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

a) A.8 TECHNICAL EXPERTS ~~LIST~~ NOMINATIONS **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 15th September.**

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 each category 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 **F9A, F9U**
Space Modelling	Education

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

Meeting unanimously recommends the proposal. Paragraph ~~-e-~~ and the accompanying table will remain as is with addition of the new classes for F9.

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

Add two new sub-paragraphs f) and g), renumbering f) and g) as h) and i) as shown below:

Add the following:

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

f) Proposals which introduce new electronic devices for use in competition or which make amendments to the operation or specifications of existing electronic devices must be reviewed by the EDIC Working Group. The review by the EDIC WG Chairman must be sent to CIAM Bureau, S/C Chairman concerned and NAC delegates in writing prior to the Technical Meeting and Plenary meeting.

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 submitted electronically in Word or rich text format (RTF) to facilitate compilation of the Agenda.

Reason: It was noticed that last year proposals were adopted without prior notice or confirmation from 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.

Meeting unanimously recommends the proposal as amended. F1 S/C Chairman proposed to move the two new paragraphs in section 10.3 however the Bureau after further examination of this, concluded that it is better to be inserted in this section rather than 10.3

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.

This proposal is withdrawn by the Education S/C Chairman and therefore it will not be included for approval by the Plenary. The reason for withdrawal was that the current situation with COVID-19 and so many events cancelled or postponed, the CIAM financial situation is not as the period the proposal was submitted. The delegates attended the meeting unanimously recommended to consider this proposal when appropriate.

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

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

Meeting took note that the Space Models proposals will not be part of the agenda this year and therefore no need to consider amendments in this section.

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 C.4. 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 15th November 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.

Meeting recommends the proposal by majority. It was suggested by the UK delegate to put on vote the last sentence of Paragraph -c- on a separate vote but the Bureau decided that this has already been accepted previously and is in practise for the last two years in order to assist the development of the new discipline. Therefore a separate vote will not be needed.

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 and the Statutes.

Meeting unanimously recommends the proposal

c) C.9 Judges ~~Lists~~ Nominations **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 15th September. 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.

Meeting unanimously recommends the proposal

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

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

F F3A, F3C, F5B, F3M, **F9A**	Two (2) only
2A, 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. F9A is a new class

Meeting unanimously recommends the proposal.

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?

This topic was discussed during the F2 TM. It was agreed that the French Proposal will be withdrawn in favour of the S/C. The French delegate confirmed that. The meeting considered the combined proposal and amended to read as:

If a competitor or a class team (not the National Team) refuses to submit his model or engine for processing or refuses to comply with the FAI Jury's request during a processing procedure, he or the class team shall be disqualified from the competition.

Meeting unanimously recommends the proposal as finally amended.

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.

Space Model S/C chairman recommends to withdraw those three proposals from this year agenda since Space Models proposals will be discussed next year. The delegate from Serbia agreed and therefore the proposals will not be included for approval by the Plenary.

New Proposals for consideration after the publication of the Agenda

A.5. PLENARY MEETING **Bureau**

Add new paragraph.

A.5.5 Extraordinary Cases

In extraordinary cases (Force Majeure), and after a recommendation from the CIAM President, the CIAM Bureau may decide to cancel, postpone or host the meeting by electronic means. In that case the NACs and CIAM delegates must be informed well in advance of the meeting.

Reason: What happened this year after the COVID-19 declared pandemic, proves that we need to have provisions / solutions for such cases.

Meeting unanimously recommends the proposal as amended.

C.5.3 National team for World and Continental Championships **Bureau**

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

Reason**:** Especially with Continental Championships the existing 3 years limit may not be met. This way a junior champion may not benefit at all from this privilege. With the amended version this will not be a case anymore.

Meeting unanimously recommends the proposal as amended.

C.15.2 Current World Championships **Bureau**

- Class S (Space Models)

The Space Models World Championships are held in ~~**even**~~ **odd** 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.
b) Junior
S1A S3A S4A S5B S6A S7 S8D S9A

Reason. Recommended by the Space Models S/C after the COVID-19 outbreak.

Meeting unanimously recommends the proposal. If the Plenary accepts the proposal as consequence there are going to be further changes to other paragraphs.

C.15. 9 Extraordinary circumstances (Add this new paragraph) Bureau

In case of extraordinary circumstances (Force Majeure) the CIAM Bureau, after a recommendation from the CIAM President, may cancel or postpone FAI sanctioned CIAM events for a specific period. For First Category events the CIAM President must consult with the FAI Secretary General and communicate with each organizer before the final decision

Reason: The COVID-19 outbreak is a very good example why CIAM Bureau should have the authority for such decisions.

Meeting unanimously recommends the proposal as amended.

14.6 Section 4 Volume F1 - Free Flight

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.

Meeting unanimously recommends the proposal.

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.

Meeting unanimously recommends the proposal.

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.*

Meeting unanimously recommends the proposal.

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.

Meeting unanimously recommends the 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.

Meeting unanimously recommends the 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.

Meeting unanimously recommends the 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.

Meeting unanimously recommends the 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 tighter (sharper) 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.

Meeting unanimously recommends the proposal as amended (yellow highlight)

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.

Withdrawn by Italian Delegate

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.

Withdrawn by Italian Delegate

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.

Withdrawn by Italian Delegate

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

<u>Reason</u>: 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.

Meeting unanimously recommends the proposal

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.~~ **<u>The only movement of the permanently extended leg that is allowed, is for shock absorption.</u>**

<u>Reason</u>: 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.

Meeting unanimously recommends the proposal. <u>Implementation date 1 January 2023.</u>

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.*

<u>Reason</u>:

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:

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal as amended. For details review detailed minutes of the meeting

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.

Meeting unanimously recommends the proposal

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 Helper<u>s</u>: The competitor must operate his radio equipment personally. Each competitor is permitted one helper. ~~The~~ **<u>This</u>** 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. **<u>An additional helper for launching might be permitted by the CD in case of strong wind and/or difficult terrain.</u>**

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

Meeting unanimously recommends the proposal

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~~.

<u>Reason</u>: 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.

Meeting unanimously recommends the proposal

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~~.

<u>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”</u>

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.

Meeting unanimously recommends the proposal

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.~~

If the model has not entered the speed course within the thirty (30) seconds, this is to be announced.

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

Meeting unanimously recommends the proposal as amended (marked in yellow).

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.

Withdrawn by Danish Delegate

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.

Withdrawn by Danish Delegate

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.

The meeting decided to refer the proposal back to the S/C. Withdrawn by German delegate

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.'

Withdrawn by Danish Delegate

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.

Meeting unanimously recommends the proposal

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~~ **Ri = 1000 x Tw / Ti**

where Ti = time of the competitor and

Tw = time of the winner in the related group.

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.

Meeting unanimously recommends the proposal as amended (marked in yellow).

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.

Meeting unanimously recommends the proposal

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.

Withdrawn by Danish Delegate in favour of proposal -m-.

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) no more than 30 minutes after the sunset

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.

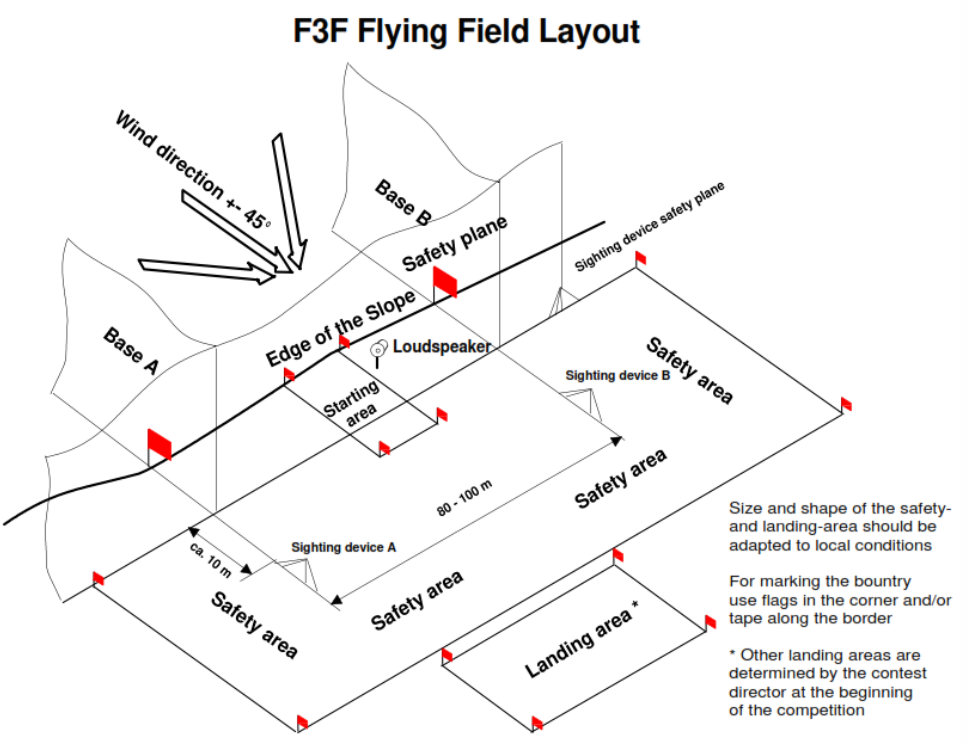
Nightfall is also a reason to interrupt a competition.

Meeting unanimously recommends the proposal as amended (marked in yellow).

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.

Meeting unanimously recommends the proposal

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.

Meeting unanimously recommends the proposal

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.*

Withdrawn by Polish Delegate

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).

Meeting unanimously recommends the proposal

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.

Withdrawn by Swiss Delegate

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.

Meeting unanimously recommends the proposal. If the Plenary accepts the proposal the Technical Secretary will improve the wording for better English.

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).

Meeting unanimously recommends the proposal.

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.

Meeting unanimously recommends the proposal. If the Plenary accepts the proposal the Technical Secretary will improve the wording for better English

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.

Meeting unanimously recommends the proposal.

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.

Meeting unanimously recommends the proposal.

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.

Meeting unanimously recommends the proposal.

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.

Meeting unanimously recommends the proposal.

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.

Withdrawn by S/C

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).

Withdrawn by Swiss Delegate

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.

Withdrawn by Swiss Delegate

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.

Withdrawn by Swiss Delegate

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.

Withdrawn by Swiss Delegate

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)).

Withdrawn by Swiss Delegate

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.

Withdrawn by Swiss Delegate

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.

Withdrawn by Swiss Delegate

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.

Withdrawn by Swiss Delegate

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.'

Meeting unanimously recommends the proposal.

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.

Meeting unanimously recommends the proposal. It could be implemented as soon as the specifications for the AMRT are approved and there are approved devices listed.

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.

Withdrawn by German Delegate.

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.

Withdrawn by German Delegate since it is already implemented.

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.

Withdrawn by German Delegate

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

Add text as follows:

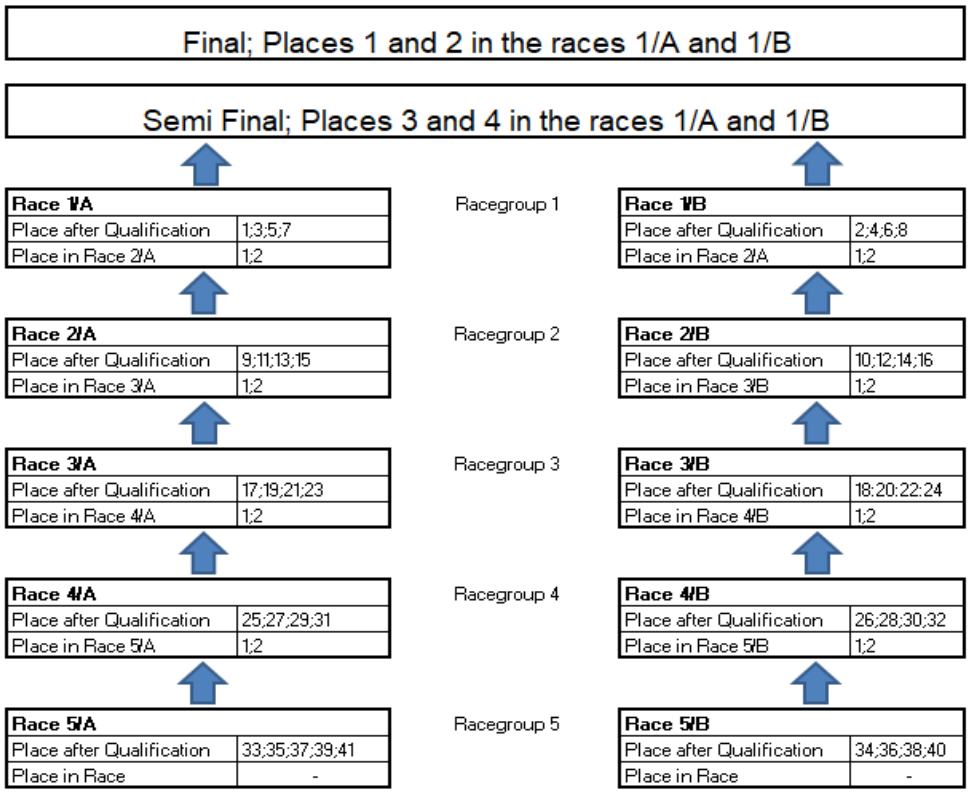
C.6.4. Elimination stage

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



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.

The meeting decided to refer the proposal back to the S/C for further consideration. Withdrawn by German Delegate.