NZMAA FLYING RULES
Section 1: General Competition Rules

1. JURISDICTION

1.1 International Control of Competitions

The Federation Aeronautique Internationale (FAI) is the sole international authority entitled to make and enforce rules and regulations for the encouragement and control of aircraft competitions (including records) and is the final international Court of Appeal for the settlement of disputes arising therefrom.

1.2 National Control of Competitions

The Royal New Zealand Aero Club, being a member of the FAI and the 'Recognised National Aero Club' of New Zealand, is bound by Statutes and the International Sporting Code of the FAI, and has the sole right to administer the Code and to draw up and administer rules for the control of, and to control, the sport of aviation throughout New Zealand

1.3 Delegation of Control of the Sport of Model Flying

The Royal New Zealand Aero Club has delegated its control of the sport of model flying to the New Zealand Model Aeronautical Association Incorporated (NZMAA).

1.4 NZMAA Flying Rules

The NZMAA Council of Management has prepared these rules in conjunction with their appointed Special Interest Groups. The interpretation of the rules or any that may hereafter be issued shall rest entirely with Council or their appointees. The Council reserves the right to add to, amend, or omit any of the rules they think fit at any time.

2. MODEL SPECIFICATIONS

Note: These Specifications are applicable to Contest and non-Contest model aircraft.

2.1. Definition of Model Aircraft

Heavier-than-air craft aircraft which owing to their size are not capable of carrying a human being and which are constructed purely for sporting purposes.

2.2. Dimensions of Model Aircraft

2.2.1. Model aircraft, shall be limited to the following dimensions and weights.

(a) The total surface of the wings and the horizontal stabilising surface(s) must be less than or equal to 500 sq. decimetres.

Except when specified as 'wing alone' the surface area and wing area shall be the same thing and will include the total surface of the wings (mainplanes) and the horizontal or oblique stabilisers (tailplanes). The areas taken for calculation are the orthogonal projections to a horizontal plane in a position of horizontal flight. When wings or stabilising surfaces are built into the body of the model, the surface taken into account shall include that area

contained within the normal contours of the flight surfaces extended so as to meet the plane of symmetry of the model.

(b) The total weight of the model aircraft in flying condition must not exceed 25 kg complete with fuel. Models of between 15 and 25kg, or Turbojets with more than 10kg thrust, may fly only with an NZMAA "Permit to Fly". Permits are available through the Large Model and Sport Technical Committee.

(c) The maximum swept volume of piston motor(s) is 250cc.

NOTE – In addition above dimensions and weights, the following three restrictions refer specifically to FAI competition classes and FAI record classes :

(d) Maximum loading 250 g/dm^2.

(e) Noise limit of 96 dB(A) at 3 metres for any FAI category which does not have approval for any other noise rule.

(f) For Electric Motors, the maximum no-load voltage of the power source is 42 volts.

2.3 Motive Power

All types of motive power are permitted with the following limitations:

2.3.1 Extensible motors. Motor in which the power is obtained by the torsion or extension of strands of an elastic material.

2.3.2 Mechanical motors. Motors in which the motive force is obtained by combustion or expansion of gases acting on one or more reciprocating or rotary pistons or by the action of electromotive forces.

3. CONTEST ORGANISATION:

3.1. Contest Director

The Contest Director will be the on-field manager of a particular contest, responsible for the fair and efficient running of the contest. At club level, the Contest Director will normally be the Club Captain.

3.2. Rules and Regulations

The organising body must make available all rules and regulations pertaining to the contest at the contest.

3.3. Processing of Models

Contest organisers are responsible for measuring models to check compliance with specifications. Where rules call for areas to be checked, the competitor may be required to supply templates on card or stiff paper to verify areas. Should a model checked during or at the end of a contest be found not to comply with specifications, the competitor will be disqualified without right of appeal.

3.4. Hours of Contest

The hours of opening and closing a contest must be posted prior to the contest and must be displayed on the ground where the contest is held. The organisers must announce the start and finish of the contest one quarter of an hour before the times laid down.

3.5. Championship Awards

3.5.1. Championship awards at National Championships are recognised for winners and runners-up in various categorises and Championship classes.

(a) Awards may be made to individuals in the following categories:

- Radio Control
- Free Flight
- Scale
- Control Line

Note: Each Official event will be assigned to one only of the above categories.

(b) Overall Championship classes are:

- Open Champion of Champions
- Junior Champion of Champions
- Open Champion Modeller
- Junior Champion Modeller
- Ladies Champion Modeller
- Champion Club

3.5.2. Champions of Champions are determined by summing the championship points from the contestant's best three results from official events in each of the categories in (a) above.

3.5.3. Champion Modellers are determined by summing the contestant's championship points from *all* official events.

3.5.4. Champion Club is determined by summing championship points from all club members' results in all official events.

3.5.5. Championship points will be awarded on the basis of 25 points for first place then 20, 15, 12, 10, 9, 8, 7, 6, and 5 for the remaining places down to 10^{th}. Where there are less than ten competitors who scored an official flight or a no-flight, 5 points will be given for last place and so on up the scale.

3.5.6. Where equal placings are obtained, one place will be dropped for each equal place and points awarded for each equal place will be the sum of championship points of those placings divided by the number of equal places, rounded up to the next integer.

3.5.7. Club Membership. For the purposes of champion club, any points gained by individuals are to be credited only to a club of which the contestant is a financial member.

3.6. Club Meeting

A Club or Provincial meeting shall be deemed official provided that due notice of the meeting has been given to all members either by circular, club newsletter/bulletin, contest calendar or in accordance with the clubs constitution, rules or bylaws and when attended by the Club Captain or President or their appointed deputy and two members.

3.7. Measurement Committee

It is recommended that each club appoint a measurement committee which is responsible for ensuring that all models entered in contests or for record attempts comply to the required specifications. Record claim forms are signed by a member of this committee.

3.8. Weather

The Contest Director determines if the weather is suitable for flying. Flying may be interrupted if the wind is stronger than 12 m/sec (9 m/sec for all free flight classes), if visibility prohibits proper observation of the models, or if atmospheric conditions make it unsafe or unwise to continue a contest.

4. COMPETITORS

4.1. Competitor and Entries

Competitors must be financial NZMAA members. Membership cards must be produced on request.

4.1.1. Age Categories. Official Contest and Record classes are subdivided into Junior (age 17 or under at the first day of the meeting/contest or on the day the record is claimed) and Open (no age limit) categories. In Junior events, mechanics and assistants may be seniors.

4.1.2. Number of Competitors. In the event of there being less than three persons actually recording scores in an event, the results of the event may be declared null and void at the discretion of the Contest Director. At National Championships, should less than three entries be received in a given event by the normal closing date for entries, the NZMAA Competition Manager may cancel the event and will refund entry fees. Any cancellations will be advised to the affected entrants at least seven days before the Championship.

4.1.3. Team Entries. Control Line and Radio Control Power categories only. One member of the team shall be designated to fly the model. Entry shall be made in the name of the team and any records set or awards given shall be in the name of the team. No team member shall enter the same class as an individual. Where a team entry is made in any National decentralised and/or National contest, the points gained by the entry should be divided equally between the individual team members, and may gain points towards Club Championship awards. An entrant may belong to more than one team, but will gain points from only one team, which shall be nominated before the start of the contest. In the case of team members belonging to more than one club, the points awarded shall be divided equally between team members' clubs.

4.1.4. Proxy Entries. Proxy flying is permitted when the competitor has a bona fide reason for absence from a contest or has a physical disability. Application for an entry to be proxy flown must be submitted to the NZMAA Competition Manager or Contest Director in writing at least 12 hours before to the contest. Competitors suffering from a permanent disability may be granted permanent permission by the NZMAA Competition Manager to employ a proxy. The following requirements also apply:

(a) The proxy flyer must be a financial NZMAA member and must personally assume all responsibilities of the competitor.

(b) No individual or Club Championship points are awarded to proxy entries.

(c) No record may be claimed on a proxy flight.

(d) Proxy flying is not permitted in:

- Radio Control contests
- C/L Aerobatics
- C/L Combat
- H/L Glider (Indoor or Outdoor)
- F/F Aggregate

4.2. Compliance With Rules

4.2.1. A competitor, by entering any contest, thereby agrees that he is bound by the regulations herein contained and any special rules issued prior to the commencement of the contest as long as these special rules have been published along with the announcement of the contest in the "NZ Model Flier's World".

4.2.2. Interference. Any competitor who operates a model or equipment in a manner deemed to be careless, or causes interference to an other competitor who is competing or about to compete, is liable to disqualification from that flight/round.

4.2.2. Disqualification. Any member or competitor that breaks any rules of a contest, or acts in an unsportsmanlike manner is liable to disqualification or suspension. The Club Committee or Contest Jury is empowered to suspend or disqualify from the contest any member whom they find to so infringe. The Contest Director and two appointed assistants shall constitute the contest jury, which shall have summary jurisdiction. At a Nationals, the Nationals Manager is responsible for arranging a suitably competent jury.

4.2. **Protests and Appeals**

4.2.1. Protests must be lodged in writing to the Contest Director and/or Committee within 24 hours of an alleged imposition. The appellant must give full details of the action or decision including names of officials or competitors involved. At centralised contests, the time limit of protests may be shortened at the discretion of the body controlling the contest provided prior notification has been published.

4.2.2. Appeals. In protest action, an appellant who feels that a protest has been unsatisfactorily dealt with by the Committee or Jury may appeal to the NZMAA Council of Management within 7 days. The decision of the Council shall be final.

4.2.2. Representation. Any person who makes a protest or appeal has the right to present, in person, their case to the ruling body. They may if they wish nominate another person to represent them. The complainant may waive this right if so desired.

5. NATIONAL DECENTRALISED COMPETITION (NDC)

5.1. Introduction

5.1.1. The National Decentralised Competition (NDC) is intended to foster competition during the year and may be used as a basis for Club competition calendars. Club members fly at their own sites and the results are forwarded by club recording officers to the NZMAA recording officer who collates all results. Trophies for individual winner, top junior and winning club are presented at the National Championships prizegiving at the end of the year. The scores obtained by juniors are used to decide best junior.

5.1.2. The last competition is usually at the end of November each year to allow for collation of the last results and calculation of all scores before the Nationals.

5.1.3. The competition includes classes that obtain a result by the *timing* of flights. Classes that involve the judging of flights or models cannot be competed for on a decentralised basis.

5.2. NDC Rules

5.2.1. All competitions will be flown to the current NZMAA rules.

5.2.2. The NZMAA Recording Officer will publish the Programme of events for the year with the last “NZ Model Flier’s World” of the preceding year.

5.2.3. Eligible Flying days. Flights may be made on any day from Friday to Monday of the advertised date as published in the NDC programme. A club may, however, elect to fly the listed competition at any time within the designated month provided that the club register their club NDC programme on the official form with the NZMAA Recording Officer not later than two months prior to the competition date. Clubs may also set a rain date provided the date falls within the nominated month.

5.3. NDC Results

5.3.1. Scoring. Each individual event will be scored as per scoring at the Nationals (See para 3.5.5. in these rules). Totals for individuals and clubs will be used to decide placing for the year.

5.3.2. Forwarding Results. Clubs must forward results to the NZMAA Recording Officer. To be included, the NZMAA recording officer must have received results within 14 days of the authorised date of the competition.

5.3.3. Publication of Results. Progress results will be published in "NZ Model Fliers World" magazine during the year. The first 10 placings overall will be posted at the Nationals and in the first magazine of the year. A full list of the overall results for individual competitors may be obtained by sending a self addressed, stamped envelope to the NZMAA Recording Officer after the Nationals.

5.3.4. Indoor Events. The ceiling height of the venue is to be submitted with results of Indoor events.

6. RECORDS

6.1 General

6.1.1 Applicants for New Zealand Records must be NZMAA members normally resident in New Zealand. In the case of applications from teams, both members must satisfy this requirement. NZ records may be claimed for performances made outside New Zealand, provided the conditions herein are complied with.

6.1.2 Competition Class Records. New Zealand Records are recognised in all competition classes involving duration or speed subject to the regulations for the particular class and to the requirements of this chapter.

6.1.3 Absolute NZ Records. The NZMAA recognises several absolute New Zealand records for model aircraft performance, classified as follows:

a) R/C Power: Duration, Distance (Straight Line) and Speed. Open and Junior
b) R/C Glider: Duration, Distance (Straight Line) and Speed. Open and Junior

6.1.3.1. These absolute records are independent of the class or type of model, provided its characteristics are within the general limitations for all model aircraft as specified in the FAI Sporting Code and para 2.2 of these rules. The general procedure for setting these records is to be in accordance with that used for FAI World Records. Note that is necessary to declare in advance, the intended landing point in Straight Line Distance Record attempts. The model must come to rest within 500 metres of that point.

6.1.3.2. For R/C Glider Straight Line Distance records, the site chosen for the attempt must preclude the possibility of slope lift, i.e. the lift must, in the opinion of the officials and witnesses, be primarily attributable to thermal activity.

6.1.3.3. R/C Glider Duration and Speed records may be made in slope lift conditions if desired. Where tow launching of Gliders is used, the launching apparatus must comply with the standards in Section 5 (Soaring) of the NZMAA Flying Rules.

6.1.4 World Records. NZMAA members may attempt World Records in the FAI categories provided they:
a. Are in possession of a current FAI licence;
b. Comply with the FAI regulations pertaining to the class; and
c. Receive prior sanction from the NZMAA Council of Management.

Full details of FAI record classes and procedures are obtainable on request to the NZMAA Competition Manager.

6.1.5 New Zealand records are recognised in Open and Junior categories (see General rules clause 4.1.1)

6.1.6 Records will not be recognised for vintage or unofficial classes.

6.2. Eligible Events

6.2.1 New Zealand competition class records may only be attempted or claimed at official club meetings (see General Rules clause 3.6.), at National Championships, International events either in New Zealand or overseas or at NZMAA sanctioned inter-club and Provincial meetings. Absolute records may be attempted at any time.

6.2.2 Flights made at National Championships are automatically eligible for New Zealand records without the need to claim. At provincial or club meetings, the designated Recording Officer shall be responsible for raising the record claim form and for obtaining the necessary signatures.

6.3. Record Claims

6.3.1 Claims for New Zealand records must be made on the official record claim form available from the NZMAA Secretary or Recording Officer. Claims must be forwarded to the NZMAA Recording Officer post marked within 10 days of the date of the flight(s).

6.3.2 A Record broken in a particular class shall not count should it be eclipsed again on the same day.

6.3.3 A given flight can only be applied for in respect of one record class. (Note: A junior may, however, claim both junior and open records with the same flight(s).

6.4 Special Conditions (Records)

6.4.1 In addition to a timekeeper, flights for which a record is claimed must be witnessed. The witness and/or the timekeeper must be of 18 years age or over at the time of the record flight(s).

6.4.2 When a record comprises a series of flights, all flights, including fly-offs, must be taken on the same day.

6.4.3 Should the series of flights be a special record attempt, the claimant must indicate the class for which the attempt is being made and must state clearly before flying that a record attempt is to be made. There is no limit on the number of attempts in a given day.

6.4.4 No member shall act as timekeeper or witness in the case of flight(s) made by their own model.

6.4.5 Margins. Claims that equal or better the existing record shall be recognised, there are no minimum margins by which a record is required to be exceeded.

7. DEFINITIONS

7.1. Free-Flight

Flight during which there is no physical connection between the model and the competitor or the competitor's helper. Radio Control functions are allowed only if specifically permitted in the rules for the relevant class. Categories:

a) Gliders: Model aircraft which are not provided with a propulsive device and in which lift is generated by aerodynamic forces acting on surfaces remaining fixed except for changes in camber or incidence during flight.

b) Rubber: Model aircraft which are powered by an extensible motor.

c) Power: Model aircraft which are powered by a motor in which the energy is obtained by the combustion or expansion of a fluid or gas acting directly on a piston or pistons.

d) Indoor: Model aircraft flown in an enclosed space.

e) Helicopters: Model aircraft which throughout flight derive all lift and thrust from a driven rotor system rotating about a nominally vertical axis. A fixed horizontal stabilising surface with a maximum area of 4% of the swept area of the rotors is permitted. During power off flight, the rotor(s) shall continue to rotate and provide for lift. Ground effect machines (hovercraft) are not considered to be helicopters. Maximum swept area of rotor(s) is 300 dm^2.

7.2. Control Line

Flight during which the model aircraft is aerodynamically manoeuvred by control surfaces in attitude and altitude by the pilot on the ground by means of one or more inextensible wires or cables directly connected to the model. No other means of controlling the model or the motor may be employed during the take-off and flight, except that exercised by the pilot through the line or lines.

7.3. Radio Control

Flight during which the model aircraft is aerodynamically manoeuvred by control surface(s) in attitude, direction and altitude, by the pilot on the ground using radio control.

7.4. Scale

A scale model shall be a replica (miniature copy) of a heavier-than-air man carrying aircraft.

7.5. Vintage

Vintage Models are replicas of those which were first designed and flown, or which were first published or kitted within the following dates:

a) Old Time Indoor Category: before 1 January 1941
b) Old Time FF or RC Category: before 1 January 1951
c) Nostalgia FF or RC Category: from 1 January 1951 to 1 January 1961

7.6. Weight

The weight taken to determine minimum loading and minimum weight is that of the complete model less fuel. The weight taken to determine maximum loading and maximum weight is that of the complete model in flying order with fuel at the moment of departure.

7.7. Launching

7.7.1. Hand launch. A model is hand launched when it is released or thrown into flight directly from the hands of a competitor without other assistance. The model shall not be launched from a height greater than the competitor's normal reach above the ground.

7.7.2. Rise off ground (ROG). The model takes off from the ground under its own power without any help from the competitor. A special runway may be used but must not be more than 300 mm above the ground. A ROG model must be capable of resting unassisted on the ground on at least three points in take off attitude for at least 30 seconds and must be held by the competitor in this attitude for take-off.

7.7.3. Rise off Water(ROW). The model takes off from a sheet of water but need not alight thereon. An ROW model must be capable of floating unassisted in take-off attitude for at least 30 seconds and must be held by the competitor in this attitude for take-off.

7.7.4. Tow launch. The glider must be launched by means of a cable the length of which shall not exceed that specified when subjected to the required tensile load. Free Flight gliders must be towed by the competitor unless physically handicapped. Radio Control gliders may be towed by the competitor or an assistant or may be launched with winches, bungees or pulleys as detailed in the RC Soaring rules.

8. SAFETY

8.1. All models must be operating in accordance with Chapter 4 of the NZMAA Member's Manual. In particular, for *all* categories, flying over or at spectator areas, parking areas or pits is deemed hazardous and may be grounds for disqualification. All RC pilots with transmitters must stand in an area assigned, which is not to be in the pits or on approach, landing or take-off paths.

8.2. The contest director may suspend or disqualify any competitor from flying if the competitor's model is flown in a hazardous manner or the model or operating equipment is unsafe.

8.2.1. Propellers. No model powered by mechanical motor(s) shall be operated with a propeller that has been repaired or is unsafe. The use of metal propellers is prohibited.

8.2.2. Fuses. Under no circumstances may fuses be used during officially promulgated fire ban periods. All models using burning fuses shall be fitted with a device designed to ensure:

(a) that the burning fuse is not at any time ejected from the model whilst in flight or on the ground; and

(b) that as soon as practical after the functioning of the operation for which the fuse is fitted, the lighted end of the fuse is extinguished.

8.2.3. Ballast. If ballast is carried in or on a model, it must be fixed securely to the satisfaction of the Contest Director.

8.2.4. Prohibited items:

(a) Compressed Oxygen, Hydrazine, Tetra Nitromethane, Nitrobenzene.

(b) Chemical rockets of the pyrotechnic type weighing more than 100 grams.

(c) Jet reaction motors (pulse jet, ram jet) weighing more than 500 grams.

9. INTERNATIONAL COMPETITION

9.1. Responsibilities

The responsibility to select/nominate NZ team members for International competition is delegated to the respective Special Interest Group. NZMAA Council reserves the right to veto any selections that it deems not to be of sufficient standard or not in the best interest s on NZ aeromodelling. NZMAA Council approval is required before any arrangements are made to hold International events in New Zealand.

10. ORGANISATION FOR RADIO CONTROL CONTESTS

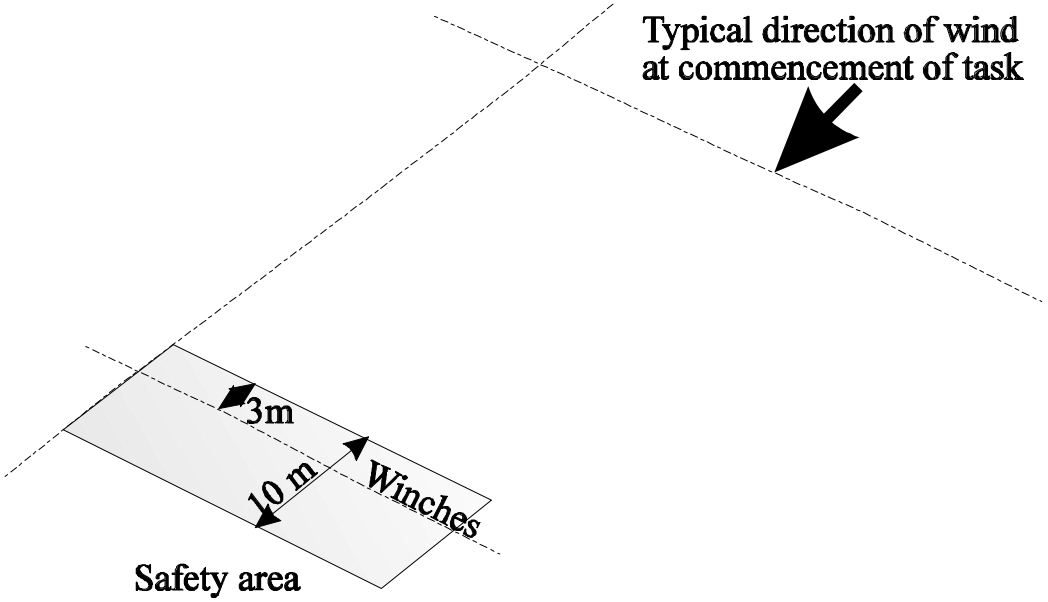
10.1. Control of Transmissions

10.1.1. It is strongly recommended that the organiser of a large event or any event involving more that one club has access to a radio monitor for the purpose of detecting possible interference. Monitors are available from NZMAA Area Representatives.

Note: *This rule does not apply to Open International or World Championship events; FAI rules take precedence.*

10.1.2. All unauthorised transmissions during the contest will result in automatic disqualification of the offender from the entire contest and render him liable to further penalties. All transmitters to be used during the contest must be checked and placed in a compound kept under observation. During the contest, a steward should be in control of the transmitter compound and will issue the transmitter to a competitor only when his name is called to stand by to make his flight. As soon as the attempt has ended, the competitor must immediately return his transmitter to the steward at the transmitter compound.

10.2. RC Glider Flying



10.2.1. Launching Areas.

A designated area for launching should be indicated by winch layout, hi-start positions or hand tow. This is normally into wind. The number of contestants and winches will obviously control the size of the area; space between winch lines should be 3 metres. Hi-starts should be given maximum space and restricted to no more than 3 per contest, to preclude tangles.

10.2.2. Landing Areas.

Landing spots should be positioned clear of the winch lines etc. having due regard for fences, trees and other obstructions. Spot positions should be 1.5 measuring line lengths from the launch area and at such a distance from downwind fences as to allow an unimpeded approach without airbrake devices being deployed. Landing Areas can be to left or right or both, of the launching area.

10.2.3. Model Preparation Areas.

This area is to be behind the launching area and its position must create a clearway behind the launch line of at lest five metres width to allow an unimpeded passageway for fliers to move to the landing areas.

10.2.4. Launching.

Launching preparations must include a control check for full and free movement and in the right sense. A final check before release of the model, of the flight path and airspace, for other users, should be made, remembering the flying models have right of way over launching models.

10.2.5. Landing.

Pilots must stand in an upwind position of the landing spot so as not to impede the landing of another model. Where two or more models are approaching the spot, a landing call should be made to inform others of your intentions. Where possible a

marker can be placed at the nose of the model after landing to allow a quick clearance of the area and a later measurement for scoring.

10.2.6. Flight Areas.

Flight approaches over cars and preparation areas should be treated with extreme caution and at least 10 metres of height must be available. Local restrictions such as flying over hangars, houses, must be complied with.

11. NZMAA FLYING RULES

11.1 These rules are published in three parts, which comprise:

Volume One

Section 1 General Competition Rules
Section 2 Free Flight NZ Rules
Section 3 Control Line NZ Rules
Section 4 Vintage
Section 5 RC Soaring NZ Rules
Section 5A FAI Soaring F3B,F3J,F5B
Section 6 FF/CL Scale

FAI Annex

FAI Sporting Code extracts:
S4a: Regulations (CIAM)
S4b: General FAI Rules
S4c FF: F1A, B, C, D, G, H, J, L
S4c CL: F2A, B, C, D

Volume 2

Section 1 General Comp. Rules
Section 7 RC Scale (Static)
Section 7A RC Scale (Flying)
Section 7B RC Scale Judging Guide
Section 8 RC Pylon NZ Rules
Section 8A FAI Pylon F3D
Section 9 RC Helicopter NZ Rules
Section 9A FAI Helicopter F3C
Section 10 RC Aerobatics NZ Rules
Section 10A FAI RC Aerobatics F3A
Section 11 RC Scale Aerobatics

Each part may be purchased separately or as one complete set from the NZMAA Secretary and will also be available for sale at the Nationals and through Special Interest Groups. Prices will be as published in the "NZ Model Flier's World" magazine.

11.2. Rule Changes. Any member may propose rule changes at any time to the respective Special Interest Group. Changes to General Rules should be proposed to the NZMAA Competition Manager. All change proposals will be considered, and if necessary debated, at the next scheduled General meeting of the SIGs. Any resultant rule amendments will only be effective after they have been promulgated in the Association's magazine.

11.3. FAI Rules. NZ will generally adopt changes to FAI rules as at the effective date promulgated in the FAI Sporting Code. Exceptions will be advised in the Association's magazine. FAI rules in force as at the start of a Nationals will remain in force for the full duration of the Nationals. The NZMAA Competition Secretary maintains a fully-updated copy of the full FAI Sporting Code in A4 format. Copies of all or part of this are available on request but note that this is a very large document and that a charge will be made for the photocopying required. It would be wise to request an estimate of cost before ordering.