CLass F5J rules from Working Group Nov 2012

Notes: In all cases the words “Group”, “Working Time”, “Organiser” should have a first capital letter.
5.5.11.1.3 old Para (c) is added to (d).
5.5.11.4 rewritten and re-ordered for clarity.

5.5.11. CLASS F5J - THERMAL DURATION GLIDERS WITH ELECTRIC MOTOR AND 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~~ **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 ~~from~~ **a minimum of** two (2) ~~up to~~ **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~~ **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 , ~~as a launching device~~ **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.

~~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 or any other mean is not permitted.~~

5.5.11.1.2. Prefabrication of the Model aircraft

Paragraph B.3.1 a) of Section 4, Part 2 (builder of the model aircraft) is not applicable to this class.

cont/…

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) ~~The radio~~ **Radio equipment not using Spread Spectrum technology to International Standards** shall 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 competitor uses a Spread Spectrum technology system.

d) Any device for the transmission of information from the model aircraft to the competitor is prohibited~~. Any use of telecommunication devices (including transceivers and telephones) in the field by competitors, helpers or team managers is not allowed.~~

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 three contest. model aircraft in the~~

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.

~~g) For the sake of randomness of the starting order among the successive rounds, Each competitor must enter three different transmitter frequencies with 10 KHz minimum spacing. The organizer 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 (g) is not applicable, if competitor uses a Spread Spectrum technology system.~~

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

~~i) No fixed or retractable arresting device (i.e. bolt, saw tooth-like protuberance, etc) is allowed to slow down the model aircraft on the ground during landing. The underside of the model aircraft must not have any protuberances. A folding prop or the tail, including the fin, is not considered as protuberance or arresting device.~~

g) The underside of the model aircraft must not have any protuberances or arresting devices (e.g.. bolt, saw tooth-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 ~~shall~~ **must** be fitted with an approved ~~device, which records the maximum altitude reached between the time that the model leaves the competitor or his helper hand and 10 seconds after the motor is stopped. The device must also stop the motor 30 seconds after it is started at launch, if not already stopped within this time limit by the competitor. The devise must not allow the motor to be restarted during flight~~ **AMRT in accordance with the Technical Specification published in F5J Altimeter/Motor Run Timer Technical Documentation.**

The essential functions of the AMRT are:

(a) 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

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

i) Installation of the AMRT in a competitor's model shall be in accordance with the requirements as detailed in the Technical Guidance Documentation. ~~which records the maximum altitude reached between the time that the model leaves the competitor or his helper hand and 10 seconds after the motor is stopped. The device must also stop the motor 30 seconds after it is started at launch, if not already stopped within this time limit by the competitor. The device must not allow the motor to be restarted during flight~~

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** ~~Altimeter/Motor Run Timers~~ must be easily removable for compliance checking.

~~To enable subsequent flight line processing, the Altimeter/Motor Run Timers must be equipped with a display, or alternatively with a plug into which an external display unit can be connected, in order to facilitate the timekeeper recording the required data for scoring~~

~~purposes, without the need to disconnect the unit from the receiver and/or the E.S.C. (Electronic Speed Controller) or remove it, from the model.~~

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** ~~unit~~, 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 ~~E.S.C~~ **ESCs** are not affected by this rule.

~~a) In Annex A relating to this rule, the following information is included: .~~

- ~~Specifications for the Altimeter/Motor Run Timer~~
- ~~Installation environment~~
- ~~Approved devices~~

5.5.11.2. Competitors and Helpers

a) The competitor must operate his radio equipment himself.

b) Each competitor is allowed one helper. **At a World Championship** when a team manager is allowed, he is ~~also~~ **additionally** 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

5.5.11.3.1. 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.

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

a) ~~The flying site shall include a marked launch corridor of 6 m width. with a central launch line. The launching corridor shall be arranged crosswind and shall include launch marks on the central launch line, at a minimum of 10 m. apart, one for each competitor of a group.~~

a) 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.

~~b) The flying site shall include landing spots~~ **one launch/landing spot** ~~for each competitor in a~~ **Group** ~~group.. *Each landing spot will correspond to one of the launching marks* and will be~~ **positioned** ~~arranged at least fifteen (15) metres downwind of the *launching*~~ **access** ~~corridor.~~

b) 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.

c) 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.

5.5.11.3.2 ~~The landing spots and the launch line must always be marked. It is at the discretion of the Contest Director, to define the means, by which the distance from the landing spot is measured, such as a tape. Also at the discretion of the Contest Director the landing area dimensions can be adjusted to allow best usage of the available space.~~

5.5.11.4 Safety Rules

(a) Every single action against the safety rules will be penalised by 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 model aircraft must not be flown at low level (below 3 metres) over the safety area.~~

(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 Safety Areas as defined by the CD - 300 points

(d) No part of the model aircraft must land or come to rest within the ~~Safety Area~~ **Access Corridor. -300 points**

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

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

5.5.11.5. Contest Flights

5.5.11.5.1. (a) The competitor will be allowed a minimum of four (4) ~~preferably more, official~~ flights **in the qualifying rounds.**.

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

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

(d) All attempts ~~are to~~ **must** be timed by a timekeeper. If no ~~official~~ time has been recorded, the competitor is entitled to a ~~new time~~ **re-flight** according to the priorities set out in paragraph 5.5.11.6.

5.5.11.6. Re-flights

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

i) his model, ~~in flight or~~ 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) ~~ii)~~ the attempt has not been judged by the ~~official~~ timekeeper;

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

b) To claim a re-flight ~~considering the above-mentioned conditions,~~ the competitor ~~has to make sure~~ **must ensure that the** ~~official~~ **timekeeper has** ~~noticed~~ **noted** the hindering condition and **must** land his model as soon as possible after the event.

~~Note~~ **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** ~~The~~ new ~~working time~~ **Working Time** is to be granted to the competitor according to the following order of priorities:

i) In an incomplete ~~group~~ **Group**, or in a complete ~~group~~ **Group** on additional launching/landing spots; **OR in**

ii) ~~If this is not achievable then in a new group of several (minimum 4) re-flyers.~~ **A new Group of minimum six (6) re-flyers.** The new Group of re-flyers can be made up by other ~~four (4)~~ **competitors s**elected 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~~ **Group** at the end of the ongoing round.

~~iv)~~ In priority-case**es** 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.** ~~the better of the two results of the original flight and the re-flight will be the official score, except for any the competitors who were allocated the new attempt. For them those the result of the re-flight is the official score. A~~ **Any** competitor of this ~~group~~ **Group** who was not **the competitor to whom the new attempt was** allocated will not be entitled to another ~~working time~~ **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 flight is cancelled and recorded as a zero score if the competitor used a model aircraft not conforming to any item of rule 5.5.10.1. In the case of intentional or flagrant violation of the rules, in the judgment of the Contest Director, the competitor may be disqualified.~~

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

~~b) The flight in progress is annulled and recorded as a zero score if 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.~~

~~c) The loss of any part of the model aircraft during the landing (coming into contact with the ground) is not taken into account.~~

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) ~~d) The flight is cancelled and recorded as a zero score if~~ the model aircraft is piloted by anyone other than the competitor.

d) during landing, ~~some part~~ **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 records no 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 ~~shall~~ **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~~ **Group.**

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

c) Other than in the Fly off the composition of ~~groups~~ Groups should minimise the situations where any competitor flies against another many times. (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~~ 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) Competitors are entitled to five minutes preparation time, which is counted from the moment from their group being called to take position at the designated launching area, to the start of the group's working time.~~

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~~ **Working Time** allowed to each competitor in a ~~group~~ **Group** shall be exactly ten (10) minutes duration.

c) The Working Time for each Group must not start until the Access Corridor is clear of all people. Any deliberate attempt to delay the start of a Working Time by a competitor, his helper or Team Manager, by obstructing the Access Corridor will result in a zero score for the Round.

d) ~~c)~~ The **Organiser**s ~~organisers~~ must positively **and unambiguously** indicate the start of a ~~group's~~ **Group's** ~~working time~~ **Working Time**, by audible signal; see 5.5.11.14.1 for details.

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

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

5.5.11.9. Control of Transmitters

All provisions mentioned in Section 4, Volume ABR, section B.11 are applicable to this class. ~~as well.~~

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.

~~a)~~**d**) ~~At all times, the~~ **Unless otherwise specified by the Contest Director,** models must be launched ~~into wind~~ ~~and~~ within four (4) ~~meters~~ **metres** of the competitor's launch**/landing spot**. ~~mark~~. An attempt is annulled and recorded as zero, if the model aircraft is not launched within the above specified distance. ~~The launches must be straight forward, with the motor running. Any other type of launch is not allowed~~**.**

~~b) In zero or variable light wind conditions, the launch and final approach to touchdown direction, will be set by the Contest Director. Any other direction is not allowed..~~

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

~~c)~~ **f**) An attempt is annulled and recorded as zero, if the model aircraft is launched before the start of a ~~group~~ **Group's** ~~working time~~ **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.

~~d) Prior to launch all Altimeter/Motor Run Timers must be initialised on the designated **launch**/landing spots, at ground level.~~

~~e) Zooming is not allowed. Zooming is defined as the storage of extra energy in the form of kinetic energy (speed), which is then converted into potential energy (height) after the height reading is made. A penalty of 100 points will be applied for any model observed by the designated timekeeper or Contest Director, to be repeatedly attempting any zooming techniques more than 10 seconds after motor cut. after the period of 10 seconds has elapsed will receive a 100 point penalty~~

5.5.11.11. Landing

a) Before the contest commences **Organisers** ~~organizers~~ 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 must 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.

c) ~~Officials (timekeepers) must remain upwind and at least 15 m away of the designated landing spot, during the working time until immediately prior to the landing~~.

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

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

~~c)~~ **d)** After landing, competitors may retrieve their model aircraft before the end of their ~~working time~~ **Working Time** providing they do not impede other competitors or model aircraft in their ~~group~~ **Group.**

5.5.11.12. Scoring

a) The attempt ~~will~~ **must** be timed from moment of release from the hand of the competitor or his helper 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~~ **Group's Working Time.**

b) The flight time in seconds, ~~shall~~ **must** be rounded down to the nearest second ~~(mm:ss)~~

c) One point will be awarded for each full second of flight within the ~~working time~~ **Working Time**, up to a maximum of 600 points (i.e. 10 minutes maximum) for the preliminary rounds or 900 points (i.e.15 minutes maximum) for the Fly Off rounds.

~~**d)** The launch altitude for scoring purposes shall be the maximum altitude recorded from the moment the model leaves the launchers hand until 10 seconds after the motor is stopped.~~

~~e)~~ **d)** The ~~altitude~~ **recorded Start Height** in ~~meters~~ **metres** shall be rounded down to the nearest ~~meter~~ **metre**.

~~f)~~ **e)** Each meter of the ~~launch altitude~~ **recorded Start Height** results in a deduction of half (0,5) point up to 200m and **three (3)** ~~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. (5.5.10.12.10).

g) A zero score will be recorded for overflying the end of the ~~group's~~ **Group's** ~~working time~~ **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~~ **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 distance for landing bonus~~ **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 ~~by the organizers~~**. 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 ~~either~~ the competitor or his helper **(or the Team Manager if present)** **or any deliberately placed obstruction, zero landing bonus must be allocated** ~~no landing points will be allocated.~~

~~If the model touches or is impeded by any other person then the competitor can either let his score stand or request a refly~~.

k) No landing bonus ~~points~~ will be awarded if the model aircraft overflies the end of the **Working Time for the Group** . ~~group's working time.~~

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

m) The remaining competitors in the ~~group~~ **Group** will be awarded a corrected score based on their percentage of the ~~group~~ **Group** winner's total score before correction (i.e. before being normalised for that ~~group~~ **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.

5.5.11.13. Final Classification

a) If four (4) or less 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) At the end of the qualifying rounds, a minimum of ten (10) competitors with the highest aggregate scores will be placed together in a single group for the fly-off rounds.~~

b) 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

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 case of bad weather or poor visibility

Where competitor numbers are under 20 the CD may elect to Not have a Fly-Off, providing this decision is announced before the start of the competition.

c) The ~~working time~~ **Working Time** ~~for each competitor who qualifies~~ 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~~ **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.** see 5.5.10.14.1

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

e) 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.

f) 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.

5.5.11.14. Advisory Information

5.5.11.14.1. Organisational Requirements

a) The **Organiser** ~~organizer~~ shall ensure that each competitor has no doubt about the precise second that ~~the~~ ~~group's~~ ~~working time~~ **a Group Working Time** starts and finishes.

b) Audible ~~indication~~ 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 as to its meaning.

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

5.5.11.14.2. Timekeeper Responsibilities

The **Organiser** ~~organizer~~ 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** ~~and~~ make certain that ~~they~~ **Timekeepers** are **fully** conversant with the rules particularly those that **in certain cases require** ~~a~~ quick positive action ~~in order not to jeopardize a competitor's chances in the contest.~~ **to ensure that any competitors chances in the competition are not jeopardised.**

a) Timekeepers must:

i) observe the initialization 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

b) Timekeepers must not impede the pilot or his helpers nor hinder those on the adjacent spots.

~~**5.5.10.14.3 Groups**~~

~~a) Other than in the Fly off the composition of groups~~ **Group**~~s should minimise the situations where any competitor flies against another many times.. In practice this will occur but such occurrences should be kept to a minimum..~~

~~b) 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~~ **Group**~~. 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.~~

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