

NZMAA FLYING RULES

Section 4d – Electric Vintage (Provisional Rules)

1. GENERAL.

These Provisional Rules are to be used on a trial basis for 2008

Electric Vintage models shall be flown under the NZMAA General Competition Rules and NZMAA Vintage Rules Section 4a listed under the paragraph headings 4.2 Construction of Models, 4.3 Number of Models, 4.5 Wing Area Calculation, 4.9 Timing, 4.10 No Flights, 4.11 Thermal Detectors, 4.12 Conditions.

and NZMAA Free Flight Rules paragraph 1.5 Launching area

2. ELIGIBILITY

- 2.1. AUTHENTICATION. Electric Vintage models must be designs dated prior to December 31, 1960. Authentication of a model design and date of origin is the responsibility of the contestant.
- 2.2. DATING. A model which has been kitted or published will be dated according to the earliest verified date of kitting or publishing regardless of when it was designed. A model first kitted or published after the cut-off date may be accepted if it is proven to have been designed and flown before cut-off date.
- 2.3. MODIFICATION. A model may be modified to permit minor changes to thrustline, strengthening of structure and provision of DT. Areas, dihedral angles, moments and airfoil sections must not be altered. No deliberate turbulators or turbulator spars may be added.
 - 2.3.1. Models may be scaled up or down from the original design if desired.
 - 2.3.2. Undercarriages must be to original dimensions. One wheel gear may be changed to two but not vice versa.
 - 2.3.3. Propellers must be fixed pitch, two bladed type, folding propellers must be fixed so that they cannot fold in flight.
 - 2.3.4. Modern materials may be used in construction and covering but the finished model must comply with the appearance of the original.

3. Electric Vintage Free Flight Precision

- 3.1. 3 flights, target time 90 seconds.
- 3.2. No limit on batteries, motor size or run

- 3.3. Flight scored at one point per second up to 90 with one point deducted for every second over 90.
- 3.4. No - flights. In addition to Section 4a para. 4.10 A no-flight shall be recorded for flights under 20 sec or over 160 seconds or where the model comes to rest in a tree or on a rooftop, power lines, etc.
- 3.5. Dethermaliser. If the dethermaliser is seen by the timekeeper to operate before 160 seconds the flight shall be scored zero.
- 3.6. Maximum score per flight is 90
- 3.7. Launch optional (ROG or Hand launch)
- 3.8. Fly-off. Ties for first place will be broken by a fly-off to the same target time (90 secs). If scores are tied after a fly-off they may remain tied.

4. *Electric Vintage Free Flight Duration*

- 4.1. The motor may be any permanent magnet DC type including Brushless
- 4.2. Battery pack is to be limited to a maximum of a 7 cell pack of 800 maH Nicds or NiMHs or a 2S pack of 800 maH lithium type cells.
- 4.3. Any gearbox /propeller combination may be used
- 4.4. 3 flights, 180 seconds maximum score at one point per second to 180. No deduction from score for flights over 180 seconds.
- 4.5. Maximum motor run is 30 seconds
- 4.6. Launch optional (ROG or Hand launch).
- 4.7. Maximum flight score is 180
- 4.8. Fly-off. To break a tie for first place a fly-off with no maximum will normally be used. Should model preservation be in question due to wind or other factors the CD can opt for an appropriate maximum for the fly-off.

5. *Electric Vintage RC Precision*

- 5.1. Loading. No wing or power loading restrictions shall apply
- 5.2. Electric motors may be of any type. (Brushed or Brushless). They may be direct or geared drive.

- 5.3 Drive batteries may be of any type and capacity and may be charged between flights
- 5.4 3 flights. Target time 180 seconds scored at 1 point per second to 180. One point shall be deducted for every second over 180.
- 5.5 Maximum motor run 60 seconds.
- 5.6 Launch optional (ROG or Hand launch)
- 5.7 Bonuses. Landing bonuses shall be added to each flight. A landing bonus of 20 shall be awarded for coming to rest within 20 metres of a designated spot.
- 5.8 Maximum score per flight is 200
- 5.9 Fly-offs to break a tie for first place a fly-off to these rules will be held. If scores are tied after the fly-off a tie will be declared.

6 *Electric Vintage RC Duration*

- 6.1 Loading. Minimum wing loading shall be 8 ounces per square foot of wing area calculated as per rule 4.5 in Section 4a of the Vintage rules.
- 6.2 Electric motors may be of any type, (Brushed or Brushless). They may be direct or geared drive and any magnet type.
- 6.3 Drive battery is to be limited to a maximum of a 10 cell NiCd or NiMh or a 3s lithium type cells of no more than 2500 maH capacity. Batteries may be charged between flights.
- 6.4 3 flights. Maximum of 240 seconds scored at one point per second to a maximum of 240. No points deducted for flights in excess of 240 though flights should not impede the contest by exceeding 360 seconds.
- 6.5 Motor run Maximum motor run is 30 seconds.
- 6.6 Launch Models over 60-inch wingspan must ROG, all others may be hand launched.
- 6.8 Bonuses. Landing bonuses shall be added to each flight. A landing bonus of 20 shall be awarded for coming to rest within 20 metres of a designated spot.
- 6.9 Maximum score per flight is 260
- 6.10 Fly-offs. To break a tie for first place a fly-off to an 8 minute maximum will be held. If scores are tied after the fly-off a tie will be declared.

7. *Electric Vintage R/C 1/2A Texaco (Speed 400)*

- 7.1 Minimum Wing loading shall be 8 ounces per square foot calculated as per rule 4.5 in Section 4a of the Vintage rules. The Wing area for this class is a minimum of 300 square inches and a maximum of 400 square inches.
- 7.2 Motor to be a Direct Drive Speed 400 brushed type of any voltage version.
- 7.3 Drive battery may be up to 7 cells 650 maH NiCd or NiMh and may be recharged between flights.
- 7.4 3 flights. 15 minute maximum scored at one point per second to 900. No points deducted for flights over 900 seconds. No motor run limit.
- 7.5 Launch optional, (ROG or Hand launch)
- 7.6 Maximum score per flight is 900
- 7.7 Fly-off No maximum

8. *Electric Vintage R/C A Texaco*

- 8.1 Minimum Wing loading shall be 8 ounces per square foot calculated as per rule 4.5 in Section 4a of the Vintage rules. The wing area for this class is a minimum of 401 square inches with no maximum.
- 8.2 Motor may be any Brushed or Brushless direct or geared motor using the drive batteries specified in 8.3.
- 8.3 Drive Battery for a Brushed motor may be up to a 7 cell pack of 800 maH NiCd or NiMh maximum. The drive battery for a Brushless motor may be up to a 7 cell 650 maH NiCd or NiMh maximum. Batteries may be charged between flights.
- 8.4 3 flights of 15 minutes each scored at one point per second to 900. No points deducted for flights over 900. No motor run limit
- 8.5 Launch optional (ROG or Hand Launch)
- 8.6 Maximum score per flight is 900
- 8.7 Fly-off. No maximum