F5J Specific

FAI SPORTING CODE

Section 4 – Aeromodelling

Volume F5

Radio Control Electric Powered Motor Gliders

2026 Edition

Effective January 1st 2026

In this volume:

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Link to FAI Statutes and By Laws

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This document, the Competition Rules, Radio Control Electric Powered Motor Gliders 2026 Edition, takes effect on the January 1st, 2026. The 2026 Edition differs from the 2025 Edition in those paragraphs with a vertical bar in the margin.

Revisions

Paragraph	Plenary meeting approving change	Brief description of change	Change incorporated by
F5J 5.5.11.10	2025	Model must be launched as soon as the motor starts running	Sotir Lazarkov F5 S/C Chairman
F5J 5.5.11.12		Timing start with motor ON	
F5K 5.5.10		Maximum flying time is 4:00 minutes	
F5K 5.5.10.3		The AMRT is fixed for all wind conditions 60 m altitude and 7 sec motor time	
F5K 5.5.10.6		Clarification in case of touch and land	
F5K 5.5.10.11		Remove paragraph e)	
F5K 5.5.10.11		ANNEX of F5K	
F5L 5.5.12.3.1		j) The minimum wing loading is not limited.	
F5L 5.5.12.3.2		Remove: The underside of the model must not have any protuberances	

Paragraph	Plenary meeting approving change	Brief description of change	Change incorporated by
5.5.11.3	2024	Missing paragraph f)	Ron Miasnikov Technical Secretary
5.5.4.3 – 5.5.4.8		House keeping – fixing wrong numbering	

Paragraph	Plenary meeting approving change	Brief description of change	Change incorporated by
F5	2023	**F5 – Section 5.5.1.3 including Solar Cells**	Tyson Dodd Technical Secretary
F5J		Remove Section 5.5.11.8.3 Flight Groups Remove section 5.5.11.11 Flight	
F5K		Replacing entire F5K – Section 5.5.10	
		Early implementation – effective 1st June 2022	
F5J - 5.5.11.1.3(iii)		Dropping of 0 Score	

Four-Year Rolling Amendments for Reference

Paragraph	Plenary meeting	Brief description of change	Change

	approving change		incorporated by
F5B	2022	Early implementation – effective 1st June 2022	Tyson Dodd Technical Secretary
5.5.4.1 j)		Changed the definition to include allowed electronic systems.	
F5J		Early implementation – effective 1st June 2022	
5.5.11.12 n)		Added a clarification to Scoring (sub-paragraph n) to eliminate the possibility of negative scores. Scoring programs will need to be updated.	
F5L		New Provisional Class	

There were no changes at the 2021 Plenary Meeting

Paragraph	Plenary meeting approving change	Brief description of change	Change incorporated by
F5 General Rules	2020		Kevin Dodd Technical Secretary & Emil Giezendanner F5 S-C Chairman
5.5.2.1 a)		Deleted and replaced the definition of an Official Flight.	
5.5.1.3, 5.5.1.5 c), 5.5.1.6, 5.5.2.6.		Removed references to F5D.	
F5D		Class was moved to F3 Pylon	
5.5.6		Removed the complete F5D Section	
F5J			
5.5.11.10 e)		Specified a time of 3 seconds for which the glider must fly straight ahead after launching.	
F5K (new class)		Thermal Duration Gliders For Multiple Task Competition With Electric Motor And Altimeter/Motor Run Timer (AMRT)	
5.5.10		New rules for this class.	
Annex 5E		Rules for Electric Flight World Cup Events	
5E.2.1		World Cup competitions for F5B and F5J to be held every year.	
5E.2.4		Introduced a World Cup Coordinator	
		Increased the number of contests to be counted in the case of more than 20 WC contests.	
		Increased the number of contests to be counted in the case of countries with more than 2 time zones.	
		Introduced a new table of points.	
		Introduced the possibility of separate classifications for Juniors and Women.	

Paragraph	Plenary meeting approving change	Brief description of change	Change incorporated by

Front Page Contents Throughout	2019	Change the name of the volume and update list of classes on the front page and consequently in all other parts of the volume. Remove F5D from list of classes but retain F5D rules until June 2020. Remove F5K.	Kevin Dodd Technical Secretary & Emil Giezendanner F5 S-C Chairman
F5A		F5A – Electric Powered GPS Motor Gliders	
5.5.3		Add new provisional class, F5A – Electric Powered GPS Motor Gliders, and rules.	
F5E	2019		
5.5.7		Revise the title of the class and completely revise the rules.	
F5J			
5.5.11.1.1		Clarification regarding an exception to the F5 general rule 5.5.1.3 d) for F5J.	
5.5.11.1.3		Additional rule to allow the possibility of a motor restart in World Cup and Open International events.	
5.5.11.6		Clarification to re-flight rule.	
5.5.11.8.1		Addition to team protection rule for junior pilots.	
5.5.11.10		Early implementation – effective 15th May 2019 Amendment to Safety Rule for launching	
5.5.11.11		Addition to landing rule, giving the contest director more flexibility in setting landing direction	
5.5.11.12		Change of terminology ‘truncated’ instead of ‘rounded down’.	
F5K		Class was deleted	

RULE FREEZE FOR THIS VOLUME

With reference to paragraph A.10.2 of CIAM General Rules:

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.

This means that in Volume F5:

(a) changes to F5J can be next agreed at the Plenary meeting 2027 for application from January 2028;

(b) changes to F5B can be next agreed at the Plenary meeting 2026 for application from January 2027;

(c) provisional classes are not 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.

VOLUME F5

PART 5 – TECHNICAL REGULATIONS FOR RADIO CONTROLLED CONTESTS

5.5. CATEGORY F5 – ELECTRIC POWERED MOTOR GLIDERS

5.5.1 GENERAL RULES

5.5.1.1 Definition of Electric Powered Motor Gliders

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

5.5.1.2 Builder of the Model Aircraft

There is no requirement for the competitor to be the builder of the model in F5. Refer C.5.1.2. in *CIAM General Rules*.

5.5.1.3 General Characteristics of RC Electric Powered Motor Gliders F5

Maximum total area	150 dm^2
Maximum weight	5 kg
Loading	12 to 75 g/dm^2

a) The power source shall consist of any kind of rechargeable batteries including solar cells (or secondary cells), the maximum no load voltage must not exceed 42 volts. In case the voltage is measured, this shall be done at the moment the preparation time for the pilot starts. After the measurement has been taken, the pilot is allowed 5 minutes preparation time as per 5.5.2.4.

b) Battery specifications in F5B, F5E and F5J are written in the special rules of these classes.

c) Mechanical or chemical modification of the individual cells, e.g. to reduce their weight, is not allowed except that insulation sleeves of individual cells may be changed.

d) Electronic systems allowed are:
- Augmented stability systems.
- Systems that limit the energy used during climbs.

e) Electronic systems that are prohibited are:
- Autonomous or pre-programmed flight.
- GPS or similar positioning systems or waypoint navigation.

Further exceptions are written in the specific class rules.

5.5.1.4 Energy Limiter/Logger

The energy limiter/logger is located in the electric circuit between the battery and the motor. In the case of a limiter, the interruption must persist for a defined period of time. Logger data must be retrieved immediately after the flight. The contest organiser may supply a “real time radio telemetry logger” that transmits logged data to the ground. The energy data and motor-run data shall be made available to the pilots.

5.5.1.5 Procedure for Limiter and Logger Checking

The limiters and loggers must be approved by the EDIC (ELECTRONIC DEVICES IN COMPETITIONS WORKING GROUP).

a) The general procedure of limiter and logger checking follows Section C.12, Model Processing, in *CIAM General Rules*.

b) The organiser will check if the limiter/logger is correctly connected to RX, LiPo pack and ESC. There must not be any type of "jumper" present in the RX cable or on the current sensor.

c) Malfunction of limiter/logger:

- limiter/logger given by the organiser, the competitor will have a reflight.

- limiter/logger of the competitor, a penalty in F5B/F of 100 p must be given.

Only one of these two systems can be used at a contest. The organiser must decide which of these two systems he will use and indicate clearly in the invitation.

5.5.1.6 Number of Model Aircraft

The competitor may use two model aircraft and three in F5J. The competitor may combine the parts of the model aircraft during the contest, provided the resulting model aircraft conforms to the rules and that the parts have been checked before the start of the contest.

5.5.1.7 Competitor and Helper

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

5.5.2 CONTEST RULES

5.5.2.1 Definition of an Official Flight

a) The official flight starts when the model aircraft is released by the competitor or his helper. The pilot may repeat flight only if:

- The competitor cannot perform a flight due to outside interference verified by the organiser.

- No scoring was made for reasons outside the control of the competitor. In such cases, the flight may be repeated at any other time decided by the Contest Director.

5.5.2.2 Cancelling of a Flight and Disqualification

The flight is annulled:

a) If the pilot uses a model aircraft that does not conform to the FAI rules. In the case of intentional or flagrant violation of the rules, in the judgement of the Contest Director, the competitor may be disqualified.

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

c) If the model aircraft was already used by another competitor at the same contest;

d) If the pilot uses more than two helpers;

e) If any part of the model aircraft does not come to rest and remain at rest within 100 metres from the landing spot. For powered gliders, this rule applies only after the duration and landing task has started.

f) If for powered gliders the duration and landing task has not been started and also the landing does not occur on the designated flying side of the security line and within 100 m from the intersection of that line with Base A or B.

g) If in contrast with the declaration of the competitor the model aircraft carried more than the allowed number of cells as power source for the motor or the voltage exceeds 42 volts.

h) The competitor is disqualified if the model aircraft is controlled by anyone other than the competitor.

i) If the model aircraft touches either the competitor or his helper during landing manoeuvres, no landing points will be given.

j) If an infringement of energy limitation rules occurs the result of that round is discarded.

5.5.2.3 Organisation of the Contest

For transmitter and frequency control see C.16.2 in CIAM General Rules.

The official in charge will issue the transmitter to the competitor only at the beginning of his preparation time, according to 5.5.2.4.

5.5.2.4 Organisation of Starts

The competitors shall be combined in groups, in accordance with the radio frequencies used, to permit as many flights simultaneously as practical. The combination is organised in such a way that, as far as possible, there are no pilots of the same nation or team in one group. The flying order of different groups is also established in accordance with the frequencies used. The competitors are entitled to five minutes of preparation time before they are called for the start.

5.5.2.5 Processing of Energy Limiters

The organiser of an event has to provide power supply equipment for energy limiter processing. The competitor must have the ability to check his limiters prior to and during the contest.

5.5.2.6 Judging

The organiser must appoint a panel of at least three judges of different nationalities who are selected from the official CIAM Judges List.

Note: These General Rules and Contest Rules are applicable to the F5 Class: Multi Task Gliders (5.5.4.)

5.5.11. CLASS F5J – RC ELECTRIC POWERED THERMAL DURATION GLIDERS

THERMAL DURATION GLIDERS WITH ELECTRIC MOTOR AND ALTIMETER/MOTOR RUN TIMER (AMRT)

***Note**:* *Refer to the Sporting Code volume EDIC – Electronic Devices in Competition, Section 1 "Technical Specifications & Guidance" for the documentation regarding specifications and guidance for the altimeter/motor run timer (AMRT).*

Object:

To provide a man-on-man contest for competitors flying electric powered radio-controlled thermal duration soaring gliders. Several qualifying rounds will be flown in the contest. In each qualifying round, competitors are divided into Groups. Each Group flies in a designated Working Time and competitor's scores in each Group are normalised to produce meaningful scores irrespective of changing weather conditions during the competition. The competitors with the top aggregate scores in the qualifying rounds then fly **a minimum** of two (2) or **a maximum** of four (4) Fly-off rounds, as a single Group to determine the final placing. The exact number of Fly-off rounds will be announced by the Organiser before the start of the event.

5.5.11.1. General Rules

5.5.11.1.1. Definition of a Radio Controlled Glider with Electric Motor

A model aircraft which is equipped with an electric motor to provide propulsion only for the purposes of launching, and in which lift is generated by aerodynamic forces acting on surfaces which remain fixed (except control surfaces). Model aircraft with variable geometry or area must comply with the specification when the surfaces are in maximum and minimum extended mode. The model aircraft must be controlled by the competitor on the ground, using radio control. Any variation of geometry or area must be actuated at distance by radio control. Any airborne device that uses airborne sensors to actuate any control surface are prohibited. Stability systems as allowed in the F5 General Rules 5.5.1.3.e are prohibited.

5.5.11.1.2. Prefabrication of the Model Aircraft

There is no requirement for the competitor to be the builder of the model. Refer C.5.1.2. in *CIAM General Rules*.

5.5.11.1.3. Characteristics of Radio Controlled Gliders with electric motor and altimeter/motor run timer (AMRT).

a)

Maximum Surface Area	150 dm^2
Maximum Flying Mass	5 kg
Maximum wingspan	4 m
Loading	12 to 75 g/dm^2
Type of battery	Any type of rechargeable batteries
Type of motor	Any type can be used

b) Radio equipment not using Spread Spectrum technology to International Standards must be able to operate simultaneously with other equipment at 10 KHz spacing below 50 MHz and at 20 KHz spacing above 50 MHz. When the radio does not meet this requirement, the working bandwidth (max. 50 KHz) shall be specified by the competitor.

c) To ensure randomness of the starting order among the successive rounds, competitors not using Spread Spectrum technology equipment must enter three different transmitter frequencies with 10 KHz minimum spacing. The Organiser is entitled to use any of these three frequencies for setting the flight matrices. Once the competitor is allocated one of these three frequencies, he must not change to another frequency for all flights during the whole of the preliminary rounds other than for re-flights. In case of a re-flight the competitor can be called to use any of these three frequencies for this re-flight only, as long as the call is made at least 1/2 hour prior to the beginning of the re-flight in written form to the competitor (or team manager where applicable). The content of this paragraph (c) is not applicable, if the competitor uses a Spread Spectrum technology system.

d) Any device for the transmission of information from the model aircraft to the competitor is prohibited. A Spread Spectrum technology receiver that transmits information back to the competitor-operated transmitter, is not considered to be a "device for the transmission of information from the model aircraft to the competitor", provided that the only information that is transmitted, is for the safe operation of the model aircraft;

i.e. signal strength and voltage of the receiver battery but not any positioning or height information.

e) The competitor may use no more than three (3) model aircraft in the contest. The competitor may combine the parts of the model aircraft during the contest, provided the resulting model aircraft conforms to the rules and the parts have been checked before the start of the contest.

f) All ballast must be carried internally and fastened securely within the airframe.

g) The underside of the model aircraft must not have any protuberances or arresting devices (eg bolt, sawtooth-like protuberance, etc) that will cause the model aircraft to slow down on the ground during landing. A folding prop or the tail, including the fin, is not considered a protuberance or arresting device.

h) Each model must be fitted with an approved AMRT in accordance with the Technical Specification published in F5J Altimeter/Motor Run Timer Technical Documentation.

The essential functions of the AMRT are:

i) To record and display the maximum height attained (Start Height), above a ground level reference between the instant of motor start and 10 seconds after the motor is stopped and

ii) To restrict the operation of the motor by the competitor to a single continuous run not exceeding 30 seconds.

iii) To reset the start height displayed to "---" if the motor is restarted at any time during the flight. In this case (start height displayed to "---", the result of the flight is 0, and this 0 result can be dropped from total score.

This rule can be used as a local rule at FAI World Cup and Open International events, but not at Category One events.

i) Installation of the AMRT in a competitor's model shall be in accordance with the requirements as detailed in the Technical Guidance Documentation.

j) Proper operation of the AMRT including any associated display and its compatibility with other control equipment installed in the model is the responsibility of the individual competitor.

k) To facilitate initial technical processing, all AMRTs must be easily removable for compliance checking.

The receiver command signal connection to the AMRT must be easily accessible so that at any time during the competition the Organisers have the option of installing a monitoring AMRT via a branching Y lead.

To enable the timekeeper to record data required for scoring purposes there must be easy access to the display or the connector for a plug in display. It must not be necessary to disconnect the AMRT from the receiver and/or the ESC (Electronic Speed Controller) or to remove it from the model,

The use of an additional extension cable is permitted for connecting the display. It is the responsibility of the competitor to ensure that any incorrect connection does not result in damage to the AMRT or the display.

l) Any device other than an approved AMRT which is carried in or on the model and which enables total or partial independent control over the model's electric drive motor operation, is prohibited. Receivers and ESCs are not affected by this rule.

5.5.11.2. Competitors and Helpers

a) The competitor must operate his radio equipment himself.

b) Each competitor is allowed one helper. At World and Continental Championships, when a team manager or assistant team manager are allowed, they are permitted to help the competitor.

c) Any use of telecommunication devices (including transceivers and telephones) in the field by competitors, helpers or team managers is not allowed.

5.5.11.3. The Flying Site

a) The competition must be held on a Flying Site of sufficient size to accommodate the specified layout and having reasonably level terrain, which minimises the possibility of slope and wave soaring.

b) There must be no significant obstructions within 100 metres of the launch/landing spots such that the launch and landing flight directions are hindered.

c) The flying site must include one clearly marked launch/landing spot for each competitor in a Group. Launch/Landing spots must be arranged cross wind with a minimum distance between them of ten (10) metres.

d) The flying site must also include a six (6) metre wide clearly marked access corridor positioned upwind of and with its nearest edge being at least fifteen (15) metres from the launch/landing spots. (Note. If light or variable wind directions are expected, the CD may chose to place additional launch/landing spots downwind for later alternative use,) The access corridor must extend ten (10) metres beyond the first and last launch/landing spots.

e) The access corridor is provided to define the area of the flying site that is to be used by competitors, helpers and team managers to move to and from the launch/landing spots and to provide a defined area for the movement of other people associated with the administration of the contest. It must remain clear of unnecessary obstructions.

f) A competitor or his helper can use 1 piece of simple tape wind indicator. The tape dimension must be max. 20mm x 2m, mounted on a rod of diameter max. 10mm and length max. 1m. Any other indicators, testers (for temperature, pressure, wind test etc.) passive or active in the competition (starting, landing and safety corridor) area are not allowed. Explosive indicators are not allowed.

5.5.11.4 Safety Rules

(a) Every single infringement of the safety rules will be penalised by the deduction of points, as detailed below, from the competitor's final score. Penalties shall be listed on the score sheet of the round in which the infringement(s) occurred.

(b) The Contest Director must define the Safety Area. This includes the access corridor and any other restricted flying areas. (ie low flying over campsites, buildings, roads etc)

(c) Any infringement of the Safety Areas as defined by the CD - 300 points.

(d) No part of the model aircraft must land or come to rest within the ~~a~~access corridor - 300 points.

(e) The model aircraft must not contact any person within the access corridor - 1000 points.

(It is recommended that any model aircraft joining a model aircraft already established circling in lift should maintain the same direction of circling as the original model aircraft.)

5.5.11.5. Contest Flights

(a) A minimum of four qualification rounds must be flown for the competition to be valid.

(b) The competitor will be allowed only one attempt at each flight.

(c) There is an attempt when the model aircraft is released with the motor running by the competitor or his helper.

(d) All attempts must be timed by a timekeeper. If no time has been recorded, the competitor is entitled to a re-flight according to the priorities set out in paragraph

5.5.11.6. Re-flights

a) The competitor is entitled to a re-flight if:

i) his model in the process of being launched, collides with another model in the process of being launched;

ii) his model, in flight, collides with another model in flight;

iii) the attempt has not been judged by the timekeeper, provided that the helper or the competitor has informed the timekeeper about the position of the model a reasonable time before landing; if this is not done, the competitor is not entitled to a re-flight if his attempt has not been judged by the timekeeper.;

iv) his attempt was hindered or aborted by an unexpected event, not within his control.

b) To claim a re-flight the competitor must ensure that the timekeeper has noted the hindering condition and must land his model as soon as possible after the event.

If the competitor continues to launch or continues to fly, after the hindering condition affected the flight, he is deemed to have waived his right to a new Working Time.

c) A Working Time is to be granted to the competitor according to the following order of priorities:

i) in an incomplete Group, or in a complete Group on additional launching/landing spots; or

ii) in a new Group of minimum six (6) re-flyers. The new Group of re-flyers can be made up by other competitors selected by random draw. If the frequency or team membership of the drawn competitor does not fit or the competitor will not fly, the draw is repeated; or

iii) If this is not achievable, then with the original Group at the end of the ongoing round.

iv) In priority-cases ii) and iii), for the competitors allocated the re-flight, the result of the re-flight is the official score. For the other competitors, the better of their score in the ongoing round and the re-flight score will become their official score

Any competitor of this Group who was not the competitor to whom the new attempt was allocated will not be entitled to another Working Time in case of hindering during the re-flight.

5.5.11.7. Cancellation of a flight and/or disqualification

The Flight is cancelled and recorded as a zero score if:

a) the competitor used a model aircraft not conforming to any item of rule 5.5.11.1;

b) the model aircraft loses any part during the launch or the flight, except when this occurs as the result of a mid-air collision with another model aircraft. Except that the loss of any part of the model aircraft during the landing (coming into contact with the ground) is not taken into account;

c) the model aircraft is piloted by anyone other than the competitor;

d) during landing, the nose of the model aircraft does not come to rest within 75 meters of the centre of the competitor's designated landing spot;

e) the AMRT does not record any Start Height data.

A competitor shall be disqualified if, in the judgment of the Contest Director, there has been intentional or flagrant violation of the rules or unsafe flying.

5.5.11.8. Organisation of the Flying

5.5.11.8.1. Rounds and Groups

a) The flying order for the initial qualifying rounds must be arranged in accordance with the transmitter frequencies in use, to permit as many simultaneous flights as possible. A minimum of six (6) competitors should be scheduled for each Group.

b) The flying order must be scheduled in rounds sub-divided into Groups.

c) Other than in the Fly-off, the composition of Groups should minimise the situation where any competitor flies against another many times. At a World and Continental Championship, team protection is mandatory except in Fly-offs. At Open International and World Cup events, team protection is not permitted.

For the benefit of junior pilots, the Contest Director shall grant team protection to the junior pilot and the helper he specified at the contest registration if the helper is also taking part in the contest as a pilot.

(Note In practice this will occur especially in competitions with small numbers but such occurrences should be kept to a minimum.)

d) In order to minimise the time needed to run the contest the starting order should be arranged to get the minimum number of groups per round with the maximum possible competitors in each Group.

(Note. However, in small competitions 3 x 6 may be more practical than 2 x 9. It is recommended that groups with vacant starting positions are put at the end of each round, to keep space free for any re-flights.)

5.5.11.8.2. Flying in Groups

a) Prior to the start of a Group's Working Time competitors are entitled to five (5) minutes preparation time during which they take position at their designated launch/landing spots and prepare their models for flight. The preparation time must not start before the end of the previous Group's Working Time.

b) The Working Time allowed to each competitor in a Group shall be exactly ten (10) minutes duration.

c) The Organisers must positively and unambiguously indicate the start of a Group's Working Time, by audible signal; see 5.5.11.14.1 for details.

e) An audible signal must be given when eight (8) minutes, of the Group's Working Time has elapsed. Additionally, the final ten (10) seconds must be indicated audibly by a countdown.

f) The end of the Group's Working Time must be positively indicated by an audible signal, as for the start.

5.5.11.9. Control of Transmitters

For transmitter and frequency control see C.16.2 in CIAM General Rules.

5.5.11.10. Launching

a) Prior to launch all AMRTs must be initialised on the designated launch/landing spots, at ground level and the initialisation observed by the Timekeeper.

b) The general direction of the launch must be set by the Contest Director. All launches must be made in this general direction even in zero or variable light wind conditions. A penalty of 100 points will be applied for any breach of this rule.

c) The motor must not be run before the start signal is given. A penalty of 100 points will be applied for any breach of this rule.

d) Model must be launched inside the access corridor not more than two (2) meters from starting position mark (number) at general direction of the launch line of the access corridor. An attempt is annulled and recorded as zero, if the model aircraft is not launched within the above specified distance.

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

f) An attempt is annulled and recorded as zero, if the model aircraft is launched before the start of a Group's Working Time.

g) Timekeepers must be in a position behind the pilot to observe the launch but must not impede the pilot or his helper.

5.5.11.11. Landing

a) Before the contest commences, Organisers must allocate a launch/landing spot to each competitor for each round. It is the competitor's responsibility to ensure that he always uses the correct spot for landing.

b) The direction of the final approach to landing can be set by the Contest Director. All final approaches must be made in this direction even in zero or variable light wind conditions. A penalty of 100 points will be applied for any breach of this rule.

Taking into account the actual distance between the landing points, the distance to the safety corridor and the prevailing wind conditions, the contest director may leave the choice of the landing direction to the Pilots.

c) Timekeepers must be in a position behind the pilot to observe the landing but must not impede the pilot or his helper.

d) Timekeepers, helpers and competitors must not hinder other competitors or their helpers on adjacent spots.

e) After landing, competitors may retrieve their model aircraft before the end of their Working Time providing, they do not impede other competitors or model aircraft in their Group.

5.5.11.12. Scoring

a) The attempt must be timed from the moment of motor ON (motor ON signal for electronic timekeeping) to either:

i) The model aircraft first touches the ground; or

ii) The model aircraft first touches any object in contact with the ground; or

iii) Completion of the Group's Working Time.

(b) The flight time in seconds, must be truncated to the nearest second.

c) One point will be awarded for each full second of flight within the Working Time, up to a maximum of 600 points (ie 10 minutes maximum) for the preliminary rounds or 900 points (ie15 minutes maximum) for the Fly-off rounds.

d) The recorded Start Height in metres shall be truncated to the nearest metre.

e) Each metre of the recorded Start Height results in a deduction of half (0,5) a point up to 200m and three (3) points above it.

f) Where the score is negative (below zero), a zero score will be recorded. Note that any penalty points applied in the round will remain effective. (5.5.11.4).

g) A zero score will be recorded for overflying the end of the Group's Working Time by more than one (1) minute.

h) A landing bonus will be awarded in accordance with distance from the launch/landing spot marked by the Organisers according to the following tabulation:

Distance (m)	Points
Up to 1	50
2	45
3	40
4	35
5	30
6	25
7	20
8	15
9	10
10	5
over 10	0

i) The landing bonus distance is measured from the nose of the model aircraft at rest to the centre point of the launch/landing spot allocated to the competitor. A dedicated non-elastic tape marked in bonus (landing) points is the means, by which this distance is measured.

j) If during the landing procedure the model aircraft touches the competitor or his helper (or the team manager if present) or any deliberately placed obstruction, zero landing bonus must be allocated.

k) No landing bonus will be awarded if the model aircraft overflies the end of the Working Time for the Group

l) The competitor who achieves the highest aggregate of points comprising of flight points, plus landing bonus points, less launch height deduction, will be the Group winner and will be awarded a corrected score of one thousand (1000) points for that Group.

m) The remaining competitors in the Group will be awarded a corrected score based on their percentage of the Group winner's total score before correction (ie before being normalised for that Group) and calculated from their own total score as follows:

$$\frac{\text{Competitor's own score multiplied by 1000}}{\text{Highest points total scored in the Group before correction}}$$

n) Penalties shall be listed on the score sheet of the round in which the infringement(s) occurred. All penalties are cumulative and will be deducted from the competitor's total score at the end of the preliminary rounds. Penalties earned in the preliminary rounds are not carried forward into the fly-off rounds. In case the total score after deduction of the penalties is negative, a zero (0) score will be recorded. The same total score will be used for individuals and team classifications.

5.5.11.13. Final Classification

a) If four (4) or fewer qualifying rounds are flown, the aggregate score achieved by the competitor, will be the sum of his scores for all rounds flown. If more than four (4) rounds are flown, then his lowest score will be discarded before determining his aggregate score.

b) The CD may elect not to have a fly off. This decision is announced in the invitation or before the start of the competition.

c) At the end of the qualifying rounds 30% (rounded down) of competitors with the highest aggregate scores will be placed together in a single Group comprising a minimum of six (6) and maximum of fourteen (14) for the fly-off rounds. For operational reasons the CD may set a lower maximum

d) A minimum of three (3) or maximum of four (4) fly-off rounds should be flown. Exceptionally the CD may reduce to two (2) in the case of bad weather or poor visibility

e) The Working Time for the fly-off rounds will be fifteen (15) minutes duration. An audible signal must be given at the start of the Group Working Time and at exactly thirteen (13) minutes and at exactly

fifteen (15) minutes. Additionally, the final ten (10) seconds must be indicated audibly by a countdown.

f) The scoring of the fly-off rounds shall be as in section 5.5.11.12.

g) Final placing of the competitors who qualify for the fly-off, shall be determined by their aggregate scores in the fly-off rounds; their scores in the qualifying rounds being discarded.

h) In the event that two or more competitors have the same aggregate fly-off score, final positions of those competitors shall be determined by their respective position in the qualifying rounds; the higher positioned competitor being awarded the higher final position.

i) The national team classification is established after the completion of the championship by adding the aggregate scores of qualifying rounds of the three members of the team together. In the case of a national team tie, the team with the lower sum of place numbers, given in order from the top, wins. If still equal, the best individual placing decides.

5.5.11.14. Advisory Information

5.5.11.14.1. Organisational Requirements

a) The Organiser shall ensure that each competitor has no doubt about the precise second that a Group Working Time starts and finishes.

b) Any audible signal may be by automobile horn, bell or public address system etc. It must be remembered that sound does not travel far against the wind; therefore, the positioning of the audio source must be given some thought.

c) The audible signal must be clear and unambiguous in its meaning.

d) To be a fair contest, the minimum number of fliers in any one Group is six (6). As the contest proceeds, some competitors may be obliged to drop out for various reasons. When a Group occurs with five (5) or fewer competitors in it, the Organiser should move a competitor up from a later Group, ensuring, if possible, that he has not flown against any of the others in previous rounds and that his frequency is compatible.

e) For contests with 30 pilots or less at the beginning of the contest the organiser should move up a competitor from a later group when a group occurs with four (4) or fewer competitors instead of minimum six (6) at the beginning of the contest or cancel the group and fill up the other groups accordingly.

5.5.11.14.2. Timekeeper Responsibilities

The Organiser must ensure that all timekeepers are fully aware of just how important their duties are, their responsibilities and the requirements for safety on the Flying Site. The Organiser must make certain that Timekeepers are fully conversant with the rules particularly those that in certain cases require quick positive action to ensure that any competitors chances in the competition are not jeopardised.

Timekeepers must:

i) observe the initialisation of the AMRT;
ii) observe the launch, flight and landing, and record any breaches of the rules;
iii) time and record the flight time;
iv) measure and record the landing bonus distance;
v) observe and record the Start Height from the AMRT;
vi) not impede the pilot or his helpers nor hinder those on the adjacent spots.