FAI Sporting Code

Fédération Aéronautique Internationale

Section 4 – Aeromodelling

Volume F6
Airsports Promotion Classes for Model Aircraft

2015 Edition

Effective 1st January 2015

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1 FAI Statutes, Chapter 1, para. 1.6

2 FAI Sporting Code, General Section, Chapter 3, para 3.1.3.

3 FAI Statutes, Chapter 1, para 1.8.1

4 FAI Statutes, Chapter 2, para 2.1.1

5 FAI Bylaws, Chapter 1, para 1.2.1

6 FAI Sporting Code, General Section, Chapter 3, para 3.4

7 FAI Bylaws, Chapter 1, para 1.2.3

8 FAI Statutes, Chapter 5, para 5.2

9 FAI Sporting Code, General Section, Chapter 3, para 3.1.7

10 FAI Sporting Code, General Section, Chapter 1, paras 1.2. and 1.4

11 FAI Statutes, Chapter 5, para 5.2.3.3.7

12 FAI Bylaws, Chapter 1, para 1.2.2

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VOLUME F6

SECTION 4C – MODEL AIRCRAFT – F6 – AIRSPORTS PROMOTION CLASSES

F6 events are designed to be the means of promoting our sport. As such, while being real, challenging competitions for the participants, they also must be enjoyable and entertaining for spectators and media. This cannot be achieved if spectators are not allowed to follow and understand what is happening.

So as to achieve this, it is highly recommended that F6 event organisers include in their field staff an experienced commentator, whose duty should be to continuously commentate the event in the most entertaining way while explaining what happens at any given time and providing factual information about the competitors and the standings.

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THIS 2015 EDITION INCLUDES THE FOLLOWING AMENDMENTS MADE TO THE 2014 CODE

These amendments are marked by a double line in the right margin of this edition

Paragraph	Plenary meeting approving change	Brief description of change	Change incorporated by
Contents (page 5)	2014	Add an opening introduction to the volume	Kevin Dodd Technical Secretary
6.1.8.3.		New paragraph for calculating displayed score: F6A	
6.1.8.4.		New paragraph approving electronic scoring system	
6.2.11.1.4.		New paragraph for calculating displayed score: F6B	
6.2.11.1.5.		New paragraph approving electronic scoring system	

Four-Year Rolling Amendments for Reference			
Paragraph	**Plenary meeting approving change**	**Brief description of change**	**Change incorporated by**
There were no changes at the 2013 Plenary Meeting			
There were no changes at the 2012 Plenary Meeting			
6.1.2.1	(2010)	Corrected paragraph heading.	Guy Revel
6.1.8.2. & 6.2.11.1.2	2011	Consequential change reference Annex F6-2, paragraph 2 2.3.	
6.4.6.3.		Next to last flight now decides in case of a tie for the last semi-final place.	
6.4.6.6.		New tie-break for progression to the final round.	
6.4.8.3.		New option tasks for final round.	
6.5		New class F6E Aerobatic Regatta.	
Annex F6-2 2.3.		Replace last two scoring criteria with one new one.	
6.1.8.2. & 6.2.11.1.2	n/a	Added sub-paragraph numbers.	Jo Halman Technical Secretary
6.4.8.3		Rationalised the paragraph numbers.	
Annexes F6A-1, F6A-2, F6B-1 & F6B-2		Updated to reflect the changes in Annex F6-2, paragraph 2.2.3.	
Rule Freeze	2010	New text to clarify rule change cycles. Consequential change for ABR reference from A.12 to A.13.	Jo Halman Technical Secretary
6.1.2..		Propeller-driven aircraft characteristics amended.	Guy Revel
6.1.2.2.		Jet aircraft maximum wingspan increased.	
6.1.2.3.		Helicopters characteristics amended.	
6.1.4.3.		Drop-out competitors now Organiser's decision.	
6.1.8.1.		Judges high & low scores now discarded.	
6.1.8.2.		Scoring by full points steps and increased maximum scores. New sub-para showing the scoring.	
6.1.11.2.		Clarification of engine/motor start time.	
6.2.11.1.1.		Judges high & low scores now discarded.	
6.2.11.1.2.		Scoring by full points steps and increased maximum scores. New sub-para showing the scoring.	
6.4..		Added sub-paragraph numbering throughout 6.4.	
6.4.2.2.		Telemetry not allowed.	
6.4.2.3.		Loss of part in flight voids the flight.	
6.4.4..		Clarification of landing definition.	
6.4.6.3.		Number of semi-final competitors now an Organiser decision.	
6.4.6.6.		Number of final competitors now an Organiser decision.	
6.4.7..		Final classification redefined.	
6.4.8.3.		New final task.	
6.4.8.4.		Task preparation time re-worded.	
6.4.8.5.		Task landing delay re-worded.	

cont/…

Annex F6A-1	2010	Re-designed score sheet reference 6.1.8.2.	Guy Revel
Annex F6A-4		Clarification of engine/motor starting time procedure.	
Annex F6B-1		Re-designed score sheet reference 6.11.1.2	
Annex F6-4		New annex for World Air Games competitors' selection system & procedures.	
Annex F6-2	n/a	Combined separate Annex F6A-3 Artistic Aerobatics & Annex F6B-3 AeroMusicals Judges Guides into a single Judges' Guide re-numbered Annex F6-2. With English corrections and clarifications throughout.	Jo Halman, Technical Secretary
Annex F6-3		Combined separate Annex F6A-4 Artistic Aerobatics & Annex F6B-4 AeroMusicals Organiser Guides into a single Organiser Guide re-numbered Annex F6-3. With English corrections and clarifications throughout	
6.1.10.2,		English corrections for clarity	
6.1.11.1, 6.1.11.3, 6.1.11.6			
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6.2.7.4 2nd para		English corrections for clarity	
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Annex F6- 4, Paras: 1, 2, 5, 6, 7, 9, 10, 11			

RULE FREEZE FOR THIS VOLUME

With reference to paragraph A.13 of Volume ABR:

In all classes, the two-year rule for no changes to model aircraft/space model specifications, manoeuvre schedules and competition rules will be strictly enforced. For Championship classes, changes may be proposed in the year of the World Championship of each category.

For official classes without Championship status, the two-year cycle begins in the year that the Plenary Meeting approved the official status of the class. For official classes, changes may be proposed in the second year of the two-year cycle.

Volume F6 contains only provisional classes and is not, therefore, subject to this restriction.

The only exceptions allowed to the two -year rule freeze are genuine and urgent safety matters, indispensable rule clarifications and noise rulings.

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VOLUME F6

RADIO CONTROL FREESTYLE AEROBATICS TO MUSIC

6.1. CLASS F6A – ARTISTIC AEROBATICS

6.1.1 Definitions of an Artistic Aerobatics Aircraft

A model aircraft that is aerodynamically manoeuvred by control surface(s) in attitude, direction and altitude by a pilot on the ground using radio control, or a helicopter.

An R/C helicopter is a heavier-than-air model aircraft that derives all of its lift and horizontal propulsion from a power driven rotor system(s) rotating about a nominally vertical axis (or axes). Fixed horizontal supporting surfaces up to 4 percent of the swept area of the lifting rotor(s) are permitted. A fixed or controllable horizontal stabiliser of up to 2% of the swept area of the lifting rotor(s) is permitted. Ground effect machines (hovercraft), convertiplanes or aircraft that hover by means of propeller slipstream(s) deflected downward are not considered to be helicopters.

6.1.2 General characteristics of Radio Controlled Artistic Aerobatics Airplanes:

6.1.2.1. Propeller-driven aircraft:

Maximum overall wingspan:.....2 m

Maximum take off total weight: ....6,5 kg

Power source limitations: any suitable power source may be utilised except those requiring solid propellants, gaseous or liquefied gaseous fuels. Electric powered aircraft are limited to a maximum of 42 Volts for the propulsion circuit.

6.1.2.2. Jet-powered aircraft:

Maximum wing span: .....2 m

6.1.2.3. Helicopter

Maximum rotor swept area:..... 300 dm^2

Note: The swept area of the lifting rotor must not exceed 300 dm^2. For helicopters with multiple rotors whose rotor shafts are more than one rotor diameter apart the total swept area of both rotors cannot exceed 300 dm^2. For helicopters with multiple rotors whose rotor shafts are less than one rotor diameter apart the swept area of both rotors (counting the area of superposition only once) cannot exceed 300 dm^2.

All-metal main or tail rotor blades are prohibited.

6.1.2.4. Paragraph B.3.1 a) of Section 4b (Builder of Model) is not applicable to class F6A.

Radio equipment shall be of the open loop type (i.e. no electronic feedback from the aircraft to the ground). Auto-pilot control utilising inertia, gravity or any type of terrestrial reference is prohibited. Automatic control sequencing (pre-programming) or automatic control timing devices are prohibited. It is highly recommended to use the 2.4 GHz RC systems to improve substantially the safety of flying in front of the spectators.

Example:

Permitted:

- Control rate devices that are manually switched by the pilot.
- Any type of button or lever control that is initiated and terminated by the pilot.
- Manually operated switches to couple control functions.

Not permitted:

- Snap buttons with automatic timing mode.
- Pre-programming devices to automatically perform a series of commands.
- Auto-stabilisers (“gyros”) for automatic wing levelling.
- Propeller pitch change with automatic timing mode.
- Any type of voice recognition system.
- Any type of learning function involving manoeuvre to manoeuvre or flight to flight analysis.

6.1.3. Definition and Number of Helpers

A helper may be a Team Manager, another competitor or an officially registered helper. Each pilot is permitted one helper during the flight. Two helpers may be present during the starting of the motor(s). The second helper may place the aircraft for take-off and retrieve the aircraft following the landing.

6.1.4. Number of Rounds

6.1.4.1. The competition consists of one or several qualifying rounds leading to a final round. The starting order for the initial round is established by the Organiser according to any suitable criterion. It is suggested that the starting order be established in reverse order of the competitors' skill ranking (established by any generally accepted means) so as to increase the spectators' interest from the beginning to the end of the round.

6.1.4.2. For each competitor, a qualification round consists of one Music Free Style flight. A final round consists of one Music Compulsory and one Music Free Style flights.

6.1.4.3. All pilots are entitled to fly the first qualifying round. If there is a second qualification round, it will be open to a lower number of competitors. The number of competitors accessing the second round shall be determined by the Organiser before the beginning of the competition, and preferably in the preliminary competition information bulletin, according to the number of competitors and the time available. If more than two qualification rounds are flown, the Organiser shall similarly decrease the number of pilots accessing any subsequent round.

6.1.4.4. The final round shall be open to no more than the top 5 remaining competitors. The number of competitors accessing the final round shall be determined by the Organiser before the beginning of the competition, and preferably in the preliminary competition information bulletin, according to the number of competitors and the time available.

6.1.4.5. At the Organiser's discretion, access to any following round except the last one may be split into direct qualification for most of the competitors and indirect qualification for up to three (3) additional competitors to fill up the originally planned number for that round. In this case, all pilots not directly qualified may take part in an additional round to select the last qualified competitors.

6.1.4.6. The Organiser shall set up and display for each round a timetable stating the time each competitor will be allowed to start his flight.

6.1.5. Definition of an attempt

There is an attempt when the competitor is given permission to start.

Note: If the competitor fails to take off (lift off) within the 60 seconds allowed, he must immediately make room for the next competitor.

6.1.6. Number of attempts

Each competitor is entitled one attempt for each official flight.

Note: An attempt can be repeated at the Contest Director's discretion only when, for any unforeseen reason outside the control of the competitor, the aircraft fails to start (eg there is radio interference). Similarly, in a flight that is interrupted by any circumstance beyond the control of the competitor (eg sudden rainfall, music broadcast malfunction, etc), the competitor is entitled a re-fly.

6.1.7. Definition of an official flight

There is an official flight when an attempt is made, whatever the result.

Manoeuvres must be performed where they can be clearly seen by the judges.

If an aircraft is, in the opinion of the judges or the Contest Director, unsafe or being flown in an unsafe manner, they have to instruct the flight marshall who will command the pilot to land. In this case, the flight will be deemed complete.

6.1.8. Marking

6.1.8.1. Judges

All flights have to be judged by at least 5 judges. The highest and lowest total flight scores have to be discarded. For local contests at least 3 judges are allowed and all 3 scores shall be taken into account.

6.1.8.2. Qualification and Finals flights

Each flight may be awarded marks by each of the judges and for each judging criterion. Judging shall be done on:

a) Technique (difficulty and precision of the individual manoeuvres):

Execution precision	→Maximum score = 10
Use of the full range of the flight envelope	→Maximum score = 2
Versatility	→Maximum score = 8

b) Artistic quality (originality, harmony & rhythm, composition and versatility of the entire flight sequence, adhesion to the music):

Synchronisation with music	→Maximum score = 14
Pleasing & continuous flow of figures	→Maximum score = 8
Contrasting periods.../	→Maximum score = 10

c) Overall artistic appearance (choice of music & flight schedule design).

→Maximum score = 8

Each judge may award a maximum of 60 points to each competitor. A judging guide shall define the judging criteria and their relative weights.

6.8.1.3. Display of scores

The total score shall be divided by 18 (if 3 judges), 30 (if 5 judges) - or a proportional number according to the number of judges - to give the official displayed score. The displayed score shall include 2 (two) or 3 (three) decimals.

6.8.1.4. Electronic Scoring System

A graphic electronic scoring system may be used, provided the software has been approved by the F6 Working Group. In such a case, individual judges' scores resulting from the graphic display set by each judge may use decimals.

6.1.9. Classification

6.1.9.1. The score of a qualification or final round is the sum of the flight scores of that round.

6.1.9.2. The flight starting order at the beginning of any round after the first qualification round is in reverse order of the classification at the end of the preceding round.

6.1.9.3. The final classification is established according to the last round flown by the competitor and the classification in this round, in decreasing order from Final to initial rounds and from highest score to the lowest.

6.1.9.4. In case of a tie, the ranking of the preceding round will prevail. If the tie remains, the sum of the scores of the last and preceding rounds will decide.

6.1.9.5. Provided this is specified in the competition announcement, the Organiser may elect to organise Aircraft Helicopter and Jet Artistic Aerobatics as a single competition with only one aircraft type or any combination of them with a common classification.

6.1.10. Tasks

6.1.10.1. Music compulsory flights

These are flights where each competitor must compose his own sequence of manoeuvres to suit the compulsory music. Any manoeuvre may be flown, provided safety is ensured. Unsafe flying, in the opinion of the judges, shall result in a zero score.

The flights shall be judged for technique (precision and difficulty of the individual manoeuvres), artistic quality (composition of the complete sequence, variety of the manoeuvres, rhythm and adherence to the music) and overall appearance as detailed in 6.1.8.2. Excessive noise deters from the overall appearance and shall accordingly induce downgrading.

The music to be used may be chosen and prepared by the ad hoc sub-committee or the Organiser and must be available to the competitors three months in advance at the latest.

For finals, the duration of the compulsory music shall be between 100 and 140 seconds.

6.1.10.2. Music free-style flights

These are flights where each competitor must compose his own sequence of manoeuvres to suit the music of his own choice. Any manoeuvre can be flown, provided safety is ensured. Unsafe flying, in the opinion of the judges, shall result in a zero score.

The flights shall be judged for technique, artistic quality and overall appearance as detailed in 6.1.8.2. Excessive noise deters from the overall appearance and shall accordingly induce downgrading. A judging guide may define the judging criteria and their relative weights.

The music shall be chosen by each competitor according to his own taste. The music shall be composed of alternating slow and faster tempo segments so as to enable the competitor to display the widest possible range of manoeuvres and mood impressions. The competitor must provide the Organiser with a recording of the chosen music on CD, tape or any other suitable support specified by the Organiser in the original invitation document. Details of the music used (composer, performer, CD label, etc) shall be supplied to the Organiser for Public Performance Rights collection purpose.

For qualification flights, the music shall be of 120 seconds duration. When several qualification rounds are scheduled, the competitor may elect to fly a different music and/or manoeuvre sequence for any one of such flights.

When the finals are limited to 2 or 3 competitors, the Organiser may elect to run the previous round (“semi-finals”) with music pieces of 240 seconds duration. The number of competitors entered in such semi-finals shall not exceed 5.

For finals, the music shall be of 240 seconds duration.

Music duration variations up to plus or minus 5 (five) seconds are allowed. The scored part of the flight begins at the moment the music starts and ends at the moment the music finishes.

6.1.11. Timing procedures

6.1.11.1 It is the competitor's responsibility to check the timetable and make sure that he is ready to start at the prescribed time. He may be handed his transmitter at any time as allowed by the Transmitter Pound Steward, but no later than the prescribed starting time of the previous competitor.

6.1.11.2 Once allowed to enter the flight area and with permission from the Field Marshall, the competitor or his helper may start his engine(s). This may occur as soon as the Field Marshall is satisfied that the procedure does not disturb the previous competitor's preparation or flying. The start of the take-off roll (the moment the aircraft moves under its own power) or lift-off shall occur no later than 60 seconds after the moment permission has been given to take off.

6.1.11.3 During Music Compulsory and Music Free-Style flights, the competitor may elect to start his scored sequence (start of the music) at any time up to 30 seconds from the moment of the start of the take off roll (or lift off). He must express his choice to the Judges and timekeeper before the beginning of his flight and signal to the Steward the moment he wants the music to start. If he fails to signal this moment, the Steward will start the music 30 seconds after the start of the take off roll (or lift off).

6.1.11.4 During Music Compulsory flights, scoring by the judges ceases, at the choice of the competitor, at landing or in flight. Whatever the choice, scoring stops at the moment the music stops.

6.1.11.5 During Music Free Style flights, scoring by the judges ceases at the moment the prescribed music duration comes to an end. At the choice of the competitor, this may occur at landing or in flight. Whatever the choice, scoring stops at the moment the music stops.

6.1.11.6 If the competitor elects to end his scored sequence while in flight, he must land his aircraft (the moment the aircraft first touches the ground on the designated landing area) within 30 seconds of the end of the scored sequence.

6.1.12 Time penalties

6.1.12.1. If the competitor fails to take off within the time allowed, the flight is scored 0 (zero).

6.1.12.2. If the competitor fails to begin the scored sequence within the time allowed, the flight is scored 0 (zero).

6.1.12.3. If the competitor fails to land within the time allowed after the end of the scored sequence, the flight is scored 0 (zero).

6.1.12.4. If the freestyle music lasts less or more than the prescribed duration, the flight score shall be reduced accordingly.

6.1.13. Junior and National Team participation

6.1.13.1 When at least 5 Junior competitors compete, there shall be a separate Junior classification. Whenever possible, the Organiser should try to organise separate flight groups for them.

6.1.13.2. National Teams, when applicable, shall consist of up to eight (8) competitors from the same nation.

6.1.13.3. A National Teams classification shall be established, taking into account the scores of the three (3) top ranking competitors from each nation.

6.1.13.4. National Junior Teams, when applicable, shall consist of up to five (5) competitors from the same Nation.

6.1.13.5. A National Junior Teams classification shall be established, taking into account the scores of the three (3) top ranking Junior competitors from each Nation.

6.1.13.6. The scores to be taken into account for Team classification shall be the final score of the competitors.

6.1.13.7. Results of Consolation Rounds shall not be taken into account for National Team classification.

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RADIO CONTROL FREESTYLE AEROBATICS TO MUSIC

6.2. CLASS F6B – AEROMUSICALS

6.2.1 Definitions

6.2.1.1 Definition of an AeroMusicals competition

A competition in which pilots perform flights to music to express their piloting and artistic skills. The performance is judged on variety, precision and expressiveness.

There are three sub-classes according to the competition site:

- Sub-class A (indoor): for performance in restricted indoor halls
- Sub-class B: for performance in large indoor sport arenas or small-size outdoor sporting places
- Sub-class C: for performance in medium-size outdoor locations.

6.2.1.2 Definition of an AeroMusicals aircraft

An electric-powered model aircraft, but not a helicopter, that is aerodynamically manoeuvred by control surface(s) in attitude, direction and altitude by a pilot on the ground using radio control,.

6.2.2 General Characteristics of Radio Controlled AeroMusicals Aircraft:

Maximum total weight:

- Sub-class A: 500 g
- Sub-class B: 1000 g
- Sub-class C: 2000 g

Power source limitations: any suitable electric power source may be utilised. Batteries are limited to a maximum of 42 Volts for the propulsion circuit.

For better visibility, brightly decorated aircraft are recommended.

AeroMusicals Aircraft shall be controlled with commercially available radio control equipment. There are no restrictions on the number of control functions or auxiliary equipment. No other restrictions apply.

Paragraph B.3.1 a) of Section 4b (Builder of Model) is not applicable to class F6B.

6.2.3. Definition and Number of Helpers

A helper may be a Team Manager, another competitor or an officially registered helper. Each pilot is permitted one helper during the flight.

6.2.4. Attempts

6.2.4.1. There is an attempt when the competitor is given permission to start. Take-off shall take place within one minute after that moment.

6.2.4.2. Each competitor is entitled only one attempt for each official flight

Note: An attempt can be repeated at the Contest Director's discretion only when, for any unforeseen reason outside the control of the competitor, the aircraft fails to start (eg there is radio interference). Similarly, in a flight that is interrupted by any circumstance beyond the control of the competitor (eg sudden light shut-off, music airing malfunction, etc), the competitor is entitled to a re-fly. The whole flight shall be re-flown and scored as a whole.

6.2.5. Definition of an Official flight

There is an official flight when an attempt is made, whatever the result.

6.2.6. Definition of a Round

A round consists of one flight for each competitor entitled to fly in that round. The number of rounds is established by the Organiser according to the planned competition duration.

6.2.7. Number of Rounds

6.2.7.1. The competition shall be planned so as to limit the total duration. A competition duration from one hour up to no more than two hours is recommended.

6.2.7.2. The competition consists of one or several rounds leading to a final round. The starting order for the initial round is established by the Organiser according to any suitable accepted criterion. It is suggested that the starting order takes into account the competitors' skill ranking (established by

any generally accepted mean) so as to increase the spectators' interest from the beginning to the end of the round.

6.2.7.3. All pilots are entitled to fly the first round.

6.2.7.4. At the conclusion of each round, only the best ranking competitors are entitled to take part in the following round. The number or percentage of competitors flying in any following round is defined by the Organiser according to the expected competition duration.

At the Organiser's discretion, access to any subsequent round except the last one, may be split into direct qualification for most of the competitors and indirect qualification for up to three (3) additional competitors to fill up the originally planned number for that round. In this case, all pilots not directly qualified may take part in an additional round to select the last qualified competitors.

6.2.7.5. The starting order for any round after the initial one is in reverse order of the classification at the conclusion of the previous complete round.

6.2.7.6. The last round is called "Finals" with a limited number of competitors, preferably 2 (two) or 3 (three).

6.2.7.7. The Organiser shall set up and display for each round a timetable stating the time at which each competitor will be allowed to start his flight.

6.2.8 AeroMusicals flights

6.2.8.1. These are flights where each competitor must compose his own sequence of manoeuvres to suit the music of his own choice. Any manoeuvre can be flown, provided safety is ensured. Unsafe flying, in the opinion of the judges, shall result in a zero score.

6.2.8.2. The flights shall be judged for technique, artistic quality, variety, compliance with the chosen music and overall appearance. A judging guide defines the judging criteria and their relative weights.

6.2.8.3. The music shall be chosen by each competitor according to his own taste. The music shall be composed of alternating slow and faster tempo segments so as to enable the competitor to display the widest possible range of manoeuvres and mood impressions. The competitor must provide the Organiser with a recording of the chosen music on CD, tape or any other suitable support specified by the Organiser in the original invitation document. Details of the music used (composer, performer, CD label, etc) shall be supplied to the Organiser for Public Performance Rights collection purpose.

6.2.8.4. The music shall be of 120 seconds duration. The competitor may elect to fly a different manoeuvres sequence and/or to a different music for any flight.

6.2.8.5. For Finals, at the Organiser's discretion the music may be of 240 seconds duration, provided this is specified in the initial competition invitation bulletin.

6.2.8.6. Music duration variations up to plus or minus 5 (five) seconds are allowed. The scored part of the flight begins at the moment the music starts and ends at the moment the music comes to an end.

6.2.9. Timing procedures

6.2.9.1. It is the competitor's responsibility to check the timetable and make sure that he is ready to start at the prescribed time. He may be handed his transmitter at any time as allowed by the Transmitter Pound Steward, but no later than the prescribed starting time of the previous competitor.

6.2.9.2. Once the competitor is given permission to start, he signals to the Steward the moment he wants the music to start. If he fails to signal this moment, the Steward will start the music 15 seconds after the permission to start has been given.

6.2.9.3. Scoring by the judges begins when the music starts and ceases at the moment the music stops. At the choice of the competitor, the end of the scored flight may occur at landing or in flight. If in flight, the competitor must land his aircraft quickly thereafter.

6.2.10. Time penalties

6.2.10.1. If the competitor fails to take off within 15 seconds after being given permission to start, the flight is scored 0 (zero).

6.2.10.2 If the freestyle music lasts less or more than the prescribed duration, the flight score shall be reduced accordingly.

6.2.11. Scoring

6.2.11.1. Judging

6.2.11.1.1. All flights have to be judged by at least 5 judges. The highest and lowest total flight scores have to be discarded. For local contests at least 3 judges are allowed and all 3 scores shall be taken into account.

6.2.11.1.2. Each flight may be awarded marks by each of the judges and for each judging criterion as defined in the Judging Guide and as follows:

a) Technique (difficulty and precision of the individual manoeuvres):

Execution precision	→Maximum score = 10
Use of the full range of the flight envelope	→Maximum score = 2
Versatility	→Maximum score = 8

b) Artistic quality (originality, harmony & rhythm, composition and versatility of the entire flight sequence, adhesion to the music) ;

Synchronisation with music	→Maximum score = 14
Pleasing & continuous flow of figures	→Maximum score = 8
Contrasting periods.../	→Maximum score = 10

c) Overall artistic appearance (choice of music & flight schedule design).

→Maximum score = 8

Each judge may award a maximum of 60 points to each competitor. A judging guide shall define the judging criteria and their relative weights.

6.2.11.1.3. The score awarded by each judge shall be displayed immediately after each flight.

6.2.11.1.4. The total score shall be divided by 18 (if 3 judges), 30 (if 5 judges) - or a proportional number according to the number of judges - to give the official displayed score. The displayed score shall include 2 (two) or 3 (three) decimals.

6.2.11.1.5 A graphic electronic scoring system may be used, provided the software has been approved by the F6 Working Group. In such a case, individual judges' scores resulting from the graphic display set by each judge may use decimals.

6.2.11.1.6. When the Final Round involves only two competitors, the Organiser may elect to have the winner elected by the spectators, provided this is clearly stated in the initial competition invitation bulletin. In this case, if the result of the spectators vote is not clearly decisive, the panel of judges shall have the decisive vote.

6.2.12. Classification

6.2.12.1. All competitors are entitled to compete in the first round.

6.2.12.2. Scores are not carried over from one round to the following one.

6.2.12.3. The final classification is established according to the last round flown by the competitor and the classification in this round, in decreasing order from Final to initial rounds and from highest score to the lowest.

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RADIO CONTROL HAND THROWN GLIDERS

6.4. CLASS F6D – HAND THROWN GLIDERS

6.4.1 General

6.4.1.1. A contest where RC gliders must be hand thrown to altitude. The organiser must provide a sufficient number of timekeepers in order to allow enough simultaneous flights at all times. In principle, each competitor is allowed one helper who should not become physically involved in the flight. Handicapped persons may ask their helpers for assistance at launching and retrieving (catching) their glider.

6.4.1.2. The organiser should provide a transmitter pound where all transmitters are kept in custody while not in use during a flight or the corresponding preparation time.

6.4.2. Definition of hand thrown gliders

6.4.2.1. Motorless model aircraft, with the following limitations:

Wingspan	max:	1500 mm
Weight	max:	600 g
Radius of the nose:		minimum 5 mm in all orientations (see F3B nose definition for the measurement technique).

6.4.2.2. The hand thrown glider must be launched by hand and controlled by radio equipment acting on an unlimited number of surfaces. Transmission of information connected with flight (speed, vario, etc) from the glider to the pilot is not allowed.

6.4.2.3. The hand thrown glider can be equipped with holes, pegs or reinforcements, which allow better grip of the model aircraft by hand. The pegs must be stiff and remain a firm part of the model, neither extensible nor retractable. Devices, which do not remain a part of the model during and after the launch, are not allowed. Any loss of part of the model during the flight results in zero for the flight.

6.4.2.4. The competitor may at any times change his model aircraft as long as the replacement aircraft conform to the specifications and are operated at the assigned frequency.

6.4.2.5. Unless a spread spectrum modulation system is used, each competitor must provide a sufficient number of frequencies, at least three, on which his model aircraft may be operated to allow the organiser to set up flight groups. The organiser may assign any of these frequencies for the duration of any round or the complete contest.

6.4.3. Definition of the flying field

6.4.3.1. The flying field should be reasonably level and large enough to allow several model aircraft to fly simultaneously. The main source of lift should not be slope lift. The organiser must define the launching and landing area before the start of the contest and all launching and landings should occur within this area. Any launch or landing outside this area shall be scored zero for the flight.

6.4.3.2. A typical launching and landing area could be a rectangle 100m x 50m oriented with the longer side perpendicular to the wind direction.

6.4.4. Definition of landing

A landing is considered valid if:

- the glider comes to rest and at least one part of it touches the launching and landing area;
- the competitor catches the airborne glider by hand (or if competitor is handicapped, his helper, if launching was made by this person), while standing with both feet inside the launching and landing area.

cont/…

6.4.5. Flight time

6.4.5.1. The flight time is measured:

- At task 1 from the moment the glider leaves the hands of the competitor
- At task 2 from the end of the launching interval

6.4.5.2. The flight time is measured to the moment the glider comes to rest on the ground or ground based object or the competitor catches the glider by hand or the working time expires. One point will be awarded for each full second the glider is flying, up to the given maximum flight time. One point will be deducted for each full second flown in excess of the given maximum flight time.

6.4.5.3. The flight time is official if the launching and landing both occur inside the launching and landing area.

6.4.6. Organisation of rounds

6.4.6.1. The competitors are arranged in groups. A group should be a minimum of 5 pilots. The contest is organised in qualifying, semi-final and fly-off rounds.

6.4.6.2. In the qualifying rounds, tasks 1 and 2 are flown. The start and end of the working time are announced with a sound-signalling device. The results are normalised within each group, 1000 points being the basis for the winner of the group.

6.4.6.3. To the semi-final rounds the best pilot from each qualifying group proceeds. Other pilots, up to the number specified by the organiser before the beginning of the first qualifying round, proceed to semi-final according to their normalised results. In case of tie at last proceeding places, the result of task 1 decides. If a tie remains, the result of the next to last flight of task 1 decides. The number of semi-final groups is specified by the organiser before the beginning of the first qualifying round. The organiser may also decide to skip the semi-final if the number of competitors is small. This decision must be announced before the beginning of the first qualifying round.

6.4.6.4. In the semi-final rounds, the pilots fly task 2 in three groups (or two groups if the number of qualifying pilots is less than 15).

6.4.6.5. The best pilot from each semi-final group goes forward to the final group. Other pilots go forward to final according to their normalised results. In the case of a tie, at last proceeding places, the pilot with the better result from qualifying round proceeds.

6.4.6.6. The final round contains eight pilots or, in exceptional cases, four pilots. From each semi-final group the best pilot proceeds to the fly-off round. Other pilots, up to the number specified by the organiser before the beginning of the first qualifying round, proceed to the fly-off according to their normalised results. In case of tie for the last qualifying place, the pilot with the better result from the qualifying round proceeds. If a tie remains, the best result from task 1 decides.

6.4.7 Total winner

6.4.7.1. The winner is the pilot having the best total flight time during the fly-off round. The classification is in reverse order of total flight times. Pilots who did not go forward to the fly-off are ranked according to their results in the semi-final or, for others, in their qualifying rounds.

6.4.7.2. In case of a tie for the top three places, the lowest single flight time in fly-off decides the ranking. If a tie remains, then the results of the semi-final round decide the ranking and, if a tie still remains, the qualifying results decide.

6.4.8 Tasks

6.4.8.1. Task 1 “Last flight”:

During the working time, the competitor may launch the glider an unlimited number of times, but only the last flight is taken into account to determine the final result. The length of the flight is limited to 5 minutes. Any additional release of the glider annuls the preceding timing. When the competitor announces that he has completed his last flight (his official flight for this task), he must leave the launching and landing area, together with his timekeeper.

Working time - 7 minutes.

6.4.8.2. Task 2 “All up”:

All competitors of a group must launch their gliders simultaneously, within 3 seconds. The signal for launching comprises three short beeps each second and a continuous tone lasting three seconds. During the continuous tone, the glider has to leave the hand of the pilot. Releasing the glider earlier or later shall result a zero score for this flight. The maximum flight time is 3 minutes. Each flight time of the 3 attempts of each competitor shall be added up and will be normalised to obtain the final score for this task.

Example:	Competitor A:	45+50+35 s = 130 s =	812.50 points
	Competitor B:	50+50+60 s = 160 s =	1000.00 points
	Competitor C:	30+80+40 s = 150 s =	937.50 points

6.4.8.3 Tasks for fly-off rounds

The organiser has the option to select the final round task out of the five following option tasks. The chosen task must be announced before the contest begins and, preferably, in the contest invitation documents.

6.4.8.3.1 Option Task F-1 (Last Down)

a) All competitors of a group must launch their model aircraft simultaneously, within a three second period. The signal for launching comprises a three second countdown with a single beep for each of those three seconds and a continuous tone lasting three seconds. During the continuous tone the model aircraft has to leave the hand of the pilot. Releasing of the model earlier or later results in zero score for this flight. Maximum flight time is 3 minutes.

b) When the first model lands or at three minutes flight time a thirty seconds interval starts. All models must land within these thirty seconds.

c The pilot whose model landed first receives a zero score or a pilot who released his model before or after the three seconds interval for launching or whose model landed outside the landing area or landed after the thirty seconds interval receives a zero score too.

6.4.8.3.3 Option Task F-2 (Cumulative Flights)

a) During the working time of 10 minutes, the competitor may launch his model glider a maximum of 5 times. The maximum accounted single flight time is 120 s. The sum of all flights is taken for the final score.

b) Preparation time

For each round or attempt the competitors receive 2 minutes preparation time. During this time the competitor is allowed to turn on and check his radio, but is not allowed any launch of his glider, either outside or inside the launching and landing area. If all competitors in the group are ready and agree, the working time can be started earlier.

c) Landing time

Immediately after the end of the working time or after each attempt for task 2, a 30 seconds landing window will begin. If a model lands later then the flight will be scored with zero points.

6.4.8.3.3 Option Task F-3 (Distance)

a) A course is laid out with two imaginary vertical and parallel planes, so that the flying course between the two planes is essentially parallel to the spectators line/field boundary. Sighting devices are set up in such a way that sighting judges can precisely assess the crossing of these planes by the flying models. The downwind plane is the start and finish plane (“Base A”), the upwind plane is the turning plane (“Base B”). A safety “line”, which the models must not overfly, is defined parallel to the course length at a sufficient distance from the spectator’s area. Only the competitors and their helpers, the Contest Director and the sighting judges are allowed to stay in the course area.

b) Any crossing of the safety line by a flying model, as judged by the Contest Director or a safety marshall, results in a zero score for the offending competitor.

c) A plane (“Base”) is deemed crossed as soon as a sighting judge can see any part of a flying model outside of the flying course.

d) An optical signal, that may be supplemented with an acoustic signal, indicates a plane crossing. The signals for the two opponents must be different and easily recognisable.

e) The distance (course length) between the two planes should be approximately 50 metres and may be adjusted by the Contest Director according to local and meteorological conditions, but must not be shorter than 30 metres nor exceed 80 metres.

f) The task opposes the final competitors two by two. The opponents are selected by a draw, or any other method at the discretion of the Contest Director. They must launch their models

between Base A and Base B. The task time is 2 minutes. A signal as defined in 6.4.8.3.3.4. is used to indicate the beginning and the end of the task time. The competitors must launch their models at or after the start signal. A model launched before the start signal results in a zero score for the offending competitor.

g) The task is a distance task. The models begin the task crossing Base A towards Base B, cross Base B and fly back and forth between the two Bases as many legs as possible until the end of the allotted time. A re-start is allowed within the task time, provided the model is launched from within the course. A re-start voids the previously achieved distance.

h) At the end of the task time, the winner is the competitor whose model flew the highest number of full laps. In case of an equal number of laps, the winner is the competitor whose model first crosses, in flight, the next base.

i) The two competitors fly the same task again and a third time if the need arises. The first competitor winning twice accesses the next final stage.

j) The final task is made of three stages (two stages only when only four competitors qualify for the final round) with eight, then four, then two remaining competitors. After stage 2, the two competitors not qualified for the grand final are opposed to decide the 3rd and the 4th places. This “small final” must take place right before the grand final.

6.4.8.3.4 Option Task F-4 (Speed Dash)

a) A course is laid out with two imaginary vertical and parallel planes, so that the flying course between the two planes is essentially parallel to the spectators line/field boundary. Sighting devices are set up in such a way that sighting judges can precisely assess the crossing of these planes by the flying models. The downwind plane is the start and finish plane (“Base A”), the upwind plane is the turning plane (“Base B”). A safety “line”, which the models must not overfly, is defined parallel to the course length at a sufficient distance from the spectators’ area. Only the competitors and their helpers, the Contest Director and the sighting judges are allowed to stay in the course area.

b) Any crossing of the safety line by a flying model, as judged by the Contest Director or a safety marshall, results in a zero score for the offending competitor.

c) A plane (“Base”) is deemed crossed as soon as a sighting judge can see any part of a flying model outside of the flying course.

d) An optical signal, that may be supplemented with an acoustic signal, indicates a plane crossing. The signals for the two opponents must be different and easily recognisable.

e) The distance (course length) between the two planes should be approximately 50 metres and may be adjusted by the Contest Director according to local and meteorological conditions, but must not be shorter than 30 metres nor exceed 80 metres.

f) The task opposes the final competitors two by two. The opponents are selected by a draw, or any other method at the discretion of the Contest Director. They must launch their models between Base A and Base B. A 3-second signal announces the beginning of the speed task. The models must be launched within this 3-second interval. If the launch occurs before or after the 3-second interval, the competitor receives a zero score.

g) The model(s) used during the final round must have been already flown during qualifying round(s) to access the final.

h) Immediately after launch, the models must fly outside the flight course across Base A. Immediately after the launch signal a flight period of approximately 20 seconds duration begins, after which a 15 seconds optical and/or acoustic countdown takes place. The end of the countdown is the start signal of the dash race. The models must cross Base A towards Base B, cross Base B and fly back to base A. The first one to cross back Base A in flight is the winner. If no model completes the course, the first subsequent win decides access to the next stage.

i) If a model is inside the race course at the moment the start signal is given (or crosses Base A before the start signal), it must be flown around and cross Base A towards base B after the signal.

j) The two competitors fly the same task again and a third time if the need arises. The first competitor winning twice accesses the next final stage.

k) The final task is made of three stages (two stages only when only four competitors qualify for the final round) with eight, then four, then two remaining competitors. After stage 2, the two competitors not qualified for the grand final are opposed to decide the 3rd and the 4th places. This “small final” must take place right before the grand final.

6.4.8.3.5 Option Task F-5 (Organiser's Choice)

a) The organiser may elect to set up a different final task of his choice, provided it is announced and described before the contest begins and preferably in the invitation documents. The chosen task must follow the following guidelines:
b) The final round must have a predictable duration, preferably less than 60 minutes from the moment the 8 final competitors are called to fly to the moment the winner is decided;
c) It must be designed so as to be spectacular for spectators and exciting for the competitors;
d) It must provide for a progressive reduction of the final round competitors until only one remains;
e) It must be capable of producing a 3rd place winner;
f) If necessary, the flight(s) to decide the 3rd place must take place before the flight(s) that decide the first and second places.

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RADIO CONTROL AEROBATIC REGATTA

6.5. CLASS F6E – AEROBATIC REGATTA

An Aerobatic Regatta is a parallel race in which two radio controlled, electric-powered airplanes compete on a course involving aerobatic manoeuvres.

6.5.1 Definitions of an Aerobatic Regatta Aircraft

A propeller-driven model aeroplane that is aerodynamically manoeuvred by control surface(s) in attitude, direction and altitude by a pilot on the ground using radio control.

6.5.2 General characteristics of Radio Controlled Aerobatic Regatta Aircraft

Maximum overall wing span : 2.0 metres

Power unit : Electric motor(s) only

a) The power source must be a lithium rechargeable battery with no more than 10 cells in series ("10S", 37 V nominal voltage).

6.5.3 Number of Model Aircraft

There is no restriction on the number of models entered by a competitor. A competitor does not need to be the owner of the model he flies in any heat, but the same model cannot be used by several competitors during the event.

6.5.4 Racing area layout

a) Two parallel, straight racing courses, distant by at least 25 metres and oriented along the prevailing wind direction or the flying field longest side, are marked on the ground with poles. The poles must be approximately 5 metres high and made of inflated cloth, expanded polystyrene or other material that may be easily destructed from impact with a flying model aircraft.

b) The course length may be defined according to the flying field, but must be at least 150 metres. The course must be marked with an entry/exit pole, a turn pole and three additional poles along the course length.

c) On the ground a line shall be set at a minimum 50 metres from the nearest flight course, as defined by the poles. The limit shall be clearly marked, preferably with barriers and separates the racing zone from the spectators' area. Nobody shall be allowed in the racing zone during a race, except the competing pilots and their helpers.

6.5.5 The race course

a) Every race involves two models flying simultaneously, each over its allotted course. During a heat, the models must fly behind the poles, as seen from the spectators' area. After being allowed to start the motors, take off and climb to altitude, a countdown for at least five seconds shall take place approximately 60 seconds later, followed with a optical start signal, that may be supplemented with an acoustic signal, when the models are allowed to pass the entry/exit pole ("regatta" race start). Then the competing models must fly past the turn pole and fly back to the entry/exit pole. The model flying first through the exit pole is the winner of the heat. Any model passing the entry/exit pole before signal must pass again with all necessary manoeuvres being done only in the vertical plane.

b) During the race, the models must:

   i) pass every pole at an altitude such that the complete fuselage is lower than the pole top (as seen from the spectators' area) ;

   ii) execute aerobatic manoeuvres in a vertical plane along the course length, made of a combination of lines, loops, rolls and spins, as defined by the Organiser, after passing every pole after the entry/exit pole. Flick rolls and gyroscopic manoeuvres are not allowed ;

c) Every aerobatic manoeuvre must begin after a pole is passed and be completed before passing again behind the same pole or passing the next one ;

d) The competing models must pass the poles upright, inverted or in knife-edge flight according to the race description as made by the Organiser. Every pole shall be of a predominant colour code specifying how it shall be flown by : white (upright), blue (inverted) or red (knife-edge). The entry/exit pole must always be passed upright.

e) The Organiser defines the course layout and the aerobatic manoeuvres to be flown. This must be clearly described in the contest invitation document.

6.5.6 Race procedures

a) The competition is made of a series of races involving two competitors. Each race is made of successive heats opposing the same competitors. At each heat, the first model passing the exit pole is the winner. After one heat the competitors fly the next one over the other course. The first competitor winning two heats against the same opponent wins the race.

b) A competitor not able to take off before the race start signal loses the heat.

c) The competitors are arranged in two groups of at least 3 competitors by mean of a draw and enter a round robin in which each competitor is opposed to every other competitor in the group. Within each group, the top placers (at least two) access the next stage. In case of a tie for the last qualifying place, a new race between the tied up competitors decides.

d) The next stage is organised as direct elimination rounds. The first qualified competitor from one group is opposed to the last qualified competitor from the other group, etc. until the last qualified competitor, in an 1/8th or 1/4th final round, according to the number of competitors.

e) In these rounds competitors are opposed in races as during the round robin, with the winner of each race (two or three heats) qualified for the next round until the two remaining competitors compete in a final race. Before this final race, the two remaining competitors from the semi-finals are opposed to decide of the 3rd place.

f) When a model does not pass a pole at the prescribed altitude, a 5 s penalty is added to the final time.

g) When a model does not complete a prescribed manoeuvre or does not pass a pole in the prescribed attitude, a 10 s penalty is added to the final time.

h) When a model does not fly a prescribed manoeuvre, a 20 seconds penalty is added to the final time.

i) In such cases, the total time (course time + penalties) is taken into account for the heat classification.

j) When a model flies the wrong side of any pole, the heat is lost.

6.5.7 Competitors & helpers

a) Every competitor is allowed one helper who may assist him to place the model to its take-off position, guide the flight through the course and recover the model after landing.

b) The competitor and his helper may decide where they want to stand during a race but must stay close together. Nobody else – including Officials – is allowed inside the racing zone during a race.

6.5.8 Contest officials

a) In addition to the Contest Director, four judges (two for each competitor and facing each course end) and two timekeepers (the judges facing the entry/exit poles may also operate as timekeepers) observe the flights and make sure the poles are passed as prescribed and that the aerobatic manoeuvres are completed. The manoeuvres quality is not taken into account.

b) The Organiser shall appoint an officer able to produce a running commentary to spectators during the event.

ANNEX F6 -1

MUSIC PUBLIC PERFORMANCE GUIDE

Artistic Aerobatics & AeroMusicals

Playing music in public, live or recorded, is subject to copyright regulations. It is up to the event Organiser to apply to the proper organisation and pay the appropriate fees.

Music including songs, lyrics, etc is subject to copyright and cannot be circulated, duplicated or played at will except for “private use”, ie by and for the owner of the recording and within the “family circle”. Payment of rights fees applies to public performance, whether entry to that performance be free or paid. By exception, no rights fees have to be paid when the rights to the music have expired and it is in the public domain.

In general, this applies:

a) For the work itself, 70 years after the death of the composer or writer;

b) For the performance, 30 years after the performance/recording. Except in such cases, rights fees have to be paid to the rights owners whenever a music (recording) is played outside of the “family circle” (ie in a public performance).

However, copyright laws vary from country to country and it is the Organiser’s responsibility to check these laws in the host country.

The same rules apply at Artistic Aerobatics and AeroMusicals events as whenever music is played at model shows, demos, etc: rights have to be paid by the Event Organiser, not the competitor. The implication is that competitors may choose and use any music they want, their only responsibility being to produce a detailed list of the music pieces (or extracts, whatever the length) to allow final payment of rights to the proper owners by the Organiser.

In practice a blanket fee has to be paid to the National Rights Collecting Agency. It is a very simple procedure requiring practically no paperwork and usually quite inexpensive. Actual royalty fees vary from country to country. For a rather nominal amount, the Event Organiser acquires the right to play at the event location (flying field or indoor hall) any music he wishes, all day long.

Usually the Organiser will send to the National Rights Collecting Agency, after the event took place, a list of the music pieces that have been played. This is why it is recommended that the competitors hand in to the Organiser the “Music Summary Form” that describes the music they use during their flights.

MUSIC PUBLIC PERFORMANCE ORGANISATIONS

Argentina	**SADAIC**	http://www.sadaic.org.ar
Armenia	**ARMAUTHOR**	www.hayastan.com/armauthor
Australia	**APRA**	www.apra.com.au
Austria	**AKM**	www.akm.co.at
Belarus	**BELAT**	http://eng.avtor.by/belat
Belgium	**SABAM**	www.sabam.be
Bosnia/ Herzegovina	**SQN**	http://www.sqn.ba
Brazil	**UBC**	www.ubc.org.br
Brazil	**SBACEM**	www.sbacem.org.br
Bulgaria	**MUSICAUTOR**	www.musicautor.org
Canada	**SOCAN**	www.socan.ca
Chile	**SCD**	www.scd.cl
China	**MCSC**	www.mcsc.com.cn
Chinese Taipei	**MUST**	www.must.org.tw
Columbia	**SAYCO**	www.sayco.org

Costa Rica	**ACAM**	www.acamcostarica.com
Croatia	**HUZIP**	www.huzip.hr
Cuba	**ACDAM**	www.acdam.cu
Czech Republic	**OSA**	www.osa.cz
Denmark	**KODA**	www.koda.dk
Ecuador	**SAYCE**	matriz@porta.net
Estonia	**EAU**	www.eau.org
Finland	**TEOSTO**	www.teosto.fi
France	**SACEM**	www.sacem.fr
Georgia	**GESAP**	gesapgeo@netscape.net
Germany	**GEMA**	www.gema.de
Greece	**AEPI**	www.aepi.gr
Hong Kong	**CASH**	www.cash.org.hk
Hungary	**ARTISJUS**	www.artisjus.hu
Iceland	**STEF**	www.stef.is
India	**IPRS**	www.iprs.org
Indonesia	**KCI**	www.kci.or.id
Ireland	**IMRO**	www.imro.ie
Israel	**ACUM**	www.acum.org.il
Italy	**SIAE**	www.siae.it
Japan	**JASRAC**	www.jasrac.or.jp
Kazakhstan	**KAZAK**	*Kazakh Authors' Society* *Telephone (73 272) 67 79 02*
Latvia	**AKKA/LAA**	www.akka-laa.lv
Liechtenstein	**SUISA**	www.suisa.ch
Lithuania	**LATGA-A**	www.latga.lt
Macedonia	**ZAMP**	www.zamp.hr
Malaysia	**MACP**	www.macp.com.my
Mexico	**SACM**	www.sacm.org.mx
Montenegro	**SOKOJ**	sokoj@eunet.yu
Netherlands (The)	**BUMA**	www.bumastemra.nl
New Zealand	**APRA**	www.apra.co.nz
Norway	**TONO**	www.tono.no
Peru	**APDAYC**	www.apdayc.org.pe
Philippines (The)	**FILSCAP**	filscap@iconn.cim.ph
Poland	**ZAIKS**	www.zaiks.org.pl
Portugal	**SPA**	www.spautores.pt
Romania	**UCMR-ADA**	www.ucmr-ada.ro
Russian Federation (The)	**RAO**	www.rao.ru

San Marino	**SIAE**	www.siae.it
Serbia	**SOKOJ**	sokoj@eunet.yu
Singapore	**COMPASS**	www.compass.org.sg
Slovakia	**SOZA**	www.soza.sk
Slovenia	**SAZAS**	www.sazas.org
South Africa	**SAMRO**	www.samro.org.za
South Korea	**KOMCA**	www.komca.or.kr
Spain	**SGAE**	www.sgae.es
Sweden	**STIM**	www.stim.se
Switzerland	**SUISA**	www.suisa.ch
Thailand	**MCT**	*Music Copyright (Thailand) Co Ltd* *Telephone: (662) 645.35.71/3*
Turkey	**MESAM**	www.mesam.org.tr
Ukraine	**UACRR**	www.uacrr.kiev.ua
United Kingdom	**PRS**	www.mcps-prs-alliance.co.uk
United States of America	**SESAC**	www.sesac.com
United States of America	**BMI**	www.bmi.com
United States of America	**ASCAP**	www.ascap.com
Uruguay	**AGADU**	www.agadu.org
Venezuela	**SACVEN**	www.sacven.org

ANNEX F6 – 2
ARTISTIC AEROBATICS & AEROMUSICALS
JUDGES' GUIDE

1. PURPOSE

The purpose of the FAI Artistic Aerobatics & AeroMusicals Judges' Guide is to provide judges with some insight to assess the artistic and technical qualities of Artistic Aerobatics and AeroMusicals flights. Unlike the strive for perfection and precision of the FAI F3A and F3C classes of precision aerobatics, Artistic Aerobatics and AeroMusicals are designed to be spectator and media-friendly events, and flights should be performed with entertainment in mind. Judges must look for flights that have an overall entertaining quality without compromising technical ability.

2. CRITERIA

The following judging criteria are used to assess the quality of Artistic Aerobatics and AeroMusicals flights. The scoring system already has a built-in weighting system. This means that judges should consider independently each of the criteria on a scale from zero to maximum score and not place a higher emphasis on, say, artistic quality and lesser emphasis on technique. Scoring is done in whole point increments.

2.1 Technique

- Precision and accuracy of the execution
- Use of the full range of the aircraft's flight envelope/characteristics
- Versatility

2.1.1 Precision and accuracy

Technique has to do with the technical skills exhibited by the competitor. The manoeuvres and figures should be executed with precision and accuracy, with the competitor demonstrating that he has the aircraft under full control in all attitudes. It should be clear to the judges that the manoeuvres flown were, in fact, intended and fully under the pilot's control. Higher marks will be given under this heading when individual manoeuvre elements are started and finished on obviously precise headings and well-defined attitudes.

2.1.2 Use of the full range of the flight envelope

Judges must satisfy themselves that the competitor makes full use of many different areas of the flight envelope of his aircraft. This means flying at the full range of speeds and accelerations possible. Both positive and negative parts of the envelope should be used in reference to both speed and acceleration. In the case of aeroplanes, the flight should preferably include the demonstration of controlled flight beyond the stall boundary by use of hovering, autorotation or other high-alpha manoeuvres.

The pilot is expected to show movement of the aircraft about all axes. Higher marks will be given to competitors able to make use of all these effects through a wide range of aircraft attitudes and flight paths. Repeated use of the same or similar attitudes or manoeuvres should result in a lower score for this category.

2.1.3 Versatility

A combination of a wide variety of figures flown on different axes and flight paths. Many different figures should be completed in the time available. These should include manoeuvre elements of many different kinds and should use many different flight paths and axes. Lower marks should be given to a pilot who used only one or two principal axes of flight. However, the use of additional axes must be clear and precise, not giving the appearance of being used by chance. Marks should also be deducted if any particular manoeuvre element is over-used or continues for an excessive period of time.

cont/…

2.2 Artistic quality

- Synchronisation with music
- Continuous flow of manoeuvres and figures
- Contrast

The artistic quality of a flight has to do with how well the competitor choreographed his flight.

The effective use of visual mood-enhancing devices such as ribbons, streamers, lights etc should result in higher scores, provided their use is synchronised with the flight performance and music. These devices must not be incidental and must enhance the flight performance. Any malfunction of these devices should result in a lower score, unless deliberate and intentional jettisoning is used to create a more dramatic and spectacular effect.

2.2.1 Synchronisation with music

The difficulty of Artistic Aerobatics and AeroMusicals is for competitors to fly perfectly in harmony and rhythm with a musical arrangement they have selected themselves and in the case of Artistic Aerobatics, that has been imposed on them. The music must enhance and augment the flight, so that the right mood is created. Marks should be deducted in this category for a flight that shows no relation between the rhythm of the evolutions and the music, therefore transforming the musical accompaniment to simple background music.

2.2.2 Continuous flow of manoeuvres

The selection of only one piece of music with no discernable contrast, mood changes, or tempo, is an indication of lack of flair by the competitor and should be met with a lower score. Ideally a good compilation of differing pieces of music of contrasting rhythms and tempos that is matched by flight performances should score higher.

Judges should look for a continuous flow of manoeuvres and sequences that are well blended. Periods of inactivity or level flight between sequences of manoeuvres should result in lower scores than flights that have continuous, well-blended sequences.

2.2.3 Contrast

Typically, a high-scoring flight must have enough variation in pace and contrast in the music: dramatic, loud and lively passages in the music should be matched with energetic actions in the flight, with rapid rotations or changes in attitude and high-G manoeuvres. Conversely, less dramatic, softer and soothing passages in the music should be matched with manoeuvres and figures that contain graceful rolling, hovering, spinning and tumbling actions. Music that builds in tempo and volume, and reaches a crescendo, should be matched with vertical manoeuvres that end either high, or low, etc.

2.3 Overall artistic impression

The essence of Artistic Aerobatics and AeroMusicals is "artistic flying" where the flights are assessed not only for impressive, difficult or unusual manoeuvres, but for the position of the manoeuvres in the air and how well they suit the chosen music pieces as well as how the whole display fits together to convey the requisite artistic atmosphere.

Full use of the chosen flight space is essential and attention should be given to using that flight space appropriately without wasting time flying from one part of it to another without a relationship to the music. Unlike "Artistic Quality" criteria, it is the overall impression generated by the flight that is judged.

3. JUDGING METHODS

It is advisable for judges to pencil in their marks/scores as a flight progresses, rather than having to wait until the end of a flight before an assessment is made in any of the criteria. By using this method, judges may be able to move up or down the scoring range as the flight unfolds, to arrive at a more accurate judgement. Continuous attention must be given to the three judging criteria during a flight.

The score sheet is designed in such a way that scores for any judging criterion are spread along the same length between zero and the maximum score for that specific criteria. As a result, the relative distance of the mark from the leftmost part of the score sheet is a direct indication of its relative value for that criterion, irrespective of the actual maximum possible score. This method enables quick scoring without resorting to K-factors and makes possible a public display of the flight scores within a very short time after the flight has been completed. When a zero mark has to be awarded, it may be directly written in the right-hand box.

3.1 Marks

Judges should always remember that the final classification is dependent upon the relative scores of the competitors and not the absolute value of the marks. The actual score is not important, the ranking is. One should always have the possibility to sanction a difference in performance with a wide enough score difference, specially taking into account that the specified starting order makes for successive competitors having roughly similar values and the top level competitors flying at the end of the round. As a result, judges should always keep in mind that later flying competitors may score higher and that it is more important to separate the top placers than the last ranking pilots. To this purpose it is best to keep scores low enough for the first starting competitors to always keep some margin of improvement, should subsequent flights prove decidedly superior. Therefore, when in doubt, always score the lower mark.

4. ACCURACY, CONSISTENCY AND NON-BIAS

The scoring criteria are quite subjective and are not designed to follow strict qualitative judging standards. However, this should not preclude judges from maintaining a consistent judging standard, even with the possibility of widely varying flight performances. Judges will see a wide selection of styles, indicating personal preferences, personality traits and individuality. For this reason, judges should not be biased, positively or negatively, towards a pilot, or particular type of aircraft, power plant, or music type (classical, jazz, pop, rock, choral, instrumental, etc).

5. CLOSING

It should be remembered by judges that Artistic Aerobatics and AeroMusicals are designed to be attractive to the modern electronic media, and to the uninformed spectator of aeromodelling, to entertain him, and to ensure that he remains occupied, either at the flying site or in front of his visual medium. Flights should have enough entertainment value to cause spectators to judge the flights for themselves, without having extensive background in qualitative judging methods. It should leave an impression of "competitor two had a more pleasing, impressionable and entertaining routine than competitor four". However, the entertainment value of flights and the attractiveness to spectators and the media should not overshadow or detract from the very important aspect of the competitors' achievements. After all, without the competitors, there would not be an event.

Using this Judges' Guide will hopefully ensure that judges rank the competitors in the fairest possible order, thus generating widespread public appeal and acceptance of aeromodelling as a sport worthy of media coverage.

ANNEX F6 - 3

ARTISTIC AEROBATICS AND AEROMUSICALS ORGANISER'S GUIDE

This Organiser's Guide is meant to help Artistic Aerobatics and AeroMusicals organisers set up smooth running competitions with minimal work, limited need for helpers and stewards and proper exposure for spectators.

1 Before the competition

Artistic Aerobatics *and AeroMusicals* are competitions where pilots fly their aircraft to music. This means that the Organiser is responsible for the payment of any public performance fees that may be due. "Public performance" is understood to be any music broadcast outside of the family circle.

In practice, this varies from country to country according to local regulations but is usually limited to paying a small blanket fee (possibly even nothing) according to many variables, ie whether the entrance is free or subject to payment, the number of spectators, etc.

One should get in touch with the Rights Collecting Agency (see "Music Public Performance Guide") as early as possible before the actual event (a minimum of 2 to 4 weeks is usually right) to obtain the necessary documents. Typically the form should be sent back within a week of the event.

It should be emphasised that such a procedure is not specific to Artistic Aerobatics and AeroMusicals but is a requirement for any event such as model flight shows, F3P, F3M competitions etc at which music is broadcast – be they open to public attendance or not.

2. Competitors check-in

When competitors arrive at the competition site, the Organiser shall:

(a) Check that the competitor holds a valid Sporting Licence (FAI Sporting Code, Section 4, Volume ABR § B.3.2.) and keep it in custody until the end of the competition.

(b) Collect (if not done previously) the competitor's entry form after checking that it is fully and accurately completed (FAI Sporting Code, General Section § 3.12.1.).

(c) Collect the competitor's freestyle music CDs after checking that they are properly marked with the competitor's name and fitted with blank sticker(s).

(d) Check the competitor's CDs for proper music duration (see § 4 – Time management).

3 Flight space setup

Whatever the space available, its actual size should be detailed in the preliminary competition documents so that competitors can adapt their flight routines before arriving at the competition site.

Artistic Aerobatics

This includes, but is not limited to:

take-off area size and orientation; location and height of obstacles (trees, buildings, etc) surrounding the take off area and within the defined flight space; safety line location and flight orientation relative to the sun, etc.

There is no need to locate the judges close to the pilot as, contrary to aircraft or helicopter precision aerobatics, the flight space is not defined by angular limits. Actually it is even beneficial to define a judges' area further away, as this provides them with a better appreciation of the flight space as well as a view of the flight performance closer to that which is actually seen by spectators. It is, however, necessary that the Organiser plans the setup in such a way as to enable quick and easy communication between flight line, judges and Contest Director.

AeroMusicals

This includes, but is not limited to:

ground space size; minimum and maximum ceiling heights at flight space location as well as size and location of any obstacle that may interfere with the flights such as hanging lights; basketball poles, etc. Details of the lighting system (ceiling lights, windows, etc) are also best included in the document. The Organiser should set up a clearly defined flight space as well as protection devices (such a nets, etc.) if required by the local safety administration authority.

cont/…

When setting up the flight space, the Organiser should try and make the best possible use of local conditions. For instance, it is best to avoid having pilots, judges and spectators directly facing sunlight when large windows fill up the opposing wall space. Whenever possible, according to the hall set up and contrary to usual model event practice, try and place judges and pilots opposite the spectators. This way, spectators can better see what the pilot does and relate it with the aircraft manoeuvres, a sure recipe for increased interest. In addition, this enables video operators to have a proper view of the pilot without interfering with the latter's actions or the spectators' view.

The judges' panel should be located along the flight space median line to enable the best possible view of the whole flight space and proper communication with the Flight Marshall and the Music Stewart. The Organiser shall place the judges in such a way that they cannot be distracted by spectators, other people or events.

3.1 Sound Systems

The Organiser should make every effort to provide both competitors and spectators with the best possible sound system. It is necessary to make sure the operator (the Music Steward) has a full understanding of the available apparatus. Test well before the start of the competition to ensure error-free operation.

Although the music system shall primarily be directed at spectators and judges (so, in effect, away from the pilot and flight line), it is essential that the competitor hears very clearly the music that drives his flight. This is best done with a small speaker located right behind him and directly linked to the master sound system. Even if the competitor did not do it when preparing his recorded music, it is highly recommended to set the audio system to mono.

The Organiser should make sure that the sound system provides the proper uniformity over the whole area. It is essential that the competitor hears the music correctly and without distortion, but also judges and spectators too, so as to enable them to precisely relate the music to the manoeuvres. In practice this means that one should try and place the audio speakers around the spectators' area and centred on the pilot and judges. For Artistic Aerobatics and outdoor AeroMusicals, the audio speakers should be evenly placed along the spectators' line. For indoor AeroMusicals contests, many sports halls are fitted with an integrated sound system.

Whatever the Music Steward's location, the Organiser should make sure of proper direct communication (preferably visual) between the competitor at his flight location, the Field Marshall and the Music Steward.

3.2 Ancillary space

Whenever possible, only the actual flight space and action should be directly in the spectators' view. The competitors' preparation space, transmitter pound, music management apparatus etc should be kept out of view. While a display of models may be of interest to spectators, these models should preferably not be the competition models to be used during the round, so as to prevent distracting activity in the course of the round.

If deemed necessary, the transmitter pound shall be fitted with a device (scanner, spectrum analyser) that enables detection of radio interference.

For indoor competitions, the competitors' preparation space should preferably have mains plugs or charging facilities for competitors' use and should, if possible, be a separate room.

A description of such facilities should be included in the competition invitation documents.

4 Time management

4.1 Timing procedures

Normally timing should not be necessary, provided the duration of each competitor's music is known. This is best checked at registration time before the actual competition starts. The easiest and quickest way is to do it is with the help of a computer and a couple of small pieces of free software (see § 4.2).

So as to avoid possible errors when playing competitors' music, request competitors to mark their name and put blank stickers on their CDs (NOT on the CD cases). The Organiser will use the stickers to write the competitor's starting order for each round, and then make a stack of the CDs to be used for any round in the same order they are to be played. This procedure will greatly minimise any risk of error in the course of a round.

4.2 Checking the competitors' music duration

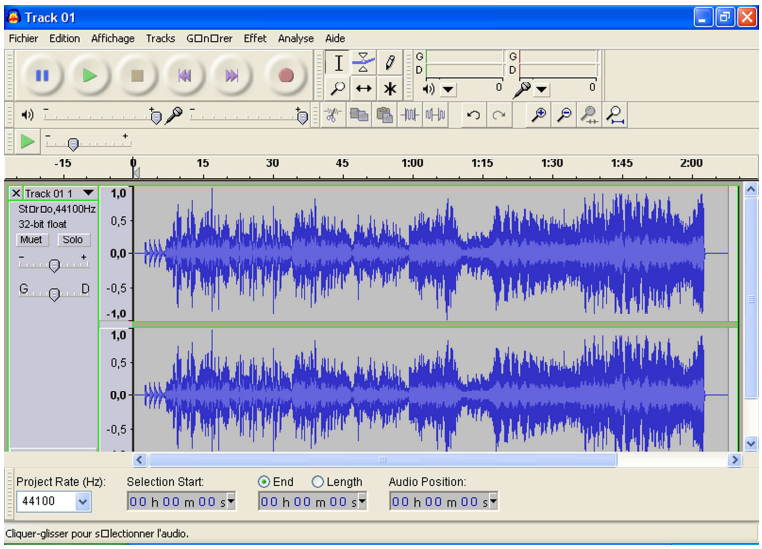
The principle is to "rip" the competitor's piece of music on the CD into a raw digital file (.WAV) and look at it with music software to determine its duration. With some practice, no more than one minute is required to achieve this.

Although many commercial software are able to do it very efficiently, very simple and free software ("freeware") are quite sufficient and even faster. As an example, from the many CD ripper software available, Express Rip[13] is a very small piece of software able to produce a .wav file from an Artistic Aerobatics or AeroMusicals music CD in a couple of seconds.

To visualise audio files, we recommend Audacity[14]§, a free, open source software very easy to use and available in several languages.

Examples:

Load the .WAV file you just ripped from the competitor's CD into the software. Here is a typical 2-minute Artistic Aerobatics/AeroMusicals music that includes starting signals at 1 second intervals. Note this is a stereo piece of music.



cont/…

[13] CD ripper (freeware) :

Express Rip by NCH Swift Sound (only 322 kb)

http://www.nch.com.au/rip/index_b.html?gclid=CJXdlNmR1IsCFSYSQgodrC_5aw

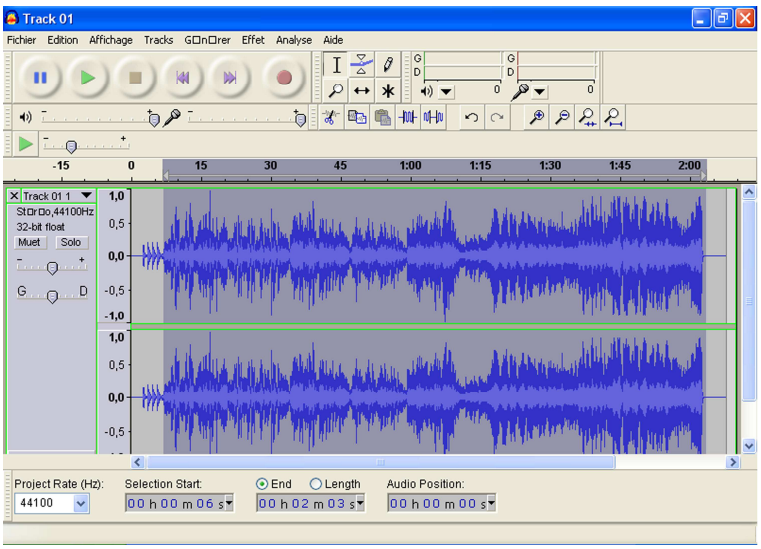
(direct download: http://www.nch.com.au/rip/ripsetup.exe)

[14] Audio software (Open Source software) :

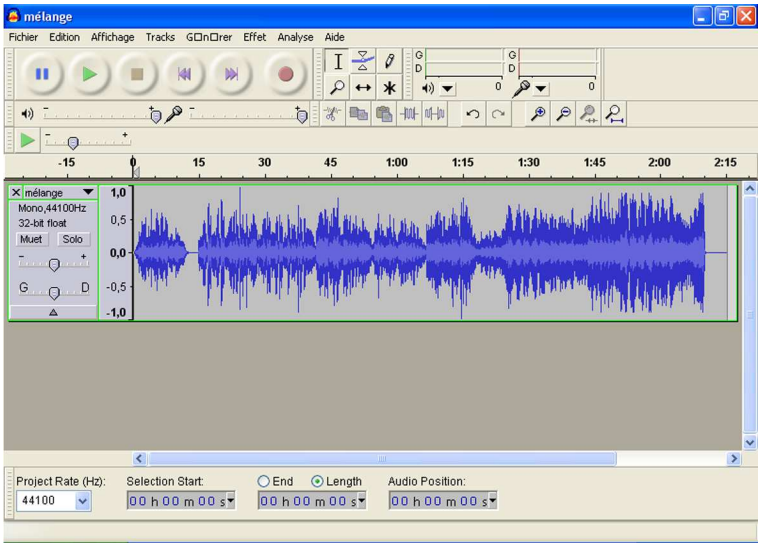
Audacity for Windows, Mac or Linux (approx. 2 to 3 Mo according to version)

http://audacity.sourceforge.net/

Now select the whole piece of actual music beginning after the start signals and up to the end. The actual duration is shown in the bottom window (here start time 06 seconds, end time 2 minutes and 03 seconds for a 1 minute and 57 seconds actual duration).



Here is another kind of music. One sees some length of sound (it could be voice, music or even a mixture of both) before the actual piece of flight music. This is permitted, provided there is a definite silence separating the opening piece of sound from the actual music so as to avoid any misunderstanding.



In this case, the Organiser should check that the length of time preceding the actual music does not last more than 30 seconds (Artistic Aerobatics) or 15 seconds (AeroMusicals).

A competitor may do similarly at the end of the flight music. This is permitted under the same conditions, a clear separation from the actual music and coming to an end at the most 30 seconds (Artistic Aerobatics) or 15 seconds (AeroMusicals). past the actual flight music.

It may happen that competitors do not cut their music to the proper duration. Once the music is started at the beginning of a competition flight, there should be no more action by the competitor, the Contest Manager or the Music Steward and the judges score the flight until the music ends. In this case, there are two options: the competitor may elect to let the music run up to its end, in which case the flight's score should be reduced in proportion of the excess duration (ie if the music lasts 180 seconds in place of the required 120 seconds, the final score should be reduced by (180 – 120)/120 or 50 %) or he may ask the Organiser to cut the music to the required duration. This may be done (at a fee that should be specified in the contest invitation documents), but limited to a single cut of the excess music duration and a fresh burned CD.

4.3 Time schedule

Before every round, and as soon as the flight order is established, the time schedule shall be clearly visible and known, so that competitors can be ready to fly at the specified time. The transmitter Pound Marshall shall make a competitor's transmitter available early enough before the competitor's flight time, provided that frequency conflict has been eliminated up to the end of his flight. In Artistic Aerobatics, the Field Marshall will allow a competitor to start his engine(s) as soon he is satisfied it will not disturb the preceding competitor.

The Organiser should make every effort to keep a strict time schedule. Usually programming one start every 5 minute for Artistic Aerobatics; (4 minutes for AeroMusicals) proves satisfactory and easy to manage. It is recommended to introduce into the time schedule a few minutes pause at approximately 30 minutes intervals. These pauses are meant to allow some rest for the judges and should be filled with demo flights or other entertaining activity. If any incident delays a flight, a pause may be shortened to keep up with the planned time schedule, but no flight shall be allowed ahead of the schedule, even if a previous competitor fails to start or under any other circumstance. The excess free time, however, shall be used to keep spectators entertained, either by a short demo or by additional comments from the commentator.

In practice, it proves easily manageable. to set up a schedule for:

Artistic Aerobatics with 5 flights every ½ hour (5-minute slots), followed by a 5-minute pause.

AeroMusicals with 6 flights every ½ hour (4-minute slots), followed by a 6-minute pause.

4.4 Flight slots timing

In principle, no timing should be necessary during the actual flights if the duration of the competitors' music pieces have been checked beforehand. A stopwatch is, however, necessary to start the music at the specified 30-second limit for Artistic Aerobatics; (15 seconds for AeroMusicals), should the competitor fail to signal it before, as well as to check that the landing does not happen later than the specified 30-second for Artistic Aerobatics; (15 seconds for AeroMusicals),after the end of the music.

As soon as the music stops, there is no need for the judges to follow the remainder of the flight up to landing. It is, however, the Field Marshall's responsibility to make sure that the competitor does not infringe on the flight space boundary. In such a case, he shall inform the judges to zero out the corresponding scoring criterion.

5 Music summary

At the same time that the Organiser collects and checks the competitor's music CD, he should locate the related Music Summary Form that was sent back with the entry form (one Music Summary Form per Flight Music) and which shall be appended to the competition information documents. While this form may be used to list all the music performed during the event for the Music Rights Collecting Agency, it should also be used to inform the spectators before the competitor's flights.

6 Starting order

The starting order is one of the prominent features of Artistic Aerobatics and AeroMusicals. It is designed to produce a constantly increasing interest level for spectators and media. At the same time, it makes the judges' task easier and fairer as any two successive competitors are of roughly similar level and may be easily compared using the same criteria.

When there is no international or national ranking available, the Organiser should try to establish a starting order according to his experience and the perceived relative performance level of all the competitors. This is valid for the initial round only as the starting order for any subsequent round is based on the previous round's classification.

Artistic Aerobatics and AeroMusicals rules allow Organisers to set up a system of direct and indirect qualification into any round, except the final one. It is highly recommended to limit this option to the second round qualification as this allows any competitor, even the last placed, to fly at least twice during the competition.

It is up to the Organiser to decide how many competitors will be qualified into any round after the first one, provided the number is reduced from the previous one. A typical contest would thus be run in such a way as to enable a semi-final round with 5 to 7 competitors and a final round with 2 or 3 competitors. When only two competitors are qualified for the final, a round to decide the 3rd place winner shall be run immediately before the final.

7 Results display

A quick display of scores and results is essential to maintain interest at a high level at any time through the competition. Spectators should understand what happens and have a proper view of the standings. It is recommended that judges display the score right after a competitor's flight. In addition, whenever possible, the standings should be displayed/announced very quickly (preferably after every flight) for everyone to see/hear.

ANNEX F6 - 4

WAG Ranking and Selection System for Aeromodelling Classes

The top competitors from the whole world are selected through National and International competitions. Selection is independently made by a combination of Continental Region and World ranking to ensure every part of the world is represented. The final list of competitors is decided, in principle, at the last FAI/CIAM Bureau meeting preceding the WAG.

Selection is first made by Continental Region (Africa, North America, South America, Asia, Europe & Oceania) with an equal number of places reserved for each region in which Selection Contests have been held. The remaining places are decided on a worldwide basis according to international ranking points gained by competitors at Selection Contests.

Selection Contests (which may be organised by any club worldwide) shall follow these guidelines:

WAG selection contests shall be run using the latest approved F6 rules. A special entry form will be posted on the FAI website and contest organisers' websites as well as other websites whenever selection contests will be announced.

International Contests

They shall be formally registered in the FAI Sporting Calendar as WAG Selection Contests with an international Jury according to specific CIAM rules.

The Jury shall report to the Organiser's NAC and to the CIAM within 7 days and include the full detailed results with each competitor's name, nationality & valid FAI licence number and the judges' names and full credentials.

National Contests

Local contests involve only competitors holding sporting licence from the Organiser's nation. Such contests shall be approved by the National Governing Body (either the NAC direct or the aeromodelling governing body that has been delegated by the NAC). Such contests shall be on the National contest calendar and notified to CIAM as WAG Selection contests. (CIAM may also maintain such a freely-available list separate or appended to the FAI Sporting Calendar). Such contests shall be monitored by at least one Official Observer delegated/approved by his NAC (or National Governing Body) who shall attest that the competition has been fair and run according to national and FAI rules. This Observer shall report within 7 days to his NAC and to CIAM and include the full detailed results with competitors' names, nationality & valid National or FAI licence number and the judges' names and full credentials..

International Ranking and Selection Period

The international ranking of any competitor at any time is based on the three best contests aggregate ranking points during the preceding 550 days out of an unlimited number of WAG selection contests. The WAG selection is based on the international ranking at the time the selection period closes, as decided by the preceding CIAM meeting.

The results achieved at contests on another continent can be included in the world ranking but not in the continental ranking.

For the world and continental ranking, the ranking is based on the points gained at selection contests. The ranking points are awarded as follows:

If the number of competitors in the selection contest is less than N_{max} then R=k*N/P^X else R=k*N_{max}/P^X

Where N_{max} is the limit (15 for F6A and F6B, 30 for F6D)
R is the number of ranking points for the competitor
k is a coefficient depending on the type of competition (1 for national, 1.2 for international)
N is the number of competitors with valid (non zero) results
P is the placing of a competitor
X is a power factor (0.5)

ANNEX F6A - 1

ARTISTIC AEROBATICS SCORE SHEET

Artistic Aerobatics

Qualification 1	Qualification 2	Qualification 3
Qualification 4	Semi-finals	Finals

Technique

Execution precision

1	2	3	4	5	6	7	8	9	10	

Use of the full range of the flight envelope

1	2	

Versatility

1	2	3	4	5	6	7	8	

Artistic Quality

Synchronisation with music

1	2	3	4	5	6	7	8	9	10	11	12	13	14	

Pleasing and continuous flow of figures

1	2	3	4	5	6	7	8	

Contrasting periods of dynamic and graceful manoeuvres

1	2	3	4	5	6	7	8	9	10	

Overall Artistic Appearance

Flight schedule design & appropriate combination with music choice.

1	2	3	4	5	6	7	8	

Total Score	

Competitor:	**Judge:**
(signature):	(signature):
Date: Organiser:	

ANNEX F6A - 2

ARTISTIC AEROBATICS MUSIC INFORMATION

Artistic Aerobatics

Music Information Form

Describe below the various elements you have assembled to produce your freestyle music. This will be used to inform spectators as well as credit the proper rights owners for public performance fees purposes.

Complete one form for each different Freestyle Music

How to use: For each component of your music, indicate the name of the composer & performer. Wherever possible state the title, label and serial number of the record that has been used.

Tick ✓ the appropriate box

Competitor:					
Qualification 1		**Qualification 2**		**Qualification 3**	
Qualification 4		**Semi-finals**		**Finals**	

Music Element 1: _____

_____

_____

Music Element 2: _____

_____

_____

Music Element 3: _____

_____

_____

Music Element 4: _____

_____

_____

Music Element 5: _____

_____

_____

Music Element 6: _____

_____

_____

Music Element 7: _____

_____

_____

Music Element 8: _____

_____

_____

Date:	**Organiser:**

ANNEX F6B - 1

AEROMUSICALS SCORE SHEET

AeroMusicals

Qualification 1	Qualification 2	Qualification 3
Qualification 4	Semi-finals	Finals

Technique

Execution precision

1 2 3 4 5 6 7 8 9 10

Use of the full range of the flight envelope

1 2

Versatility

1 2 3 4 5 6 7 8

Artistic Quality

Synchronisation with music

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Pleasing and continuous flow of figures

1 2 3 4 5 6 7 8

Contrasting periods of dynamic and graceful manoeuvres

1 2 3 4 5 6 7 8 9 10

Overall Artistic Appearance

Flight schedule design & appropriate combination with music choice.

1 2 3 4 5 6 7 8

Total Score

Competitor: (signature):	**Judge:** (signature):
Date:	Organiser:

ANNEX F6A - 2

AERO MUSICALS MUSIC INFORMATION

Aero Musicals

Music Information Form

Describe below the various elements you have assembled to produce your freestyle music. This will be used to inform spectators as well as credit the proper rights owners for public performance fees purposes.

Complete one form for each different Freestyle Music

How to use: For each component of your music, indicate the name of the composer & performer. Wherever possible state the title, label and serial number of the record that has been used.

Tick ✓ the appropriate box

Competitor:					
Qualification 1		**Qualification 2**		**Qualification 3**	
Qualification 4		**Semi-finals**		**Finals**	

Music Element 1:

_____

_____

_____

Music Element 2: _____

_____

_____

Music Element 3: _____

_____

_____

Music Element 4: _____

_____

_____

Music Element 5: _____

_____

_____

Music Element 6: _____

_____

_____

Music Element 7: _____

_____

_____

Music Element 8: _____

_____

_____

Date:	**Organiser:**