

NZMAA FLYING RULES

Section 4: Free Flight Vintage / Nostalgia / Classic and RC Vintage and Classical

Updates and Alterations

- i 1 Dec 99 Builder of Model rule removed for FF classes (4.2.)
- ii 1 Dec 03 Approved Schneurlie engines will be listed on NZMAA web page (4.4.6.)
- iii 1 Dec 03 Vintage Glow added (5.3.4.d)
- iv 1 Dec 02 - Correction of earlier typographical error (5.4.2 & 8.4.2)
- v 1 Dec 99 ROG Bonus removed for NOS FF Power models (8.3.3.)
- vi 1 Dec 99 Electric Power removed from FF NOS Power and engine runs shortened. (8.3.4)
- vii July 05 OT RC A Texaco added (6.5.)
- viii Oct 05 Typo's and corrections.(Pages 4 & 5, 19 & 20 & 21)

April 2006

Rule 5.7, Section 7, Rule 8.7,Section 9, Nostalgia RC all deleted.

Rule 4.4.4, Rule 4.5(d), Rule 5.3, Rule 6.2.1.,Rule 6.3.1., Rule 6.4.3. Amended

Rule 4.4.6 replaced

Section 8 renumbered as Section 7

Feb 2007

All: Section Divided to 4a Vintage and 4b Nostalgia incorporating changes to the following:

- i 2.1 Nostalgia References deleted
- ii 3 Nostalgia References deleted
- iii 4.4.6 Nostalgia References deleted
- iv 4.6 Nostalgia References deleted
- v sec 5 & 6 Remove 'Old Time' and replace with 'Vintage'
- vi Sec 4b Nostalgia Free Flight Section added

January 2008

Deleted existing Section 4b replaced by New Section 4b Nostalgia.

New Section 4c Classic added.

Section 4.8 Fly-offs amended to cover NDC Fly-off requirements.

Section 4a. Para. 6.2.5 Paras. a and f motor run amended

Section 4a Para 6.1.2 RC Precision Electric Drive option added

Section 4a Para 6.2.3 RC Duration Electric Power option added.

Jan 2009

Change rule 6.3.5.and 6.4.5 of the 1/2A Texaco classes to read "Babe Bee" not "Baby Bee"

August 2010

Vintage Age Bonus Chart reinstated

Add to Rule 4.1 Modification

A Provisional Rule was added to the Nostalgia section, (this is a trial rule not a full Official rule as yet)

Amendment to the Provisional Electric Vintage rules 6.3 and 6.5

June 2011

Nostalgia 1/2A/Miniature Replica FF power rule 4b 21.0 made official

Rule 6.2 Amended to Read Vintage RC IC Duration and electric drive reference deleted

Official Electric RC rules added as 4a section 7

September 2011

Section 6 re-label as Radio Control IC powered Vintage and Classical

Section 6.1 New General rules for all RC Classes

Section 6.2 Re-presented RC Vintage Precision; Section 6.3 Add RC Classical Precision

Section 6.4 Re- presented R C Vintage Duration; Section 6.5 Add RC Classical Duration

Renumber old sections 6.3,6.4, 6.5 as 6.6,6.7,and 6.8 respectively

Section 7 re-label as Radio Control Electric Vintage and Classical

Change references to Nostalgia and Classic periods to a single Classical period, which is 1/1/51 to 31/12/75

Remove all age bonuses from Classical classes, landing bonuses from E Classical Duration and all E Texaco classes

Amend sub section 7.1 so model design features 7.1.3 –7.1.6 are consistent with the rules for IC classes 6.1.3 – 6.1.6

February 2012: Radio DT allowed in all Vintage Nostalgia and Classic Classes (refer rule 4.1.2)

Rule 4.4.1 amended to allow Electronic ignition units

June 2012: R C IC Texaco rules revised, Open Texaco class added. Throttle use allowed for A Texaco

Vintage landing area increased from 20m to 30 m diameter. Age and landing bonus applies in all Vintage classes

Layout of RC Rules revised.

January 2013: RC E Texaco rules revised, battery size revised down and E Rubber Texaco wing load and Propeller rules updated.

January 2014: Rule 4.9 RC timing added, Rule 5.6.6 Multiple Loops of rubber allowed, Rules 6.4.4 < 6.4.5,6.5.4 and 6.5.5 Motor types and run times amended. Section 4b Nostalgia FF Rule 21 Nos/Vintage Redrafted to clarify class.

January 2015 1/2E and E Texaco rules 7.4.3, 7.4.11 and 7.3.3 revised. Motor Rule 4.4.6 revised. Motor Run rule 5.3.4 revised.

Appendix 1 Nostalgia FF Power Motors revised. Appendix 1 Classic FF Power Motors revised. Rule 4.4.1 Motors amended. New Rule 4.4.7 Converted motors added. Rule 4.1.2 amended to delete RC DT reference; New Rule 4.1.6 added referring to RC DT use.

NZMAA FLYING RULES

Section 4a: Vintage

CONTENTS

Preface

1. Preamble

2. Eligibility

3. Classes

4. General Rules

5. Vintage Free Flight

6. Radio Control I C Powered (Vintage and Classical)

7. Radio Control Electric Powered (Vintage and Classical)

PREFACE

The New Zealand Model Aeronautical Association Inc. (NZMAA), is the organisation recognised by the Federation Aeronautique Internationale (FAI), the Royal New Zealand Aero Club (RNZAC), and the Air Transport Division of the Ministry of Transport as the controlling authority for model aviation in New Zealand.

Maintenance of these rules is vested in the Vintage Special Interest Group (SIG) of the NZMAA, who are appointed by the Vintage SIG AGM, subject to approval by the Council of Management of the NZMAA.

The General Rules governing the flying of model aircraft are included in the NZMAA Member's Handbook and in Section 1 of the NZMAA Flying Rules. The General Rules section included herein are specific to Vintage categories.

Alterations to these rules may be made according to the provisions of Sections 14 and 15 of the MFNZ document 'Changes to By Laws for the Operation of Technical Committees (SIGS).'

Copies of these rules may be obtained from the NZMAA Secretary, NZMAA Competition Manager or the Secretary of the Vintage SIG at the addresses shown in The Model Flying World.

1. PREAMBLE

- 1.1. AUTHORITY** The Vintage SIG is empowered to act on behalf of the NZMAA to administer Vintage aeromodelling in New Zealand.
- 1.2. PHILOSOPHY** The flying of vintage models is intended to be relaxed, informal and of nostalgic appeal to both flier and spectator. It is not intended to advance the state of the art of aeromodelling, but sets out to illustrate its progress. The intent of these rules is to formulate classes suitable to New Zealand conditions and heritage for the purposes of friendly competition.
- 1.3. RECORDS** No New Zealand records will be recognised for vintage classes.
- 1.4. SAFETY.**
- 1.4.1. Vintage models should be flown with extreme care to ensure the safety of flier and spectators. In vintage events, the Contest Director may ground any model if he considers it unsafe, if it is being flown in an unsafe manner, or if the flier is not covered by Public Liability insurance.
- 1.4.2. Prohibited:- Metal propellers; Needle pointed spinners; Loose parts which may become detached; Taxi-ing in the pits or near spectators.
- 1.4.3. Flying :- Models must not be flown over spectators, pits or parking areas

2. ELIGIBILITY

2.1 VINTAGE MODELS

The cut off date for Vintage models is 1 Jan1951

(See the respective sections for the cut off dates for the Nostalgia, Classic and Classical classes.)

Models must have been kitted or the design published prior to the above cut-off date. See also rule (2.2.)

Vintage, Nostalgia, Classic and Classical events may be flown simultaneously but shall be separate events and must be scored separately.

It is conceivable that a 1950/51 design could qualify as both Vintage and Nostalgia. Such a "borderline" model may be flown in either category at a given contest but not in both categories. The CD will rule on which category is to apply.

2.2. AUTHENTICATION

Authentication of a model's design and date of origin is the responsibility of the contestant.

Designs that were never kitted or published will be allowed if approved by the Soc. of Antique Modellers (SAM) USA, and other affiliated chapters, otherwise they must be approved by the Vintage SIG before entry into contest. The drawings must be lodged with the Vintage SIG. The Contest Director shall decide whether to permit an obscure design in a given contest.

Note: The design and authenticated date must be displayed on the model.

2.3 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 but shall receive no age bonus points.

3. VINTAGE CLASSES

Models shall be flown in one of the following classes: -

- FF PRECISION
- FF RUBBER DURATION
- FF POWER DURATION
- FF GLIDER DURATION
- FF MINIATURE REPLICA
- FF CHUCK GLIDER
- FF CATAPULT GLIDER
- RC PRECISION
- RC DURATION
- RC 1/2A TEXACO
- RC 1/2A TEXACO SCALE
- RC A TEXACO. RC ELECTRIC classes (4a section 7)

Note: FF Rubber, Power and Glider duration may be flown together as a Combined FF Duration Event.

VINTAGE AGE BONUS CHART

1950	0	1943	7	1936	14
1949	1	1942	8	1935	15
1948	2	1941	9	1934	16
1947	3	1940	10	1933	17
1946	4	1939	11	1932	18
1945	5	1938	12	1931	19
1944	6	1937	13	1930	20 (max)

4. GENERAL RULES

4.1 MODIFICATION

A vintage model may be modified to permit minor changes to thrustline, strengthening of structure, provision for DT or RC equipment, and the fitting of RC control surfaces. Areas, dihedral angles, moments and airfoil sections must not be altered. No deliberate turbulators or turbulator spars may be added. No change may be made to the original design's propulsion except that for FF Duration and RC Precision and Duration events an electric motor may replace an IC engine in a power model design.

- 4.1.1. FF and RC models may be scaled up or down from the original design if desired.
- 4.1.2. Gliders may have auto-rudder fitted to aid towing otherwise no auto-rudders or variable incidence tailplanes allowed on other FF models unless used on the original design.
- 4.1.3. Undercarriages must be to original dimensions. One wheel gear may be changed to two but not vice versa. Where ROG is specified, the model shall take off in the manner of the original.
- 4.1.4. For power events, except scale, only fixed pitch, two bladed, non folding propellers are permitted. For scale classes three or four bladed fixed pitch propellers may be used if used on the prototype.
- 4.1.5. Modern materials may be used in construction and covering but the finished model must comply with the appearance of the original.
- 4.1.6 Radio Dethermalisation (RDT) is permitted in all Vintage, Nostalgia and Classic Free Flight classes subject to conditions:
 - a) The RDT device is either commercially available, or if home built, is 2.4GHz.
 - b) The RDT operating system does not interfere with R/C model operations.

4.2. CONSTRUCTION OF MODELS

A contestant need not build his own model but only one contestant may fly a particular model in a given event.

4.3. NUMBER OF MODELS

Each contestant will be allowed a maximum of two models to complete official flights and fly-offs.

4.4. MOTORS

- 4.4.1 Ignition Motors. Ignition Motors. Ignition motors are those that use a spark plug to initiate combustion. Fuel mixtures may be petrol or alcohol based but must not contain nitromethane or other performance enhancing components.
- 4.4.2. Vintage motors Vintage motors are defined as those first manufactured before 1st Jan 1951. Replicas of a mark first manufactured before 1st Jan 1951 and having no performance enhancing modifications shall be considered vintage.
- 4.4.3. Maximum engine size:
- Vintage motors 1.0 cubic inch (16 cc)
 - Four stroke motors 1.0 cubic inch (16 cc)
 - Others 0.65 cubic inch (11 cc)
- 4.4.4. Power loading. For FF Duration and RC Duration only, the maximum permissible engine is further limited to:
0.1 cu in per 225 sq in of wing area calculated as per rule 4.5.
For the purposes of this calculation, vintage ignition, vintage diesel and four stroke motors shall be taken as 60% of their rated capacity.
- 4.4.5. Mufflers. Mufflers are strongly encouraged on non-vintage motors.
- 4.4.6. Schneurle Ported motors are allowed with the exception of specialist high performance motors such as those intended for F1C and Racing. Where there is doubt the Vintage SIG Committee will determine eligibility
- 4.4.7 Converted Motors. An motor converted to a mode of operation different to that it was manufactured for (e.g. Glow to Diesel, Glow to Ignition) uses the engine run time applicable to its converted state.

4.5. WING AREA CALCULATION

Where rules call for an area calculation, the following shall apply: -

- Wingspan. The distance from tip to tip without considering dihedral. (i.e. as it appears on the plan.)
- Tip Shape. No allowance made for rounded or tapered tips.
- Constant Chord. Area of constant chord wings is =Chord x Wingspan
- Tapered or Elliptical Area for tapered or elliptical wings (where either or both leading or trailing edge taper from the wing root or fuselage junction):
Area = Chord at 25% of wingspan (measured from C/L) x Wingspan.

4.6. BONUS POINTS

Bonus points are added to the flight time score for each flight in FF and RC events as follows: -

- Age bonus. One point per full year the model predates the cut-off date up to a maximum of 20 points. Nostalgia models shall not attract age bonus points.
- ROG bonus (FF duration only). 20 points per flight.
- Landing bonus. (RC only). 20 points for coming to rest within 15 metres of a designated spot. (Measured to the nose of the model).

4.7. SCORING

The score for each flight is the sum of the flight time scores and all appropriate bonuses. Should this total exceed the specified maximum for the class only the maximum shall count.

4.8. FLY - OFFS

Ties for first place may be broken by a fly-off that will normally be held during a pre-announced 15 minute period at the end of the contest.

If RC frequency clashes prevent a common fly-off, the CD will draw names to obtain equal sized groups for a series of fly-offs. In adverse conditions the CD may postpone or cancel the fly-off.

For NDC events if a maximum score is achieved for all normal rounds of an event, a single fly-off round is to be flown to the Fly-off rule for that event. The points for the normal rounds (i.e. maximum score), the Fly-off round score and, for FF and R/C Precision events only, the age bonus, shall be notified to the NZMAA NDC Recording Officer. Note that for all unlimited Duration Fly-offs the competitor should add the age bonus before sending the results to the Recording Officer. If NDC scores are tied after the Fly-off the NDC points will be shared between the tied contestants.

4.9. TIMING

Timing shall start the instant that the model is released for flight and includes the length of the motor run. Timing ceases when the model first touches the ground, collides with an obstacle and ceases forward motion, or definitely disappears from the sight of the timekeeper.

In the RC Vintage and Classical classes, timing starts when either:

- a) The model leaves the hand when hand launched, or
- b) The model leaves the ground when ROG is used.

Timing continues if the model contacts the ground after becoming airborne from ROG or hand launch but resumes flying immediately. If flying does not resume timing ceases

4.9.1. Binoculars. Binoculars are permitted.

4.9.2. If the model disappears, or goes behind an obstacle, or flies into cloud or fog, the timekeeper is to keep timing for a count of 10 seconds. If the model does not reappear the timekeeper is to cease timing and deduct 10 seconds from the flight time.

4.9.3. The timekeeper may advise the elapsed time of the flight to assist the flier to judge his motor run or flight time.

4.9.4. Flight time is recorded to the nearest whole second below the watch reading.

4.10 NO-FLIGHTS

A No-flight entitles the competitor to a repeat attempt. Each competitor may have two No-flights per round. Unless specified otherwise a No-flight is recorded:

- a. When the flight total is 20 seconds or less in FF events, 60 seconds or less in RC events.
- b. When the motor run exceeds the stipulated maximum.
- c. If any part of the model becomes detached during the flight.
- d. If the model collides with a person or other obstruction at launch, or with another model or towline during flight. Note that if this occurs the competitor may opt to have this flight recorded provided that the option is exercised before his next official flight
- e. If the towline breaks or is struck by another line or model during tow and this is observed by the timekeeper.

4.10.1. A third No-flight in a round may be recorded as an official flight except when this is caused by a motor over-run, in which case the flight shall be recorded as zero.

4.11. THERMAL DETECTORS

Only streamers may be used as an indicator of wind direction or thermal activity.

4.12. CONDITIONS

The CD may interrupt a contest if the wind speed measured at 2 metres above the ground exceeds 9m/sec, If visibility does not allow fair observation of the models or if atmospheric conditions are considered unsafe.

4.13. DEFINITIONS

4.13.1 Power Models powered by motors in which the energy is obtained from combustion or by expansion of a fluid or gas acting on a piston, or motors which convert electrical energy into mechanical energy.

4.13.2. Rubber Models powered by an extensible motor which, when wound, releases the stored energy into mechanical energy.

4.13.3 Wing Area. The area of the wing (mainplane) alone calculated in accordance with rule 4.5.

5. VINTAGE FREE FLIGHT

Vintage FF models must be replicas of original FF designs predating 1st January 1951.

5.1.1. All FF models shall be launched from a designated area of approximately 100 x 50 metres.

5.2. VINTAGE FREE FLIGHT PRECISION

- 5.2.1. Open to power, rubber, or glider.
- 5.2.2. 3 flights, target time 90 seconds.
- 5.2.3. No limit on engine run, motor size or towline length.
- 5.2.4. Flight scored at one point per second up to 90 with one point deducted for every second over 90.
- 5.2.5. No - flights. In addition to rule 4.10, a no-flight shall be recorded for flights over 160 seconds or where the model comes to rest in a tree or on a rooftop, power line, etc.
- 5.2.6. Dethermaliser. If the dethermaliser is seen by the timekeeper to operate before 160 seconds the flight shall be scored zero. Age bonus will still apply for this flight.
- 5.2.7. Bonus. The Age bonus shall be added to each flight.
- 5.2.8. Maximum score per flight is 90.
- 5.2.9. Fly-off. Ties for first place will be broken by a fly-off but bonus points will not apply unless scores are tied after the fly-off. For NDC see Para. 4.8 Fly-offs.

5.3. VINTAGE FF DURATION

- 5.3.1. There are separate classes for power, rubber and glider but these may combined into one event if desired at the discretion of the CD.
- 5.3.2. 3 flights, 180 second maximum score at one point per second to 180. No deduction from score for flights over 180 seconds.
- 5.3.3. ROG Bonus. 20 points per flight for an unassisted ROG. Designs not originally fitted with an undercarriage do not qualify for the ROG bonus.
- 5.3.4. Maximum engine run for Power models:
Note power loading rule 4.4.4 applies
 - a. Vintage Ignition 25 seconds
 - b. Non-vintage Ignition 20
 - c. Vintage Diesel and Glow 20
 - d. Modern Diesel / Cross-flow Glow 15
 - e. Cox 15
 - f. Electric 15
 - g. Schneurle Ported Glow 12
 - h. 4-Stroke Glow / Diesel / Ignition 12

- 5.3.5. Rubber motors may not be heavier than that used in the original model. If not defined the maximum permitted rubber weight is 100 grams. Rubber model propellers must be to the original design and must freewheel, old or feather as the original. Hub assemblies may be modified as desired.
- 5.3.6. Maximum towline length 50 metres.
- 5.3.7. Bonuses. Age and ROG bonuses are added to each flight score.
- 5.3.8. Maximum score per flight is 180.
- 5.3.9. Fly-off. To break a tie for first place, a fly-off with no maximum will normally be used, to which bonuses are added. Should model preservation be in question due to wind strength or other factors, the CD can opt for an appropriate maximum for the fly-off. For NDC see Para. 4.8 Fly-offs

5.4. VINTAGE FREE FLIGHT MINIATURE REPLICA

- 5.4.1. 3 flights, 120 second maximum.
- 5.4.2. Maximum motor size 0.55 cc (0.034 cu.in.)_{iv}
- 5.4.3. Maximum motor run 12 seconds for glow plug motors and 15 seconds for diesels.
- 5.4.4. Hand launch.
- 5.4.5. Maximum wingspan (projected) 36 inches. (920 mm)
- 5.4.6. Age bonus added to each flight. Maximum score per flight 120.
- 5.4.7. Fly-off as per rule 5.3.9

5.5. VINTAGE FF CHUCK GLIDER

- 5.5.1. 6 flights, 60 seconds maximum.
- 5.5.2. No-flight time 10 seconds or less.
- 5.5.3. No limit to the number of models which may be used.
- 5.5.4. Age bonus is added to each flight.
- 5.5.5. Maximum score per flight is 60.
- 5.5.6. Fly-off as per rule 5.3.9

5.6. VINTAGE FF CATAPULT GLIDER

5.6.1. 6 flights, 60 seconds maximum.

5.6.2. No-flight time is 10 seconds or less.

5.6.3. No limit to the number of models which may be used.

5.6.4. Age bonus is added to each flight.

5.6.5. Maximum score per flight is 60.

5.6.6. The launching device shall be a single loop, or multiple loops, of rubber of no more than 6.72mm², (equivalent to 1/4 x 1/24 inches) in cross-section; 230 mm, (9 Inches) in length attached to a 150 mm (6 inch) long handle.

5.6.7. The design may be any Vintage Chuck Glider design modified to provide an attachment for the launching device.

5.6.8. Fly-off as per rule 5.3.9.

6. RADIO CONTROL IC-POWERED VINTAGE AND CLASSICAL

6.1 General Rules for all Classes

- 6.1.1 Models are flown in accordance with the MFNZ General Competition Rules and the following paragraphs in Section 4a: Vintage: 1.4 Safety, 4.2 Construction of Models, 4.3 Number of Models, 4.4 Motors, 4.5 Wing Area Calculation, 4.8 Fly-offs, 4.9 Timing, 4.10 No-flights, 4.11 Thermal Detectors, 4.12 Conditions, 4.13 Definitions.
- 6.1.2 **Vintage** designs are from the period to 31/12/50 and **Classical** designs are from the period 1/1/51 to 31/12/75. Authentication of a model design and date of origin is the responsibility of the contestant. For a design published or kitted, eligibility is established by the date of publication or kit release, irrespective of when it was designed. Designs not published or kitted are eligible if approved and dated by SAM USA or NFFS, or by written approval of the Vintage SIG Committee on the basis of evidence submitted to it.
- 6.1.3 Designs may be modified to permit minor changes to thrustline, mounting of the motor (but no extension of nose moment as measured by position of propeller), and strengthening/lightening of structure. Areas, dihedral angles, moments and airfoil sections are not altered. Any additional wing spars or wing sheeting do not touch the covering, but additional surface sheeting is permitted in the vicinity of wing and tail mounting and fixing structures. Turbulators are not allowed unless specified. Multi-motored designs are eligible. Any materials may be used in construction and covering, subject to the finished model conforming to the general appearance of the original.
(As a special transitional provision, models built before 28/2/11 and fitted with surface sheeting and/or spars that do not conform to 6.1.3, continue to be eligible subject to written approval by the Vintage SIG.)
- 6.1.4 Models may be scaled up or down from the original design.
- 6.1.5 Undercarriages, including wheel-mounting and skids, have the original dimensions. One wheel gear may be changed to two but not vice versa. Gear that retracted may be operated by radio or presented as locked in either the retracted or extended position.
- 6.1.6 Moveable control surfaces are strictly limited to rudder and elevator (or elevons in the case of a v-tail design) unless the original design specified other moving surfaces (such as ailerons, flaps, spoilers or variable-camber). If such surfaces are present in the design they may be radio controlled. Ailerons and associated structure may be fitted to enhance general sport flying but, if not specified in the design, they are immovable during competition flight.
(As a special transitional provision, models built before 28/2/11 and equipped with working ailerons for use in competition, when these were not specified in the design, continue to be eligible subject to written approval by the Vintage SIG.)

- 6.1.7 Models may ROG or be hand launched.
- 6.1.8 Minimum wing loading is 8 oz/sq ft.
- 6.1.9 Vintage age bonus is calculated as one point for each full year the design predates the cut-off date specified in the rules for each class. The age bonus chart in Section 3 indicates the points for designs in each year.
- 6.1.10 When specified, landing bonus of 20 points is awarded if the nose of the model comes to rest within 15 meters of specified spot. The nose is defined as the most forward part of the model on the centre line.
- 6.1.11 Propellers are fixed pitch, have two blades, and are non-folding.

6.2 RC Vintage Precision

Purpose: To enjoy RC flying of Power Model designs from the Vintage period through achieving a specified flight time and landing bonus. The motor run is generous, so that 'sport' designs compete equally with duration types. Motors may be either IC or electric.

- 6.2.1 Eligible models are IC-powered free flight designs and IC-powered designs originally intended for RC without aileron control.
- 6.2.2 All rules 6.1.1 – 6.1.11 apply.
- 6.2.3 Power is either IC or electric. An IC motor may be of any type and size, subject to Rule 4.4.3 Maximum Engine Size. An electric motor may be of any type and size and the drive battery capacity is unlimited. If an electric motor is used, it is fitted with an electronic propeller brake function that is engaged when the motor is off.
- 6.2.4 Maximum motor run is 60 seconds.
- 6.2.5 Age bonus applies.
- 6.2.6 Landing bonus applies.
- 6.2.7 Score is aggregate of 3 flights, each scored at one point per second up to 180 seconds, with one point deducted for each second over 180, and bonuses for age and landing added up to maximum of 200.
- 6.2.8 If scores are tied, fly-off flights proceed according to the scoring in 6.2.7, but without age bonus, until there is a clear winner, or until the CD declares joint winners. (In the case of NDC competition, joint winners are declared.)

6.3 RC Classical Precision

Purpose: To enjoy RC flying of Power Model designs from the Classical period through achieving a specified flight time and landing bonus. The motor run is generous, so that 'sport' designs compete equally with duration types. Motors may be either IC or electric.

- 6.3.1 Eligible models are IC-powered free flight designs and IC-powered designs originally intended for RC without aileron control.
- 6.3.2 All rules 6.1.1 – 6.1.11 apply.
- 6.3.3 Power is either IC or electric. An IC motor may be of any type and size, subject to Rule 4.4.3 Maximum Engine Size. An electric motor may be of any type and size and the drive battery capacity is unlimited. If an electric motor is used, it is fitted with an electronic propeller brake function that is engaged when the motor is off.
- 6.3.4 Maximum motor run is 60 seconds.
- 6.3.5 Age bonus does not apply.
- 6.3.6 Landing bonus applies.
- 6.3.7 Score is aggregate of 3 flights, each scored at one point per second up to 180 seconds, with one point deducted for each second over 180 and bonus for landing added up to a maximum of 190.
- 6.3.8 If scores are tied, fly-off flights proceed according to the scoring in 6.3.7, but with a maximum of 200 points, until there is a clear winner, or until the CD declares joint winners. (In the case of NDC competition, joint winners are declared.)

6.4 RC IC-Powered Vintage Duration

Purpose: To enjoy RC flying using IC (internal combustion) motors with Power Model designs from the Vintage period through achieving maximum flight time from a limited motor run.

- 6.4.1 Eligible models are IC-powered free flight designs and IC-powered designs originally intended for RC without aileron control.
- 6.4.2 All rules 6.1.1 – 6.1.11 apply.
- 6.4.3 Maximum motor capacity is determined by Rule 4.4.3 Maximum Engine Size and Rule 4.4.4 Power Loading.
- 6.4.4 The motor types permitted are vintage ignition, vintage glow/diesel, non-vintage ignition, two-stroke cross flow, two-stroke Schneurle-ported plain bearing, two-stroke Schneurle-ported ball bearing sport motors (front intakes and side exhausts with standard mufflers), and four stroke.

- 6.4.5 Maximum motor runs are:
- | | |
|--|------------|
| Vintage ignition | 40 seconds |
| Vintage glow/diesel | 30 seconds |
| Two-stroke cross-flow, two stroke Schneurle ported plain bearing, non-vintage ignition, and pre 1987 four stroke | 25 seconds |
| Post 1986 Four-stroke and two stroke Schneurle ported ball bearing | |
| Sport moors (front intake and side exhaust with standard muffler) | 20 seconds |
- 6.4.6 Age bonus applies.
- 6.4.7 Landing bonus applies.
- 6.4.8 Score is aggregate of 3 flights, each scored at one point per second up to 240 seconds and both age and landing bonuses added up to maximum of 260. Landing bonus is zero if flight exceeds 6 minutes.
- 6.4.9 If scores are tied, rounds of fly-off flights proceed with 480 seconds maximum flight time with both age and landing bonuses added up to a maximum of 500, until there is a clear winner, or until the CD declares joint winners. (In the case of NDC competition, joint winners are declared.)

6.5 RC IC-Powered Classical Duration

Purpose: To enjoy RC flying using IC (internal combustion) motors with Power Model designs from the Classical period through achieving maximum flight time from a limited motor run.

- 6.5.1 Eligible models are IC-powered free flight designs and IC-powered designs originally intended for RC without aileron control.
- 6.5.2 All rules 6.1.1 – 6.1.11 apply.
- 6.5.3 Maximum motor capacity is determined by Rule 4.4.3 Maximum Engine Size and Rule 4.4.4 Power Loading.
- 6.5.4 The motor types permitted are vintage ignition, vintage glow/diesel, non vintage ignition, two-stroke cross-flow, two stroke Schneurle ported plain bearing, two stroke Schneurle-ported ball bearing sport motors (front-intake, side-exhaust with standard muffler) and four strokes.
- 6.5.5 Maximum motor runs are:
- | | |
|--|------------|
| Vintage ignition | 40 seconds |
| Vintage glow/diesel | 30 seconds |
| Two-stroke cross-flow, two stroke Schneurle ported plain bearing, non-vintage ignition, and pre 1987 four stroke. | 25 seconds |
| Post 1986 four stroke, and two-stroke Schneurle -ported ball bearing sport (front intake and side exhaust with standard muffler) | 20 seconds |

- 6.5.6 Age bonus does not apply.
- 6.5.7 Landing bonus does not apply.
- 6.5.8 Model is required to land within the boundaries of a field defined by the CD.
- 6.5.9 Score is aggregate of 3 flights, each scored at one point per second up to 300. The score for any flight is zero if the model fails to land within the field boundaries defined according to 6.5.8.
- 6.5.10 If scores are tied, rounds of fly-off flights proceed according to 6.5.9 but with 600 seconds maximum flight time, until there is a clear winner, or until the CD declares joint winners. (In the case of NDC competition, joint winners are declared.)

6.6 Vintage RC 1/2A Texaco

Purpose: To enjoy IC-powered RC flying with Power Model designs from the Vintage period through using a specified motor and fuel tank to achieve maximum flight time.

- 6.6.1 Eligible models are Vintage Power Model designs.
- 6.6.2 All rules 6.1.1 – 6.1.11 apply.
- 6.6.3 Motor is a stock Cox reed valve 0.049 cu in that may be modified only as follows
 - a. Fuel pick-up moved to bottom of tank.
 - b. Tank vents changed or replaced.
 - c. Improved needle valve assembly.
 - d. Addition of muffler.
- 6.6.4 Fuel tank is a Cox Babe Bee or Texaco Jnr.
- 6.6.5 Fuel mixture may include only oil, methanol and nitromethane
- 6.6.6 Age bonus applies.
- 6.6.7 Landing bonus applies.
- 6.6.8 The no-flight time is 120 seconds or less.
- 6.6.9 Score is aggregate of 3 flights, each scored at one point per second up to 480 with both age bonus and landing bonus added up to a maximum of 500.
- 6.6.10 If scores are tied, fly-off has no maximum and both age and landing bonus apply. (For NDC see Para.4.8 Fly-offs.)

6.7. Vintage RC 1/2A Texaco Scale

Purpose: To enjoy IC-powered RC flying with a replica of a pre-1951 full-size design through using a specified motor and fuel tank to achieve maximum flight time.

- 6.7.1 Model is a replica of a full-size reciprocating-engined aeroplane predating 1/1/51.
- 6.7.2 Although model is not judged for scale, a reasonable effort is made to replicate the original and the colouring and markings are realistic.
- 6.7.3 Model is of predominantly balsa/plywood construction. Foam may be used for detail only and no foam ARF structure is allowed. The contestant may be required to provide to the CD a plan or three-view to confirm that the model resembles the original aircraft.
- 6.7.4 Model has a functioning undercarriage but ROG is not obligatory.
- 6.7.5 All rules 6.1.1 – 6.1.11 apply with the addition that minimum wing loading for multiplanes is 6 oz per sq ft.
- 6.7.6 Motor is a stock Cox reed valve 0.049 cu in that may be modified only as follows
 - a. Fuel pick-up moved to bottom of tank.
 - b. Tank vents changed or replaced.
 - c. Improved needle valve assembly.
 - d. Addition of muffler.
- 6.7.7 Fuel tank is a Cox Babe Bee or Texaco Jnr.
- 6.7.8 Fuel mixture may include only oil, methanol and nitromethane
- 6.7.9 Landing bonus applies.
- 6.7.10 The no-flight time is 120 seconds or less.
- 6.7.11 Score is aggregate of 3 flights, each scored at one point per second up to 480 with landing bonus added up to a maximum of 500. No points are added for exceeding the maximum.
- 6.7.12 If scores are tied, fly-off has no maximum and landing bonus applies. (For NDC see Para.4.8 Fly-offs.)

6.8. Vintage RC A Texaco

Purpose: To enjoy IC-powered RC flying with Power Model designs from the Vintage period through managing a fuel supply from a tank of fixed size, with motors from a specified capacity range, to achieve maximum flight time.

- 6.8.1 Eligible models are Vintage Power Model designs.
- 6.8.2 All rules 6.1.1 – 6.1.11 apply.
- 6.8.3 Nominal motor size is 1.5cc to 3.5cc (0.09 to 0.21 cu in). All motors have an RC operated cut-out, which may be a throttle.
- 6.8.4 Maximum fuel tank size is 14cc (a Humbrol 14cc paint tin including lid) and is Visible to the CD.
- 6.8.4 A throttle may be used.
- 6.8.5 Age bonus applies.
- 6.8.6 Landing bonus applies.
- 6.8.7 The no-flight time is 120 seconds or less.
- 6.8.8 Score is aggregate of 3 flights, each scored at one point per second up to 600 with both age bonus and landing bonus added up to a maximum of 620. No points are deducted for exceeding the maximum.
- 6.8.9 If scores are tied, fly-off has no maximum and both age and landing bonus apply. (For NDC see Para.4.8 Fly-offs.)

6.9 RC Vintage Open Texaco

Purpose: To enjoy IC-powered RC flying with Power Model designs from the Vintage period through managing a fuel supply that is limited by a formula based on model size (measured as wing area) to achieve maximum flight time.

- 6.9.1 Eligible models are Vintage Power Model designs.
- 6.9.2 All rules 6.1.1 – 6.1.11 apply.
- 6.9.3 Motors are spark ignition, glowplug, or diesel of any capacity and type, subject to 4.4.3 Maximum Engine Size. All motors have an RC operated cut-out, which may be a throttle.
- 6.9.4 A throttle may be used.

- 6.9.5 Maximum fuel tank capacity is 0.1cc per 5 sq in wing area, rounded down (eg 504 sq in allows 10cc). The fuel tank is visible to the CD and the contestant is responsible for verifying fuel tank capacity if the CD requests. The tank style described in the Appendix is recommended.
- 6.9.6 Age bonus applies.
- 6.9.7 Landing bonus applies.
- 6.9.8 Score is aggregate of 2 flights, each scored at one point per second up to 900 with both age bonus and landing bonus added up to a maximum of 920. No points are deducted for exceeding the maximum.
- 6.9.9 If scores are tied, fly-off has no maximum and both age and landing bonus apply. (For NDC see Para.4.8 Fly-offs.)

Appendix to 6.9

The recommended fuel tank is made from a plastic syringe sold by vets, usually in 35cc and 65 cc sizes, with capacity markings on the side. Install and fix the plunger at the allowed capacity, cut off the surplus barrel and plunger stem, and drill a filler hole in the plunger. The tube at the bottom is the fuel feed.

7. RADIO CONTROL ELECTRIC VINTAGE AND CLASSICAL

7.1 General Rules for all Classes

- 7.1.1 Models are flown in accordance with the MFNZ General Competition Rules and the following paragraphs in Section 4a: Vintage: 1.4 Safety, 4.2 Construction of Models, 4.3 Number of Models, 4.4 Motors, 4.5 Wing Area Calculation, 4.8 Fly-offs, 4.9 Timing, 4.10 No-flights, 4.11 Thermal Detectors, 4.12 Conditions, 4.13 Definitions.
- 7.1.2 **Vintage** designs are from the period to 31/12/50 and **Classical** designs are from the period 1/1/51 to 31/12/75. Authentication of a model design and date of origin is the responsibility of the contestant. For a design published or kitted, eligibility is established by the date of publication or kit release, irrespective of when it was designed. Designs not published or kitted are eligible if approved and dated by SAM USA or NFFS, or by written approval of the Vintage SIG Committee on the basis of evidence submitted to it.
- 7.1.3 Designs may be modified to permit minor changes to thrustline, mounting of the motor (but no extension of nose moment as measured by position of propeller), and strengthening/lightening of structure. Areas, dihedral angles, moments and airfoil sections are not altered. Any additional wing spars or wing sheeting do not touch the covering, but additional surface sheeting is permitted in the vicinity of wing and tail mounting and fixing structures. Turbulators are not allowed unless specified. Multi-motored designs are eligible. Any materials may be used in construction and covering, subject to the finished model conforming to the general appearance of the original.
- 7.1.4 Models may be scaled up or down from the original design.
- 7.1.5 Undercarriages, including wheel-mounting and skids, have the original dimensions. One wheel gear may be changed to two but not vice versa. Gear that retracted may be operated by radio or presented as locked in either the retracted or extended position.
- 7.1.6 Moveable control surfaces are strictly limited to rudder and elevator (or elevons in the case of a v-tail design) unless the original design specified other moving surfaces (such as ailerons, flaps, spoilers or variable-camber). If such surfaces are present in the design they may be radio controlled. Ailerons and associated structure may be fitted to enhance general sport flying but, if not specified in the design, they are immovable during competition flight.
(As a special transitional provision, models built before 28/2/11 and equipped with working ailerons for use in competition, when these were not specified in the design, continue to be eligible subject to written approval by the Vintage SIG.)
- 7.1.7 Models may ROG or be hand launched.

- 7.1.8 Minimum wing loading is 8 oz/sq ft.
- 7.1.9 Motors are brushed or brushless, use any type of permanent magnets, and are direct-drive or geared. Motor control must allow remote stopping.
- 7.1.10 The rules of each class specify the permitted chemistry of the drive batteries and the maximum manufacturer's rated battery capacity, which applies to the capacity of a single drive battery and, alternatively, to the aggregate capacity of multiple batteries. Recharging of batteries before each flight is allowed. The rate at which any drive battery is discharged does not exceed the safe rate stated by the manufacturer.
- 7.1.11 Vintage age bonus is calculated as one point for each full year the design predates the cut-off date specified in the rules for each class. The age bonus chart in Section 3 indicates the points for designs in each year.
- 7.1.12 When specified, landing bonus of 20 points is awarded if the nose of the model comes to rest within 15 meters of specified spot. The nose is defined as the most forward part of the model on the centre line.
- 7.1.13 Propellers are fixed pitch, have two blades, any folding mechanism is fixed so that they cannot fold in flight, and an electronic propeller brake function is engaged when the motor is off. (This rule does not apply to E Rubber Texaco.)

7.2 RC E Duration

Purpose: To enjoy electric RC flying with Power Model designs - from the Vintage and Classical periods - through achieving maximum flight time from a limited motor run. The battery has maximum capacity – and hence current draw - specified by a formula based on model size (measured by wing area).

- 7.2.1 Eligible models are Power Model designs
- 7.2.2 The separate classes of E Duration are:
a) Vintage b) Classical
- 7.2.3 All rules 7.1.1 – 7.1.13 apply
- 7.2.4 Drive battery chemistry is one of LiPo, LiFePo, and NiMH.
- 7.2.5 Maximum manufacturer's rated battery capacity for the drive battery is:
for LiPo cells: $(220 \times WA)/(S \times C)$ mah
for LiFePo cells: $(250 \times WA)/(S \times C)$ mah
for NiMH cells: $(665 \times WA)/(S \times C)$ mah
where WA is wing area in sq in,
S is number of cells connected in series, and
C is manufacturer's stated standard discharge rating (not short-duration peak rating). If C is not stated, it will be taken as 50.

- 7.2.6 The motor runs continuously from launch for 20 seconds maximum.
- 7.2.7 Age bonus applies to Vintage but does not apply to Classical.
- 7.2.8 Landing bonus applies to Vintage but does not apply to Classical.
- 7.2.9 Classical models land within the boundaries of the flying field, as specified by the CD.
- 7.2.10 Score is aggregate of 3 flights, each scored as follows:
 - Vintage: One point per second up to 300 maximum flight time, with age bonus and landing bonus added up to a maximum of 320.
 - Classical: One point per second up to 300 maximum flight time. The score for any flight is zero if the model fails to land according to 7.2.9.
 - No points are deducted for exceeding the maximums.
- 7.2.11 If scores are tied, rounds of fly-off flights proceed according to 7.2.10 but with 600 seconds maximum flight time, until there is a clear winner, or until the CD declares joint winners. (In the case of NDC competition, joint winners are declared.)

7.3 RC E Texaco

Purpose: To enjoy electric RC flying with Power Model designs - from the Vintage and Classical periods - through managing battery energy supply that is limited by a formula based on model size (measured as wing area) to achieve maximum flight time.

- 7.3.1 Eligible models are Power Model designs
- 7.3.2 The separate classes of E Texaco are:
 - a) Vintage
 - b) Classical
- 7.3.3 Minimum wing area is 300 sq in.
- 7.3.4 All rules 7.1.1 – 7.1.13 apply.
- 7.3.5 Drive battery chemistry is one of LiPo, LiFePo, and NiMH.
- 7.3.6 Maximum manufacturer's rated battery capacity for the drive battery is:
 - for LiPo cells: 1.8 x WA/S mah
 - for LiFePo cells: 2.1 x WA/S mah
 - for NiMH cells: 5.5 x WA/S mah
 - where WA is wing area in sq in
 - S is number of cells connected in series.

- 7.3.7 The motor may be stopped and started in flight and its speed may be adjusted.
- 7.3.8 Age bonus applies to Vintage but does not apply to Classical.
- 7.3.9 Landing bonus applies to Vintage but does not apply to Classical.
- 7.3.10 Classical models land within the boundaries of the flying field, as specified by the CD.
- 7.3.11 Score is aggregate of 3 flights, each scored as follows:
Vintage: One point per second up to 600 maximum flight time, with age bonus and landing bonus added up to a maximum of 620.
Classical: One point per second up to 600 maximum flight time. The score for any flight is zero if the model fails to land according to 7.3.10.
In both classes flights over 12 minutes will score zero
- 7.3.12 If scores are tied, fly-off has no maximum and both age and landing bonus apply.
(For NDC see Para.4.8 Fly-offs.)

7.4 RC 1/2E Texaco

Purpose: To enjoy electric RC flying with Power Model designs - from the Vintage and Classical periods - with electric battery power of specified chemistry and maximum capacity, which parallels the spirit and flight performance of the single motor type specified in 1/2A Texaco rules.

- 7.4.1 Eligible models are Power Model designs.
- 7.4.2 The separate classes of 1/2E Texaco are:
a) Vintage b) Classical
- 7.4.3 Maximum wing area is 310 sq in.
- 7.4.4 All rules 7.1.1 – 7.1.13 apply.
- 7.4.5 Drive battery chemistry is LiPo.
- 7.4.6 The drive battery has maximum manufacturer's rated battery capacity is either 360 mah if 2 cells are in series (2S) or 250 mah if 3 cells are in series (3S).
- 7.4.7 The motor may be stopped and started in flight and its speed may be adjusted.
- 7.4.8 Age bonus applies to Vintage but does not apply to Classical.
- 7.4.9 Landing bonus applies to Vintage but does not apply to Classical.
- 7.4.10 Classical models land within the boundaries of the flying field, as specified by the CD.

7.4.11 Score is aggregate of 2 flights, each scored as follows:

Vintage: One point per second up to 720 maximum flight time, with age bonus and landing bonus added up to a maximum of 740.

Classical: One point per second up to 720 maximum flight time. The score for any flight is zero if the model fails to land according to 7.4.10.

In both classes flights over 14 minutes will score zero

7.4.12 If scores are tied, fly-off has no maximum and both age and landing bonus apply. (For NDC see Para.4.8 Fly-offs.)

7.5 RC Vintage E Rubber Texaco

Purpose: To enjoy electric RC flying with Rubber model designs from the Vintage period through managing battery energy supply that is limited by a formula based on model size (measured as wing area) to achieve maximum flight time. The class can be regarded as a simplified version of the SAM US 'Spirit of SAM.'

7.5.1 Eligible designs are Vintage Rubber Models.

7.5.2 All rules 7.1.1 – 7.1.7 and 7.1.9 – 7.9.12 apply. There is no minimum wing loading

7.5.3 Propeller design is at the discretion of the contestant. Propellers have either one or two blades and may fold, freewheel, or remain fixed when the motor is stopped.

7.5.4 All rules 7.3.5 – 7.3.12 apply.

NZMAA FLYING RULES SECTION 4B - NOSTALGIA FREE FLIGHT

1.0 PREFACE

- 1.1 Maintenance of these rules is vested in the Nostalgia Sub Committee of the Vintage Special Interest Group (SIG) of the NZMAA.
- 1.2 Proposed changes to these rules shall be advertised by notice in Model Fliers World or the NZMAA website at least 4 months before the following Vintage SIG AGM
- 1.3 Changes to these rules shall be made only by voting at a Vintage SIG AGM or by directive from the Council of NZMAA
- 1.4 Copies of these rules may be obtained from the NZMAA Secretary, from the Secretary of the Vintage SIG at the address shown in Model Fliers World or from the NZMAA Website.

2.0 PREAMBLE

- 2.1 **PHILOSOPHY.** The flying of Nostalgia models is intended to be relaxed and of nostalgic appeal. It is not intended to advance the state of the art of aeromodelling but sets out to illustrate its progress during the period.
The intent of these rules is to formulate classes suitable for New Zealand conditions and heritage for the purpose of friendly competition.

3.0 RECORDS.

- 3.1 No New Zealand records will be recognised in Nostalgia F/F.

4.0 ELIGIBILITY

- 4.1 Nostalgia F/F models are those which were built and flown within the period 1st January 1951 and 31st December 1960 ,and which satisfy the requirements under Authentication.

5.0 AUTHENTICATION

- 5.1 Designs must have been kitted or published within the period. Publication is defined as a scale drawing in a reputable magazine, yearbook, or club newsletter.
- 5.2 Designs which have never been kitted or published may be approved by the Vintage SIG upon production of satisfactory evidence. The evidence shall include a scale drawing of the model that shall become the published plan if the application is approved. Such designs shall be approved before entry to competition.

6.0 DATING.

- 6.1 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.

7.0 MODIFICATION.

- 7.1 A nostalgia model may be modified to include the following variations from the published plan :-

- 1) minor changes to the thrustline
- 2) 2 piece wings.
- 3) strengthened structure
- 4) provision of a Dethermaliser including RDT to Vintage Section 4a 4.1.2

Areas, dihedral angles, moments, and airfoil sections, must not be altered. No additional turbulators or turbulator spars may be added.

- 7.2 Models may be scaled up or down from the original design if desired.
- 7.3 Gliders may have an auto-rudder fitted to aid towing. Other models may not have variable position trim surfaces unless used on the original design.
- 7.4 Undercarriages must be to original dimensions. One wheel gear may be changed to two but not vice versa.
- 7.5 For power events, only fixed pitch, two bladed, non folding propellers are permitted
- 7.6 Modern materials may be used in construction and covering but the appearance of the finished model must closely resemble that of the original.

8.0 BUILDER OF THE MODEL

- 8.1 The contestant need not be the builder of the model

9.0 NUMBER OF MODELS

- 9.1 Each contestant may use 3 models for official flights and flyoffs. A model used for an official flight by one contestant may not be used for official flights by another contestant.

10.0 MOTORS

- 10.1 Motors eligible for use in Nostalgia Free Flight power shall be those listed in Appendix 1
- 10.2 Additions or deletions from Appendix 1 shall be recommended by an engine sub-committee of the Vintage SIG. The engine sub-committee shall evaluate submissions made to it by individuals, or proceed on its own volition. Changes to Appendix 1 shall be treated as a rule change as per the Preface and come into effect upon publication.

11.0 TIMING

- 11.1 Timing starts the instant the model is released for flight and ceases when the model first touches the ground, collides with an obstruction, or disappears from the sight of the timekeeper.
- 11.2 Flight time is recorded to the nearest whole second below the watch reading. Binoculars may be used by timekeepers. Timekeepers may move within the launching area to maintain visual contact with the model.
- 11.3 Collision with an obstruction occurs when the model flies into an obstruction and does not instantly glance off it and continue flying normally. Examples of collisions are flying into a building then remaining fixed or sliding down a wall or roof slope or, flying into a tree and either becoming lodged in foliage or falling through it or, flying into power wires and either remaining on them or falling through. In all such cases the watch shall be stopped when the collision occurs and not when the model stops moving under the influence of gravity.
- 11.4 Disappearing from the sight of the timekeeper occurs when the model is still flying but becomes indistinct from the background as it flies into the distance or, flies into cloud or ground mist or, flies behind ground obstructions such as buildings trees or people, or behind hills or local ridges. In all such cases the timekeeper shall begin a verbal count to 10 seconds the instant visual contact with the model is lost. If the count reaches 10 the watch is to be stopped. The flight time is the time recorded on the watch minus 10 seconds. If visual contact is again made with the model before a count of 10 is reached timing shall continue normally.

12.0 NO FLIGHTS

12.1 A No Flight occurs when an attempt is unsuccessful because:-

- 1) The flight time is 20 seconds or less.
- 2) The motor run exceeds the stipulated maximum
- 3) A part of the model becomes detached during flight
- 4) The model collides with a person or other obstruction at launch, or with another model or towline during flight. Note that if this occurs the competitor may opt to have his no flight recorded as an official flight provided the option is exercised before his next attempt.
- 5) The towline breaks or is struck by another line or model during tow, and this is observed by the timekeeper.

12.2 A competitor may have 3 attempts at recording an official flight. A no flight time recorded for a third attempt may be taken as an official flight time except when the no flight is caused by a motor over-run, when the flight time shall be recorded as zero.

13.0 TIMEKEEPERS ERROR

13.1 Should the timekeeper make an error that adversely affects a contestants flight score the contestant may claim a further attempt additional to the normal 3. .

14.0 FLYOFFS

14.1 Ties for first place may be broken by an unlimited flyoff that will normally be held during a pre-announced 15 minute period at the end of the contest. In adverse conditions the CD may postpone or cancel the flyoff.

15.0 THERMAL DETECTORS

15.1 Only streamers may be used as an indicator of wind direction or thermal activity.

16.0 FIELD CONDITIONS

16.1 The CD shall locate the launching area to give the longest fetch of open country available to the organisers, having regard to obstructions likely to affect timekeeping, and wind direction at the start of the competition.

16.2 The CD shall confirm or alter the advertised maximum before any official flights are attempted, having regard to the likely wind strength during the contest, and the field space available to the organisers.

16.3 During the competition the CD may relocate the launching area to cope with changes of wind direction. The time taken to relocate shall be added to the finish time where possible.

16.4 If the 5 second gust strength reaches 5m/s 2.00 metres above ground level the CD may stop the contest and declare placings on the times recorded.

17.0 NOSTALGIA FF DURATION CLASSES

17.1 There are separate classes for power, rubber and glider but these may combined into one event if desired at the discretion of the organisers.

17.2. Unless advertised to the contrary competitions shall consist of 3 flights, not in rounds, each of 180 seconds maximum, with no bonus points.

18.0 NOSTALGIA FF GLIDER DURATION

18.1 Maximum towline length shall be 50 metres.

19.0 NOSTALGIA FF RUBBER DURATION

19.1 Rubber motors may not be heavier than those used in the original model. If not defined the maximum permitted rubber weight is 100 grams.

Rubber model propellers must be to the original design and must freewheel, fold or feather as the original. Hub assemblies may be modified as desired.

20.0 NOSTALGIA FF POWER DURATION

20.1 Maximum engine run

- a. Diesel 12secs
- b. Glow 10secs

APPENDIX 1 – ELIGIBLE NOSTALGIA MOTORS

- a. Eligible IC motors are listed in Rule 5.3.4. *Note: Engine run times in Rule 5.3.4 apply only to Vintage classes See rule 20.1 above for Nostalgia Run times.*
- b. Schneurle ported motors are allowed according to Rule 4.4.6.
- c. Power loading restriction applies as per Rule 4.4.4.

21.0 SMALL NOSTALGIA/VINTAGE POWER DURATION

Purpose: To enjoy small nostalgia and vintage competition flying in a class that includes designs from both Vintage and Nostalgia periods, where sufficient equality is attained through specified model sizes, motor capacities, and motor runs.

21.1 All Nostalgia Rules 1.0 – 3.0 and 5.0 – 16.0 apply.

21.2 Models are *either*

(a) Scaled Vintage designs (from the period to 31/12/50) with maximum motor capacity of 0.034cu in (0.55cc) and maximum wingspan 36 inches (920 mm)
or

(b) Scaled Nostalgia designs (from the period 1/1/51 – 31/12/60) with maximum motor capacity of 0.034cu in (0.55cc) and maximum wingspan 36 inches (920 mm)
Or

(c) 1/2A designs or any other scaled Nostalgia design (from the period 1/1/51 – 31/12/60) with maximum motor capacity 0.051cu in.

21..3 Maximum motor runs are:

For models (a) and (b)	Glow	12 seconds
	Diesel	15 seconds
For models (c)	Glow	7 seconds
	Diesel	9 seconds

21.4 Age bonus does not apply.

21.5 Models are hand-launched.

21.6 Score is aggregate of 3 flights, each scored at one point per second up to 120 seconds.

NZMAA FLYING RULES SECTION 4C – CLASSIC FREE FLIGHT

1.0 PREFACE

- 1.1 Maintenance of these rules is vested in the Nostalgia Sub Committee of the Vintage
- 1.2 Special Interest Group (SIG) of the NZMAA.
- 1.2 Proposed changes to these rules shall be advertised by notice in Model Fliers World or the NZMAA website at least 4 months before the following Vintage SIG AGM
- 1.3 Changes to these rules shall be made only by voting at a Vintage SIG AGM or by directive from the Council of NZMAA
- 1.4 Copies of these rules may be obtained from the NZMAA Secretary or the Secretary of the Vintage SIG at the address shown in Model Fliers World

2.0 PREAMBLE

- 2.1 PHILOSOPHY. The flying of Classic models is intended to be relaxed and of nostalgic appeal. It is not intended to advance the state of the art of aeromodelling but sets out to illustrate its progress during the period.
The intent of these rules is to formulate classes suitable for New Zealand conditions and heritage for the purpose of friendly competition.

3.0 RECORDS.

- 3.1 No New Zealand records will be recognised in Classic F/F.

4.0 ELIGIBILITY

- 4.1 Classic F/F models are those which were built and flown within the period 1st January 1961 and 31st December 1970 and which satisfy the requirements under Authentication.

5.0 AUTHENTICATION

- 5.1 Designs must have been kitted or published within the period. Publication is defined as a scale drawing in a reputable magazine, yearbook, or club newsletter.
- 5.2 Designs which have never been kitted or published may be approved by the Vintage SIG upon production of satisfactory evidence they were built and flown within the period. . The evidence shall include a scale drawing of the model which shall become the published plan if the application is approved. Such designs shall be approved before entry to competition.

6.0 DATING.

- 6.1 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.

7.0 MODIFICATION.

- 7.1 A classic model may be modified to include the following variations from the published plan

- 1) Minor changes to the thrustline
- 2) 2 piece wings.
- 3) strengthened structure
- 4) provision of a Dethermaliser including RDT to Vintage Section 4a 4.1.2

Areas, dihedral angles, moments, and airfoil sections, must not be altered. No additional turbulators or turbulator spars may be added.

- 7.2 Models may be scaled up or down from the original design if desired.
- 7.3 Models may have variable-position flying and trim surfaces if used on the original design.
- 7.4 For power events, only fixed pitch, two bladed, non folding propellers are permitted
- 7.5 Modern materials may be used in construction and covering but the appearance of the finished model must closely resemble that of the original.

8.0 BUILDER OF THE MODEL

- 8.1 The contestant need not be the builder of the model

9.0 NUMBER OF MODELS

- 9.1 Each contestant may use 3 models for official flights and flyoffs. A model used for an official flight by one contestant may not be used for official flights by another contestant.

10.0 MOTORS

- 10.1 Motors eligible for use in Classic Free Flight power shall be those listed in Appendix 1.
- 10.2 Additions or deletions from Appendix 1 shall be recommended by an engine sub-committee of the Vintage SIG. The engine sub-committee shall evaluate submissions made to it by individuals, or proceed on its own volition. Changes to Appendix 1 shall be treated as a rule change as per the Preface and come into effect upon publication.

11.0 TIMING

- 11.1 Timing starts the instant the model is released for flight and ceases when the model first touches the ground, collides with an obstruction, or disappears from the sight of the timekeeper.
- 11.2 Flight time is recorded to the nearest whole second below the watch reading. Binoculars may be used by timekeepers. Timekeepers may move within the launching area to maintain visual contact with the model.
- 11.3 Collision with an obstruction occurs when the model flies into an obstruction and does not instantly glance off it and continue flying normally. Examples of collisions are flying into a building then remaining fixed or sliding down a wall or roof slope or, flying into a tree and either becoming lodged in foliage or falling through it or, flying into power wires and either remaining on them or falling through. In all such cases the watch shall be stopped when the collision occurs and not when the model stops moving under the influence of gravity.
- 11.4 Disappearing from the sight of the timekeeper occurs when the model is still flying but becomes indistinct from the background as it flies into the distance or, flies into cloud or ground mist or, flies behind ground obstructions such as buildings trees or people, or behind hills or local ridges. In all such cases the timekeeper shall continue to view the point of disappearance and begin a verbal count to 10 seconds the instant visual contact with the model is lost. If the count reaches 10 the watch is to be stopped. The flight time is the time recorded on the watch minus 10 seconds. If visual contact is again made with the model before a count of 10 is reached timing shall continue normally.

12.0 NO FLIGHTS

12.1 A No Flight occurs when an attempt is unsuccessful because:-

- 1) The flight time is 20 seconds or less.
- 2) The motor run exceeds the stipulated maximum
- 3) A part of the model becomes detached during flight
- 4) The model collides with a person or other obstruction at launch, or with another model or towline during flight. Note that if this occurs the competitor may opt to have his no flight recorded as an official flight provided the option is exercised before his next attempt.
The towline breaks or is struck by another line or model during tow, and this is observed by the timekeeper.

12.2 A competitor may have 3 attempts at recording an official flight. A no flight time recorded for a third attempt may be taken as an official flight time except when the no flight is caused by a motor over-run, when the flight time shall be recorded as zero.

13.0 TIMEKEEPERS ERROR

13.1 Should the timekeeper make an error that adversely affects a contestants flight score the contestant may claim a further attempt additional to the permitted 3. .

14.0 FLYOFFS

14.1 Ties for first place may be broken by an unlimited flyoff that will normally be held during a pre-announced 15 minute period at the end of the contest. In adverse conditions the CD may postpone or cancel the flyoff.

15.0 THERMAL DETECTORS

Only streamers may be used as an indicator of wind direction or thermal activity.

16.0 FIELD CONDITIONS

16.1 The CD shall locate the launching area to give the longest fetch of open country available to the organisers, having regard to obstructions likely to affect timekeeping, and wind direction at the start of the competition.

16.2 The CD shall confirm or alter the advertised maximum before any official flights are attempted, having regard to the likely wind strength during the contest, and the field space available to the organisers.

16.3 During the competition the CD may relocate the launching area to cope with changes of wind direction. The time taken to relocate shall be added to the finish time where possible.

16.4 If the 5 second gust strength reaches 5m/s 2.00 above ground level the CD may stop the contest and declare placings on the times recorded.

17.0 CLASSIC FF CLASSES

17.1 There are separate classes for power, rubber and glider but these may combined into one event if desired at the discretion of the organisers.

17.2 Unless advertised to the contrary competitions shall consist of 3 flights, not in rounds, each of 180 seconds maximum,

18.0 CLASSIC FF GLIDER

18.1 Maximum towline length shall be 50 metres.

18.2 Circle towing is not permitted unless used on the original.

19.0 CLASSIC FF RUBBER

19.1 There are no limits on rubber motors. Fuselage external dimensions and length between rubber motor hooks shall be as per original.

19.2 Propellers must be to the original design and must freewheel, fold, or feather as per the original. Hub assemblies may be modified as desired.

20.0 CLASSIC FF POWER

20.1 Maximum engine run shall be 10 seconds (any motor)

APPENDIX 1 – ELIGIBLE CLASSIC MOTORS

- a. Eligible IC motors are listed in Rule 5.3.4. *Note: Engine run times in Rule 5.3.4 apply only to Vintage classes see rule 20.1 above for Classic class run time.*
- b. Schneurle ported motors are allowed according to Rule 4.4.6.
- c. Power loading restriction applies as per Rule 4.4.4.