Comment: The word **'intact'** was added at the 2018 Plenary and agreed unanimously. The reason given was:*
'Consequence of an event, that happened at the World Championships 2016. Scattering debris of a crashed model should not trigger the legal passing of a Base.'

i) 5.8.10 Safety **Germany**

Revise the second paragraph with the deletion and addition as shown below:

The sighting device used for judging the turns must be placed in a safe position.

The organiser must clearly mark a safety line representing a vertical plane which separates the speed course for the timed flight (from leaving the hand until completing the scored flight) from the area where judges, other officials, competitors and spectators stay. Crossing ~~or multiple crossing~~ the safety plane by any part of the intact model in direction to the safety area during the timed flight will be penalised by 100 points **each**. The organiser must appoint one (1) judge to observe, using an optical sighting device, any crossing of the safety plane.

Reason: The former wording was not was not precise enough. If there is a crossing or multiple crossing of the safety-plane there is only one penalty of 100 points. But this penalisation can happen on multiple occasions on each of the ten legs, for which the new wording is more precise.

j) 5.8.12 Scoring **Germany**

New formula and delete two references:

5.8.12. Scoring: The result of the flight is stated as the time in seconds and hundredths of seconds obtained by each competitor. For the purpose of calculating the result of the round or group ~~(see paragraph 5.8.16)~~, the competitor's result is converted this way:

~~(1000 x Pw) / P~~ **Rc = Pc / Pw x 1000**

where Pw is the best result in the round or group ~~(see paragraph 5.8.16)~~ and **Pc** is the competitor's result.

Reason: The formula was wrong and had to be changed. Additionally, the two references are wrong; because no references are needed, they are struck out.

k) 5.8.13 Classification **Germany**

Add two numbers:

5.8.13. Classification: A minimum of four (4) rounds must be flown for the competition to be valid. In this case the lowest round score of each competitor will be discarded. If more than fourteen **(14)** rounds were flown, the two **(2)** lowest round scores will be discarded. The remaining results are added to obtain the final score which will determine the position of the pilot in the final classification.

Reason: It´s only a formal correction.

l) 5.8.17 Weather Conditions and Interruptions **Denmark**

In sub-paragraph b), delete the word 'constantly' and replace it with new wording as shown below:

b) the direction of the wind ~~constantly~~ deviates more than 45° from a line perpendicular to the main direction of the speed course **for at least twenty (20) seconds two (2) metres above the ground at the flight-line**.

Reason: As "constantly" is not a defined time period, the judge has no guideline in the rule as is. The height of the measurement should be added to state a fixed point for the measurement.

m) 5.8.17 Weather Conditions and Interruptions **Germany**

Modify sub-paragraphs a) and b) with the following deletions and addition; and add a new subparagraph d), as shown below:

a) the wind speed is below three (3) m/sec or more than twenty five (25) m/sec for at least twenty (20) seconds ~~two (2) metres above the ground at the flight-line~~.

b) the direction of the wind ~~constantly~~ deviates more than 45° from a line perpendicular to the main direction of the speed course **for at least twenty (20) seconds**.

The wind speed and wind direction is measured with the equipment of the organiser at a representative position and height chosen from the experience of the organiser.

c) in the case of rain.

d) at nightfall.

Reason: There is also a precise definition of the time-period for the wind-deviation needed.

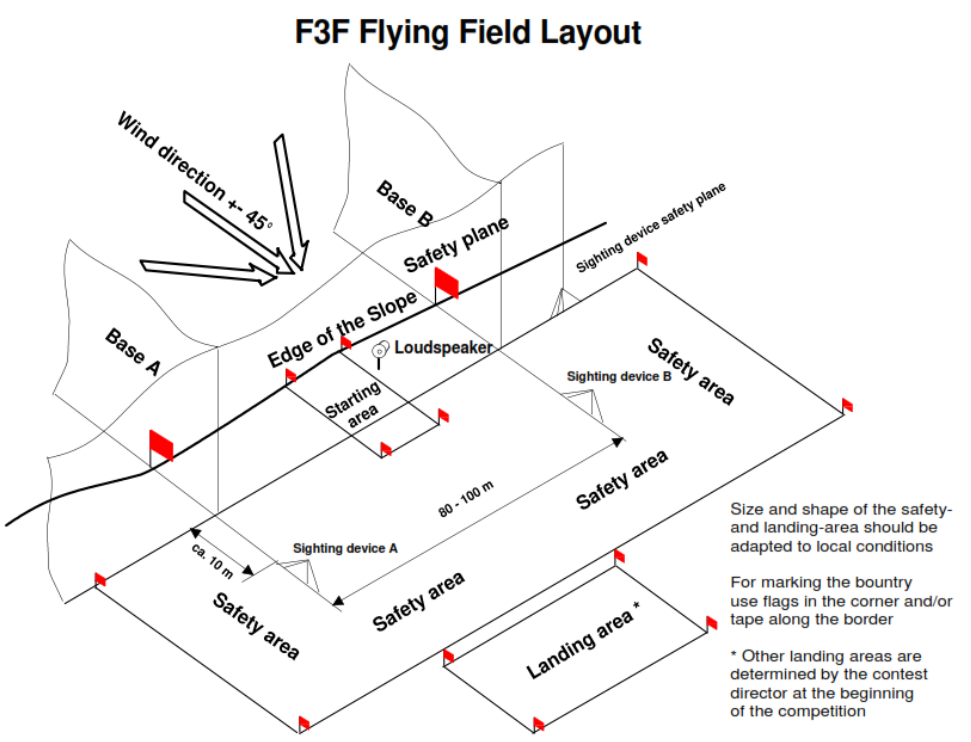
The wind speed and wind direction should be measured with the equipment of the organizer; the anemometer should be in a position that is well known by the organizer to get representative results.

Nightfall is also a reason to interrupt a competition.

n) 5.8.18 Site **Germany**

Delete the word 'follows' and replace the diagram with the following :

5.8.18 Site: The diagram of recommended F3F Flying Field Layout ~~follows~~:



Reason: The recommended distance between the officials at the sighting device at Base A and Base B and the safety plane is 10 m. See new sketch.

F3J – Thermal Duration Gliders

o) 5.6.8.2 Launching **Switzerland**

In sub-paragraph b), delete the third sentence as shown:

b) Upwind turnaround devices, which must be used, shall be no more than 150 metres from the winch. The height of the axis of the turnaround pulley from the ground must not exceed 0.5 metre. ~~Release of the model must occur within approximately 3 metres of the winch.~~ An automatic means must be provided to prevent the line unwinding from the reel during launch.

Reason: The sentence "Release of the model must occur within approximately 3 meters of the winch." should be cancelled because the starting point is already defined under 5.6.2.2a). *The launch corridor shall be arranged …*

After introduction of the winches it is possible to use both launching systems (hand

launching + winch) at the same launching spot. It is better to define only one launching spot.

F3K – Hand Launch Gliders

p) 5.7.2.3 Change of Model Glider **Poland**

*Add a sentence to **clarify** the intention of the previous sentence:*

Each competitor may only have one model glider in the start and landing field at any moment during the working time. Only the model gliders that are in a spare model area or in the start and landing field at the start of the working time may be used during the working time.

To change model gliders, the 'old' one must be placed in the same spare model area as the 'new' one, before the 'new' one is taken out. **This rule is in force between any of two flight attempts of Task C (All Up), even if no working time is announced.**

Reason: There is no clear rule that a competitor in Task C (All Up), when the working time is not announced, has to or not, retrieve his old model and put it into a spare model area, before he can use the new model for next flight attempt. During several contests there were situations when competitor did very far away landing outside the start and landing field in task C, and it was not clear whether the competitor had to retrieve his old model, or could immediately prepare his new model for next flight attempt.

Technical Secretary Comment: Permitted clarification out of the two year rule cycle. An alternative suggestion was proposed by the Subcommittee Chairman. See below:

*To change model gliders **between the first and the last launch of the task,** the 'old' one must be placed in the same spare model area as the 'new' one, before the 'new' one is taken out.*

F3Q – Aero Tow Gliders (Provisional)

k) 5.Q.3 Final Classification **France**

In sub-paragraph ii), delete 'five' and replace by 'six':

5.Q.3. Final Classification

a : The score of any rounds is the sum of speed and duration scores.

b : The competitor's score is the sum of the rounds scores

c : The final score does not take into account :

i : the lowest round scored if three rounds or more are flown

ii : the two lowest rounds scored if ~~five~~ **six** rounds or more are flown

iii : the three lowest round**s** scored if nine rounds or more are flown

Reason: At the moment, when we withdraw 2 rounds for 5 achieved, we drop 40 % of flights. It's too much. We have calculated that to withdraw only one round for 5 achieved allowed most regular pilots to have a place more representative of their level. 33% of flights dropped is enough.

Even if every pilots is not agreeing with this proposal, 91% want to change something, and more than 70% want this one.

The F3Q Family is divided between French and Belgian pilots. We have proposed this modification to Belgian pilots, and two of them have given an answer. The French F3Q family is more than 70 pilots, 38 French championship done (with more than 40 pilots last year).

Volume F4 Scale begins overleaf

14.10 Section 4C Volume F4 - Scale

6.1 – Technical Rules for Flying Scale Aircraft Contests

a) 6.1.4 Judges **Switzerland**

In the first sub-paragraph, delete the word 'three' and replace it with the word 'five' as shown below:

The organiser of Scale R/C World or Continental Championship (F4C) shall appoint three (or four for two panels) judges to do static judging, plus a separate panel of ~~three~~ **five** judges to judge the flying. If there are more than 45 competitors at a World Championship, then the organisers may use two static panels of two judges each as well as two flight lines with three judges on each flight line.

Reason: The evaluation of a World Cup must necessarily be objective. By deleting the highest and lowest grade, the result is fairer.

Technical Secretary Comment: This rule was changed from five to three judges in 2016 for the following reason: 'To reduce the number of judges needed for World and Continental Championships in order to make the hosting of such championships economically more viable for the host country without reducing judging standards.'

Class F4C – RC Flying Scale Model Aircraft

b) 6.3.6 Flight **Switzerland**

Modify the K-factors as shown below:

6.3.6.1.	Take-off	K =... ~~11~~ **9**
6.3.6.2.	Option 1	K =... 7
6.3.6.3.	Option 2	K =... 7
6.3.6.4.	Option 3	K =... 7
6.3.6.5.	Option 4	K =... 7
6.3.6.6.	Option 5	K =... 7
6.3.6.7.	Option 6	K =... 7
6.3.6.8.	Option 7	K =... 7
6.3.6.9.	Option 8	K =... 7
6.3.6.10.	Approach and Landing	K =... ~~11~~ **8**
6.3.6.11.	Realism in flight	
	a) Flight Presentation	K =... ~~4~~ **9**
	b) Speed of the model aircraft	K =... 9
	c) Smoothness of flight	K =... 9
Total K Factor		K =... 100

Reason: The take-off and landing requirements are very different for the different aircraft (landing gears, short runway by crosswind, …...) and a hard runway do not take this situation into account. All pilots must have equal conditions. By reducing the take-off and landing factors it's more correct. The k-factor of the flight

presentation has to be increased in order to honour the flight performance of the pilot.

c) Annex 6C – Class F4C Judges' Guide F4 Subcommittee and Bureau

In 6C.1 – General, make the following deletion:

The height and positioning of individual manoeuvres should be proportional to that expected in a full size display typical to each prototype. ~~Unless specified otherwise, manoeuvres that are carried out in a horizontal plane (eg Straight Flight, Figure Eight, Triangular Circuit) should commence on a flight path that is about 60º elevation to the judges. Manoeuvres such as the Descending Circle and Spin should start at a higher elevation.~~ Judges should down mark manoeuvres as too high, too low, too far away, or too close if they consider the positioning to be so.

Reason: Delete the 60° elevation, as the intention of the judge's guide is explicit in the first sentence. This text is actually the Japan proposal from last year's Plenary. It was sent back to the subcommittee, and we have looked at it. It is just common sense to remove this text so the judges don't break their necks.

Volume F5 Electric begins overleaf

14.11 Section 4C Volume F5 – Electric Powered Motor Gliders

Category F5 – Electric Powered Motor Gliders

a) 5.5.1. General Rules **Switzerland**

Modify 5.5.1.7 'Competitor and Helper', as shown below:

5.5.1.7 Competitor and Helper

Each competitor must operate his radio equipment personally. ~~Each competitor is permitted two helpers and the team manager.~~

Each competitor is permitted 1 (one) helper. In competitions where there is a team/nation ranking, a team manager (or another team member, if the pilot is also team manager) will be allowed as second helper. A person that launches the plane (launcher) and leaves base A after launch is not counted as a helper. The helper can be exchanged during the flight (for example different helpers for distance and duration task).

Reason: The flight line gets sometimes too crowded (up to 4 persons on the field plus official timekeeper) and the pilot gets rather distracted by irrelevant communications. With only one helper the pilot has to take more responsibility in the flight tactics. Less conflicts for starting orders (team protection). Team manager (as an additional helper) not needed in competitions without team ranking.

b) 5.5.2 Contest Rules **Bulgaria**

Delete sub-paragraph a) in 5.5.2.1 'Definition of an Official Flight', and replace it with the text shown below:

5.5.2.1 Definition of an Official Flight

~~a) During a two (2) minute starting period, the competitor is allowed an unrestricted number of attempts, hand launches or starts from the ground (except F5B, para 5.5.4.4 d). An attempt starts when the model aircraft is released by the competitor or his helper(s). After the first attempt, it is no longer allowed to take another model aircraft. The timekeeper will start the timing device at each attempt. After two minutes, no further launching or take off is allowed and the flight is being considered as official, the model aircraft being airborne or not. The pilot may repeat a second two-minute starting period only if:~~

a) During a two (2) minute starting period, the competitor is allowed an attempt which starts when the model aircraft is released by the competitor or his helper. After two minutes, no further launching or take off is allowed and the flight is scored with 0 points.

Reason: F5D was moved to F3 Pylon SC and present rule is not useful anymore.

Technical Secretary Comment: The final sentence: 'The pilot may repeat a second two-minute starting period only if:' relates to b) and c) sub-paragraphs which follow and should not be deleted.

Annex 5E – Rules for Electric Flight World Cup Events

c) 5E.2. Procedure for Nomination of World Cup Contests **F5 Subcommittee & Bulgaria**

Amend paragraph 5E.2.1 as follows:

5E. 2.1 The Electric Flight World Cup will be organised in classes F5B (**Multi Task** Gliders) ~~F5D (Pylon Racing Aeroplanes)~~ and F5J (Thermal Duration Gliders) ~~during the years in which there are no World Championships.~~ **every year.**

Reason: F5 FAI World Cup events becomes more and more events and competitors (F5 Subcommittee). World Cups are very popular events (Bulgaria).

d) 5E.2.4 Procedure for Nomination of World Cup Contests **F5 Subcommittee**

Amend the paragraph 5E.2.4 as follows:

5E. 2.4 The ~~Subcommittee Chairman~~ **World Cup Coordinators** collects results of each competition, produces and distributes the World Cup positions.

Reason: World Cup Coordinators are necessary in booming classes.

Technical Secretary Comment: Please confirm if one or more World Cup Coordinators are intended. As the proposal stands, the grammar is incorrect.

e) 5E.3. Classification **Bulgaria**

Delete the paragraph 5E.3.1and replace it with the text shown below:

5E. 3.1 ~~During a year, a maximum of three (3) contests will be counted. If a competitor flies in more than three contests, his three (3) best results will be allocated.~~

5E. 3.1 **In the case of twenty (20) or fewer World Cup contests during a year, a maximum of three (3) contests will be counted. In the case of more than 20 World Cup contests during a year, a maximum of four (4) contests will be counted. If a competitor flies in more than three (or four contests), his best three (or four results) will be allocated.**

Reason: In last few years, F5J World cups are well over 25 and best 3 results are not fair enough to give good presentation for overall result.

Technical Secretary Comment: This proposal has been amended to correct the English grammar.

f) 5E.3. Classification **Bulgaria**

Add a sentence to paragraph 5E.3.2 as follows:

5E. 3.2 Not more than one (1) contest could be counted in the same country. **In case of counties with more than 2 time zones, two (2) contests could be counted.**

Reason: This will be fairer for pilots living in big countries.

g) 5E.3. Classification — Bulgaria

Replace paragraph 5E.3.3 with a table of points.

5E. 3.3. Points awarded at a World Cup Contest

~~1st place = 100 points,~~
~~2nd place = 75 points~~
~~3rd place = 60 points~~
~~4th place = 50 points~~
~~5th place = 49 points~~
~~6th place = 48 points, etc.~~
~~54 points - R = World Cup points (R = individual ranking)~~

	Number of competitors (with valid results)				Number of competitors (with valid results)				Number of competitors (with valid results)			
Position	70 and more	40 - 69	39 and less	Position	70 and more	40 - 69	39 and less	Position	70 and more	40 - 69	39 and less
1.	100	90	80	31.	50	39	9	61.	20	9	
2.	90	80	70	32.	49	38	8	62.	19	8	
3.	85	75	65	33.	48	37	7	63.	18	7	
4.	80	70	60	34.	47	36	6	64.	17	6	
5.	77	67	55	35.	46	35	5	65.	16	5	
6.	75	65	50	36.	45	34	4	66.	15	4	
7.	74	63	45	37.	44	33	3	67.	14	3	
8.	73	62	42	38.	43	32	2	68.	13	2	
9.	72	61	39	39.	42	31	1	69.	12	1	
10.	71	60	36	40.	41	30		70.	11		
11.	70	59	34	41.	40	29		71.	10		
12.	69	58	32	42.	39	28		72.	9		
13.	68	57	30	43.	38	27		73.	8		
14.	67	56	28	44.	37	26		74.	7		
15.	66	55	26	45.	36	25		75.	6		
16.	65	54	24	46.	35	24		76.	5		
17.	64	53	23	47.	34	23		77.	4		
18.	63	52	22	48.	33	22		78.	3		
19.	62	51	21	49.	32	21		79.	2		
20.	61	50	20	50.	31	20		80.	1		
21.	60	49	19	51.	30	19		**81 - last**	1		
22.	59	48	18	52.	29	18					
23.	58	47	17	53.	28	17					
24.	57	46	16	54.	27	16					
25.	56	45	15	55.	26	15					
26.	55	44	14	56.	25	14					
27.	54	43	13	57.	24	13					
28.	53	42	12	58.	23	12					
29.	52	41	11	59.	22	11					
30.	51	40	10	60.	21	10					

Reason: This will be fairer for pilots competing in bigger contests. All participants will take World Cup points depending on ranking. Less advance for top ranking than the present rule.

h) 5E.3. Classification **Bulgaria**

Add a new paragraph 5E.3.4 as follows. Please consider the suggested amendment to the wording of this proposal below:

5E. 3.4. In case of more than 10 juniors or women participants in World Cup overall results. FAI medals must be awarded for Junior and Woman World cup ranking.

Technical Secretary Comment: Suggested modification to this proposal in line with the CGR Volume 2020 follows:

5E. 3.4. Juniors and Women

There will be a separate classification for juniors and women, provided that more than 10 such competitors are listed in the World Cup ranking. Medals and diplomas shall be awarded in accordance with CGR C.2.2.3.

Reason: As in some other FAI classes already done it will encourage junior and woman participation in World cup events.

F5B – RC Electric Powered Multi Task Gliders

i) 5.5.4.1 Definition **F5 Subcommittee**

Delete a section from sub-paragraphs b), and replace it with the text shown below:

b) Model Aircraft specifications:

Minimum weight without battery 1000 g

Minimum surface area 26.66 dm^2

Type of battery Any type of rechargeable batteries

Maximum number of equivalent cells in series. At any point in the flight, the maximum voltage of the flight battery must not exceed 42 volts.

Minimum weight of battery pack 400 g

~~The maximum amount of energy to be used in one flight is 1750 W*min. Anything over this will result in a deduction of 1 point per 3 W*min over 1750 W*min.~~

The maximum allowed amount of energy to be used in one flight is 1750 watt-minutes. If this limit is exceeded a penalty of 1 point for every 3 watt-minutes will be applied to the score. In the case where less than 1750 watt-minutes is used there will be a bonus of 10 points for every 3 watt-minute less than the 1750 limit applied to the score.

The amount of energy in one flight must be stored by a logger.

Reason: Makes the malus-bonus system more interesting.

j) 5.5.4.1 Definition **Switzerland**

Delete sections from sub-paragraphs b), g) and h) as follows. Rename h) as g):

b) Model Aircraft specifications:

Minimum weight without battery 1000 g

Minimum surface area 26.66 dm^2

Type of battery Any type of rechargeable batteries

Maximum number of equivalent cells in series. At any point in the flight, the maximum voltage of the flight battery must not exceed 42 volts.

Minimum weight of battery pack 400 g

~~The maximum amount of energy to be used in one flight is 1750 W*min. Anything over this will result in a deduction of 1 point per 3 W*min over 1750 W*min.~~

The amount of energy in one flight must be stored by a logger.

~~g) With the logger, 1 (one) point is deducted for every 3 (three) watt-min used over the limit.~~

~~h)~~ **g)** Starting order for World and Continental Championships: the starting order for the first round will be established by random draw. For the next rounds the starting order will follow the reversed ranking list. ~~Frequency will not follow frequency and t~~ **T**eam member will not follow team members.

Reason: Replaced by energy bonus/penalty. See item p).

k) 5.5.4.1 Definition **Switzerland**

Add a sentence to sub-paragraph h) or g) (if renumbered) as follows:

~~h)~~ **g)** Starting order for World and Continental Championships: the starting order for the first round will be established by random draw. For the next rounds the starting order will follow the reversed ranking list. ~~Frequency will not follow frequency and t~~ **T**eam member will not follow team members.

In competitions with more than 4 foreseen rounds, the starting order of the last round should be the reversed ranking. Team members that follow each other in the ranking should not be separated by more than 2 other competitors.

Reason: Starting order: in big international championships the last round will be more interesting for spectators as they will easily know when the “good ones” are flying.

l) 5.5.4.4 Launching **Switzerland**

Modify 5.5.4.4 with the following deletions and additions:

~~a) Before launching, the competitor has to show to his timekeeper how he controls his motor(s) on his transmitter (on, off, reversing);~~

~~b)~~ **a)**The launch will occur behind the safety ~~line~~ **plane** within 10 m from Base A.

~~c)~~ **b)** The model aircraft is released into flight directly from the hands of the competitor or his helper, without assistance. The model aircraft shall not be launched from a height greater than the flier's normal reach above the ground.

~~d)~~ **c)** After the aircraft is hand-launched and the timing device is started, no further launching is allowed. The flight is considered official, whether the model aircraft is airborne or not.

d) The competitor is given a 90 second preparation time.

Reasons:

a) Control receiver takes care of monitoring motor on/off. a) is obsolete, therefore deleted.

b) Safety line in not mentioned in course layout, correct: safety plane.

d) Stop the tactical waiting for “good” conditions… this will speed up the rounds.

m) 5.5.4.5 Distance Task **Switzerland**

Modify sub-paragraph a) as follows:

a) This task begins when the model aircraft is hand-launched and ends after 200 seconds. ~~Time of release is to be taken by one timekeeper.~~ **Time is started when motor on is detected by control receiver during the launch.**

Reason: Starting of the task time by electronic device is more precise than a button pressed by an official. If the model leaves the hand of the helper and the motor does not switch on when full throttle is given the time will start. No restart or switching to model B is allowed as mentioned in 5.5.4.4.

n) 5.5.4.5 Distance Task **Switzerland**

Add a sub-paragraph h) to paragraph 5.5.4.5 as follows:

a) – g) unchanged

h) After reaching 1500Wmin. the on-board limiter/logger/telemetry device must stop the motor and not allow it to start again until 200sec. after first motor start (start of duration task).

Reason: Limiting energy during distance task reduces the risk of excessive power consumption and gambling with weather conditions. Reduces also the motivation for a short “rocket climb” at the end of the distance task.

It adds new element for tactics: Power/energy saving during distance task can help to save energy for duration task if energy bonus is introduced (additional proposal, see item p)).

o) 5.5.4.6 Duration and Landing Task **F5 Subcommittee**

Delete a section from 5.5.4.6 d) as follows:

d) Duration time is cumulative. ~~and one point will be awarded for each full second the model aircraft is flying. 3 points will be deducted for each 1 second of motor running time.~~

Reason: The consideration of the energy consumption makes the deductions of motor running time unnecessary.

p) 5.5.4.6 Duration and Landing Task **Switzerland**

Delete sections of sub-paragraph c) and d) and replace with new sub-paragraph i) as follows:

a) This task must be completed within 600 seconds from the moment the audio signal is given.

b) The competitor has to decide how much and how often he will switch on the motor.

c) The duration task score-keeping device keeps track of ~~the motor run time as well as~~ the glide time. Duration task scoring ends when the model aircraft comes to rest after landing.

d) Duration time is cumulative and one point will be awarded for each full second the model aircraft is flying. ~~3 points will be deducted for each 1 second of motor running time.~~

e) – h) remain unchanged.

i) The consumed energy for the whole flight will be read out after landing. An energy bonus/penalty will be awarded according to the following scheme:

Total energy:

a) <1700Wmin: bonus of 1 point per 10Wmin

b) 1700 - 1800 Wmin: energy penalty: -1 point per 10Wmin over 1700Wmin, until 1800Wmin

c) >1800 Wmin: energy penalty: -1 point per 3 Wmin over 1800Wmin in addition to b)

Reason: Motor runtime will be replaced by energy management bonus/malus system. Within a range of 1700-1800Wmin flights as we see them now will be possible. Energy penalty is similar to motor runtime penalty. It will favour more efficient (slower) climbs and prevent single rocket-like climbs.

A bonus can encourage lower power setups that are not competitive right now. High risk (high energy) tactics will be “punished” stronger than now.

q) 5.5.4.6 Duration and Landing Task **Switzerland**

Modify sub-paragraph f) in 5.5.4.6 with deletions and additions as follows:

f) Additional points will be awarded for landing; when the model aircraft comes to rest in the 30 m circle, ~~10 points will be given while coming to rest in the 20 m circle gives 20 points, and when coming to rest in the 10 m circle 30 points will be given~~. **A maximum of 30 points is given when the nose of the plane comes to a rest within 2.5m of the centre (5m circle). 5 points less will be given for each additional 2.5m.** The distances are measured from the centre of the circle to the nose of the model aircraft. **If possible the 5m/10m/20m and 30m landing circles are marked on the ground. Distances will always be measured with a band attached to the centre point.**

g) No additional points will be awarded if the landing occurs more than 630 seconds after beginning of this task (as per 5.5.4.6.a)).

Reason: Refining the landing points will add a little more weight on the duration and landing task.

F5J – RC Electric Powered Thermal Duration Gliders

r) 5.5.11.10. Launching **Bulgaria**

Add text to sub-paragraph 5.5.11.10. e) as follows:

e) The launches must be straight forward **for at least three (3) seconds**, with the motor running. Any other type of launch is not allowed. A penalty of 100 points will be applied for any breach of this rule.

Reason: **Safety** – This rule was successfully used as local rule at F5J ECh 2018 and F5J WCh 2019. Prevent dangerous manoeuvres close of over access corridor at launch.

Technical Secretary Note: Because this is an urgent safety proposal a request will be made for early implementation under CGR A.11.1. A Technical Notice will be placed on the CIAM website. Note that the rule A.11.1 b) states that: 'Any amended or new safety rule(s) shall appear in the Organiser Bulletins of the appropriate championship(s) being held that year.'

F5K (old class was deleted in 2019) – Thermal Duration Gliders For Multiple Task Competition With Electric Motor And Altimeter/Motor Run Timer (AMRT)

s) F5K **Netherlands**

*Insert a new set of rules for F5K. Refer to **Annex 7e** for the rules and **Annex 7f** for a description of the F5K class.*

Technical Secretary Comment: If accepted, the numbering for this class could be 5.5.10 to slot between F5G and F5J in the volume or 5.5.12 to follow F5J in the volume (before the World Cup Annex 5E). The numbering in the Annex has been left as proposed.

Reason: Many pilots fly F5J, but also like the dynamic tasks of F3K, they are unable to participate due to physical problems (injury). Launch height in the current F3K competition is very important. To be competitive, you must launch at least 60 meters plus. Some of the younger pilots launch the plane up to 80 meters or even more. That is why we decided to start a new competition that still revolves around thermal soaring, but where everyone can participate in this "F3K Multi Task Competition". We call it F5K.

Volume F9 Drone Sports begins overleaf

14.12 Section 4C Volume F9 – Drone Sport

F9A – Drone Soccer

a) B.1.1. Weight and Size **Germany**

Modify the following section by deleting text and replacing it as shown below:

B.1.1. Weight and size

A spherical outer protective frame shall surround the drone ball. ~~The diameter of the frame must be 40 cm±2 cm.~~

The diameter of the shell have a diameter of (30 cm to 40 cm) ±2 cm.

Reason: There is only one reference point for Soccerballs in Europe, the company Helsel EU in France. The supply options are poor, the prices are very high. Other companies offer a 30 cm version throughout Europe. For this the delivery of the balls as well as the spare parts is secured. 30cm soccer Balls are sold worldwide via a dealer network. Therefore, the inclusion of these balls in the regulations makes sense.

F9U – Multi-Rotor FPV Racing

b) C.1.3. Propellers **Germany**

Delete the text shown below:

C.1.3. Propellers

~~Any Propeller protection devices is forbidden~~.

Reason: The free-rotating propellers on the copter pose a significant risk potential. If a copter is out of control, significant cuts can be the result. In all companies, occupational health and safety demands that rotating parts require a protective device. It should therefore be allowed in the regulations and not prohibited.

c) C.6 Event Organisation **Germany**

Modify the following section by deleting text and replacing it as shown below:

C.6. Event Organisation

It is recommended to run the event with a maximum of ~~4 (four)~~ **six (6)** pilots per race. ~~Nevertheless, the qualifying rounds and/or the optional additional rounds may be run with 6 (six) pilots per group subject it is legally and technically possible and if the number of competitors justify.~~

Reason: The pilots want the maximum number of flights on a race weekend. In most countries we can use 8 frequencies on the Raceband. Thus, the expansion to 6 pilots per race would be significantly increased the number of flights per competitor. The experience from 2019 shows that the risk of crashes with 6 pilots does not increase.

d) C.6.4. Elimination Stage **Germany**

Add text as follows:

C.6.4. Elimination stage

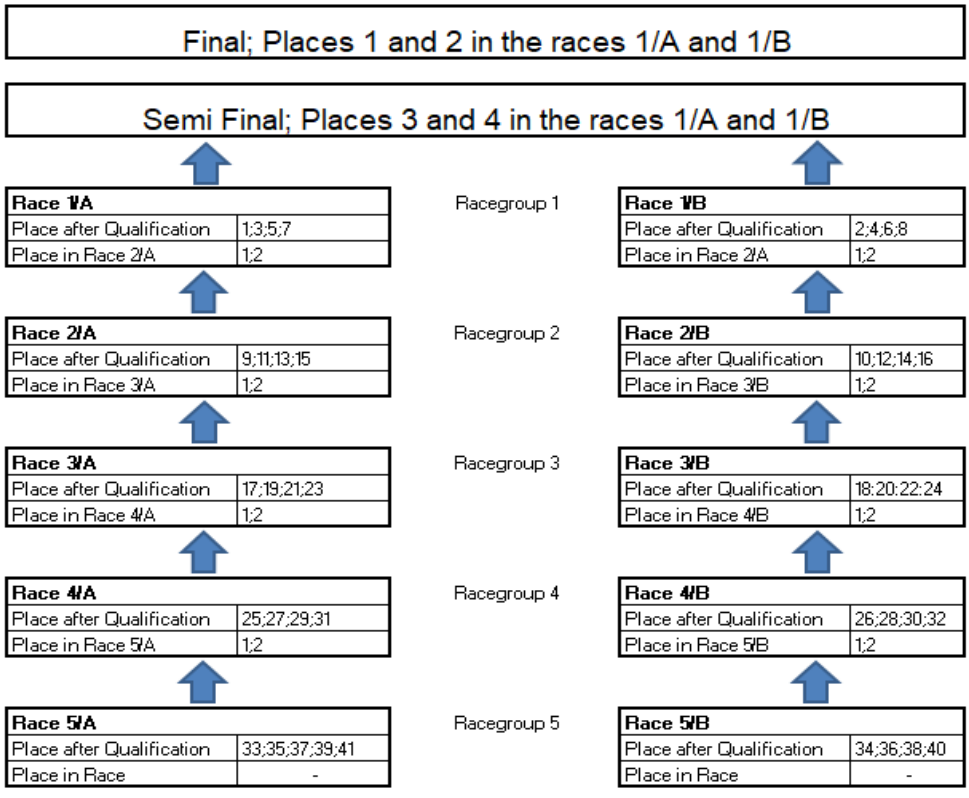
The elimination stage will be organized according to one of the three following scenarios:

- Scenario A - 64 competitors selected from qualification stage.
- Scenario B - 32 competitors selected from qualification stage.
- Scenario C - 16 competitors selected from qualification stage.
- **Scenario D - Riser System**

Supporting Data

The races are divided so that each of the participants with a straight placement and the participants with an odd placement form the races.
All races with participants who had reached a straight placement forms the race column A.
All race with participants who had an odd placement, forms the race column B.
Two races each from the race columns A and B at the same height form the race group.
From each race of a race group, the two best drivers climb into the race of the next higher race group.
The elimination phase ends with the determination of the participants of the small and the big final.
The appendix lists a scheme for the promotion procedure, which should be adapted to the number of participants.

Example for an Elimination Stage with 41 participants



Race 1/A	
Place after Qualification	1;3;5;7
Place in Race 2/A	1;2

Race 1/B	
Place after Qualification	2;4;6;8
Place in Race 2/A	1;2

Race 2/A	
Place after Qualification	9;11;13;15
Place in Race 3/A	1;2

Race 2/B	
Place after Qualification	10;12;14;16
Place in Race 3/B	1;2

Race 3/A	
Place after Qualification	17;19;21;23
Place in Race 4/A	1;2

Race 3/B	
Place after Qualification	18;20;22;24
Place in Race 4/B	1;2

Race 4/A	
Place after Qualification	25;27;29;31
Place in Race 5/A	1;2

Race 4/B	
Place after Qualification	26;28;30;32
Place in Race 5/B	1;2

Race 5/A	
Place after Qualification	33;35;37;39;41
Place in Race	-

Race 5/B	
Place after Qualification	34;36;38;40
Place in Race	-

Reason: The systems listed in the rules are designed for 4 participants in the elimination race. Not all participants can participate in the elimination phase. The riser system can be designed for any number of participants in a race. All competitors participate in the riser system.

The results of the qualification go into this phase more strongly.

Volume S – Space begins overleaf

14.13 Section 4C Volume S – Space

a) Part Thirteen: Class S10 Flex Wing Duration Competition **Switzerland & Ukraine**

Delete Class S10: Flex-Wing Duration Competition – and all references throughout the Space Volume and also in Volume CIAM General Rules:

~~Part Thirteen – Class S10 Flex-Wing Duration Competition~~

2.4.7 Models in Classes S4 **and** S8 ~~and S10~~ must fly and land without separation of any part in flight.

11.1.2 ~~Any model that qualifies for flex-wing rules 13.1.1 or 13.2 is not eligible for this event.~~

Reason: This class is no longer performed and will be deleted.

b) S11/P Rocket Powered Aircraft and Spaceships Competition (Provisional) **Switzerland**

Delete Class S11/P: Rocket Powered Aircraft and Spaceships Competition (Provisional) – and all references throughout the Space Volume and also in Volume CIAM General Rules:

~~11.8 CLASS S11/P~~: The whole of the section 11.8.1 – 11.8.8.4 will be deleted. No renumbering as a consequence.

Reason: This class was never performed.

c) 1.3 Classification of Space Models **Switzerland**

Delete this section and replace with the reference as shown below:

~~S1 Altitude Models~~
~~S2 Payload Models~~
~~S3 Parachute duration models~~
~~S4 Boost-glider duration models~~
~~S5 Scale-altitude models~~
~~S6 Streamer duration models~~
~~S7 Scale models~~
~~S8 Rocket glider duration models~~
~~S9 Gyrocopter duration models~~
~~S10 Flex-wing duration models~~

~~Each class, except class S7 has been subdivided related to engine size. Refer to the rules applicable to each particular class.~~

See CIAM General Rules: B.2.2 Classification of space models

Reason: Simplification. The definition exists twice and must be changed twice. The CIAM General Rules are valid.

Part Two – Space Model Specifications

d) 2.2 Propellant — Croatia

Modify the paragraph by deleting the existing text and replacing it as shown below:

2.2 Propellant

~~No more than 200 g of propellant materials shall be contained in its space model engines nor shall their total impulse exceed 160 Newton-seconds (Ns).~~

No more than 125 g of propellant material shall be contained in its space model engines nor shall their total impulse exceed 80 Newton-seconds (Ns).

Reason: From a safety point, **125** g of propellant is enough for 80 Ns engines.

e) 2.4 Construction Requirements — Croatia

Modify sub-paragraph 2.4.3 with the addition of a sentence as follows:

2.4.3 Construction shall be of any modelling material without substantial metal parts. A substantial metal part is a nose cone, body tube, fins, any hard, sharp and external pointed part or any internal heavy metal part that can cause injuries to persons or damages to property. **Nose cones must be made from soft or deformable material, which in the event of impact will mitigate this impact.**

Reason: In the event of a model fall without a parachute or streamer, the soft head (nosecone) of the model mitigates the impact.

f) 2.4.4 Minimum dimensions of Class S5 — Slovak Republic

Modify the table with the minimum dimensions as shown below, deleting sub-classes S5D, S5E and S5F, with a consequential change to 10.5:

The minimum dimensions of Class S5 must not be less than:

Event Class	Minimum **external** diameter (mm) of each stage	Minimum overall length (mm)
~~A~~	~~20~~	~~400~~
~~B~~ **A**	25	500
~~C~~ **B**	30	600
~~D~~ **C**	~~40~~ **50**	~~800~~ **1000**
~~E~~	~~50~~	~~1000~~
~~F~~	~~60~~	~~1500~~

Reason: The current S5 models are reaching high altitudes of 600+metres. The proposal will lower to altitudes to a half. Also with this it is reduced to only the classes which are flown in competition.

Technical Secretary Note: Items 'g' and 'h' which follow also propose changes to this table.

g) 2.4.4 Minimum dimensions of Class S5 **Poland**

Modify the table with the minimum dimensions as shown below:

The minimum dimensions of Class S5 must not be less than:

Event Class	Minimum diameter (mm) of each stage	Minimum overall length (mm)
A	~~20~~ **30**	~~400~~ **450**
B	~~25~~ **40**	~~500~~ **600**
C	~~30~~ **50**	~~600~~ **750**
D	~~40~~ **60**	~~800~~ **900**
E	~~50~~ **70**	~~1000~~ **1050**
F	~~60~~ **80**	~~1500~~ **1200**

Reason: Models fly too high and judges have problems with model visibility. Enlarging models should cause models to fly lower. In addition, the models will become more spectacular. In larger models, there should be no problem placing GPS or other location system in the future.

h) 2.4.4 Minimum dimensions of Class S5 **Bulgaria**

Modify the table with the minimum dimensions as shown below:

The minimum dimensions of Class S5 must not be less than:

Event Class	Minimum diameter (mm) of each stage	Minimum overall length (mm)
A	~~20~~ **30**	~~400~~ **1000**
B	~~25~~ **40**	~~500~~ **1000**
C	~~30~~ **45**	~~600~~ **1000**
D	~~40~~ **50**	~~800~~ **1000**
E	~~50~~ **60**	~~1000~~ **1000**
F	~~60~~ **60**	~~1500~~ **1500**

Reason: The models will become more attractive and visible to the viewers. The safety of the competitors will be improved.
The timekeeper factor - "I see / I don't see" will decrease and disappear.
The models will not be much larger in length and this will facilitate their transportation and hence the additional cost.
In the height classes, the models will be visible due to the smaller height and will not lose altimeters which also reduces the cost to the competitor.

Technical Secretary Note: This is the first of a number of related changes proposed by Bulgaria, which will follow in the appropriate section.

i) 2.4.4 Minimum dimensions of subclasses S1, S2, S3, S6, and S9 ~~and S10~~ **Switzerland**

Technical Secretary Note: The items i), j), k), l), m) and n) also propose changes to this section of the Volume. They will be dealt with together.

Change the heading. Delete the table and replace it as shown below. Additionally delete the sentence below the table and replace it as shown below:

Event Class	Minimum diameter (mm) (for at least 50% of the overall length)	Minimum Overall Length (mm)
~~A~~	~~40~~	~~500~~
~~B~~	~~40~~	~~500~~
~~C~~	~~50~~	~~650~~
~~D~~	~~60~~	~~800~~
~~E~~	~~70~~	~~950~~
~~F~~	~~80~~	~~1100~~

Event Class	Minimum diameter (mm) (for at least 50% of the overall length)	Minimum Overall Length (mm)
A/2	**40**	**500**
A	**60**	**500**
B	**80**	**650**

~~In the case of Class S1 models, the smallest body diameter must be not less than 18 mm for at least 75% of the overall length of each stage. An S1 sustainer stage may not have a boat tail.~~

In the case of Class S1 models, the smallest body diameter must be not less than 60% of the minimum diameter for at least 75% of the overall length of each stage. An S1 sustainer stage may not have a boat tail.

Reasons: New Engine Class A/2
In order to reduce the too high starting heights there are two solutions:
With the current models a reduction of the engine power to A/2.
With the current motors an increase in diameter, a longer length results in transport problems. A short thick rocket is more unstable and has to be stabilized with bigger fins or more weight in the nose cone. This should produce more weight and with the greater drag, this will result in less launch height.
A diameter of 50mm reduces the starting height too less.

*Note: Switzerland previously proposed to delete Model Class S10. Supporting data to this proposal is contained in **Annex 7j**. See also Item ao (7.44), av (8.4), bt (12.5)*

j) 2.4.4 Minimum dimensions of subclasses S1, S2, S3, S6, S9 and S10 Croatia

Delete the table (shown in Item 'h') and replace it as shown below. Additionally add an explanatory sentence to the one below the table as shown below:

Event Class	**Minimum diameter (mm) in the minimum length (mm)**	**Minimum Overall Length (mm)**
½-A, A, B	**40 250**	**500**
C	**50 325**	**650**
D	**60 400**	**800**
E	**70 475**	**950**
F	**80 550**	**1100**

In the case of Class S1 models, the smallest body diameter must be not less than 18 mm for a least 75% of the overall length of each stage. An S1 sustainer stage may not have a boat tail.

The length of model is the distance between the top of the model and the bottom – the nozzle of the mounted engine.

Reason: Dimension of the model may remain and the minimum diameter should be constant – one value and not a percentage of (variable) length of model.

Technical Secretary Note: It is not clear from the submitted proposal, whether the sentence above is a reason or was intended to follow the added sentence in the proposal.

See Croatia's related proposals: Items t (4.2), an (7.4), az (8.4)

k) 2.4.4 Minimum dimensions of subclasses S1, S2, S3, S6, S9 and S10 Ukraine

Delete the table (shown in Item 'h') and replace it as shown below. Additionally delete the sentence below the table and replace it as shown below:

Event Class	Minimum diameter (mm) (for at least 50% of the overall length)	Minimum Overall Length (mm)
A/2	**40**	**500**
A	**50**	**650**
B	**60**	**850**

~~In the case of Class S1 models, the smallest body diameter must be not less than 18 mm for at least 75% of the overall length of each stage. An S1 sustainer stage may not have a boat tail.~~

In the case of Class S1 models, the smallest diameter of the body shall be at least 60% of the diameter of the first stage and shall be at least 75% of the total length of each stage. At the reference stage S1 there can be no boat tail.

3.1.2 All space modelling events shall be divided into sub-classes according to total impulse as follows:

Event Class	Total Impulse
A/2	0**.**00 to 1.25 Newton-seconds (N~~S~~**s**)
A	**1.26** to 2.50 N~~S~~**s**
B	2.51 to 5.00 N~~S~~**s**

… (no further changes)

Reason: The introduction of new classes of models of rockets in adults and juniors will give a powerful impetus to the development of new technologies, will make rocket sports for the spectators and sponsors more attractive. It will allow the organizers of European and World Championships to be more flexible in the choice of rocket model classes, depending on the size of the flying field. Reducing the overall momentum for racing in radio-controlled models will be interesting because more athleticism and skill.

Technical Secretary Note: This is the first of a number of related changes proposed by Ukraine for the above reason, which will follow in the appropriate section. See Items s (4.1), ap (7.4), aw (8.4), bv (12.5)

l) 2.4.4 Minimum dimensions of subclasses S1, S2, S3, S6, S9 and S10 Russia

Modify the section. Retain the existing table (shown above in Item 'h'), but delete the sentence below the table and replace it as shown below:

~~In the case of Class S1 models, the smallest body diameter must be not less than 18 mm for at least 75% of the overall length of each stage. An S1 sustainer stage may not have a boat tail.~~

S1 models shall have:

- two stages;

- minimum diameter of an enclosed airframe equal or larger than that in the table above for at least 50% of the overall length of each stage;

- the smallest body diameter must be not less than 18 mm for at least 75% of the overall length of each stage;

- S1 second stage may not have a boat tail.

Reason: Using the same diameter of the first and second stages of the S1 model will significantly reduce the flight altitude of the model. The larger size of the second stage facilitates visibility for the RSO. Also, the diameter of the second step of 40 mm facilitates the search for a model.

m) 2.4.4 Minimum dimensions of subclasses S1, S2, S3, S6, S9 and S10 Bulgaria

Delete the table (shown in Item 'h') and replace it as shown below. Additionally delete the sentence below the table and replace it as shown below:

Event Class	Minimum diameter (mm) of each stage	Minimum overall length (mm)
A	**50**	**500**
B	**50**	**500**
C	**60**	**650**
D	**70**	**800**
E	**70**	**950**
F	**80**	**1100**

~~In the case of Class S1 models, the smallest body diameter must be not less than 18 mm for at least 75% of the overall length of each stage. An S1 sustainer stage may not have a boat tail.~~

For Class S1 models, the diameter of the first stage is 50 mm with a length of 200 mm. Second stage with diameter 20mm and length 300mm. Stage S1 may have no boat tail.

Reason: The models will become more attractive and visible to the viewers. The safety of the competitors will be improved.
The timekeeper factor - "I see / I don't see" will decrease and disappear.
The models will not be much larger in length and this will facilitate their transportation and hence the additional cost.
In the height classes, the models will be visible due to the smaller height and will not lose altimeters which also reduces the cost to the competitor.

n) 2.4.4 Minimum dimensions of subclasses S1, S2, S3, S6, S9 and S10 Italy

Modify the table with the two additional rows as shown below:

Event Class	Minimum diameter (mm) of each stage	Minimum overall length (mm)
A/2	**40**	**500**
A3/4	**40**	**500**
A	40	500
B	40	500
C	50	650
D	60	800
E	70	950
F	80	1100

Reason: The present proposal intends to meet the need to facilitate the recovery of the S1, S3, S4, S6 and S9 models normally used in competition by reducing the available total impulse of the engine.
This allows for a more rational, efficient and cheaper approach instead of increasing the size of the models.
Two new classes of engines that can be used in competition are introduced: A/2 and A3/4, endowed respectively with 50% and 75% of the total impulse of the class A, the least powerful to date.

Consequential Amendments:

3.1.2 All space modelling events shall be divided into sub-classes according to total impulse as follows:

Event Class	Total Impulse
A/2	0**.**00 to 1.25 Newton-seconds (N~~S~~**s**)
A3/4	**1.26 to 1.88 Ns**
A	~~0,00~~**1.89** to 2.50 N~~S~~**s**
B	2.51 to 5.00 N~~S~~**s**
C	5.01 to 10.00 N~~S~~**s**
D	10.01 to 20.00 N~~S~~**s**
E	20.01 to 40.00 N~~S~~**s**
F	40.01 to 80.00 N~~S~~**s**

3.1.4 In space modelling competitions usage of engines of the following total impulse is allowed:

Engine Class	Total Impulse
A/2	1.25 Ns
A3/4	**1.88 Ns**
A	2.50 Ns

4.2 NUMBER OF MODELS

The number of models eligible for entry is as follows:
Class S1A, B, C, D, E, F ..... Two (2) only

Class S2C, E, F ..... Two (2) only
Class S3**A/2, A3/4,** A, B, C, D ..... Two (2) only
Class S4**A/2, A3/4,** A, B, C, D, E, F ..... Two (2) only
Class S5A, B, C, D, E, F ..... One (1) only
Class S6**A/2, A3/4,** A, B, C, D ..... Two (2) only
Class S7 ..... One (1) only
Class S8A, B, C, D, E (E/P), F ..... Two (2) only
Class S9**A/2, A3/4,** A, B, C, D ..... Two (2) only
Class S10**A/2, A3/4,** A, B, C, D ..... Two (2) only

See also Items aq (7.4), ba (8.4), bu (12.5)

Consequential Amendments in CIAM General Rules:

B.2.2 Classification of space models
Each class, except class S7, is divided into subclasses defined as follows according to total impulse (in Newton-seconds):
A/2 - 0.00 to 1.25 Ns
A3/4 - 1.26 to 1.88 Ns
A - ~~0.00~~**1.89** to 2.50 Ns

C.10.2 Class S - Space models
Class S3**A/2, A3/4,** A, B, C, D ..... Two (2) only
Class S4**A/2, A3/4,** A, B, C, D, E, F ..... Two (2) only
Class S6**A/2, A3/4,** A, B, C, D ..... Two (2) only
Class S9**A/2, A3/4,** A, B, C, D ..... Two (2) only
Class S10**A/2, A3/4,** A, B, C, D ..... Two (2) only

o) 2.4.7 Construction Requirements **Croatia**

Modify the following sub-paragraph with one deletion as shown below:

2.4.7 Models in Classes ~~S4,~~ S8 and S10 must fly and land without separation of any part in flight.

Reason: Without Class S4.

Part Three – Space Model Motor Standards

p) 3.9 Modifications **USA**

Modify the following section with additional text as shown below:

A space model engine shall not be altered in any manner to change its published and established performance characteristics or dimensions **and shall not be used for any purposes except those recommended by the manufacturer.**

Reason: Part of an overall set of proposals to enhance safety by implementing language similar to the Model Rocket Safety Code of the U.S. National Association of Rocketry. This language is intended to prevent space model engines from being used unsafely in ways that they were not designed for or intended to be used for, which is flight propulsion of a space model through the air. It is identical to language

in the U.S. Model Rocket Safety Code.

q) 3.10 Certification for FAI Contests **Croatia**

Modify the following section by deleting text and replacing it as shown below:

A space model motor used in a space model in FAI competition or for the purpose of establishing or surpassing FAI space model performance records shall be of a type previously tested and certified ~~for such use by a National Airsports Control~~ **by an internationally accredited institution. In Europe, such motors are in the pyrotechnical class P1 and must be CE marked for marketing.**

3.13 Space Models Motor Testing Standards

In addition to the FAI regulation, it is necessary for the testing of model motors to be issued by an internationally authorized pyrotechnical institution.

A space model motor type may be certified by a National Airsports Control if the performance of a randomly selected sample meets the following standards:

3.13.4 Static tests shall be conducted with the test motor at a temperature of 20 degrees Centigrade, +/- 5 degrees Centigrade. **The Organizer must provide a thermochamber with constant temperature 20º +/- 5º C.**

Technical Secretary Note: The first proposal in this section deleted the possibility for the NAC to test and certify space model motors. Consequential changes are needed in 3.11 Static Testing and 3.13 shown above, for this proposal to be acceptable. Also note, that in the 2020 Volume the term 'space model engine' was changed to 'space model motor' throughout.

Reason: None given.

Part Four – General Rules for International Contests

r) 4.1 World Championship Events for Space Models **Switzerland**

Modify the following sections (4.1 and 4.2) by deleting all text and replacing it with a reference as shown below:

~~The following event categories are recognised as World Championships for Space Models:~~

~~a) Altitude models – S1, S2, or S2/P~~
~~b) Parachute duration models – S3~~
~~c) Boost Glider duration models – S4~~
~~d) Scale Altitude models – S5~~
~~e) Streamer duration models – S6 or S6/P~~
~~f) Scale – S7 or S11~~
~~g) Rocket Glider duration and precision landing models – S8~~
~~h) Gyrocopter duration models – S9~~

~~The events and total impulse classes shall be selected by the contest organiser. One event is required for each category. Different events and total impulse classes may be selected for Senior and Junior classes.~~

See CIAM General Rules C.15.2.2 Class S Space Models

4.2 Number of Models

~~Class S1A, B, C, D, E, F ..... Two (2) only~~
~~Class S2C, E, F ..... Two (2) only~~
~~Class S3A, B, C, D ..... Two (2) only~~
~~Class S4A, B, C, D, E, F ..... Two (2) only~~
~~Class S5A, B, C, D, E, F ..... One (1) only~~
~~Class S6A, B, C, D ..... Two (2) only~~
~~Class S7 ..... One (1) only~~
~~Class S8A, B, C, D, E (E/P), F ..... Two (2) only~~
~~Class S9A, B, C, D ..... Two (2) only~~
~~Class S10A, B, C, D ..... Two (2) only~~

~~For classes S1, S2, S3, S4, S6, S8, S9 and S10 one (1) additional model may be processed and flown by the competitor on there being a tie for first place at the end of the third round.~~

See CIAM General Rules C.10.2 Class S Space Models

Reason: Simplification. The definition exists twice and must be changed twice. The CIAM General Rules are valid.

s) 4.1 World Championship Events for Space Models **Ukraine**

Make the following deletions and additions to the tables as shown below:

The following event categories are recognised as World Championships for Space Models:
a) altitude models – S1, ~~S2,~~ **or S2/P**
b) parachute duration models – S3 **or S12P**
c) boost glider duration models – S4
d) scale altitude models – S5
e) streamer duration models – S6 **or S6A/P**
f) scale – S7 ~~or S11~~
g) rocket glider duration and precision landing models – S8
h) gyrocopter duration models – S9

4.2 Number of Models

The number of models eligible for entry is as follows:
Class S1A, B, C,~~ D, E, F~~ ..... Two (2) only
~~Class S2C, E, F ..... Two (2) only~~
Class S3**A/2,** A, B, ~~C, D~~ ..... Two (2) only
Class S4**A/2,** A, B, ~~C, D, E, F~~ ..... Two (2) only
Class S5A, B, C~~, D, E, F .....~~ One (1) only
Class S6**A/2,** A, B, ~~C, D~~ ..... Two (2) only
Class S7 ..... One (1) only
Class S8~~A, B, C,~~ D, **D for, P ,E for P** ~~(E/P), F~~ .....Two (2) only
Class S9**A/2,** A, B, ~~C, D~~ ..... Two (2) only
Class S10**A/2,** A, B, ~~C, D~~ ..... Two (2) only

Class S2/P, ... One (1) only
Class S6A/P, ... Two (2) only
Class S12/P, ... One (1) only

Reason: The introduction of new classes of models of rockets in adults and juniors will give a powerful impetus to the development of new technologies, will make rocket sports for the spectators and sponsors more attractive. It will allow the organizers of European and World Championships to be more flexible in the choice of rocket model classes, depending on the size of the flying field. Reducing the overall momentum for racing in radio-controlled models will be interesting because more athleticism and skill.

Technical Secretary Note: This is the second of a number of related changes proposed by Ukraine for the above reason, which will follow in the appropriate section. See also Items k (2.4.4), 7.4, 8.4, 11.1.3, 11.6, 11.7, 12.5. CIAM General Rules will be amended to agree with successful proposals.

t) 4.2 NUMBER OF MODELS, STARTS AND MAXIMUM DURATION Croatia

Replace the current table (see Item 'r' above for the current table) with the table shown below. Note there is also a new heading proposed:

The number of models eligible for entry is as follows:

Class S1A,B,C,D,E,F ……Two(2) only
Class S3A/2 Three (3) only, five (5) starts, max 240 s
Class S4A/2…… .Three(3) only, five (5) starts, max 120 s
Class S5A,B,C,D,E,F…… One (1) only
Class S6A/2 ……Three (3) only, five (5) starts, max 120 s
Class 7 …… One(1) only
Class 8A,B,C,D,E(E/P) F… Two (2) only
Class S9A/2…… Three (3) only, five (5) starts, max 120 s
Class S10A/2 Three (3) only, five (5) starts, max 180 s

Reason: The number of models and startings is a subject to the agreement. It should be considered in the writing of this sporting code. To consider this problem should take a long time. At the first world championship won the competitor with one longest flight of two start (I know, I was one of the competitors). It's now funny. Polygons, sports airports are less and less available, and you should consider how the competition has more startings with a lower maximum flight duration and the result of the sum of all these flights. I hope we will enjoy the implementation of this proposal.

Technical Secretary Note: See Croatia's related proposals: Items j (2.4.4), an (7.4), az (8.4)

u) 4.3.4 Assisted Launch USA

Delete the current 4.3.4 and replace it with the text shown below:

4.3.4 Assisted Launch

A launcher shall not impart any velocity change or change of momentum except for that caused by the space model engine(s) contained in the space

model. A launcher shall not include any stored energy feature (pyrotechnic, chemical, mechanical, pneumatic, etc.) that imparts velocity change or change of momentum to the rocket. No part of the launcher shall loose contact with the launcher assembly.

Pressurization (piston) launchers that use the exhaust gas from the space model motor(s) contained in the space model to accelerate the space model may be used unless prohibited for an event. No other materials or devices may be added to or included in the launcher to augment the pressure produced by the space model motor(s) contained in the space model.

For the S1, S2, and S5 events, pressurization (piston) launchers shall not be used. For these events, the nozzle(s) of the space model motors(s) contained in the model must be exposed to the atmosphere.

Reason: Rule 4.3.4 was significantly modified during the 2018 rules revision cycle. The 2018 rule change (submitted by Ukraine) had a Technical Secretary's Note saying "This note is to request that the above proposal is corrected for English at the Technical Meeting." The correction for English was not made in 2018. The proposed change corrects for English while keeping the intent of the 2018 rule update. *The word 'motor' has been substituted for 'engine'.*

v) 4.3.5 Launching Procedure — USA

Modify 4.3.5 'Launching Procedure' by deleting some text and making further additions to the paragraph as shown below:

4.3.5 Launching Procedure

Launching or ignition must be conducted by remote electrical means **with a launch system that has a safety interlock in series with the launch switch and a launch switch that returns to the "off" position when released. When launching all persons shall be** at a safe distance that depends on the space model class, weather conditions and number of spectators. **This distance shall be no less than 3 meters; for rockets containing clusters of multiple motors shall be at least 10 meters; and for rockets where safety or stability is in question shall be a distance and direction as determined by the Range Safety Officer.** ~~It shall be announced by the Range Safety Officer before the beginning of competition in a particular class of the model and must be fully under the control of the person launching the model~~. All persons in the vicinity of the launching must be advised that a launching is imminent before a space model may be ignited and launched, and a minimum five (5) second "count down" must be given before ignition and launching of a space model. **If a space model does not launch when the button of the electrical launch system is pressed, the launch system's safety interlock shall be removed or the system shall be disconnected from the battery before anyone approaches the space model.**

Reason: The additional specifications for the electrical launch system and for the procedure for approaching a space model that has misfired are taken from the U.S. Model Rocket Safety Code, where they have been for 40 years. The stand-off distances from a space model launch are made precise because currently they are not precise and so no stand-off distance is currently being observed by competitors. This is not a safe practice. The U.S. safety code requires a minimum stand-off of 5

meters, and a wait time of 60 seconds after a misfire, but the engines used by most people in the U.S. are much larger than those used in FAI competition and therefore require a greater stand-off and a wait time.

w) 4.3.5 Launching Procedure **Croatia**

Add a sub-paragraph to 4.3.5 after the existing as shown below:

For one stage space models with D motor or smaller, except class S2, a minimum safe distance of a least 4 metres from the model is required. These models can be launched near vertical elevation, 80º – 90º with direction in a safe, empty place.

For multistage or cluster space models, class S2 and space models with stronger space motor (than D), the safe distance is 8 metres. These models must be launched with elevation 65º – 80º in a safe, empty place.

Reason: From a safety standpoint, the possibility of fall exist within the radius of the longest range of the model used. Firing the rocket in vertical directions, threatens the area around the launcher. This can be reduced using smaller elevations in safe direction. For heavier and less accurate path models, it is advisable to use lower elevations.

x) 4.3.7 Hazard **USA**

Modify 4.3.7 'Hazard' by deleting some text and making further additions to the paragraph as shown below:

4.3.7 Hazard

A space model in flight **shall not be launched into clouds or near** ~~create a hazard to~~ aircraft and shall not be used as a weapon against ground or air targets. **Space models shall not eject any materials such as recovery device protection that are not flameproof and shall use containment tubes for fuse-type dethermalizers, so that the space models do not present a fire hazard upon landing. Launch devices shall have a means to prevent the motor's exhaust from directly hitting the ground, and any dry grass close to the launch pad shall be cleared before launch. No attempt shall be made to recover space models from power lines, tall trees, or other dangerous places.**

Reason: These hazard-prevention requirements are all similar to requirements that have been in the U.S. safety code for many years. Ejection of flammable materials such as tissue parachute protectors that are burning when they land on the ground; landing of duration models with dethermalizer fuses still burning and exposed in a way that makes them able to touch grass; and the spray of rocket exhaust directly onto dry grass on the ground have all been sources of launch site fires in the U.S.. 7 people have died in the U.S. in the last 30 years while trying to recover space models from electric power lines.

y) 4.3.8 Launch Site **USA**

Move the existing 4.3.8 'Thermal Creation and Protection' to a new paragraph 4.3.9

and rename 4.3.8 ('Launch Site' is a suggestion), then add the text as shown below:

4.3.8

Space models shall be launched outdoors, in an open area free of hazards to the safety of fliers or spectators and whose size is appropriate to the power of the models and to the weather conditions, as determined by the RSO.

Reason: This is a completely new paragraph. There is no requirement in the current space model code to fly from a launch site that is safe (free of dangerous ditches, lakes, tall dry vegetation that may catch fire) and large enough to support the types of models being flown in the weather conditions at the time of launching. The U.S. Model Rocket Safety Code has a table of minimum launch site sizes, but these are for guidance to individual hobbyists who are flying by themselves. They do not match well with the types of models that are flying in FAI competition. There are too many factors to consider in deciding whether it is safe to fly space models at a particular place on a particular day than can be accounted for in code language, so this decision is best left to the Range Safety Officer but it should be specified as a responsibility of that person.

z) 4.4.2 Model Marking and Identification **Switzerland**

Delete this section and replace with the reference as shown below:

~~Each entry shall carry, prominently displayed upon its body, fins, or other exterior part, the competitor's FAI license number or FAI Unique ID number in letters and numbers approximately one (1) centimetre high except in classes S5 and S7 where it is 4 mm for each stage. The name, national insignia, or international identification mark of the competitor's nation must be displayed on the exterior of the model.~~

~~A light coloured area of minimum dimensions 1 cm by 3 cm must be provided for the organiser's processing mark except in classes S5 and S7 where the mark shall be put on interior of the model.~~

See CIAM General Rules C.11.2 Class S Space Models

Technical Secretary Note: The section in the General rules Volume is virtually the same as that in the Space Volume, allowing this deletion, except for the following inconsistency, which must be addressed for this proposal to be acceptable.

Space Volume: … in letters and numbers approximately one (1) centimetre high except in classes S5 and S7 where it is 4 mm for each stage.

CIAM General Rules Volume: b) The letters and numbers must be approximately one (1) centimetre high except in classes S5 and S7 where it is 7 mm for the 1st stage and 4 mm for upper stages.

Reason: Simplification. The definition exists twice and must be changed twice. The CIAM General Rules are valid.

aa) 4.4.2 Model Marking and Identification **Poland**

Add the following text at the end of this section:

4.4.2 Model Marking and Identification

…

A light coloured area of minimum dimensions 1 cm by 3 cm must be provided for the organiser's processing mark except in classes S5 and S7 where the mark shall be put on interior of the model **during scale judging.**

Reason: If the model is not marked during scale judging, it is possible to mark and fly with a different model.

ab) 4.6.5 Disqualification **Slovak Republic**

Modify the following section by deleting text and replacing it as shown below:

In the S4 and S10 classes, the model must reach a stable flight within 30 s ~~from the moment of reaching the apogee~~ **of the model's first motion on the launching device**, otherwise the flight is disqualified.

In S3, S6 and S9 classes, the recovery system must deploy correctly within 30 s ~~from the moment of reaching the apogee~~ **of the model's first motion on the launching device**, otherwise the flight is disqualified.

Reason: The apogee of a model rocket is a difficult to determine parameter as praxis has shown. 30s from the model's start is easy and precisely measurable.

ac) 4.6.5 Disqualification **Croatia**

Modify the first sub-paragraph of 4.6.5 by deleting the text and replacing it as shown below:

~~4.6.5 In the S4 and S10 classes, the model must reach a stable flight within 30 s from the moment of reaching the apogee, otherwise the flight is disqualified.~~

In S4 and S10 classes, the model must fly a minimum of 20 seconds. Shorter flights will be disqualified.

Reason: From a safety standpoint, the possibility of fall exist within the radius of the longest range of the model used. Firing the rocket in vertical directions, threatens the area around the launcher. This can be reduced using smaller elevations in safe direction. For heavier and less accurate path models, it is advisable to use lower elevations.

ad) 4.8 Timing and Classification **Croatia**

Modify the following section: 4.8.1 by deleting text and replacing it as shown below:

4.8.1 The timing of flights is limited to a maximum determined by the individual class and size of engine used. The total flight time is taken from the ~~model's first motion on the launching device~~ **time at which the model or any part of the model leaves the launching device** to the end of the flight.

Reason: It is the intention to change this to agree with 4.5.1 'Definition of Official Flight' … therefore the actual words from 4.5.1 have been substituted by the Technical Secretary for the words given in the proposal: ***the model live the launcher.***

ae) 4.8 Timing and Classification **Slovak Republic**

Modify the following section: 4.8.3 by deleting text and replacing it as shown below:

In order to decide the winner when there is a tie, additional deciding flights shall be made immediately after the last flight of the event has been completed. ~~The maximum time of flight in each additional round shall be increased by two (2) minutes on the maximum time of flight of the previous round~~. **There shall be no more than two fly-off rounds to determine the winner. The maximum time of flight in the first fly-off round shall be increased by two (2) minutes on the maximum time of flight of the previous round. The second fly-off round will be timed to the completion of the flight for final results.** There shall be only one attempt for each additional flight. The times of the additional flights shall not be included in the final figures of classification for teams, they are for the purpose of determining the winner and for awarding the prizes attached to the title. The organiser will decide the time during which all competitors must launch their models. In the case of a tie in the team classification, the best individual score (classification) will be used.

~~There shall be no more than two fly-off rounds to determine the winner. The second fly-off round will be timed to the completion of the flight for final results.~~

Reason: Clarification of the fly-off rule. The current text is making two different statements in one paragraph. The amended paragraph states clearly the intention of a fly-off rule and also the procedure.

af) 4.8 Timing and Classification **Serbia**

Add a new paragraph 4.8.12. as follows:
4.8.12. Electronic altimeters produced and approved in accordance with the provisions of the Sporting Code Volume EDIC – Electronic Devices in Competition – Section 2 - Technical Guidance Notes and Technical Specification for Altimeters Used in Space Modelling Competition V.1.0, which register the whole space model's flight trajectory and have time scale recording to at least 1/100th of a second, which is equivalent to quartz controlled electronic stopwatches with digital readout required for timing in paragraph 4.8.8 of these rules, can be used for timing in space models contests. Qualified personnel and procedure of calibration, preparation for flight and readout of data is the same as for altitude measurements.

Reason: Space models contests are very good participated so it is not easy to provide necessary number of qualified time keepers and stopwatches. If time keepers with little experience are engaged, errors in timing are not rare. Therefore it is better to rely on new technology which proved as accurate and reliable in last ten years in altitude measurements. This shall also make contest cheaper which is very important for good participation of sportsmen at all levels of contests.

ag) 4.9.1. Triangulation Method **Serbia**

*Delete the entire section. Replace it with the following paragraph and a new Annex 7. For the text of **ANNEX 7 – TRIANGULATION METHOD**, refer to **Annex 7k**:*

Triangulation Method is described in Annex 7 of these rules. It is the oldest method for space models altitude measurements, is simple and cheap and is acceptable for lower levels of contests, but because of its slow procedure of tracking and results calculation as well as its limited accuracy, may be used only in Category 2 contests when and where electronic altimeters are not available. It is suitable for contests with smaller number of competitors and shall not be used for record attempts. It is also suitable as an educational tool for juniors.

Reason: Triangulation Method was used for decades but since 2010 is mostly replaced with electronic altimeters which are much more precise, quicker, efficient and require smaller crew for the measurement process. However, this method is still useful where spacemodelling is just being introduced and where electronic altimeters are not available yet. It is also good as the educational tool for juniors, but because of its limited accuracy (+/- 10%) may not be used for record attempts.

ah) 4.10.1. Special Contest Organisation Requirements Croatia

*Modify the following section: 4.10.1 by deleting text and replacing it as shown below. See **Annex 7p – Launch Boxes and Safety Code** for diagrams of the proposed launch boxes:*

4.10.1 Provide a starting line divided in two sectors for seniors and juniors (if both classifications exist in an event). Each sector shall be composed of the launch boxes ~~5 x 7~~ **9 x 9** metres marked by plastic, marking ribbon. The whole launching area shall be protected by marking ribbons ~~of~~ **from** the access of non-authorised persons. **The launcher must be mounted only in the central line of boxes. The minimum safe distance from the launcher to competitors who start the model must be 5 metres. The launch box must be empty of other competitors, helpers or timekeepers, when the RSO makes the 5 second countdown.**

Reason: Increasing the space around the launcher, makes it easier to maintain the safety distance of all present – competitors, helpers and judges.

ai) 4.10.7 Special Contest Organisation Requirements Serbia

Modify the following section: 4.10.7 by deleting text and replacing it as shown below:

4.10.7 Provide ~~at least two altitude measuring devices (theodolites~~) **the necessary number of CIAM approved electronic altimeters with software** for altitude classes S1, S2 and S5 with proven qualified personnel. ~~and an appropriate radio communication system for data transfer from the tracking stations to the computer centre. In the case of electronic altitude measurements~~ **A**ll electronic altimeters shall be impounded prior to the beginning of the competition and supervised by a special official qualified and equipped with the relevant devices to check and calibrate impounded equipment when necessary. **If electronic altimeters are not available, Triangulation Method (Annex 5) can be used in Category 2 contests if the organizer provides at least two altitude measuring devices (theodolites) for altitude classes S1, S2 and S5 with proven qualified**

personnel and an appropriate radio communication system for data transfer from the tracking stations to the computer centre.

Reason: Electronic altimeters are in regular practice for altitude measurements for last ten years at the FAI SM Championships and should have priority in the rules over mostly obsolete Triangulation Method. However this method should still be preserved in the rules to be used as an auxiliary method in areas where spacemodelling is just starting its activity and electronic devices are not available.

aj) 4.10.10 Special Contest Organisation Requirements **Serbia**

Add a new sub-paragraph to this section as follows:

4.10.10 The organizer of a space models international contest listed in the FAI Contest Calendar shall provide and use a software approved by CIAM to produce uniform documentation of the contest. This relates to bulletins, results lists, jury reports and other accompanying documentation required by CIAM. Requirements for this software are given in Annex 2 Chapter 5.d.

Reason: The organizers of Cat 1 and Cat 2 spacemodelling contests send bulletins, results and jury reports to the FAI office and/or World Cup coordinator which are very different from one to the other contest. This makes problems in WCup and SM International Ranking and cause errors in calculations and presentation of the final results. Modern technology also allows on-line registration and a number of possible statistical analysis and presentations but inputs must be of the same kind. Therefore a software approved by CIAM and available to and used by everyone is of a great importance.

Technical Secretary Note: See also the following proposals: Items ak) and al).

Annex 2 – Space Modelling Judges and Organisers' Guide

ak) 5. Organisers' Tasks **Serbia**

Add a new paragraph 5. d. Contest Documentation Software as follows:

d. Contest Documentation Software - The organizer of a space models international contest listed in the FAI Contest Calendar shall provide and use to produce documentation of the contest, a software approved by CIAM. It shall contain:

Basic version: Templates for Bulletins 0 to 3, list of the contest officials, result tables for individuals and teams for all space models classes, template for jury report, contest calendar for the current year.

Advanced version: Basic version with its on-line presentation, on-line registration of participants, on-line presentation of the results in real time during the contest with automatic sorting of placings, downloadable pdf versions of the presented documents after the contest and downloadable excel versions of result tables.

Sophisticated version: Advanced version completed with checking of on-line registrations in the FAI data base, selecting contests per year, per country and per class, some statistical calculations and presentations etc.

This software shall have a tutorial for those who use it. The updated version if needed shall be approved by CIAM at the end of preceding year for the next year.

Reason: In the proposal for a new paragraph 4.10.10 are given reasons for such software approved by CIAM. This proposal gives guidelines what such software shall fulfil. Some of these requirements are already realized in existing software in different countries, but no one is approved and is not mandatory for application, which is very important. Basic version is prepared by Space S/C some ten years ago in "classic form". It requires inclusion in more modern versions. Advanced version is partly realized and tested in different contests in Ukraine and Serbia. Sophisticated version gives direction for future development. All this should be in incorporated in one system to be used by everyone.

al) 5. Organisers' Tasks **Ukraine**

Add a new paragraph 5. d. Contest Documentation Software as follows:

d. Contest Documentation Software - The organizer of a space models international contest listed in the FAI Contest Calendar must use contest automation software approved by CIAM.
Such a software must have the following features:

- **Be available online on the Internet;**
- **Be able to display event data online including list of the contest officials, competition schedule, organizers details, event location, entry fees, accommodation and board information, contacts, payment options, transfer information, display of registered teams and participants;**
- **Be able to maintain on-line registration of participants and teams;**
- **Be able to process entry fee payments online;**
- **Be able to validate FAI ID of participants online and retrieve name, date of birth, licenses, country, sport, and validity);**
- **Be able to automatically populate participants data based on information retrieved by their FAI ID;**
- **Provide way to input contest results manually;**
- **Provide API(application programming interface) to retrieve contest results from third-party systems;**
- **Provide customizable templates and generate downloadable PDF documents:**
  - **Bulletins 0 to 3;**
  - **List of contest officials;**
  - **Jury reports;**
- **Provide customizable templates and generate downloadable PDF and Excel documents:**

- **Results for individuals and teams for all space model classes;**
- **Be able to display individual and team results in real time during contest;**
- **Be able to publish news, photos and videos;**
- **Be able to submit contest results to the FAI database;**
- **Be able to pull Cat 1 and Cat 2 spacemodelling contests from the FAI database;**
- **Display all Cat 1 and Cat 2 spacemodelling contests, sort competitions by years, countries, dates, classes of models;**
- **This software shall have a tutorial for those who use it.**

Reason: The proposal for the new paragraph 4.10.10 explains why we need such software that is approved by CIAM. This proposal gives detailed requirements for what such software should fulfill. The availability of the system online on the Internet makes it a multi-tool for all space modelling competitions and be readily accessible at all times. The ability to work with the API will allow the program to receive information from third-party programs and calculate it (upload data in Excel format, receive flight data from altimeter software, etc.). With such program functionality, competitions such as the World Cup stage can be held using one laptop or even one tablet. Similar software has shown a positive result when used in space modelling contests Cat 1 (European Championship 2015 & 2019, World Championship 2016) and different stages of the World Cup which pertain to Cat 2. We need one system that will include all these requirements and will be used by everyone.

Part Seven – Parachute/Streamer Duration Competition (Classes S3 and S6)

am) 7.1 General **Slovak Republic**

Modify the paragraph by deleting text as shown below:

The Parachute or Streamer Duration Competition is divided into classes according to the total impulse of the engine used. During the flight no part of the model ~~other than parachute protectors or wadding~~ may be detached or jettisoned.

Reason: Safety update, and not detaching any part of the model makes the class more challenging.

an) 7.4 Sub-Classes **Croatia**

Delete the table and replace it as shown below. The last three rows remain unchanged:

For Parachute and Streamer Duration Competitions the classes and their respective maximum flight tines are:

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	MAXIMUM PARACHUTE (sec)	FLIGHT TIME STREAMER (sec)
~~S3A/S6A~~	~~0,00 - 2,50~~	~~100~~	~~300~~	~~180~~
~~S3B/S6B~~	~~2,51 - 5,00~~	~~100~~	~~420~~	~~240~~

~~S3C/S6C~~	~~5,01 - 10,00~~	~~200~~	~~540~~	~~300~~
~~S3D/S6D~~	~~10,01 - 20,00~~	~~500~~	~~660~~	~~360~~

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	**MINIMUM WEIGHT**	MAXIMUM PARACHUTE (sec)	FLIGHT TIME STREAMER (sec)
S3A/2A - S61/2A	**0,00 - 1,25**	**100**		**240**	**120**
S3A/S6A	**1,26 - 2,50**	100		300	180
S3B/S6B	2,51 - 5,00	100		420	240
S3C/S6C	5,01 - 10,00	200		540	300
S3D/S6D	10,01 - 20,00	500		660	360

Reason: Using smaller A/2 engines instead A, can reduce the maximum flight duration and this make smaller grounds to complete. In Croatia, the A/2 motors with good results have been used at the state championship for many years. *See also Items j (2.4.4), t (4.2), az (8.4)*

ao) 7.4 Sub-Classes **Switzerland**

Delete the table (shown above in Item am)) and replace it as shown below:

CLASS	TOTAL IMPULSE (Newton-seconds)	~~MAXIMUM WEIGHT (g)~~	MAXIMUM PARACHUTE (sec)	MAXIMUM STREAMER (sec.)
S3A/2/S6A/2	**0,00 – 1,25**		**300**	**180**
S3A/S6A	**1.26** - 2,50	~~100~~	300	180
~~S3B/S6B~~	~~2,51 - 5,00~~	~~100~~	~~420~~	~~240~~
~~S3C/S6C~~	~~5,01 - 10,00~~	~~200~~	~~540~~	~~300~~
~~S3D/S6D~~	~~10,01 - 20,00~~	~~500~~	~~660~~	~~360~~

Consequential Change: Provisional Rules: Class S6A/P – Streamer target Duration Time

7.5.2. **Construction requirement and specification**

Models for this class are identical with those in ~~Class S6A~~ **S6A/2** – Streamer duration competition.

Reason: New Class. *See also Items i (2.44), av (8.4), bt (12.5)*

ap) 7.4 Sub-Classes **Ukraine**

Delete the table (shown above in Item am)) and replace it as shown below:

CLASS	TOTAL IMPULSE **(Ns)**	MAXIMUM WEIGHT (g)	MAXIMUM PARACHUTE (sec)	MAXIMUM STREAMER (sec.)
S3A/2 - S6A/2	**0,00 – 1,25**	**100**	**300**	**180**
S3A/S6A	**1.26** - 2,50	100	300	180
S3B/S6B	2,51 - 5,00	100	420	240
~~S3C/S6C~~	~~5,01 - 10,00~~	~~200~~	~~540~~	~~300~~
~~S3D/S6D~~	~~10,01 - 20,00~~	~~500~~	~~660~~	~~360~~

Reason: The introduction of new classes of models of rockets in adults and juniors

will give a powerful impetus to the development of new technologies, will make rocket sports for the spectators and sponsors more attractive. It will allow the organizers of European and World Championships to be more flexible in the choice of rocket model classes, depending on the size of the flying field. Reducing the overall momentum for racing in radio-controlled models will be interesting because more athleticism and skill. *See also Items k (2.44), s (4.1), aw (8.4), bv (12.5)*

aq) 7.4 Sub-Classes **Italy**

Delete the table (shown above in Item am)) and replace it as shown below:

CLASS	TOTAL IMPULSE (~~Newton-seconds~~**Ns**)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME PARACHUTE (~~sec~~)	STREAMER (~~sec~~)
S3A/2 - S6A/2	**0.00 - 1.25**	**100**	**300**	**180**
S3A3/4 - S3A3/4	**1.26 - 1.88**	**100**	**300**	**180**
S3A~~/~~ **-** S6A	~~0,00~~**1.89** - 2~~,~~.50	100	300	180
S3B~~/~~ **-** S6B	2~~,~~.51 - 5~~,~~.00	100	420	240
S3C~~/~~ **-** S6C	5~~,~~.01 - 10~~,~~.00	200	540	300
S3D~~/~~ **-** S6D	10~~,~~.01 - 20~~,~~.00	500	660	360

Reason: The present proposal intends to meet the need to facilitate the recovery of the S1, S3, S4, S6 and S9 models normally used in competition by reducing the available total impulse of the engine.

This allows for a more rational, efficient and cheaper approach instead of increasing the size of the models.

Two new classes of engines that can be used in competition are introduced: A/2 and A3/4, endowed respectively with 50% and 75% of the total impulse of the class A, the least powerful to date. *See also Items n (2.44), ba (8.4), bu (12.5)*

ar) 7.4 Sub-Classes **Russia**

Add a column to the table as shown below:

CLASS	**MINIMUM LENGTH OF STREAMER (mm)**	**MINIMUM WIDTH OF STREAMER (mm)**
S3A/S6A	**3000**	**150**
S3B/S6B	**4000**	**170**
S3C/S6C	**5000**	**190**
S3D/S6D	**6000**	**210**

Reason: Using a larger tape will increase the starting weight of the model, which in turn will reduce the flight altitude of the model and improve its visibility.

Provisional Rules – Class S6A/P – Streamer Target Duration Competition

as) 7.5. Class S6A/P – Streamer target time duration competition **Switzerland**

Change the title:

~~Class S6A/P – Streamer target time duration competition~~

Class S6-G – Streamer group duration competition

Reason: Clarification.

at) 7.5. Class S6A/P – Streamer target time duration competition **Switzerland**

Change this class from Provisional to Official.

Move full text 7.5 to 7.5.4 from Page 56 to 7.5 to 7.5.4 in Part Seven Page 27

au) 7.5.1 Purpose of competition **Switzerland**

Modify the following section: 4.8.1 by deleting some text as shown below:

The purpose of this competition is to achieve, ~~as exact as possible~~, the target time of 240 sec and to launch the model within the five (5) minutes working time for the relevant group. The model shall be timed from the instant of first motion on the launcher until the instant it touches the ground.

Reason: Clarification.

Part Eight – Boost Glider Duration Competition (Class S4)

av) 8.4 Sub-Classes **Switzerland**

Delete the table and replace it as shown below:

~~CLASS~~	~~TOTAL IMPULSE (Newton-seconds)~~	~~MAXIMUM WEIGHT (g)~~	~~MAXIMUM FLIGHT TIME (sec.)~~
~~S4A~~	~~0,00 - 2,50~~	~~60~~	~~180~~
~~S4B~~	~~2,51 - 5,00~~	~~90~~	~~240~~
~~S4C~~	~~5,01 - 10,00~~	~~120~~	~~300~~
~~S4D~~	~~10,01 - 20,00~~	~~240~~	~~360~~
~~S4E~~	~~20,01 - 40,00~~	~~300~~	~~360~~
~~S4F~~	~~40,01 - 80,00~~	~~500~~	~~360~~

CLASS	TOTAL IMPULSE (Newton-seconds)	~~MAXIMUM WEIGHT (g)~~	**MINIMUM WING SPAN (mm)**	MAXIMUM FLIGHT TIME (sec.)
S4A/2	**0,00 – 1,25**		**600**	**180**
S4A	1,26 - 2,50	~~60~~	**700**	180
~~S4B~~	~~2,51 - 5,00~~	~~90~~		~~240~~
~~S4C~~	~~5,01 - 10,00~~	~~120~~		~~300~~

~~S4D~~	~~10,01 - 20,00~~	~~240~~		~~360~~
~~S4E~~	~~20,01 - 40,00~~	~~300~~		~~360~~
~~S4F~~	~~40,01 - 80,00~~	~~500~~		~~360~~

Reason: Add Class, delete old Classes. *See also Items i (2.44), ao (7.4), bt (12.5)*

aw) 8.4 Sub-Classes **Ukraine**

Delete the table (shown above in Item au)) and replace it as shown below:

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME (sec.)
S4A/2	**0,00 – 1,25**	**60**	**180**
S4A	1,26 - 2,50	60	180
S4B	2,51 - 5,00	90	240
~~S4C~~	~~5,01 - 10,00~~	~~120~~	~~300~~
~~S4D~~	~~10,01 - 20,00~~	~~240~~	~~360~~
~~S4E~~	~~20,01 - 40,00~~	~~300~~	~~360~~
~~S4F~~	~~40,01 - 80,00~~	~~500~~	~~360~~

Reason: As for Item ap). *See also Items k (2.4.4), s (4.1), ap (7.4), bv (12.5)*

ax) 8.4 Sub-Classes **Russia**

Modify the table (shown above in Item au)) with the deletions and additions as shown below:

8.4. SUB-CLASSES

CLASS	TOTAL IMPULSE (Newton-seconds)	**MINIMUM WING SPAN (mm)**	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME (sec.)
S4A	0,00 - 2,50	**1000**	~~60~~ **90**	180
S4B	2,51 - 5,00	**1100**	~~90~~ **120**	240
S4C	5,01 - 10,00	**1200**	~~120~~ **150**	300
S4D	10,01 - 20,00	**1300**	~~240~~ **180**	360
S4E	20,01 - 40,00	**1400**	~~300~~ **210**	360
S4F	40,01 - 80,00	**1500**	~~500~~ **240**	360

In a class of models S4 wing chord size should be at least 7% of the wingspan, and at least 50% of the total length of the wing.

ay) 8.4 Sub-Classes **Bulgaria**

Modify the table with an additional column as shown below:

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	**MINIMUM WING SPAN (mm)**	MAXIMUM FLIGHT TIME (sec.)
S4A	0,00 - 2,50	60	**700**	180

S4B	2,51 - 5,00	90	**800**	240
S4C	5,01 - 10,00	120	**900**	300
S4D	10,01 - 20,00	240	**1000**	360
S4E	20,01 - 40,00	300	**1200**	360
S4F	40,01 - 80,00	500	**1200**	360

Reason: The models will become more attractive and visible to the viewers. The safety of the competitors will be improved. The timekeeper factor - "I see / I don't see" will decrease and disappear. The models will not be much larger in length and this will facilitate their transportation and hence the additional cost. In the height classes, the models will be visible due to the smaller height and will not lose altimeters which also reduces the cost to the competitor.

az) 8.4 Sub-Classes **Croatia**

Modify the table as shown below:

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME (sec.)
S4A/2	**0,00 – 1,25**	**60**	**120**
S4A	**1,26** - 2,50	60	180
S4B	2,51 - 5,00	90	240
S4C	5,01 - 10,00	120	300
S4D	10,01 - 20,00	240	360
S4E	20,01 - 40,00	300	360
S4F	40,01 - 80,00	500	360

8.5 If the S4 models can throw off the engine mouth, they will be able to climb more steadily.

Reason: Using the lower engine in class S4, can reduce the maximum flight duration, this satisfying the smaller terrains and introducing more starts, one day.
See also Items j (2.4.4), t (4.2), an (7.4)

ba) 8.4 Sub-Classes **Italy**

Modify the table as shown below:

8.4. SUB-CLASSES
For Boost/Glider Duration Competitions the classes and their respective maximum flight times are:

CLASS	TOTAL IMPULSE (~~Newton-seconds~~**Ns**)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME ~~(sec.)~~ **(s)**
S4A/2	**0.00 - 1.25**	**60**	**180**
S4A3/4	**1.26 - 1.88**	**60**	**180**
S4A	~~0,00~~**1.89** - 2~~,~~**.**50	60	180
S4B	2~~,~~**.**51 - 5~~,~~**.**00	90	240
…			

Reason: Two new classes of engines that can be used in competition are introduced: A/2 and A3/4, endowed respectively with 50% and 75% of the total impulse of the class A, the least powerful to date. *See also Items n (2.44), aq (7.4), bu (12.5)*

Part Nine – Scale Competition (Class S7)

bb) 9.1 Definition **Slovak Republic**

Add a note to this section:

9.1. DEFINITION

Scale competition is a single event and is limited to flying space models that re true scale models of existing or historical guided missiles, rocket vehicles, or space vehicles. **Note: To indicate the subject full-size rocket being scale modelled, the word "prototype" may be used. To indicate the scale model itself, the word "entry" may be used.**

Reason: Added definition for "prototype" and "entry" in the definitions section.

bc) 9.6 Stabilising Fins **Slovak Republic**

Add a sentence to this section as shown below:

9.6. STABILISING FINS

Scale models of rockets, missiles or space vehicles that are not fin-stabilised may be fitted with transparent plastic fins so as to make the model stable in flight while detracting the least from the scale qualities of the model. **The clear stabilising fins may be detached from the entry for static judging, but must be presented with the entry (best near it).**

Consequential Amendment to 9.8:

9.8. CONDITIONS OF MODEL FOR JUDGING

Models will be judged for scale qualities in flight condition minus space model motors. All ~~clear plastic fins~~, launching lugs, ~~and~~ fittings and other flight items must be attached to the model for scale judging. Nothing may be added to or taken off the model between the scale judging and the flight except space model motors, **detachable plastic fins** and recovery device packing.

Reason: Clear plastic fins have to be used to stabilize the model. For esthetical reasons, competitors don't use proper stabilising surfaces, which causes in some cases unstable flights. Allowing detachable fins, the judges can better judge the model, and the model's stability is improved.

bd) 9.11. Scale Judging **Russia**

Modify the following section: 9.11.1 with the additional text shown below:

9.11.1. A competitor who presents the following proper technical data may be awarded with points defined in the paragraphs below only for items

documented in these technical data:

- authentic, authorised drawing(s) …;
- workshop drawing of scale model that shows prototype and model dimensions; **place stage separation model;**
- at least one colour photograph …;
- at least three photographs of details and assemblies;
- file containing all necessary technical data …;
- **the cyclogram flight of the prototype**.

Reason:
Place stage separation, you must specify to estimate the sub-heading "Degrees" of Flight Characteristics.
The prototype flight cyclogram is necessary to confirm the claimed special effects and flight stages.

be) 9.11. Scale Judging **Slovak Republic**

Modify the following section: 9.11.4 by deleting the last sentence as shown below:

Degree of difficulty: 150 points maximum. To be judged on the degree of difficulty involved in constructing the model up to 110 points. Factors to be considered include symmetry of model; number of external components; intricacy of paint pattern; degree of detailing; and degree of difficulty in adapting the model for flight conditions. A bonus of 40 points for “originality” shall be awarded to a prototype that is the only one in the competition and a bonus of 20 points shall be awarded if two prototypes of the same kind enter the competition. No bonus points shall be awarded if there are three or more models of the same kind. ~~For originality points, prototypes with the same external appearance except for flight serial number/markings and colours/paint pattern shall not be considered unique vehicles (e.g., Saturn IB/Skylab flights, Soyuz-FG/TMA flights, etc.).~~

Reason: The definition of a scale model prototype is stated in Annex 2 d.5 so the second definition is not needed. *See also the following proposal*.

bf) 9.11. Scale Judging **Ukraine**

Delete the section: 9.11.4. (not reproduced here – see Item bd) – and replace it with the paragraph shown below:

Degree of difficulty: **maximum 150 points. Judge the degree of difficulty associated with model building up to 150 points. Factors to consider include the symmetry of the model; number of external components; sophistication of paint; the degree of detail; and the degree of difficulty in adapting the model to flight conditions.**

Reason: The main purpose of introducing 40 points for "originality" was the hope of the emergence of new scale models that would receive points for "fresh breath" in this class. Unfortunately, this did not happen. Therefore, it is suggested that you redistribute these points in the "Difficulty" section, leaving a total score of 150. This will remove the tension and speculation around this topic.

bg) 9.11. Scale Judging **Ukraine**

Modify the following section: 9.11.5 as shown below:

9.11.5. **Flight, characteristics**: ~~300~~ **350** points maximum. To be judged on launch, stability of flight, staging (if any) and recovery. A competitor has to designate which operations his models are to perform in flight (eg separation of stages; radio controlled trajectory; ejection of payload, etc).

When submitting a space model for bench evaluation, the participant must also submit a flight cyclogram to evaluate the flight characteristics, confirming all flight stages of the selected prototype and its specific consequences: separation of stages in time (tandem or block division of stages), separation of transition surfaces, hulls, satellites, inclusion or exclusion of upper stage engines, or optical clouds, etc. In assessing the flight of a space model, judges should calculate points based on how close that flight is to the flight of a real rocket based on the provided flight cyclogram.

If the model has been disqualified in both official flights, the competitor will not be eligible for final classification.

Reason: Increasing a flight rating from 300 points to 350 reduces the "dominant pressure" between scale and flight ratings. This requirement, regarding the provision of the official flight scheme and the system of separation of the prototype stages, will make it possible to familiarize the crew of judges of scale with the flight scheme of the model rocket before the start of the start and remove the annoying errors in terms of time limit at the launch pad.

Part Eleven – Rocket Glider Duration Competition (Class S8)

bh) 11.2 Purpose **Switzerland**

Modify the following section: 11.2 Purpose - as shown below:

The purpose of this competition is to achieve the longest flight duration time in combination with a landing of any part of the model within a given **one or more** landing area**(s)** of ~~20 by 20~~ **15 by 15** metres.

Reason: At the World or Continental Championships the pilots have to walk a long distance to the landing field. The pilot level has improved so that the landing field can be reduced.

bi) 11.6 Sub-Classes **Switzerland**

Delete the table and replace it as shown below:

~~CLASS~~	~~TOTAL IMPULSE (Newton-seconds)~~	~~MAXIMUM WEIGHT (g)~~	~~MINIMUM WING SPAN (mm)~~	~~MAXIMUM FLIGHT TIME (sec)~~
~~S8A~~	~~0,00 -2,50~~	~~60~~	~~500~~	~~180~~
~~S8B~~	~~2,51- 5,00~~	~~90~~	~~650~~	~~240~~
~~S8C~~	~~5,01- 10,00~~	~~120~~	~~800~~	~~300~~
~~S8D~~	~~10,01- 20,00~~	~~300~~	~~950~~	~~360~~

~~S8E & S8E/P~~	~~20,01 -40,00~~	~~300~~	~~1100~~	~~360~~
~~S8F~~	~~40,01 80,00~~	~~500~~	~~1250~~	~~360~~

CLASS	TOTAL IMPULSE (Ns)	MAXIMUM WEIGHT (g)	MINIMUM WING SPAN (mm)	MAXIMUM FLIGHT TIME (sec)
S8B	**2,51 - 5,00**	**90**	**650**	**240**
S8D	**10,01 - 20,00**	**250**	**1100**	**360**
S8D-P	**10,01 - 20,00**	**250**	**1250**	**360**
S8E	**20,01 - 40,00**	**250**	**1450**	**360**

Reason: The specifications for class S8-P are defined under 11.7.2. Adaptation of the model specifications to the coming aviation regulations so that they can be flown without major restrictions.

Also see Item bk) which follows.

bj) 11.7 Class S8E/P Radio Controlled Rocket Glider Time Duration And Precision Landing Competition **Switzerland & Ukraine**

Change the name of the Class:

Class ~~S8E/P~~ **S8-P** Radio Controlled Rocket Glider Time Duration and Precision Landing Competition.

Consequential Amendment to 4.10.2 b):

b) for ~~S8E/P~~ **S8-P** a landing line with landing circles in accordance with Volume S paragraph 11.7.5 and relevant subparagraphs.

Reason: The specifications for the engine class S8-P are defined under 11.7.2. *See Item bj) below.*

bk) 11.7.2 Specifications **Switzerland**

Modify the following section: 11.7.2 Specifications - as shown below:

~~The competition has only one subclass determined for models which comply with subclass S8E. Total impulse of engine(s) 20,01 to 40,00 is allowed.~~

The competition has only one subclass determined for models which comply with subclass S8D-P.

Reason: The reduction in performance makes competition more interesting as flight times are more difficult to achieve. Adaptation of the model specifications to the coming aviation regulations so that they can be flown without major restrictions.

bl) 11.6 Sub-Classes **Ukraine**

Delete the table shown in Item bh) and replace it with the table shown below.

In addition the amendment of 11.1.3. is consequential to Switzerland, Ukraine and Russia proposals:

11.1.3. Radius of the nose must be a minimum of 5 mm in all orientations for S8D, S8E, S8E/P S8**D**/P and S8F.

CLASS	**TOTAL IMPULSE (Ns)**	**MAXIMUM WEIGHT (g)**	**MINIMUM WING SPAN (mm)**	**MAXIMUM FLIGHT TIME (s)**
S8D	**10,01 - 20,00**	**250**	**1100**	**360**
S8D for P	**10,01 - 20,00**	**250**	**1250**	**360**
S8E for P	**20,01 - 40,00**	**250**	**1450**	**360**

Reason: See previous proposals.

bm) 11.6 Sub-Classes **Russia**

Delete the table shown in Item bh) and replace it with the table shown below.

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	MINIMUM WING SPAN (mm)	MAXIMUM FLIGHT TIME (sec.)
S8A	0,00 - 2,50	60	500	180
S8B	2,51 - 5,00	90	650	240
S8C	5,01 - 10,00	120	800	300
S8D	10,01 - 20,00	240	960	360
S8E & S8E/P	**10,01 - 20,00**	**250**	1100	360
~~S8F~~	~~40,01 - 80,00~~	~~500~~	~~1500~~	~~360~~

Motors for the competition category 1 (Championships and World and European Championships) must be provided by the organizers in an amount sufficient to participate in the contest and training flights.

bn) 11.6 Sub-Classes **Bulgaria**

Modify the table as shown below:

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	MINIMUM WING SPAN (mm)	MAXIMUM FLIGHT TIME (sec.)
S8A	0,00 - 2,50	60	500	180
S8B	2,51 - 5,00	90	650	240
S8C	5,01 - 10,00	120	800	300
S8D	10,01 - 20,00	240	**1300**	360
S8E & S8E/P	**10,01 - 20,00**	**250**	**1450**	360
S8F	40,01 - 80,00	500	**1450**	360

Reason: The models will become more attractive and visible to the viewers. The safety of the competitors will be improved. The timekeeper factor - "I see / I don't see" will decrease and disappear. The models will not be much larger in length and this will facilitate their transportation and hence the additional cost. In the height classes, the models will be visible due to the smaller height and will not lose altimeters which also reduces the cost to the competitor.

bo) 11.7.2 Specifications **Ukraine**

Modify the following section: 11.7.2 Specifications - as shown below:

~~The competition has only one subclass determined for models which comply with subclass S8E. Total impulse of engine(s) 20,01 to 40,00 is allowed.~~

~~The radio shall be able to operate at 2.4 GHz. Where the radio does not meet this requirement, the working bandwidth (Maximum 50 kHz) shall be specified by the competitor.~~

There are two subclasses defined for the S8-P class. Allowed total impulse of the motor(s) for S8D / P from 10.01 to 20.00 Ns, for S8E / P from 20.01 to 40.00 Ns.

Specifications for flight time models in Class S8-P shall be as specified in paragraph 11.6.

Landing accuracy points are accrued in accordance with 11.7.3, 11.7.5.

The radio should operate at 2.4 GHz. If the radio does not meet this requirement, the competitor must determine the working bandwidth (maximum 50 kHz).

Reason: The introduction of new classes of models of rockets in adults and juniors will give a powerful impetus to the development of new technologies, will make rocket sports for the spectators and sponsors more attractive. It will allow the organizers of European and World Championships to be more flexible in the choice of rocket model classes, depending on the size of the flying field. Reducing the overall momentum for racing in radio-controlled models will be interesting because more athleticism and skill.

bp) 11.7.3 Landing Area **Ukraine**

Modify the following section b) in 11.7.3. 'Landing Area' with the additions as shown below:

b) A landing area consisting of the appropriate number of 10 metre landing circles, **for the final, 3 metre circles,** laid out square to the wind direction and with the marked landing tapes pinned down at the centre of each circle. The contest director is responsible for determining the direction and layout of the circles. Any changes of indicated landing area are forbidden during the round. The landing area must be located at a place on the field where there is no danger of collision with any person during the landing of the models.

c) The location of the timekeeping judges and pilots during landing near their landing circles is the responsibility of a specially appointed landing officer.

Reason: See previous reason.

bq) 11.7.4. Timing and Classification **Switzerland**

Modify the following sections: 11.7.4.9 and 11.7.4.10 - as shown below. Renumber the final sub-paragraph 11.7.4.11 to 11.7.4.10:

11.7.4.9. There shall be **four rounds** ~~three initial rounds and one final round~~, except for Continental and World Championships which shall have four initial rounds and two final rounds.

~~11.7.4.10. The five competitors with the highest scores after the initial rounds qualify for the final round(s).~~

~~All competitors in the final round(s) shall fly as a group. If there is a frequency conflict, the competitor with the worst score in the initial rounds must change the frequency of his/her radio.~~

Reason: This solves the problem with the World Cup point calculation (large difference in points between the finalists and the other participants). 11.7.4.9. must be changed together with 11.7.4.10.

br) 11.7.5.4. Organisation of Starts **Switzerland**

Modify the following section: 11.7.5.4. with the addition of two sentences:

In normal situations the circles will overlap each other but the centres should never be closer than 10 metres apart as in the diagram above. A competitor (pilot) and one helper may stay at the landing area either inside or outside the landing circles.

The timekeepers must stand outside the landing circles behind the pilots.

The LSO (landing safety officer) supervises the pilots, helpers and timekeepers and the measuring team of the landing points to prevent obstructions to landing models.

Reason: Safety! The pilots, helpers and timekeepers run like chickens through the landing circles after their flight and have already caused collisions and severe obstructions of the models landing later.

bs) 11.7.5.3. Organisation of Starts **Ukraine**

Modify the following section as shown below:

11.7.5.3. Each group of competitors has ~~12~~ **10** minutes of working time to perform an official fight. In the case of the working time being exceeded (a delay in landing), the competitor will be disqualified for the round.

Reason: See previous reason for this section of proposals from Ukraine.

Part Twelve – Gyrocopter Duration Competition (Class S9)

bt) 12.5 Sub-Classes **Switzerland**

Modify the tables as shown below:

CLASS	TOTAL IMPULSE (Newton-seconds)	~~MAXIMUM WEIGHT (g)~~	MAXIMUM FLIGHT TIME (sec.)
S9A/2	**0,00 – 1,25**		**180**
S9A	1,26 - 2,50	~~60~~	180

~~S9B~~	~~2,51 - 5,00~~	~~90~~	~~240~~
~~S9C~~	~~5,01 - 10,00~~	~~150~~	~~300~~
~~S9D~~	~~10,01 - 20,00~~	~~200~~	~~360~~

12.6.5 Time Duration Triathlon Tournament (Provisional) Sub-Classes

CLASS	TOTAL IMPULSE (Newton-seconds)	~~MAXIMUM WEIGHT (g)~~	MAXIMUM FLIGHT TIME (sec.)
S12A/2/P	**0,00 – 1,25**		**180**
S12A/P	1,26 - 2,50	~~60~~	180
~~S12B/P~~	~~2,51 - 5,00~~	~~90~~	~~240~~
~~S12C/P~~	~~5,01 - 10,00~~	~~150~~	~~300~~
~~S12D/P~~	~~10,01 - 20,00~~	~~200~~	~~360~~

Reason: Add Class, delete old Class. *See also Items i (2.4.4), ao (7.4), av (8.4)*

bu) 12.5 Sub-Classes **Italy**

Modify the tables as shown below:

CLASS	TOTAL IMPULSE (~~Newton-seconds~~**Ns**)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME (~~sec.~~**s**)
S9A/2	**0.00 - 1.25**	**60**	**180**
S9A3/4	**1.26 - 1.88**	**60**	**180**
S9A	~~0,00~~**1.89** - 2~~,~~**.**50	60	180
S9B	2~~,~~**.**51 - 5~~,~~**.**00	90	240
…			

13.6. Sub-Classes

CLASS	TOTAL IMPULSE (~~Newton-seconds~~**Ns**)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME ~~(sec.)~~ **(s)**
S10A/2	**0.00 - 1.25**	**60**	**180**
S10A3/4	**1.26 - 1.88**	**60**	**180**
S10A	~~0,00~~**1.89** - 2~~,~~**.**50	60	180
S10B	2~~,~~**.**51 - 5~~,~~**.**00	90	240
…			

12.6.5. Sub-Classes

CLASS	TOTAL IMPULSE (~~Newton-seconds~~**Ns**)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME (~~sec.~~**s**)
S12A/2	**0.00 - 1.25**	**60**	**180**
S12A3/4	**1.26 - 1.88**	**60**	**180**
S12A	~~0,00~~**1.89** - 2~~,~~**.**50	60	180
S12B/P	2~~,~~**.**51 - 5~~,~~**.**00	90	240
…			

Reason: Two new classes of engines that can be used in competition are introduced: A/2 and A3/4, endowed respectively with 50% and 75% of the total impulse of the class A, the least powerful to date. *See also Items n (2.44 , aq (7.4), ba (8.4)*

bv) 12.5 Sub-Classes **Ukraine**

Modify the tables as shown below:

CLASS	TOTAL IMPULSE (Newton-seconds)	~~MAXIMUM WEIGHT (g)~~	MAXIMUM FLIGHT TIME (sec.)
S9A/2	**0,00 – 1,25**	**60**	**180**
S9A	**1,26** - 2,50	~~60~~	180
S9B	2,51 - 5,00	90	240
~~S9C~~	~~5,01 - 10,00~~	~~150~~	~~300~~
~~S9D~~	~~10,01 - 20,00~~	~~200~~	~~360~~

12.6.5 Time Duration Triathlon Tournament (Provisional) Sub-Classes

CLASS	TOTAL IMPULSE (Newton-seconds)	MAXIMUM WEIGHT (g)	MAXIMUM FLIGHT TIME (sec.)
S12A/2	**0,00 – 1,25**	**60**	**180**
S12A	**1,26** - 2,50	60	180
S12B/P	2,51 - 5,00	90	240
~~S12C/P~~	~~5,01 - 10,00~~	~~150~~	~~300~~
~~S12D/P~~	~~10,01 - 20,00~~	~~200~~	~~360~~

Reason: See previous reason for the similar proposals. *See also Items k (2.4.4), s (4.1), ap (7.4), aw (8.4)*

bw) 12.5 Sub-Classes **Russia**

Add a column to the table as shown below:

CLASS	**MINIMUM LENGTH OF BLADE (mm)**
S9A	**700**
S9B	**800**
S9C	**900**
S9D	**1000**

Reason: The use of rocket planes with a large wing size will reduce the flight altitude of the model and improve visibility for timekeepers, and facilitate the search for models.

Annex 1 – Scale Space Models Judge's Guide

bx) Scale Judging Tables **Slovak Republic**

*Amend the Scale judging tables. Also, if rule change applied, change the number of points in Paragraphs 9.11.2-9.11.5 accordingly to the numbers in the tables in Annex 1. See **Annex 7l – Space Annex 1 – Scale Judging Tables – Item bx**.*

Reason: The intention of this proposal is to make the current rules easier for both – competitors and judges. As praxis has shown a bigger focus has to be brought to the realism and stability of the flight as it currently plays a minor role than it should. Beside this, the smaller difference between static/flight motivates people to build a wider range of prototypes.

by) Scale Judging Tables **Ukraine**

*Modify the Scale judging tables. See **Annex 7m - Space Annex 1 – Scale Judging Tables – Item by.***

Reason: These changes are proposed for improvement in the Scale Model category. They should empower competitors to realize the potential embedded in each space model. Scale judges will make it easier to calculate points when assessing scale accuracy and flight demonstration.

bz) Scale Judging Tables **Russia**

Modify 9.11.4. 'Degree of Difficulty' and the Scale judging tables.
*See **Annex 7n Space Annex 1 – Scale Judging Tables – Item bz.***

9.11.4. Degree of Difficulty
150 points maximum. To be judged on the degree of difficulty involved in constructing the model up to ~~110~~ **150** points. Factors to be considered include …

Reason: - Improving the objectivity of assessment: comparison of the number of similar elements.
- Configuration. 20 points not enough for the differentiated assessment between complex models with side blocks and a simple model "cylinder with cone".
- External components and Detailing. A fairer assessment of the participant's work. Production of external components and parts takes a significant part of the total time to manufacture the model.
- Originality. Practice has shown that there are no more new models. In addition, it is necessary to exclude the random element of evaluation in the exact technical sport.
- Improving the objectivity of the assessment: assessing the elements of the flight in accordance with the complexity of the demonstration.
- Divide the "Special effects" category into 3 subcategories with varying difficulty demonstrating special effects.
- List the most common special effects and evaluate them according to the complexity of the demonstration. Demonstration of smoke before the flight is much easier than the demonstration of the separation of the side blocks (busters).
- Fair encouragement for participants demonstrating difficult special effects.

Annex 2 – Scale Space Models Judges' and Organisers' Guide

ca) 2. Judges Tasks **Ukraine**

Modify the following sections as shown below, with the deletion in c. and the addition of a final sentence, named f.:

Special Judge Duties:
c. ~~Radio control events require that all transmitters (including 2.4 GHz) be impounded and kept under control of a steward and be issued to the competitor at flight time then returned.~~ The steward or the judge will also monitor radio frequencies to detect interference and communicate this information to the pilot.

Engine Test Officials:
f. The calibration control of electronic equipment undergoing static rocket test shall meet the requirements of 3.12.1; 3.12.2; 3.12.3; 3.13.4

Reason: Clarifications and changes are agreed in Annex 2 to the GENERAL REGULATIONS and SPECIAL RULES OF SPATIAL COMPETITIONS, Championships and entries.

cb) 4. Specific Events **Ukraine**

*Modify d.1., d.4., and d.5. in **Scale Events** as shown below:*

d.1. Flight Characteristics-Staging: Stages must separate step by step. If the 3rd stage separate simultaneously with the 2nd stage the flight will be considered two stage only. ~~With Saturn 1B and Soyuz if the competitor performs a powered flight of command module, this shall be evaluated as "modeller's third stage" , according to paragraph 2.3.1.~~

d.4. ~~Flight Characteristics-Recovery: For single stage, one parachute up to 10 points will be awarded. If a single stage rocket separates up to 20 points will be awarded. With multistage models deployment of a parachute will be awarded up to 10 points and a deployment of streamer 5 points. Maximum recovery points in any case may not exceed 40.~~

d.4. Flight Recovery Characteristics: Damage points are not calculated in accordance with paragraph 1.1. Part One - GENERAL DEFINITIONS: All parts of the space model, separated during flight, must be returned through the rescue system. To prove if the scale models to be launched are the same models which were submitted for static judging, judges will designate each model with an appropriate marking during the static judging.

d.5. Definition of a scale model prototype: A scale model prototype is defined as the first sub- class of a rocket family (according to NASA and Wikipedia this is defined as version). ~~For example : Ariane is the name of a rocket family, which has flown five variants up to date, thus: Ariane 1, 2, 3, 4 and 5. These five variants are defined as scale model rocket prototypes.~~

Reason: Clarifications and changes are agreed in Annex 2 to the GENERAL REGULATIONS and SPECIAL RULES OF SPATIAL COMPETITIONS, Championships and entries.

cb) 4. Specific Events **Slovak Republic**

Modify d.5. in Scale Events as shown below:

d.5. Definition of a scale model prototype: A scale model prototype is defined as the first sub-class of a rocket family (according to NASA and Wikipedia this is defined as version). For example: Ariane is the name of a rocket family, which has flown five ~~variants~~ **launch vehicles** up to date, thus: Ariane 1, 2, 3, 4 and 5. These five ~~variants~~ **launch vehicles** are defined as **different** scale model rocket prototypes.

Reason: More understandable definition for a scale model rocket prototype.

cc) 4. Specific Events **Switzerland**

Delete the final sentence in 4.a. Rocket Glider and Boost Glider:

~~In classes S4, S8 and S10, a flight is declared official if the model maintains a stable aerodynamic glide for at least 60 seconds, or it lands by stable flight.~~

Reason: Conflicting with 4.6.5.

cd) 5. Organisers' Tasks **Switzerland**

Add a paragraph (d.) to this section as shown below:

d. Landing Safety Officer (LSO) - Organiser of an international S8 contest will appoint a person to act as Landing Safety Officer (LSO). LSO can be from the organising NAC. When the there are junior and senior classifications at the same place and at the same time organiser shall appoint two LSO, one for senior and the other for junior classification.

Reason: Safety! The pilots, helpers and timekeepers run like chickens through the landing circles after their flight and have already caused collisions and severe obstructions of the models landing later.

Technical Secretary Note: *In Item ak) it was proposed to add a new paragraph 5.d. Contest Documentation Software. If both that proposal and this one are successful, the above proposal will be 5.d., and the Contest Documentation Software will become 5.e.*

Annex 3 – Space Models World Cup

ce) 1. Classes **Switzerland**

Modify this section with the deletion and addition as shown below:

~~The following separate classes are recognised for World Cup Competition: S4A, S6A, S7, S8E/P and S9A.~~

The following separate classes are recognised for World Cup Competition: S4, S6, S7, S8-P and S9.

The subclasses to be performed are defined in CIAM General Rules C.15.2.2

Reason: Clarification

Annex 5 – FAI Space Model Safety Code

cf) Proposed new Annex 5 – FAI Space Model Safety Code **USA**

*For the text of the proposed new Annex 5, see **Annex 7o**:*

Reason: This is a proposed new Annex to the Space Model Code, to provide a complete Safety Code that has all of the safety-related requirements from all parts of the Code brought together and summarized in one place for easy reference.

cg) Proposed new Annex 5 – FAI Space Model Safety Code **Croatia**

*For the text of the proposed new Annex 5, see **Annex 7p – Launch Boxes and FAI Space Model Safety Code**:*

Reason: This is a proposed new Annex to the Space Model Code, together with landing site dimensions which were proposed for a previous rule change.

Annex 6 – Common Motor Source

ch) Proposed new Annex 6 – Common Motor Source **USA**

*For the text of the proposed new Annex 6, see **Annex 7q – Space Annex 6 – Common Motor Source***

Reason: Providing a "common motor source" for space model contests could improve transportation logistics, expedite motor testing, and provide improved competition by providing a common source of motors for all competitors for specified events at a contest. A common motor source can improve competition.

Consequential Amendments in CIAM General Rules

Technical Secretary Note: Changes to B.2.2 Classification of Space Models which lists the space model classes and sub-classes, and C.10.2 Number of Models Eligible for Entry (Class S – Space Models) will be made as a consequence of successful proposals.

Proposals relating to CGR rule C.15.2.2 Current World Championships for Class S (Space Models) have been located below for Plenary's consideration.

ci) CGR 15.2.2 Current World Championships for Class S (Space Models) **Italy**

Amend this section as shown below, and add a sentence at the end:

C.15.2.2 Class S (Space Models)
The Space Models World Championships are held in **even years**. The following classes (or subclasses) are recognised for the Space Models World Championships:

a) Senior

S1~~B~~**A,** S3A**/2,** S4A**/2 or S4A3/4,** S5C**,** S6A**/2 or S6A3/4,** S7**,** S8E/P**,** S9A**/2 or S9A3/4.**

b) Junior
S1A**,** S3A**/2,** S4A**/2 or S4A3/4,** S5B**,** S6A**/2 or S6A3/4,** S7**,** S8D**,** S9A**/2 or S9A3/4.**

The choice between S4A/2 or S4A3/4, and S6A/2 or S6A3/4, and S9A/2 or S9A3/4 classes, both for seniors and juniors, is in charge of the organizer who, based on appropriate evaluations on the chosen competition field and other logistical considerations, will communicate in Bulletin No. 1 of the event.

Reason: Two new classes of engines that can be used in competition are introduced: A/2 and A3/4, endowed respectively with 50% and 75% of the total impulse of the class A, the least powerful to date.

cj) CGR 15.2.2 Current World Championships for Class S Switzerland

Amend this section as shown below:

The Space Models World Championships are held in **even years**. The following classes (or subclasses) are recognised for the Space Models World Championships:

a) Senior

~~S1B S3A S4A S5C S6A S7 S8E/P S9A~~

S1A / S3A/2 or S12A/2/P / S4A/2 / S5C / S6A/2 or S6-G / S7 / S8-P / S9A/2

~~*Note: Subclass S8E/P complies with sub-class S8E; the purpose of the contest in S8E/P is to achieve as exactly as possible the given time of 360 seconds and to precisely land the model in a specified landing circle of 10 metres radius.*~~

b) Junior

~~S1A S3A S4A S5B S6A S7 S8D S9A~~

S1A Single Stage / S3A/2 or S12A/2/P / S4A/2 / S5B Single Stage / S6A/2 or S6-G / S7 / S8D / S9A/2

Reason: Simplification.

ck) CGR 15.2.2 Current World Championships for Class S Slovak Republic

Amend this section as shown below:

The Space Models World Championships are held in **even years**. ~~The following classes (or subclasses) are recognised for the Space Models World Championships:~~

~~a) Senior~~

~~S1B S3A S4A S5C S6A S7 S8E/P S9A~~

~~*Note: Subclass S8E/P complies with sub-class S8E; the purpose of the contest in S8E/P is to achieve as exactly as possible the given time of 360 seconds and to precisely land the model in a specified landing circle of 10 metres radius.*~~

The following event categories are recognised as World Championships for Space Models:

a) Altitude Models – S1, or S2/P
b) Parachute duration models – S3 or S12P
c) Boost glider Boost Glider duration models – S4 or Rocket Gliders S8B for senior competition
d) Scale Altitude Models – S5

e) Streamer Duration Models – S6 or S6/P
f) Scale – S7
g) Rocket Glider Duration And Precision Landing Models – S8
h) Gyrocopter Duration Models – S9
The events and total impulse classes shall be selected by the contest organiser. One event is required for each category. Different events and total impulse classes may be selected for Senior and Junior classes.

~~b) Junior~~

~~S1A S3A S4A S5B S6A S7 S8D S9A~~

Reason: The proposal is a simplification on the rules, and also gives the organizer the possibility to choose the events, which makes the competitions more interesting and versatile.

cl) CGR 15.2.2 Current World Championships for Class S **Ukraine**

Amend this section as shown below:

The Space Models World Championships are held in **even** years. The following classes (or subclasses) are recognised for the Space Models World Championships:

a) Senior

S1B or **S2/P,** S3A **or S12P,** S4A**/2** or S4A**,** S5C**,** S6A **or S6A/P,** S7**,** S8**-P for D or E,** S9A**.**

~~Note: Subclass S8E/P complies with sub-class S8E; the purpose of the contest in S8E/P is to achieve as exactly as possible the given time of 360 seconds and to precisely land the model in a specified landing circle of 10 metres radius. Note: Subclass S8E/P complies with sub-class S8E; the purpose of the contest in S8E/P is to achieve as exactly as possible the given time of 360 seconds and to precisely land the model in a specified landing circle of 10 metres radius.~~

Note: The S8D / P and S8E / P subclasses are of the S8-P class, and the aim of the S8-P is to reach the set time of 360 seconds as accurately as possible and to accurately land the model within a specified landing circle within 10 metres; in the final - within 3 metres.

a) Junior

S1A or **S2/P,** S3A**/2 or S12P,** S4A**/2,** S5B**,** S6A**/2 or S6A/P,** S7**,** S8D**,** S9A**/2.**

The choice between classes S1B or S2 / P, S4A / 2 or S4A, S6A or S6A / P, S8D / P or S8E / P and S3A or S12P, both for seniors and juniors, is made by the organizer of the Continental or World Championships, who should indicate classes in event Bulletin # 1.

Reason: The introduction of new classes of models of rockets in adults and juniors will give a powerful impetus to the development of new technologies, will make rocket sports for the spectators and sponsors more attractive. It will allow the organizers of European and World Championships to be more flexible in the choice of rocket model classes, depending on the size of the flying field.

End of Agenda Item 14

15. ELECTIONS

15.1. CIAM Officers

- President
- 1st Vice President
- 2nd Vice President
- 3rd Vice President
- Secretary
- Technical Secretary

15.2. Subcommittee Chairmen

- F2 Control Line
- F4 RC Scale
- F5 RC Electric
- F7 RC Aerostats
- F9 Drone Sport
- S Space Models
- Education

16. FAI WORLD AND CONTINENTAL CHAMPIONSHIPS 2021 – 2024

VERY IMPORTANT: Each NAC/country/Delegate presenting a bid prior to voting for the award of the Championships may give a presentation of the championship organisation, lasting a MAXIMUM of 2 minutes only. Presentations for bids with only one candidate will be performed only if any of the Delegates requests so. Bidders are requested to distribute important information prior to the meeting, to each of the NACs/delegates by electronic means. This is to enable Delegates to study the contents of the bid, so that they may make informed decisions at the meeting.

Validity Status: The Bids status listed in the below tables is relevant to the date of completion of this Plenary Meeting agenda. At the Plenary Meeting, the Bids will be relevant to the actual status at the time of the meeting.

Date of table status: 10 February 2020

FAI WORLD CHAMPIONSHIPS

2021 FAI World Championships for…	Awarded to	Location and Actual Dates
F1A, F1B, F1C Seniors	Joint with 2021 F1j ECh **FRANCE**	Moncontour, 14 – 22 August
F1E (Seniors and/or Juniors)	**ROMANIA**	Turda, 24 – 27 August
F3A (Seniors and Juniors)	awarded in 2018 **USA**	Muncie, 11 July – 20 July
F3B (Seniors and Juniors)	To be awarded in 2020 Denmark (firm)	

F3CN (Seniors and Juniors)	**ROMANIA**	Brazov, 5-11 July Date could change
F3D, F3E (Seniors and Juniors)	To be awarded in 2020 USA (firm)	
F3K (Seniors and/or Juniors)	**SLOVAKIA**	Martin, 10-17 July
F3P (Seniors and Juniors)	**ROMANIA**	Bucharest, 21 – 27 February
F5J (Seniors and Juniors)	**BULGARIA**	Dupnitsa, 15 – 21 August

2022 FAI World Championships for…	Bids From	To be Awarded in 2020
F1A, F1B, F1P Juniors	Bulgaria (firm) Romania (withdraw) Russia (firm)	
F1D (Seniors and/or Juniors)	Romania (firm)	
F2A, F2B, F2C, F2D (Seniors and Juniors)	Ukraine (firm)	
F3F (Seniors and Juniors)	Denmark (firm)	
F3J (Seniors and/or Juniors)	Offers invited	
F4CH (Seniors and Juniors)	Romania (firm) Czech Republic (firm)	
F5B (Seniors and Juniors)	Offers invited	
SPACE MODELS (Seniors and Juniors)	Bulgaria (firm) Serbia (firm) USA (firm)	

2023 FAI World Championships for…	Bids From	To be Awarded in 2021
F1A, F1B, F1C Seniors	Romania (firm)	
F1E (Seniors and/or Juniors)	Romania (firm)	
F3A (Seniors and Juniors)	Australia (firm) early awarding in 2020	
F3B (Seniors and Juniors)	Denmark (firm)	
F3CN (Seniors and Juniors)	Offers invited	
F3D, F3E (Seniors and Juniors)	Offers invited	
F3K (Seniors and/or Juniors)	Offers invited	
F3P (Seniors and Juniors)	Offers invited	

F5J (Seniors and Juniors)	Argentina (firm) Ukraine (firm) Romania (firm)	

2024 FAI World Championships for…	Bids From	To be Awarded in 2022
F1A, F1B, F1P Juniors	Offers invited	
F1D (Seniors and/or Juniors)	Offers invited	
F2A, F2B, F2C, F2D (Seniors and Juniors)	Offers invited	
F3F (Seniors and Juniors)	Offers invited	
F3J (Seniors and/or Juniors)	Offers invited	
F4CH (Seniors and Juniors)	Offers invited	
F5B (Seniors and Juniors)	Offers invited	
SPACE MODELS (Seniors and Juniors)	Offers invited	

FAI CONTINENTAL CHAMPIONSHIPS

2021 FAI Continental Championships for…	Awarded to	Location and Actual Dates
F1A, F1B, F1P Juniors	Joint with 2021 F1s WCh **FRANCE**	Moncontour, 14 – 22 August
F1D (Seniors and/or Juniors)	**ROMANIA**	Slanic, 15 – 19 March
F2A, F2B, F2C, F2D (Seniors and Juniors)	Offers invited	To be awarded in 2020
F3F (Seniors and/or Juniors)	Offers invited	To be awarded in 2020
F3J (Seniors and/or Juniors)	**SLOVAKIA**	Martin, 21 – 28 August
SPACE MODELS (Seniors and Juniors)	**SERBIA**	Zeadian, 21 – 28 August

2022 FAI Continental Championships for…	Bids from	To be Awarded in 2020
F1A, F1B, F1C Seniors	Ukraine (firm)	
F1E (Seniors and/or Juniors)	Offers invited	
F3A (Seniors and Juniors)	Offers invited	

F3A Asian-Oceanic (Seniors and Juniors)	Offers invited	
F3B (Seniors and Juniors)	Offers invited	
F3CN (Seniors and Juniors)	Offers invited	
F3CN Asian-Oceanic (Seniors and Juniors)	Offers invited	
F3K (Seniors and/or Juniors)	Romania (firm)	
F3P (Seniors and Juniors)	Offers invited	
F5J (Seniors and Juniors)	Romania (firm)	

2023 FAI Continental Championships for…	Bids from	To be Awarded in 2021
F1A, F1B, F1P Juniors	Romania (firm)	
F1D (Seniors and/or Juniors)	Romania (firm)	
F2A, F2B, F2C, F2D (Seniors and Juniors)	Offers invited	
F3F (Seniors and/or Juniors)	Offers invited	
F3J (Seniors and/or Juniors)	Offers invited	
SPACE MODELS (Seniors and Juniors)	Offers invited	

2024 FAI Continental Championships for…	Bids from	To be Awarded in 2022
F1A, F1B, F1C Seniors	Offers invited	
F1E (Seniors and/or Juniors)	Offers invited	
F3A (Seniors and Juniors)	Offers invited	
F3A Asian-Oceanic (Seniors and Juniors)	Offers invited	
F3B (Seniors and Juniors)	Offers invited	
F3CN (Seniors and Juniors)	Offers invited	
F3CN Asian-Oceanic (Seniors and Juniors)	Offers invited	
F3K (Seniors and/or Juniors)	Offers invited	
F3P (Seniors and Juniors)	Offers invited	
F5J (Seniors and Juniors)	Romania (firm)	

17. ANY OTHER BUSINESS

18. NEXT CIAM MEETINGS

Bureau meeting on December 4th and 5th 2020

Bureau meeting on April 2021 to be confirmed

Plenary meeting on April 2021 to be confirmed

The table of Agenda Annexes appears overleaf.

ANNEXES TO THE AGENDA OF THE 2020 CIAM PLENARY MEETING

ANNEX FILE NAME	ANNEX CONTENT
ANNEX 1 (a-b)	FAI Code of Ethics, Nomination Form for Office Holders
ANNEX 2 (a-o)	2019 FAI Championship Reports
ANNEX 3 (a-p)	2019 Subcommittee Chairmen Reports, Technical Secretary, Treasurer Reports, EDIC WG, Scholarship
ANNEX 4 (a-n)	2019 World Cup Reports
ANNEX 5 (a-d)	2019 Trophy Reports
ANNEX 6 (a-e)	FAI-CIAM Awards: Nominees Forms
ANNEX 7a	Space Altitude Record Attempt Form
ANNEX 7b	Space Models Record Dossier Check Form
ANNEX 7c	F2B Four-leaf Clover Manoeuvre
ANNEX 7d	F2C Annex 4N Engine Extra Air Intake Processing Guide
ANNEX 7e	F5K New Class Rules
ANNEX 7f	Description of F5K
ANNEX 7g	Volume F3 Pylon Racing with F3E Rules and Annexes
ANNEX 7h	Volume F5 Electric without F5D
ANNEX 7i	Annex 5.Y Pylon Racing World Cup Rules
ANNEX 7j	Supporting data
ANNEX 7k	Space Annex 7 Triangulation Method
ANNEX 7l	Space Annex 1 - Item bx
ANNEX 7m	Space Annex 1 - Item by
ANNEX 7n	Space Annex 1 - Item bz
ANNEX 7o	FAI Space Safety Code - Item cf
ANNEX 7p	Launch Boxes and Safety Code
ANNEX 7q	Space Annex 6 Common Motor Source
ANNEX 7r	EDIC - Section 4 F5B OEM
ANNEX 8 (a-e)	Scholarship Candidates

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