FEDERATION AERONAUTIQUE INTERNATIONALE

FAI AEROMODELLING COMMISSION (CIAM)

PLENARY MEETING TO BE HELD AT THE OLYMPIC MUSEUM - LAUSANNE on the 21st and 22nd MARCH 2002 at 9.15 hours

AGENDA

1) MINUTES OF THE MARCH 2001 BUREAU AND PLENARY MEETING, AND OF THE DECEMBER 2001 BUREAU MEETING: FOR APPROVAL

2) REPORTS

A. 2001 General Conference, by the FAI Secretary General, Max Bishop.

B. 2001 CASI Meeting, by CASI President, Sandy Pimenoff.

C. 2001 World Championships, by Jury Chairmen.
- F1A, F1B, F1C (USA, by Pierre Chaussebourg);
- F1E Senior and Junior (Poland, by Pierre Chaussebourg);
- F3A (Ireland, by Bob Skinner);
- F3B Senior and Junior (Czech Republic, by Thomas Bartovsky);
- F3C (USA, by Horace Hagen);
- F3D (Australia, by Bob Brown).

D. Subcommittees and CIAM Technical Secretary reports.
- Free Flight, by Ian Kaynes;
- Control Line, by Laird Jackson;
- R/C Aerobatics, by Bob Skinner;
- R/C Glider, by Thomas Bartovsky;
- R/C Helicopter, by Horace Hagen;
- Scale, by Narve Jensen;
- R/C Electric, by Emil Giezendanner;
- Space, by Srdjan Pelagic;
- Education and Information, by Dave Brown.

E. Trophies, by CIAM Secretary, Luca Gialanella.

F. 2001 World Cups, by World Cup Coordinators.
- Free Flight, by Ian Kaynes;
- Control Line, by Bruno Delor;
- Thermal Soaring and Duration Gliders, by Thomas Bartovsky;
- Electric Powerede Model Aircraft, by Emil Giezendanner;
- Space Models, by Marian Jorik.

G. CIAM Flyer, by the Editor, Emil Giezendanner.

H. WORLD AIR GAMES 2005, by CIAM President, Sandy Pimenoff.
Report on February FAI Commission Presidents' meeting and preliminary WAG Model Aircraft events proposal.

3) GENERAL ITEMS

A. VOTING PROCEDURE FOR PLENARY MEETINGS.

B. JUDGES AND SUBCOMMITTEES LISTS, FOR APPROVAL.

C. FAI-CIAM MEDALS AND DIPLOMAS, consideration of nominations:

(a) FAI Aeromodelling Gold Medal
- Srdjan PELAGIC (Yugoslavia)
- Derek HEATON (United Kingdom)

(b) Alphonse Penaud Diploma
- Robert WHITE (USA)
- Kazuyuki SENSUI (Japan)

(c) Andrei Tupolev Medal
- Michal ZITNAN (Slovakia)

(d) Andrei Tupolev Diploma
- Robert WHITE (USA)

(e) Antonov Aeromodelling Diploma
- Miodrag CIPCIC (Yugoslavia)

(f) Frank Ehling Diploma
- Aleksandar STOJANOVIC (Yugoslavia)

Citation for awards are at **ANNEXES 1, 2, 3, 4, 5, 6, 7, 8.**

D. AEROMODELLING FUND - Budget 2003

E. SPORTING CODE, report by Technical Secretary, Bob Underwood.

F. BUREAU PROPOSALS.

- **Volume ABR, Section 4A, CIAM Internal Regulations.**
  Paragraph A.6. Proposal submitted to the CIAM

i) A.6.1.a) - Delete the words "**page number**" and replace with " **Volume**".

Reason: The Sporting Code no longer employs page numbers.

ii) A.6.1.e) – Delete entire item.

Reason: Electronic submission is required and a written form is redundant.

- **Volume ABR, Section 4A. Paragraph A.12, Effective Date of Rule Changes**.

Move the following sentences and paragraphs to A.6.1. and renumber:

The sentence **<All technical amendments must be accompanied by supporting data>** - move to A.6.1. as **new item (e).**

The sentence **<All rule proposals, guides and whatever items accepted for the agenda must be made available in electronic form to facilitate compilation of the Agenda>** move to A.6.as a **new item (g) deleting the word "also".**

The sentence **<Amendments to rules changes not yet implemented will not be Accepted>** to A.6.1 as **new item (h).**

Reason: The items included above concern proposal submission rather than information regarding the "Effective Date of Rule Changes", which is the heading of A.12.

For clarity purposes, the above changes would create a **new A.6.1 by combining parts of A.12 as follows:**
A.6.1. Each proposal must conform ----.
(a) State the volume in the Sporting Code ---.
(b) Quote the relevant paragraph ----.
(c) Detail exactly what the alteration ----.
(d) Give the reason (s) behind ----.
(e) All technical amendments must ----.
(f) Submit any and all proposals ----.
(g) All rule proposals, guides ----.
(h) Amendments to rule changes ----.

- **Volume ABR, Section 4B. Paragraph B.2, Types of International Contests**.

Add a new sub-paragraph **B.2.7. Open Nationals and Tours**.

<These events consist of regional, international, open national or fun fly contests. The responsibility for the event shall be the national aero club in the country where the event takes place. They shall be coordinated by organisations other than, but approved by, the NACs concerned. The participants shall be required to have a valid FAI license. A sanction fee of CHF 50 is required for listing within the FAI Contest Calendar. See the following charts for types of event details>.

Reason: Establish a new set of event. The Chart is at **ANNEX 9** to the Agenda.

- **Volume ABR, Section 4B. Paragraph B.6, Contest Information and Entry Fees**.

Add the following sentence at the end of sub-paragraph B.6.2

<In the event a person is serving in more than one position (team manager, competitor, helper, mechanic, etc.), he/she will be charged only one fee, that which represents the highest fee of those positions to be served>.

Reason: To clarify the system of entry fees.

- **Volume ABR, Section 4B, General Rules for International Contests. From paragraph B.7, Special Contest Organisation Requirements, to paragraph B.13, FAI Championship Trophies**

Reorganise section B.7, B.8, B.9, B.10, B.11, B.12, B.13, B.14, B.15, B.16 and B.17 with inclusion of some requirements which can be found in 2.2 and 2.3 (Organisation of international contests).
The complete wording is at **ANNEX 10** to the Agenda**.**

Reason: Clarification. To harmonize and clarify different Sections of the Code.

- **Volume ABR, Section 4B, General Rules for International Contests. Paragraph B.12.2, International Team Classification**

Add a second sentence in paragraph B.12.2.b):

<In addition, smaller FAI gold, silver and bronze medals will be provided to the first, second and third place team members and team manager at the organiser's expense>.

Reason: CASI decision stating that in addition to the one medal currently being awarded to the first place team manager, additional medals may be provided.

- **Volume ABR, Section 4B, General Rules for International Contests. Paragraph B. 17, FAI Championship Trophies**

Change paragraph B.17.5.f) as follows:

<(Holders of the trophies shall be responsible for) **their delivery to the organisers of the next Championships during the Plenary Meeting preceding the appropriate World or Continental Championships>**

Reason: To avoid trophies not being awarded because of shipping costs.

4) SPORTING CODE PROPOSALS

VOLUME ABR – GENERAL RULES FOR CIAM ACTIVITIES

Section 4A - CIAM Internal Regulations

a) Paragraph A.3. Bureau – France. Add a new sentence at the end of A.3.1:

<A Media Consultant may be appointed by the Plenary Meeting. He will have to be approved by his own N.A.C>.

Reason: The Media Consultant, as other people having responsibilities in the CIAM meetings must be supported by his own N.A.C. and be nominated and elected with the same procedure as other CIAM Officers.

b) Paragraph A.4 Subcommittees – United Kingdom. Add a new paragraph at the end of A.4.3:

<The Subcommittee Chairmen must publish on the official FAI website a list of the members of his committee by 1st May of that year>.

Reason: To give a time limit for subcommittee chairmen to work to and to give them an official path to publisise the composition of their subcommittees on a widely available recognised source.

Section 4B - General Rules For International Contests

a) B. 3. 6. Team Manager - Czech Republic. Change the first paragraph as follows:

<…in the case of disputes and protests **and must be obligatory nominated. As a team manager can be nominated the other member of the officially entered national team**>.

Reason: Based on the experience from the 2001 F3D World Championship. Because of high travelling costs, some teams were not entered completely and without team manager.

b) B. 6. Contest Information and Entry Fees

i) B. 6. 2. - Czech Republic - Add at the end of the paragraph:

<If any member of the officially entered national team is nominated to perform the function of the team manager, he has to pay beside of his regular entry fee an addition of 50% of the entry fee required for the team manager>.

Reason: Experience from the 2001 F3D World Championship in Australia. The organiser was requesting 100% entry fee for the

substituted function and because it was not stated in the rules some teams refused to pay it. Proposed 50% seems to be reasonable.

ii) B. 6. 2. Greece – Add the end of the paragraph:

<When a competitor is acting as Team Manager as well, he/she is entitled to pay only one time the entry fee. Unless otherwise specified, he/she will have to pay the most expensive one>.

<If on the same event, there is senior and junior classification, any junior competitor may be a member of the senior's team as well. In that case this competitor is entitled to pay only the entry fee for the junior's class>.

Reason: Although in the past, those amendments are silently exercised by most of the organisers, last year for a W. Ch. a lot of discussions between organisers, Bureau and S/C happened in order to come up with a mid-solution. With this proposal everything now is clarified and no room for another rule interpretation is left.

Section 4C – Model Aircraft - General regulations and rules for contests and records

Part One – General Regulations for Model Aircraft

a) 1.3.2. Category F2, Control Line Circular Flight – F2 Subcommittee

Change the first paragraph concerning the Control Line Circular Flight Definition as follows:

a. Principle: Control Line circular flight uses powered model aircraft equipped with aerodynamic surfaces to generate lift. All such models shall be permanently attached to two or more non-extensible wires or cables during flight.

b. Primary Control Function: Control of model flying height (the «Primary Control Function») shall only be performed by mechanically-activated flight control elements. This Function must be controlled by a hand-held control handle manipulated by the pilot located on the ground at the centre of the model's Flight Circle. No automatic control of the Primary Control Function shall be permitted.

c. Secondary Control Functions: The model's Secondary Control Functions may include (but are not limited to:) control of engine/s, landing gear, landing flaps. Secondary Control Functions may be controlled by the pilot via wires/cables, or may function completely automatically. The frequency of electro-magnetic pulses sent through wires/cables shall not exceed 30 kHz.

d. No control of either Primary or Secondary Control Functions other than through wires/cables shall be permitted.

e. Additional: Any provisions additional to those above which are detailed within the rules of the respective FAI Control Line model aircraft class (F2A, F2B, F2C, F2D, F4B) shall also apply to the respective class/es.

Reason: a) Clarification: The current rule (FAI Sporting Code Section IV, Section 4C, Model Aircraft, Part One, "General Regulations for Model Aircraft", paragraph 1.3.2) is neither entirely clear nor definitive in relation to today's actual C/L competition practice in all 5 FAI F2 classes. Examples of lack of clarity affecting current F2B practice are the common use of uniflow fuel tanks (to "regulate" fuel pressure); tuned-length exhaust pipes (to "control" engine rpm). These could both be regarded as "illegal" under the above present rule. **b)** Innovation: Regarding future technical development, all 5 FAI C/L contest classes may be considered as being relatively "simple and un-complicated" This "simple approach" is applauded by many active contestants but decried by others for stifling technical development. We believe that is essential to retain the interest of both groups, so the proposed new wording has been deliberately framed to cater for both schools of thought, but WITHOUT forcing changes or more complexity as the only possible route to future contest success. We recommend the acceptance of the described revisions to 1.3.2 because one of the goals of the completely new F2B rules re-write exercise was to allow for future technical development (such as the use of electric power; and the "opening" of the rules to allow for the use of throttled i/c motors and/or automatically operated shut-off devices). **c)** Remarks: Please note c) and d) of the proposal. There are 2 separate points at work here. 1st we do not want C/L to suffer from the problems of frequency clashes/transmitter impounding experienced by RC classes, so only signals which are sent down wires/cables and not those which are "transmitted through free air" can be permitted. 2nd, whatever the type of signal send down whatever type of wire/cable, its pulse rate should not exceed the 30 kHz limit otherwise such signals could still "radiate into the free air", again creating the possibility of similar frequency conflict/jamming problems to the RC classes.
Overall we feel that the above changes should ensure continued FAI C/L contest participation by both the "keep it simple" and by the "complexity is more interesting" groups, so meeting all of the goals set out above.

Part Seven - Records

a) 7.1.2. Holder (s) of Records - USA. Delete the last sentence:

~~**<In the case of a team effort, the team shall comprise a maximum of three persons>.**~~

Reason: There is not a limit on the number of members of teams that establish full-scale aviation and space flight records. Precedent has long existed where teams of as many as eight persons have been listed as holders

of a single record. The reason why teams of this size are allowed is that some of these records are technically complex, requiring skills of a group of well-trained people, all of whom deserve some of the credit for the success.
Some aeromodeling records, particularly RC Distance and Duration by power models and gliders have been extended to a point difficult to exceed. Efforts to beat these records can require technical expertise and tedious work by a group of modelers. In cases where more than three people have made major contributions, the present rule forces the team leader to choose who should be listed and who should be discarded. The rule, as it stands now, serves no useful purpose and can cause hard feelings among good friends.
Bright newcomers can profit by being part of a team of experienced modelers. Limiting the number of people who can be involved tends to reduce opportunities for new people.

b) 7.2.8 Assistant Pilots – USA. Delete the whole paragraph:

~~<Following Rule 7.1.2, in case of a team effort, each member of the team may act as pilot during the attempt>.~~

If desired for clarity, it could be replaced in this way:

<An individual Builder of the Model or the team leader(s) may appoint assistant pilots to help in whatever way they might be needed to achieve the record. Assistant pilots do not necessarily have to be included in the listing as Holders of the Record>.

Reason: Restricting the piloting to 3 team members serves no useful purpose, and can cause problems that discourage people from attempting records. For example, a member of a team who made vital contributions in the development stage of building a record model may be incapable of piloting a model. This person might be handicapped in some way that would make piloting an unsafe activity for him. Or he might have a remarkable knowledge of aeronautics coupled with computer skills, but never cared to learn to pilot an RC model. Another person might become too ill to participate, or he might be urgently needed elsewhere, during a long duration attempt. In these instances (and many more could easily be conceived) the work this person put in during the months of development might not be honored because the team needed to use last minute assistance to replace that person's hands during the record attempt.
For long distance flights, it is easy to envision circumstances where it is necessary for 5 or 6 individuals to briefly pilot a model to adjust automatic control systems. The role of these individuals would be very minor in comparison to the overall efforts made by the development team.
In essence, the importance of the RC pilot is being diminished through the use of more and more modern technology. A group of bright young non-flying computer buffs should be allowed to use whatever piloting help they need if they want to go after a record. The hobby as a whole will benefit from their creation and the FAI will be able to be proud that there is new life in aeromodeling activity.

VOLUME F1 - SECTION 4C - MODEL AIRCRAFT
F1 FREE FLIGHT

Part Three - Technical Regulations For Free Flight Contests

3.1. CLASS F1A - GLIDERS

a) 3.1.11. Launching Devices - France

Change paragraph c) as follows:

<To facilitate observation and timing, the cable must be equipped with a pennant, **having rectangular shape of a minimum area of 2,5 dm2 and the smallest side of 5 cm,** attached directly to the main cable**>.**

Reason: At the last World Championship, it has been noted that some pennants were so long and narrrow that they could be difficult to be seen at distance. With the rule as it is, a competitor could come with a 50m cable with a minimum diameter of 0,6 mm and say <this is my pennant>.

ANNEX – RULES FOR WORLD CUP EVENTS – FF WORLD CUP

a) Establish new World Cup events for classes F1A and F1E Junior

i) France - Change paragraph 1. (Classes) as follows:

<The following separate classes are recognised for World Cup competitions: F1A, F1B, F1C, F1E, F1A and F1E junior>.

ii) France - Paragraph 2. (Competitors). Add the following sentence at the end of the paragraph:

<Only Junior competitors are eligible for the F1A Junior and the F1E Junior World Cup>.

iii) France - Paragraph 4. Points allocation.

Change the following sentence in sub-paragraph 3:

<The bonus points are calculated as 1 point per 20 people beaten in F1A, 1 point per 10 people beaten in F1B or F1E, 1 point per 5 people in F1C, **F1A Junior and F1E Junior>**

iv) France - Paragraph 4. Points allocation

Add a new sub-paragraph d) as follows:

<For F1A Junior and F1E Junior, points are awarded according to Junior classification>.

Reasons : More and more juniors are participating in World Cup open contests in classes F1A and F1E and are classified separately if they are more than three competitors. There is no reason to prevent them to have their own World Cup.
We consider that the number of junior participants in the other classes is too low to justify a World Cup, but as soon as the situation will be improving, we can add a World Cup in those classes.

CLASS F1K – MODELS WITH CO2 ENGINES (Provisional events)

a) 3.K.2. Characteristics – Austria. Amend as follows:

Maximum volume of the CO2 tank(s).....2 cm3

Reason: In an international referendum (presented at the 2001 CIAM plenary), the majority of competitors and organisers (71%) agreed that the performance of F1K models should be reduced by a reduction of the tank volume from 3 to 2 cm3. To investigate the effects, 6 major contests (in Italy, Austria, Poland, Hungary) were flown with the 2 cm3 tank. Comparing the results to the 2000-season (3 cm3 tank) shows that due to the smaller tank the fly-off performance is reduced by 40%, which is considered sufficient.
Detailed data will be available at the CIAM plenary meeting to support the decision.

b) 3.K.5. Definition of an Unsuccessful Attempt – Austria. Change paragraph d) as follows:

d) If, after the begin of the waiting time (see 3.K.8.b) until the end of the official flight, the motor adjustment or thermal condition of the tank is changed or influenced by any physical intervention.

Reason: The present formulation of 3.K.5.d would allow the competitor to change the motor adjustment or to manipulate the tank thermally AFTER the end of the waiting time (and also via a timer during the flight), which is clearly against the intention of the rules.

c) 3.K.8 Classification

i) Austria – 3.K.8.b). Amend the second paragraph as follows:

b) In the first deciding round, the motor must be started, then the competitor must wait with running motor for 60 or 120 seconds (defined by the organiser prior to the round), until the timekeepers give a sign to launch the model. The timing of the flight begins when the model is launched. In each further additional flight, the waiting time will be increased by 60 or 120 seconds (defined by the organiser prior to the round) over the waiting time of the previous round.

Reason: The 30 seconds increment for the waiting time was based on the F1K performance of the early 1990s, and is obsolete. The above proposal gives the organiser flexibility to cope both with the level of competition and the prevailing ambient conditions, in order to finish a contest with a minimum of fly-off rounds.

ii) Austria – 3.K.8.c). Amend as follows:

The organiser will establish a ~~10~~ **15** minute period.....
Within these ~~10~~ **15** minutes, ...

Reason: The 10 minute start window was based on the F1K performance of the early 1990s, and is too short for fly-offs with a waiting time of 5 minutes or more, as the competitor could (by simple arithmetics) not make a second attempt.

VOLUME F2 - SECTION 4C - MODEL AIRCRAFT F2 CONTROL LINE

Part Four: Technical Regulations for Control Line Contests

4.2. CLASS F2B – AEROBATIC MODEL AIRCRAFT

a) Update rules and diagrams for Class F2B Aerobatic Model Aircraft – Subcommittee

The reorganised rules and diagrams for class F2B (from 4.2.1. to 4.2.34) are in the document presented at ANNEX 11 to the Agenda.

Reason: Clarification and updating.

b) 4.2.4. Line Tests to be made before each attempt for an official flight – Subcommittee.

Replace 2nd paragraph with:

<Not less than 20 minutes before each contestant is officially called to fly, a test load of 10 times the total weight of the model without fuel shall be evenly and smoothly applied once only to the assembled control handle, lines and model. The load used in this test shall be accurate within a tolerance of plus 0%/minus 10% and shall be applied to the control handle in such a way that the test load is evenly distributed between both flight lines/cables throughout the complete test>.

Reason: Safety. The current load test is excessive and places a deforming strain on the lines.

c) 4.2.16.1. Starting - Subcommittee

Delete 2nd sentence:
~~<The motor must be started by flicking by hand>.~~

Reason: Safety. Starters are universally available and used. The change is for safety using current carbon fibre propellors. The wording does not prevent the competitor from hand starting.

ANNEX 4B – CLASS F2B JUDGES' GUIDE

a) Annex 4B – Judges' Guide – Subcommittee

Replace the whole document from 4A.1 to 4A.38.10
by the new document from 4B.1 to 4B.18.
The file is at ANNEX 12 to the Agenda

Reason: Transferring the manoeuvre descriptions from the current F2B Judges' Guide into the new revised F2B rules has required updating of the Judges' Guide too. As above, manoeuvre descriptions have been removed, but some minor clarifications have also been added. Importantly, the change to the new marking system (item b) above) has resulted in the associated explanations being added to the revised Judges' Guide. Apart from these, no really substantial changes in content have been made. Overall size of the F2B Judges Guide has been reduced. For practical purposes, the edited rules have been arranged in a logical order and re-numbered accordingly.
For clarity, the proposed order should not be changed.

ANNEX 4C – CLASS F2C TEAM RACE JUDGES' GUIDE

a) ANNEX 4C – Subcommittee

Replace the present Judges' Guide with the new Judges' Guide
The document is at ANNEX 13 to the Agenda.

Reason: The Judges' Guide is completely rewritten to be up-to-date with the latest rule changes.

4.4. CLASS F2D - COMBAT MODEL AIRCRAFT

a) 4.4.15. Cancellation of the Flight - Belgium. Add a new paragraph 4.4.15.x):

x) <If, during a line tangle where one or more models remain airborne, his mechanic(s) enters the flying circle without explicit permission of the circle marshall>.

Reason: Safety. During a line tangle where one or both models are still airborne, the pilots only are responsible to disentangle the lines. In doing so, control of the flying model can be seriously compromised and often a crash results. Experience tells that anyone inside the circle at this moment is at risk because the model can crash

anywhere. This safety procedure was applied as a local rule at the WC 2000 in France and at EC 2001 in Spain, and defined there as being a flagrant breach of the safety rules.

ANNEX 4E – CONTROL LINE ORGANISERS' GUIDE

a) Paragraph 6.5.3. Team Racing – Subcommittee. Change 6.5.3.1. as follows:

6.5.3.1: The centre circle and the flight circle shall be marked (painted) on the ground **in a colour having a high contrast to the ground**, according to Sp. C. Volume F2, para. 4.3.2. The circle lines shall be 10 cm wide. The radii are: Centre circle, 3,0-3,1 m; Flight circle, 19,5-19,6 m. The centre of the centre circle shall be marked with **a spot of 0,3 m diameter in the same colour as the circles.**

Reason: It is an old decision taken in the early nineties, and a unanimous decision at the F2 Technical Meeting in 1997 supported this. However, there was never any change to the Organisers' guide. The marking of the circles is the adopted praxis.

ANNEX 4G – CLASS F2F (provisional class) – Diesel Profile Racing Model Aircraft

a) ANNEX 4G: Establish a new provisional class F2F - Subcommittee

Add a new provisional rule to Volume F2: class F2F
The whole file is at ANNEX 14 to the Agenda

Reason: To encourage newcomers to fly team race there is a need for a simpler set of rules. This set of rules is not intended at any time to become an official rule with Championships. The rules have been tested in France over the last years with very good results. They do encourage participation within a country as well as internationally.

VOLUME F3A - RADIO CONTROL AEROBATICS

Part Five - Technical Regulations for Radio Controlled Contests

CLASS F3A - AEROBATICS POWER MODEL AIRCRAFT

a) 5.1.8. Marking – Czech Republic

Add before the last sentence of the paragraph:

<**Manoeuvres flown on lower flight speed and within manoeuvering area closer to the judges have to be scored higher**>.

Reasons: 1) The skill of current pilots is very high and the top pilots are flying with almost no failures; 2) Judging of the manoeuvres performed

closer to the judges is easier because all failures are clearly visible and it is easier to check shapes, entries and exits if the manoeuvres; 3) Flying slower means flying more safely. In the case of accident, the hitting energy of slower flying model is much lower; 4) Flying lower and closer to the judges will be more interesting for the spectators.

b) 5.1.13. Schedule of Manoeuvres - Subcommittee

Replace entire paragraph with new proposed manoeuvre schedules for the years 2004 to 2007.
The list of manoeuvres is at ANNEX 15 to this Agenda.

Reason: Current manoeuvre schedules will be exhausted by the end of 2003 and new manoeuvre schedules must be introduced.

c) ANNEX 5A. F3A Description of Manoeuvres for RC Aerobatics - Subcommittee

Replace entire Annex 5A with new proposed annex, containing descriptions of new manoeuvres for the years 2004 to 2007.
The description of new manoeuvres is at ANNEX 16 to this Agenda.

Reason: Current manoeuvre schedules will be obsolete by the end of 2003 and new manoeuvre schedules must be introduced.

d) ANNEX 5A. F3A Aresti drawings - Subcommittee

Replace existing Aresti drawings of manoeuvre schedules (annexed to Annex 5A) with new drawings for schedules P-05, P-07, F-05 and F-07, as well as the drawings of the Aresti symbol explanations.
The new Arest drawings are at ANNEX 17 to this Agenda.

Reason: Current drawings will become obsolete after 2003 and need to be replaced by new drawings.

e) ANNEX 5B – Judges' Guide - Subcommittee

Replace entire Annex 5B, Judges' Guide with the new one, which is at ANNEX 18 to the Agenda.

Reason: Current Judges' Guide needs to be updated to correspond with new manoeuvres that will be introduced for 2004 to 2007.

f) ANNEX 5C – F3A World Cup - France

Establish the F3A World Cup.
For 2002, simulation on F3A international competitions on CIAM calendar. This is to test the rules and modify, if necessary.
In 2003 establish the first edition of the F3A World Cup.
The text is at ANNEX 19 to the Agenda.

Reason: Making F3A international competitions more popular; giving an interest to competitors to make international competitions, especially for juniors.

VOLUME F3B J - SECTION 4C - MODEL AIRCRAFT
F3B THERMAL SOARING
F3J THERMAL DURATION GLIDERS

Part Five – Technical Regulations for Radio Control Contests

5.3. CLASS F3B - THERMAL SOARING MODEL AIRCRAFT

a) 5.3.1.3 Characteristics of Radio Controlled Glider F3B - Greece

Add at the end of paragraph b):

<When a frequency is allocated for use to a competitor, all his/her checked models should use this frequency>.

Reason: It is noticed that during a competition, competitors are declaring two or three frequencies, but sometimes they use them for different models. This is causing many problems to the organisers so with this amendment it is now clearly defined that the same frequency should be used for all the models.

b) 5.3.2.2. Launching - CIAM Bureau

Add the following text after the first sentence:

5.3.2.2.a(2)a
<The starter motor must come from serial production. It is allowed to fit the arbour of the rotor with ball or needle roll bearings at each end. Any further change of the original motor will lead to disqualification according to paragraph B.16.1>.

Reason: Clarification. To avoid misinterpretation leading to manufacturing of expensive special motors.

5.6. CLASS F3J - THERMAL DURATION GLIDERS

a) 5.6.1.3. Characteristics of Radio Controlled Gliders F3J - Greece

Add at the end of paragraph f):

<When a frequency is allocated for use to a competitor, all his/her checked models should use this frequency>.

Reason: It is noticed that during a competition, competitors are declaring two or three frequencies, but sometimes they use them for different models. This is causing many problems to the organisers so with this amendment it is now clearly defined that the same frequency should be used for all the models.

b) 5.6.8. Launching – Germany - Change paragraph 5.6.8.3. as follows:

5.6.8.3. a) Tow persons are allowed no mechanical aids, other than pulleys, to facilitate towing but may use a hand reel (hand winch) to recover the towline after launching is complete.

b) Immediately after release of the model aircraft from the launching cable, without delay the towline helpers must either recover the tow line on a hand reel (hand winch) or, when a pulley is used, they must continue to pull the towline until it is completely removed from the towing area in order to avoid crosscutting with other lines which are still in a state of towing or will be used for towing.

c) If towing with a pulley, behind the pulley an unbreakable shield with diameter of minimum 15cm must be fixed to protect the towing **helpers** against broken whipping line ends.

In the case of towing with pulley, both helpers have to operate at the pulley and one of the following preventive measures must be taken:

- The pulley and protective shield must be connected to a 5mm minimum diameter cord arranged in a V, the arms of which must have a length of 1,5 to 3,0m and with hand loops on each end; or
- **The pulley and protective shield must be connected** to the centre of a sufficiently strong yoke of minimum 80cm length with handholds at each end.

In the case of towing with pulley, the towline end must be attached to a ground anchor, which is fixed with two additional safety pins. The ground anchor-measurements and its setup must look like shown in the drawing beneath ("Guideline for proven ground anchor setup").
The Contest Director will designate the kind of safety pins to use (safety pins for soft ground or solid ground).

Reason: Safety. The current FAI rules, introduced in 2001, do not allow safe pulley towing. To use a pulley, one person is required to hold the end of the towline, using some form of strap or attachment. The second person holds the pulley with some form of strap or attachment and must operate alone. The result is that both persons are in line with the towline, the so-called “men-in-line” towing method. The most common danger results from the towline breaking, with the loose ends of the line whiplashing in the direction of the helpers. Also, even with normal towline tensions, it is not unusual for the person operating at the pulley to slip or be forced to the ground, and then slide. This can cause injury too.
The proper tied ground anchor complete with two safety pins – see “guideline for proven ground anchor set-up” – cannot be pulled out of the ground by even the maximum towline tension generated by the launch of an F3J model.

Since two tow persons are holding the shielded pulley connected to a bar or V-rope, they are a safe distance away from the line of the towline at all times, and out of range of any whiplash effect if the towline breaks. Even when the tow persons are lightweight – say 50 kg – they have enough weight and strength to prevent them from being pulled to the ground and skidding. Tests have shown that 5 times more force is required to move a proper tied ground anchor (see: "guideline for proven ground anchor set-up") than the commonly line tensions generated during the F3J-Launch will supply.
(**See also drawings and reports at ANNEX 20 to the Agenda)**

c) 5.6.8. Launching – Czech Republic. Change paragraph 5.6.8.3.c) as follows:

<c) If towing with pulley, **it must be connected to an unelastic rope or ribbon which allows the towing helper to be at least 3 m from the pulley. The maximum length of the rope or ribbon is 10 m>.**

Reason: Safety. It must be allowed to use all safety measures possible, which otherwise can't influence the launch speed and height.

d) 5.6.8.7. Towlines – Czech Republic. Add at the end of paragraph 5.6.8.7.c):

<The towline may be connected to a soft rope or ribbon. If the rope or ribbon remains horizzontaly during the whole tow, it is not included into the 150 m limit>.

Reason: Safety. It must be allowed to use all safety measures possible, which otherwise can't influence the launch speed and height.

5.K. CLASS F3K - HAND LAUNCH R.C. GLIDERS (Provisional Rules)

a) 5.K.2. Definition of Model Aircraft – Germany. Add the following two sentences at the end of the paragraph:

<Para B3.1 of section 4 b (builder of the model aircraft) is not applicable to class F3K>.

<Any ballast must be inside of the model and must be fixed safe>.

Reasons: a) Also in this class standard competion models can be bought. B) Safety. As a reason of safety, the ballast must be fixed inside the model in a safe way. The acceleration during the start is in the meantime so high, that any ballast which is not fixed safe could be lost. Fixing the ballast outside, or on the surface of the model with tape, is not safe enough.

5.L. CLASS F3L – R.C. HOT AIR BALLOON (Provisional Rules)

a) New category F3L Hot Air Balloon - France

Establish a new class defined as F3L.
The provisional rules are at ANNEX 21 to the Agenda

Reason: Hot air balloon are flown in several countries and record attempt may be set up. We need to recognize this new ckass and have common rules in order to ratify these new records. International competition may also be organised and should be mentioned on the FAI Calendar.

VOLUME F3D - SECTION 4C - F3D PYLON RACING

Part Five - Technical Regulations for Radio Control Contests

5.2. CLASS F3D - PYLON RACING MODEL AIRCRAFT

a) 5.2.1. Definition of Radio Control Pylon Racing Model Aircraft – Subcommittee. Add this sentence at the last paragraph:

<Each pilot and mechanic/caller shall be registered as a team from the beginning of the competition through to its end**. Irrespective of how many positions an individual fills within the National team, the entry fee for this event will be one full entry fee per person>.**

Reason: To clarify entry fees for F3D events.

b) 5.2.3. Shut-Off - Subcommittee. Delete the first sentence of the paragraph

~~**The engine shall be equipped with a positive radio controlled shut-off.**~~

Reason: Clarification. The fuel shut-off is not always part of the engine. This deletion clarifies what is normal practice.

c) 5.2.5. Propeller Spinner – Subcommittee.

Delete the word metal from the first sentence, to read:

<A rounded nose ~~**metal**~~ spinner of at least 25 mm diameter must be fitted>.

Reason: Materials, such as carbon fiber, have been found to be better and safer than some metals.

d) 5.2.6.3. Landing Gear - Subcommittee

Delete the following in the second sentence:
<The minimum diameter of the main wheels shall be 57 mm ~~**and the minimum width of the wheel or wheel spat or wheel pant shall be 12mm for at least 1/3 of the diameter**~~**>.**

Reason: Clarification.

e) New paragraph 5.3. F3D Euro Cup Event - Subcommittee

Create an F3D Euro Cup Event
Rules are at ANNEX 22 to the Agenda.

Reason: Since 1983 Euro cup racing has been flown in Europe, and it is the desire of the European F3D racers to make this an official CIAM event. The FAI is attempting to procure additional activity and this event would be a positive addition.

VOLUME F4 - FLYING SCALE MODEL AIRCRAFT
F4B, CONTROL LINE SCALE
F4C, RADIO CONTROL SCALE

Part Six - Technical Rules for Flying Scale Model Aircraft Contests

a) 6.1.4. Judges

i) United Kingdom - Change the 4th sub-paragraph as follows:

<Within each class (F4B and F4C) all the judges (static and flying) must be of a different nationality and selected from a list submitted by their NAC and approved by the CIAM. However when using two separate panels for static judging, the organiser is allowed to use two judges of the same nationality, one in static and one in flying>.

Reason: Clarification.

ii) Subcommittee - Change the 6th sub-paragraph as follows:

<Within each panel of judges (Static or Flying), there must be a common language>.

Reason: Experience has showed that this change is necessary to get the judges to apply the rules in the same way and the realism in flight is also to be discussed among the flight judges.

iii) Subcommittee – Change the 8th sub-paragraph as follows:

<When using two separate panels for static judging, the organiser is allowed to use two judges of the same nationality, **one in one of the static panels and one in the flight judges panel**>.

Reason: To clarify the use of two judges of the same nationality when using two panels for static judging.

b) 6.1.9.4.d. Aircraft Speed – USA. Change the paragraph as follows:

<Aircraft Speed - The cruising or maximum speed of the full-size aircraft must also be included in the documentation, and repeated on all flight score sheets before each official flight. This is listed as a general guide for the aircraft type and performance of aircraft described in the documentation. See paragraph 6C.3.6.11 for expected maneuver realism features related to speed>.

Reason: Clarification. This revision will help clarify the cruising or maximum speed is only for a general guide since the selected maneuvers flown by the prototype aircraft are not necessarily at these speeds. For example, there are many high-performance aircraft that also have high maximum speed ratings that would not be used for typical maneuvers flown near sea level such as those typically selected for model competition

c) ANNEX 6D - Subcommittee

Create a new World Cup Scale for both classes, F4B and F4C.
The rules are at ANNEX 23 to this Agenda.

Reason: To start World Cup rules in both classes and try to increase participation in the international part of the Scale Classes. The rules are based on the F2 rules and modified to fit the Scale Classes.

CLASS F4B – CONTROL LINE FLYING SCALE MODEL AIRCRAFT

a) 6.2.1. General Characteristics

i) Subcommittee – Amend as follows:

b) Maximum thrust for a turbine motor shall be: 10 kg.

Reason: Marking with subsection b) has dropped out.

ii) Subcommittee – Amend as follows:

Change subsection b) to subsection c):

Reason: Marking with subsection b) has dropped out on Turbine thrust and needs replacing: the subsection on electric motors then becomes subsection c)

b) 6.2.3. Official Flights – USA. Change as follows:

C. iii) An official flight is terminated when the model aircraft lands and stops, except during options 6.2.7.J (Touch and Go) and 6.B.2.7.O (Taxi Demonstrations).

Reason: Clarification. This allows competitors who choose the Taxi Demonstration to use it after the landing also to demonstrate a better and more complete maneuver. This adds to scale flight realism.

c) 6.2.11. Flying Area - Subcommittee

Delete the first four sub-paragraphs to read:

Contest organisers should clearly mark the following circles on the ground:
1. The pilot's circle, radius 1,5 metres
2. The penalty circle, radius 3 metres
3. The flying area circle, radius 26 metres
4. The safety area circle, radius 29 metres

In addition, contest organisers should provide a minimum ...etc ...

Reason: This gives a better description of the F4B circle and is easier to use in practice. This also necessitates a change in 6B.1.sub7.

CLASS F4C – RADIO CONTROLLED FLYING SCALE MODEL AIRCRAFT

a) 6.3.1. General Characteristics – USA. Change as follows:

C) Electric motors: maximum no load voltage of power source**s.....**42 volts**.**

Reason: Clarification. This covers modelers who fly multi-engine aircraft using 42 volts to each motor. The current rule only allows 42 volts on all engine sources, which limits the size and multi-engine aircraft as well as choice of competitive subjects when using electric power. The intent of the original rule was not to limit electric to only one power source on multi engines, this rectifies the spelling error.

b) 6.3.7. Optional Demonstrations

i) Subcommittee - Amend first paragraph to read:

<Competitors must be prepared, if required by the judges, to give evidence that the options selected are typical and within normal capabilities of the aircraft subject modelled. Only one manoeuvre involving the demonstration of a mechanical function may be included in a competitor's choice of options. These include options ~~**B, C**~~, D, L and if applicable P or Q>**.**

Reason: Options B & C, demonstration of landing gear and flaps, are described as flying manoeuvres in the current Sporting Code, and the Scale Subcommittee wants to keep these two manoeuvres as flying manoeuvres and not revise the description to make then technical manoeuvres.

ii) USA – Change last sentence at the end of the first paragraph:

<These include options D, L and, if applicable, P & G>.

Reason: Clarification. The task of a flyby of dropping a bomb, fuel tank, parachute, etc. should not be equated with the demonstration of flaps or gear, a task requiring a 360 degree circle, in level flight at a constant radius. The flap and gear demonstration should be flight options and not be restricted to mechanical options.

c) 6.3.8. Marking (flight points) – Subcommittee

Amend the third paragrah as follows:

<There shall be a Flagman at the site to indicate by visual and acoustic signal if and when the model aircraft **crosses the Judges Line**. If this happens before a manoeuvre is completed, ZERO points shall be given for this manoeuvre**. Exceptions from this rule are manoeuvres 6.3.6.1. take-off, 6.3.6.10 landing and 6.3.7.m. touch & go. These manoeuvres have the right to be performed into the wind as long as they do not jeopardise safety.** The Flagman will keep a record of these incidents>.

Reason: Clarification. To bring the text in the rules in line with the Judges Guide and the usual practise for several years.

ANNEX 6A – CLASS F4 – JUDGES' GUIDE FOR STATIC JUDGING

a) 6.A.1. General – Subcommittee

Amend the third paragraph as follows:

<A chief judge shall be appointed as a spokesman **for the static judges, and if two static panels are used, the second panel will have a deputy chief judge appointed to assist the Chief judge in his work. The chief / deputy chief judge should discuss the merits and criticisms of each item in his responsible area with the other judges in his team,** making suggestions for the scores ..etc.>....

Reason: Clarification. To clarify the working relation when using two panels for static judging.

ANNEX 6B - CLASS F4B - JUDGES' GUIDE, C/L SCALE FLYING SCHEDULE

a) 6B.1. General

i) Subcommittee – Change the 7th paragraph as follows:

<In the interest of safety, any manoeuvre that is carried out when the Competitor steps outside the 1,5 metre Pilot's circle will carry a warning by the Circle Marshal to the Competitor, but no penalty. If the Competitor steps outside the 3 metre Penalty Circle, the manoeuvre will score ZERO>.

Reason: This gives a better description of the F4B circle and gives the Competitor enough room to keep the lines tight in the wind.

ii) United Kingdom – Change the 7th paragraph as follows:

~~<In the interest of safety, any manoeuvre that is carried out when the pilot steps outside a circle of 3 meters diameter will score ZERO. The circle marshal will look out for this and warn the pilot>.~~

Reason: 1) The dimension stated in the Judges' Guide contradicts specifications in the rules section. 2) The 3 meter diameter referred to above has been surpassed by a completely new section 6.2.11 that retrospectively inserted into the 2001 Sporting Code. This amendment bypassed the established process for rule changes as it did not appear on a Plenary Agenda nor was it voted upon. The new section 6.2.11 does however refers to 3 meter radius and this is considered to be a more appropriate criteria. 3) The correct reference for such criteria should always be contained in the rules section and not the Judges' Guide.

iii) Subcommittee – Add at the end of the last paragraph:

<After each flight, the Chief Judge will record any non-standard event that causes downgrading or loss of flights points. As examples: missed figures, figures flown out of order, out of flight time, stepping outside the penalty circle, missing dummy pilot or crash landing, etc>.

Reason: To have a record of an incident giving serious downgrading during a flight for later reference.

iv) Czech Republic – Add at the end of the last paragraph

<After each flight the Chief Judge should confer with all the flight judges and record any incident or non-schedule event which may have affected the Competitor's performance or influenced the score given. A copy of this record should be passed to the Chairman of the Jury>.

Reason: To clarify the flight processing. There is necessary to record all the incidents and non-scheduled events to avoid the possible protests.

b) 6.B.2.7.d Dropping of Bombs or Fuel Tanks – USA. Change the paragraph as follows:

<If bombs are carried internally and the aircraft subject type is fitted with bomb-bay doors, they must open before bombs are dropped and close after the bombs are released>.

Reason: Clarification. This is more appropriate language for the description.

ANNEX 6C – CLASS F4C – JUDGES' GUIDE – F4C FLYING SCHEDULE

a) 6C.1. General

i) Subcommittee - Add at the end of the last paragraph:

<After each flight, the Chief Judge will record any non-standard event that causes downgrading or loss of flights points. As examples: missed figures, figures flown out of order, out of flight time, stepping outside the penalty circle, missing dummy pilot or crash landing>.

Reason: To have a record of an incident giving serious downgrading during a flight for later reference.

ii) Czech Republic – Add at the end of the last paragraph:

<After each flight the Chief Judge should confer with all the flight judges and record any incident or non-schedule event which may have affected the Competitor's performance or influenced the score given. A copy of this record should be passed to the Chairman of the Jury>.

Reason: To clarify the flight processing. There is necessary to record all the incidents and non-scheduled events to avoid the possible protests.

b) 6C.3.6.11. Realism in Flight

i) United Kingdom - Delete the first sentence in the first paragraph:

~~<This should be discussed by all judges after completion of the flight and they should attempt to arrive at an agreed score for each item.~~ Realism in Flight covers the entire flight performance including the way in which the model flies between manoeuvres>.

Reasons: 1) There is now a comprehensive Judges' Guide covering all aspects of the Scale schedule including Realism. There is therefore no more reason to judge this aspect in conference than any other part of the flight schedule. 2) A biased chief judge can erode impartiality and the established system of dropping highest and lowest scores is therefore bypassed. 3) The abolition of this requirement will save several minutes for each flight and significantly reduce the time required to run an international championship.

ii) USA – Replace paragraph <Speed of the model Aircraft> with the following:

Speed of the model aircraft.....K=4

<The model should be judged at speeds required for realistic bank angles in turns, energy management for realistic vertical maneuvers, and other prototypical maneuvers the full-scale aircraft would fly. If the turn bank angles are too steep in scale size turns compared to that expected of the full-size prototype, the model is flying too fast. If the bank angles are to shallow, the model is too slow and points again should be deducted accordingly. Model aircraft invariable fly faster than scale speed to produce these described flight realism features including horizontal maneuvers. The cruising or maximum speed in documentation is only listed as a general guide for the aircraft type and performance>.

Reason: It is already recognized in the 2001 rules that "model aircraft invariably fly faster than scale speed." This important statement needs further recognition or emphasis in this paragraph for "Realism in flight" and "Speed of the model aircraft" since the present scale speed criteria is in physical conflict with all other forms of maneuver flight realism in model competition. This can be demonstrated by a variety of methods both in practice and aerodynamics from international scientific resources. See annex reference for further background information. These considerations will also become increasingly important when the weight limit increases to 15kgms and size of models increase. If scale speed is erroneously prioritized over all the other forms of realism in flight, then earlier smaller size models will be handicapped in FAI competition. It is easily recognized that larger models better approach scale speed compared to smaller models when both provide the other maneuver realism features described in the proposal above. The ultimate is 1:1 scale, but that is not cost effective for modelers of the future welfare of competing with miniature aircraft.

c) 6.C.3.7. Optional Demonstrations - USA

Add at the end of the 5th paragraph:

<The competitor must be prepared, if required by the judges, to give evidence that the options selected are within the normal capabilities of the aircraft subject type modeled. Competitors may fly any optional maneuver listed, which is appropriate for the prototype subject aircraft.
A competitor may also bring documentation of other maneuvers not listed, which are capable of being performed by the subject aircraft. This must occur, before the competition begins for approval by the competition administration and jury. The competitor must be able to submit written and diagram types of documentation for additional optional maneuvers to the competition administration as well as all five flight judges>.

Reason: This may help to broaden the variety of aircraft that can be competitive. This allows newer subject aircraft a broader range of recognized and documented maneuvers to be flown by aircraft in a prototypical manner. If the maneuver isn't documented to the contest administrations complete approval before the flight competition begins it cannot be used under any circumstances.

VOLUME F5 – R.C. ELECTRIC POWERED MODEL AIRCRAFT

Part five – Technical regulations for Radio Controlled Contests

a) 5.5.1. General Rules

i) 5.5.1.1. Definition of Electric Powered Model Aircraft – Subcommittee. Amend as follows:

<Model aircraft in which lift is generated by aerodynamic forces acting on surfaces remaining fixed in flight except control surfaces and which performs manoeuvres controlled by the pilot on the ground, using radio control, **or by rotating surfaces in case of helicopters**. The powerpack for the electric motor may not have any fixed connection to the ground or another model aircraft in the air. Recharging of the powerpack during flight by solar cells is permitted>.

Reason: Clarification.

ii) 5.5.1.3. General Characteristics of RC Electric Powered Model Aircraft F5 - Subcommittee. Amend as follows:

For helicopters see para 5.5.5.3.
Maximum total area 150 dm2
Maximum weight 5 kg
Loading 12 to 75 g/dm2
The power source shall consist of NiCd **or NiMH** cells only, the maximum no load voltage must not exceed 42 volts. In case the voltage is measured, this shall be done at the moment the preparation time for the pilot starts. After the measurement has been taken, the pilot is allowed 5 minutes preparation time as per 5.5.2.4.

Reason: Clarification.

b) 5.5.2. Contest Rules

i) 5.5.2.1. Definition of an Official Flight - Subcommittee.
Amend sub-paragraph a)

a) The competitor cannot perform a flight due outside interference **checked by organisers instrumentation.**

ii) 5.5.2.2. Cancelling of a Flight and Disqualification - Subcommittee. Amend sub-paragraph b)

b) If the model aircraft loses any part during the flight time. The losing of a part during landing (i.e. contact with the ground **or another obstacle) and during the flight due to a collision with another model** is not taken into account**.**

Reasons: Clarifications.

CLASS F5A – ELECTRIC POWERED AEROBATICS MODEL AIRCRAFT

a) 5.5.3.1. General – Subcommittee. Change as follows:

<These rules for contests with electric powered aerobatic model aircraft will use the advantages and peculiarities of the electric powered propulsion. Those contests could take place near settlements p. e. on sportfields and recreation areas ~~**and would be easier to visit by spectators**~~**>.**

b) 5.5.3.1.1 Organisation of F5A Contests.

i) Subcommittee - Amend paragraph 5.5.3.1.1.a) as follows:

a) **Starting** Order **-** The **starting** order for the first round will be established by random draw. The **starting** order for the second round will follow the inverted ranking list. In each case, frequency will not follow frequency and team members will be separated by at least one competitor. The **starting** order for the final round will be established by a second random draw.

ii) Subcommittee - Amend paragraph 5.5.3.1.1.b) as follows:

b) Number of Flights - Competitors will have two preliminary flights with the same schedule. After the two preliminary rounds, the top ten on the ranking list, **or the first third of the competitors in the ranking list, whichever is less,** will fly with a different schedule two final rounds combined with music.

iii) Subcommittee - Amend paragraph 5.5.3.1.1.g) as follows:

g) Classification ~~**- Each round will be normalised to 1000 points.**~~ The addition of the average of the two preliminary rounds and the average of the two final rounds will count for the final classification.

Reasons: Clarifications

c) 5.5.3.5 Manoeuvres - Subcommittee

Include the new synopses. The details of new manoeuvres are at ANNEX 24 to the Agenda.

d) 5.5.3.6. F5A Aerobatic box - Subcommittee

Include the new drawing of the box. The F5A Aerobatics Box is at ANNEX 25 to the Agenda.

Reasons: Elimination of printing errors, clarifications and fine tuning of the new rule.

CLASS F5B – ELECTRIC POWERED MOTOR GLIDERS

a) 5.5.4.2. Course Layout and Organisation

i) Belgium - 5.5.4.2.b

Add the following between commas, after the words "10m in diameter" :

<or a tape or line with marks at the same distances>.

Reason: Acting this way makes it possible to measure the distance between the nose of the glider and the centre of the landing circle, without the necessity to trace the concentric circles on the ground. This tracing can be pretty difficult and cumbersome for the organiser when landing area is over grass. Use of a marked line or tape is current practice for measuring landing accuracy in the F3B and F3J glider categories.

ii) Subcommittee - 5.5.4.2.b. Change as follows:

b) For landing, the organiser must provide three concentric circles 30, 20 and 10 m in diameter, located at a place on the field where no danger of collision exists with model aircraft simultaneously flying either the distance or gate task. **A measuring tape or a string with marks must also be ready to use.**

Reason: Clarification.

b) 5.5.4.4. Launching - Subcommittee

Change paragraph b) as follows:

b) The launch will occur ~~**outside the course**~~, within 10 m from Base A;

Reason: Clarification.

c) 5.5.4.5. Distance Task - Subcommittee

i) Amend as follows:

5.5.4.5.a) This task begins when the model aircraft releases handlaunched and ends after 200 sec. ~~**must be completed within 200 seconds from the moment the model aircraft aircraft is handlaunched.**~~ Time of release is to be taken by one timekeeper.

This task must be carried out with at least two climbs with motor running however no more than ten climbs with the motor running are allowed. **No points will be awarded for the legs completed after an eleventh or more climb with motor running**.

5.5.4.5.e) During the scoring in this task and until the competitor has been signalled, the model aircraft must fly on **the other side of the safety plane where the sighting devices are placed.** Flying with any part of the model aircraft on the forbidden side of the safety plane will give ZERO points for the whole flight, distance and duration.

Reasons: Clarification.

d) 5.5.3.A F5B contest site layout – Subcommittee

This item must be changed to 5.5.4.2.A

Reason: Clarifications

CLASS F5C – ELECTRIC POWERED HELICOPTERS

a) 5.5.5.4 - Subcommittee

The paragraph requires a title: **Contest site layout.**

b) 5.5.5.6. Number of model aircraft - Subcommittee

Change as follows:

<The number of model aircraft eligible for entry is two (2). Model aircraft 1 and 2 may only be exchanged within the start box **(see 5.5.5.4)>.**

c) 5.5.5.14 Performance of the Schedules – Subcommittee.

Amend as follows:

<The pilot must execute each announced manoeuvre only once during a flight. The name (number) and start and finish of each manoeuvre must be announced by the competitor or his caller. A manoeuvre performed out of sequence will result in a zero score for that manoeuvre ~~**and all remaining manoeuvres>.**~~

Reasons: Clarifications.

CLASS F5D – ELECTRIC POWERED PYLON RACING MODEL AIRCRAFT

a) 5.5.6.1.2. Definition of Radio Controlled Electric Powered Pylon Racing Model Aircraft - Subcommittee

Amend as follows:
~~<Model aircraft in which the propulsion energy is provided by an electric motor and in which the lift is obtained by aerodynamic forces acting on surfaces which remain fixed in flight except for the control surfaces>.~~

b) 5.5.6.2. Technical Specifications

i) Subcommittee - 5.5.6.2.1. Change as follows:

<~~All types of electric motors are allowed~~. The motor(s) must be **controlled** by radio control and the competitor must provide a means to short or cut the electrical motor leads>.

ii) Subcommittee - 5.5.6.2.2. Battery. Change as follows:

~~<The electric power shall be provided by NiCd cells with a~~ **Maximum weight of 425 g>.**

Reasons: Clarification and elimination of duplicities

c) 5.5.6.4. Organisation of Radio Controlled Electric Powered Pylon Racing Contest

i) Subcommittee - 5.5.6.4.1 Transmitters.

Give a title: **Transmitters.**

iii) Subcommittee - 5.5.6.4.2 Caller/mechanic (new paragraph).
Include the following sentences:

<All competitors must be accompanied by a caller/mechanic for reasons of safety. The caller can be the team manager, another competitor from the same team, or a third party. In all cases the caller must be the holder of an FAI licence not necessarily issued by the NAC of the pilot and must have paid the entry fee for supporters.
~~Each pilot and the mechanic/caller shall be registered as a team from the beginning of the competition through to its end>.~~

iii) Subcommittee - 5.5.6.4.3 Helmets (new paragraph). Change as follows:

~~Note: Local rule for 2000 W.Ch.~~

~~**The course layout will be modified as follows:**~~
~~**Lap counters, timing and other officials will all be placed behind the 90 m spectator line. The pylon No. 1 will be placed on a line perpendicular to the course median line. The Pylon No. 2 and No. 3 lap counters are placed on a line 45(to the course median line, 110 m away from the median line.**~~

Reasons: Necessary new regulations for the caller/mechanic and clarification.

CLASS F5F – 10 CELL MOTOR GLIDERS (Provisional Rules)

a) 5.5.8. Definition of the model aircraft - France:

Minimum weight : 1500 g
Minimum surface area : 36 dm2
Maximum number of cells : 10 (sub C)
~~**Maximum mass of power source : 600 g**~~

Reason: With this new specifications in the 10 cells category, the competitor can use either RC 2400 cells or NIMh 3000 cells.

VOLUME SM – SPACE MODELS

ANNEX 10 – SPACE MODELLING JUDGES' AND ORGANISERS' GUIDE

a) Paragraph 4 Specific Events – Subcommittee and Slovakia

Subparagraph 4.D Scale Events - Replace the existing text with the following:

4.D. SCALE EVENTS: <The scale judges will judge scale models for flight characteristics in accordance with Annex 9 particularly taking care of the following:

d.1. Flight Characteristics-Staging: Stages must separate step by step. If the 3rd stage separate simultanously 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 modul, this shall be evaluated as "modeller's third stage" , according to par 2.3.1.

d.2. Flight Characteristics - Special Effects: As Special Effects (according to the judging rules) may only emulate the action of the prototype. Three staged rockets, like Ariane, shall not deploy nose cone cover shield and jettison a satellite during operation of the 1st or 3rd stage. On the contrary, with Saturn or Soyuz function of

rescue system during the 1-st stage operation is planned and possible. In case of doubt, competitor is obliged to prove reality of declared special effect by relevant technical data. How many points award for several special effects? Compare the degree of difficulty of four booster separation to smoke before lift off!

d.3. 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 a streamer 5 points. Maximum recovery points in any case may not exceed 40.

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 >.

Reasons: Clarification of the judging rules by introducing judging practice.

b) Add a new Paragraph 5 Organisers' Tasks – Subcommittee and Slovakia:

5. Organisers' Tasks:

i) **<SCALE EVENTS - The organiser of an international contest shall appoint three scale judges from the nomination list of Space Models FAI Judges. In case of World or Continental Championships, there will be appointed five FAI judges and one reserve judge of different nationalities, including the Chief Scale Judge. Their names will be submitted to the CIAM or CIAM Bureau for approval. The Chief Scale Judge may not be from the organising NAC. He shall organise work of the judging panel and shall represent it.**

The organiser shall also provide an adequate area for relevant number of entries with bright overhead lights and with tables for turn in, static judging and dimension measuring. The static judging area will be equipped with dimension measuring devices and a PC with a qualified operator. Access to the static judging area during static judging will be restricted to all persons except for static judges, dimension measuring team, PC operator, contest director and FAI Jury>.

Reason: Clarification and application of necessary procedure proved n practice.

ii) **<ALTITUDE EVENTS - Organiser of an international altitude event must provide altitude measuring devices in compliance with the rule 4.9.1.2. and qualified personell for altitude measuring. He also must provide radiocommunications between tracking stations, RSO and the computer center in the field.**

Altitude measuring team shall do test tracking on duration and/or scale models on the day preceding the competition day(s) for altitude events to check tracking and data reduction systems. The head of the altitude measuring team shall present test altitude measuring results to the Jury to prove altitude measuring team readiness and necessary accuracy of measurements and get Jury approval, before the official flights begin in an altitude event>.

Reasons: Altitude measurements (tracking and data reduction) were very poor in several recent WSMChs and EuSMChs. So it is necessary to have immediate proof of quality of altitude measurements before the official flights begin in an altitude event.

iii) **<RANGE SAFETY OFFICER (RSO) - Organiser of an international contest will appoint a person to act as Range Safety Officer (RSO) from the FAI nomination list of judges - specialized in spacemodelling. He may appoint other qualified persons to act as his deputies in accordance to the provisions of the rule 4.3. In case of World or Continental Championships, organiser of the contest shall submit name of RSO to CIAM or CIAM Bureau for approval. RSO may not 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 RSOs one for senior and the other for junior classification. They shall be not of the same nationality but shall have one language in common>.**

Reasons: To make sure that RSOs, who are the most important operating officials in the field, shall be qualified persons who can assure fluent competion and objective judging. This showed as a very important need to assure international contests of necessary quality and to avoid protests.

ANNEX 11 - SPACE MODEL RULES FOR WORLD CUP

a) Paragraph 4 Points Allocation – Subcommittee. Change the paragraph as follows:

For all classes

<Points are awarded only to competitors completing at least one flight in the contest.
In the event of a tie for any placing, all competitors with that placing receive the number of points appropriate to that placing, rounding up the score to the nearest whole number of points>.

Reasons: Clarification and errata correction. This correction was missed in SC4VolSM 2001 edition when new point allocation formulas were introduced. Reason was to equalize conditions for participation in all classes. Therefore points are allocated according to the same or similar formulas. All scores from a contest will be counted, not only those in the first half of the placing list. in order to better stimulate competitors to participate in World

Cup contests. Also in this way points allocation for World Cup and Space Models International Ranking will be balanced. This makes calculations easier and shall decrease calculation mistakes and confusion in placings.

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5) ELECTIONS

6) WORLD CHAMPIONSHIPS

The up-to-date schedule for World and European Championships is the following:

WORLD CHAMPIONSHIPS

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2002	F1A, F1B, F1J Juniors		SLOVAKIA
	F1D (Seniors and Juniors)		ROMANIA
	F2A, F2B, F2C, F2D (Seniors and Juniors)		GERMANY
	F3J (Seniors and Juniors)		FINLAND
	F4B, F4C		CANADA
	F5B, F5D		SWITZERLAND
	SPACE MODELS (Seniors and Juniors)		CZECH REPUBLIC

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2003	F1A, F1B, F1C		HUNGARY
	F1E (Seniors and Juniors)		ROMANIA
	F3A		POLAND
	F3B	Germany	
	F3C		JAPAN
	F3D		CZECH REPUBLIC

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2004	F1A, F1B, F1J Juniors	Romania France	
	F1D (Seniors and Juniors)	Romania	
	F2A, F2B, F2C, F2D (Seniors and Juniors)	USA Spain (tentative)	
	F3J (Seniors and Juniors)	Slovakia	
	F4B, F4C		POLAND
	F5B, F5D	Offers invited	
	SPACE MODELS (Seniors and Juniors)	Poland	

YEAR	WORLD CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2005	F1A, F1B, F1C	Offers invited	
	F1E (Seniors and Juniors)	Offers invited	
	F3A	France (tentative)	
	F3B	Offers invited	
	F3C	Offers invited	
	F3D	France (tentative)	

7) CONTINENTAL CHAMPIONSHIPS

YEAR	CONTINENTAL CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2002	F1A, F1B, F1C		HUNGARY
	F1E (Seniors and Juniors)		SLOVAKIA
	F3A		SPAIN
	F3B	Offers invited	
	F3C		ROMANIA
	F3D	Offers invited	
	F3A Asian-Oceanic		CHINA

YEAR	CONTINENTAL CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2003	F1A, F1B, F1J Juniors		POLAND
	F1D (Seniors and Juniors)		GERMANY
	F2A, F2B, F2C, F2D (Seniors and Juniors)		FRANCE
	F3J (Seniors and Juniors)		ROMANIA
	F4B, F4C		AUSTRIA
	F5B, F5D		ROMANIA
	SPACE MODELS (Seniors and Juniors)		YUGOSLAVIA

YEAR	CONTINENTAL CHAMPIONSHIPS	BIDS FROM	AWARDED TO
2004	F1A, F1B, F1C	Yugoslavia	
	F1E (Seniors and Juniors)	Offers invited	
	F3A	Portugal	
	F3B	Offers invited	
	F3C		GREECE
	F3D	Offers invited	
	F3A Asian-Oceanic	Offers invited	

8) ANY OTHER BUSINESS

9) NEXT CIAM MEETINGS

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ANNEXES TO THE AGENDA

ANNEX A	**List of proposals not included in the Agenda for discussion in the relevant Subcommitees**
ANNEX 1-8	**FAI-CIAM Awards**
ANNEX 9	**Volume ABR, Section 4B. Paragraph B.2.7, Types of International Contests: Open Nationals and Tours (Bureau)**
ANNEX 10	**Volume ABR, Section 4B, General Rules for International Contests. Paragraph B.7, Special Contest Organisation Requirements (Bureau).**
ANNEX 11	**Volume F2 – Class F2B. Reorganised rules and diagrams for class F2B (Subcommittee)**
ANNEX 12	**Volume F2 – Class F2B – Annex 4B Judges' Guide (Subcommittee)**
ANNEX 13	**Volume F2 – Class F2C – Annex 4C Judges' Guide (Subcommittee)**
ANNEX 14	**Volume F2 – Class F2F – Provisional rules for class F2F (Subcommittee)**
ANNEX 15	**Volume F3A, new proposed manoeuvre schedules (Subcommittee)**
ANNEX 16	**Volume F3A, description of new manoeuvres: Annex 5A (Subcommittee)**
ANNEX 17	**Volume F3A, new Aresti drawings (Subcommittee)**
ANNEX 18	**Volume F3A, annex 5B Judges' Guide (Subcommittee)**
ANNEX 19	**Volume F3A, rules for new World Cup (France)**
ANNEX 20	**Volume F3B/J, drawings and reports for F3J launching devices (Germany)**
ANNEX 21	**Volume F3B/J, provisional rules for class F3L (France)**
ANNEX 22	**Volume F3D, rules for F3D Eurocup event (Subcommittee)**
ANNEX 23	**Volume F4, annex 6D, rules for new Scale World Cup (Subcommittee)**
ANNEX 24	**Volume F5, updating manoeuvres for class F5A (Subcommittee)**
ANNEX 25	**Volume F5, updating F5A Aerobatics Box (Subcommittee)**