5.7 Rules – AEFA, Limited Electric Glider (LEG)

5.7.1 Definition of Electric Powered Model Aircraft
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. The power pack for the electric motor may not have any fixed connection to the ground or another model aircraft in the air.

5.7.2 Builder of the Model Aircraft
Builder of the Model aircraft rule is not applicable to Limited electric glider.

5.7.3 General Characteristics of RC Electric Powered Model aircraft
Maximum total area 150 dm2
Maximum weight ..... 5 kg
Loading .....12 to 75 g/dm2

5.7.4 Flight Pack
The Flight Pack must consist of the following maxima:
LiPo cells up to 6600 cell mAH. Refer Appendix 1

5.7.5 Telemetry
Any device for the transmission of information from the model aircraft to the pilot (telemetry) is prohibited, with the exception of information that is transmitted for the safe operation of the model aircraft, ie, signal strength and voltage of the receiver battery but not any positioning or height information.

5.7.6 Competitor and Helper
Each competitor must operate their radio equipment personally. Each competitor is permitted two helpers.

5.7.7 Event definition
The contest is for radio controlled Electric powered Motor Gliders.
It includes the following tasks:
a. Duration, and
b. Landing.
A minimum of four flights must be flown to constitute a contest.

5.7.8 Landing
A landing bonus will be given in accordance with current FAI rules for the F5J event.
In any case of conflict these LEG rules shall overrule the F5J rules.
Refer Appendix B.

5.7.9 Organisation
5.7.9.1 The competition must be held at a site having reasonably level terrain with a reasonably low probability of slope or wave soaring.
5.7.9.2 When a competition is in progress, only the pilots, their helpers and any officials should be on the flight line.

5.7.9.3 Where possible the organisers will use “man on man” or normalised scoring.
The winner of each group will receive 1000 points and each of the other competitors in that group will receive a score calculated as shown:
Normalised Score = Competitor’s Flight score/Group Winners flight score x 1000,
where the Winner’s flight score is the highest flight score achieved in the group in which the competitor flew and the competitor’s flight score is as defined in 5.7.12.
5.7.9.4 Where normalised scoring is used then the organisers shall endeavour to organise the flight order (draw) so that over the event each competitor will fly against as many of the other competitors as is possible.
5.7.9.5 If more than four flights are flown, the lowest normalised score (or flight score if normalised scoring is not used) of each competitor shall be discarded and the remaining normalised scores added to obtain the final score. This will determine the competitor's position in the final classification.
5.7.9.6 In order to decide the winner when there is a tie, the discarded flight shall be taken into account.

5.7.10 Launching
5.7.10.1 Before launching, the competitor shall show his or her timekeeper how the transmitter operates the motor control [on, off].
5.7.10.2 The model, with motor running, is released or thrown into flight directly from the hand(s) of the pilot or helper without assistance.
5.7.10.3 The model shall not be launched from a height greater than the flier's or helper’s normal reach above the ground.

5.7.11 Scoring, Duration and Landing Task:
5.7.11.1 The objective of the duration task is to achieve a flight with a duration time of exactly 5 minutes (300 seconds).
5.7.11.2 The pilot has complete discretion over the motor’s use subject to 5.7.10.2. The pilot must announce the switching on and switching off of the motor to the time keeper with the words "motor on" and "motor off".
5.7.11.3 The timekeeper recording the duration time shall:
a. Start the duration watch when the model is launched (released from the hand)
b. Stop the watch when the model comes to rest.
5.7.11.4 The duration time is recorded as the minutes and completed seconds on the duration watch. (5.7.11.3)
5.7.11.5 The duration points are calculated by awarding one point for each full second the model is flying, up to 300 seconds and deducting one point for each full second flown in excess of 300 seconds. eg. A flight time of 5min 05sec or 305 seconds will receive 295 duration points.
5.7.11.6 The timekeeper recording the motor run (which may be the same person as in 5.7.11.3 above) will start their motor watch when the model is launched. They will stop their motor watch when the motor is switched off. The watch is started again each time the motor is started and stopped when the motor is turned off again.
5.7.11.7 Motor run time is cumulative. One motor run point will be used for each full second that the motor is running.
5.7.11.8 Additional points will be awarded for the landing per 5.7.8. The distance from the landing spot to the nose of the model is measured.
5.7.11.9. No landing points are awarded if the landing occurs more than 330 seconds after starting the task.

5.7.12 **Flight Score**

The Flight Score is calculated by subtracting the motor run points (5.7.11.7) from the duration points. (5.7.11.5) and then adding the landing bonus points (5.7.11.8)

5.7.12 The flight is given zero points if:

5.7.12.1 the pilot uses a model aircraft not conforming with the rules. In the case of intentional or flagrant violation of the rules, in the judgment of the Contest Director, the competitor may be disqualified.

5.7.12.2 the model aircraft loses any part during the duration time. However, the losing of a part during landing (i.e. after contact with the ground or another obstacle) or during the flight due to a collision with another model is not taken into account

5.7.12.3 the model aircraft was previously used by another competitor at the same contest. This may be over-ruled at the Contest Directors discretion.

5.7.12.4 the pilot uses more than two helpers.

5.7.12.5 any part of the model aircraft does not come to rest and remain at rest within 100 metres from the landing spot.

5.7.12.6 the model aircraft used a power source that was not compliant with 5.7.4.

5.7.12.7 the model aircraft is controlled by anyone other than the competitor.

APPENDIX A. Examples of permitted Flight Packs, 6600 cell mAH maximum:

- 2S 3300, 2S 3200 mAH Lipo
- 3S 2200, 3S 2170 mAH Lipo
- 4S 1600, 4S 1500 mAH Lipo
- 5S 1200 mAH LiPo

Or any other combination where xxxx mAh multiplied by number of Lipo cells equals 6600mAH maximum.

APPENDIX B. F5J Landing

The current FAI rules as used for the F5J event shall be used for the LEG landing bonus.

A summary of this bonus follows:

A landing bonus will be awarded in accordance with distance from the 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

The landing bonus distance is measured from the nose of the model aircraft at rest to the centre point of the landing spot allocated to the competitor. A dedicated non elastic tape marked in metres is the means by which this distance is measured.

If during the landing procedure the model aircraft touches the competitor or his helper or any deliberately placed obstruction, zero landing bonus applies.

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