

## MAAA Control Line rules proposals for 2013

Submitted by the MAAA Control Line Sub-committee with broad support from all states.

This document describes the proposed changes to MAAA control line rules. Most changes are alterations to single clauses and these are described in full in this document. In addition, there are four changes that reference supporting documents that either replace entire sections of the existing MAAA rule book or are proposed new sections.

For changes to single clauses, each changed is described in this document by:

- a sentence summarising the rationale for the change
- the current wording and
- the proposed new wording.

The order of the proposed changes corresponds to the order of the existing MAAA Australian Official Rules Section 3 document.

### 4.1 General Rules

#### Clause 4.1.5

Rationale for change – Remove requirement for flags; these are never used.

Delete clause entirely.

#### Clause 4.1.11 Proxy Eligibility

Rationale for change – Remove requirement for the entrant in a Speed contest to be the builder of the model.

Current wording:

"In control line contest categories where pilot skill is a major requirement, for example, Stunt and Combat, proxy fliers are not permitted. Proxy flying of Speed and Scale models [all classes] is permitted when the pilot qualifies under one of two levels of disability.

1. A person who has a medical disability that is not obvious [i.e. heart, respiratory, visual or neurological condition] or a temporary but incapacitating condition [e.g. broken leg] and is unable to

fly but able to tune his engine, may nominate a proxy to fly the model only. A medical certificate is to be provided.

2. A person who has a confirmed and permanent physical disability preventing his flying the model or tuning the engine [e.g. crippling arthritis, partial paralysis, amputated limb] but who has contributed significantly to the construction and preparation of the model, may elect a proxy pilot and pit crew to start, tune and fly the model under his name.

Both the person and proxy(ies) must hold a current MAAA sporting licence. The proxy(ies) may themselves be a competitor in the same contest category. Except for Trans Tasman events, no Australian team selection points shall be awarded to the person or his proxy(ies) when proxy participation is not permitted under FAI rules. Lack of experience or inability to attend a contest shall not be deemed sufficient reason to permit proxy flying."

Proposed wording:

"In control line contest categories where pilot skill is a major requirement, for example, Stunt and Combat, proxy fliers are not permitted. Proxy flying of Speed and Scale models [all classes] is permitted where the entrant is involved in the starting, tuning and release of the model or where a person who has a confirmed and permanent physical disability preventing his flying the model or tuning the engine [e.g. crippling arthritis, partial paralysis, amputated limb] but who has contributed significantly to the preparation of the model, may elect a proxy pilot and pit crew to start, tune and fly the model under his name.

Both the person and proxy(ies) must hold a current MAAA sporting licence. The proxy(ies) may themselves be a competitor in the same contest category. Except for Trans Tasman events, no Australian team selection points shall be awarded to the person or his proxy(ies) when proxy participation is not permitted under FAI rules. Lack of experience or inability to attend a contest shall not be deemed sufficient reason to permit proxy flying."

#### **New Clause 4.1.14**

Rationale for change – Implement suitable safety practise for electric models.

Proposed wording:

All electric control line models are to be restrained by a helper at all times until take-off when power is connected. Batteries are not to be connected until models are placed in the flight circle or unless the model is properly restrained. Batteries should be disconnected as soon as possible after the flight or after a crash. All batteries should be stored in a safe manner.

### **4.3 Control Line Speed Classes**

Replace section entirely with contents of supporting document “MAAA CL Speed Rules Update 20130211”.

## **4.5 Australian Team Races**

### **Clause 4.5**

Rationale for change – Relate Australian team race classes to a specific version of FAI rules.

Current wording:

"Class 1/2A and 2 events to Australian Rules are similar to the FAI Team Race but use different size models. FAI team race rules apply except as follows."

Proposed wording:

"Class 1/2A and 2 events to Australian Rules are similar to the FAI Team Race but use different size models. FAI team race rules in effect as at January 2012 apply except as follows."

## **4.6 Open Combat**

### **Clause 4.6.1**

Rationale for change – Relate Australian Combat classes to a specific version of FAI rules.

Current wording:

"Open Combat to Australian Rules is similar to FAI Combat [F2D] but allows larger models and modified contest procedures. F2D rules apply unless specifically changed by these rules."

Proposed wording:

"Open Combat to Australian Rules is similar to FAI Combat [F2D] but allows larger models and modified contest procedures. F2D rules in effect as at January 2012 apply unless specifically changed by these rules."

## **4.6A F2D Combat - Modified**

Rename section to "Australian Fast Combat" and replace section entirely with contents of supporting document "Australian fast combat 7-2-13".

## **4.7 Rat Races [2.5cc]**

### **Clause 4.7.13.c**

Rationale for change – Remove the need for a visual start signal.

Current wording:

"The starting signal is given by the Contest Director through a visual signal (flag) and a sound signal. For the last 3 seconds of the countdown and at the starting signal the mechanics must be standing erect close to their model aircraft and the pilots must be crouching on the border of the centre circle, with their control handles as close to the ground as defined by the Contest Director."

Proposed wording:

"The starting signal is given by the Contest Director through a sound signal. For the last 3 seconds of the countdown and at the starting signal the mechanics must be standing erect close to their model aircraft and the pilots must be crouching on the border of the centre circle, with their control handles as close to the ground as defined by the Contest Director."

### **Clause 4.7.19 (1)**

Rationale for change – Assign a lap counter to a team rather than to a specific model.

Current wording:

"Officials shall be a Contest Director and a lap counter for each model. All lap counters shall stand together at one point. Each entrant shall have his particular counter pointed out to him."

Proposed wording:

"Officials shall be a Contest Director and a lap counter for each team."

## **4.8 Open Rat Race**

### **Clause 4.8.4 (2)**

Rationale for change – Simplify description of correct line size.

Current wording:

"The minimum line diameter shall be 0.455mm (-0.011mm)..

Proposed wording:

"The minimum line diameter shall be 0.45mm.

### **Clause 4.8.4 (3)**

Rationale for change – note that it must be possible to “safely” change hands whilst flying.

Current wording:

"Metal handles are mandatory. They must be of a size and shape that the pilot shall be able to change hands whilst flying"

Proposed wording:

"Metal handles are mandatory. They must be of a size and shape that the pilot shall be able to safely change hands whilst flying"

### **Clause 4.8.7 (5)**

Rationale for change – Remove the need for a visual start signal.

Current wording:

"The starting signal is given by the Contest Director through a visual and a sound signal."

Proposed wording:

"The starting signal is given by the Contest Director through a sound signal."

#### **Clause 4.8.9 (1)**

Rationale for change – Assign a timekeeper to a team rather than to a specific model.

Current wording:

"Officials shall be a Contest Director and a timekeeper for each model in the heat or final. Each entrant shall have his time keeper pointed out."

Proposed wording:

"Officials shall be a Contest Director and a time keeper for each team."

## **4.9 Scale Team Racing (Goodyear)**

#### **Clause 4.9.3 (f)**

Rationale for change – Update description of MAAA number displayed on the model.

Current wording:

"The racing number of the full sized aircraft is to be displayed on the fuselage sides and on the upper inboard wing. The contestant's MAAA number is to be displayed on the upper outboard wing (preceded by "VH" ["AUS" after 1/1/'97]). All numbers are to be of block type letters.

Proposed wording:

"The racing number of the full sized aircraft is to be displayed on the fuselage sides and on the upper inboard wing. The contestant's MAAA number is to be displayed on the upper outboard wing (preceded by "AUS"). All numbers are to be of block type letters.

#### **Clause 4.9.7 (e)**

Rationale for change – Remove the need for a visual starting signal.

Current wording:

"The starting signal is then given by means of both a visual signal (flag) and an acoustic signal."

Proposed wording:

"The starting signal is then given by means of an acoustic signal."

#### **Clause 4.9.8 (f)**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"During a pit stop (refuelling & restarting) the model must be kept in contact with the ground & the centre line kept outside the flight circle, the handle and lines must be kept as close as possible to the ground.."

Proposed wording:

"During a pit stop (refuelling & restarting) the model must be kept in contact with the ground & the centre line kept outside the flight circle, the handle and lines must be kept as close as possible to the ground."

### **4.10 Mini Goodyear Competition Rules**

#### **Clause 4.10.3 (f)**

Rationale for change – Update description of MAAA number displayed on the model.

Current wording:

"The racing number of the full-sized aircraft is to be displayed on the fuselage sides and on the upper inboard wing. The contestant's MAAA number is to be displayed on the upper outboard wing (preceded by "VH" ["AUS" after 1/1/97]). All numbers are to be of block type letters."

Proposed wording:

"The racing number of the full-sized aircraft is to be displayed on the fuselage sides and on the upper inboard wing. The contestant's MAAA number is to be displayed on the upper outboard wing (preceded by "AUS"). All numbers are to be of block type letters."

#### **Clause 4.10.4**

Rationale for change – Rectify spelling errors.

Current wording:

"The number of laps flown shall be:-

100 laps for heats, with two mandatory refuelin stops.

200 laps for finals with five mandatory refuelin stops."

Proposed wording:

"The number of laps flown shall be:-

100 laps for heats, with two mandatory refueling stops.

200 laps for finals with five mandatory refueling stops."

#### **Clause 4.10.7 (e)**

Rationale for change – Remove the need for a visual starting signal.

Current wording:

"The starting signal is then given by means of both a visual signal (flag) and an acoustic signal."

Proposed wording:



"The starting signal is then given by means of an acoustic signal."

## **4.11 Junior Rat Race**

### **Clause 4.11.2 (a)**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"Engine to have a maximum displacement of 2.5cc and be plain bearing. Fuel to be supplied to the following formula:- 10% Nitro Methane, 20% castor oil lubricant, 70% Methanol. A reasonable charge may be made for fuel. Fuel for compression ignition engines is not restricted.."

Proposed wording:

"Engine to have a maximum displacement of 2.5cc and be plain bearing. Fuel to be supplied to the following formula:- 10% Nitro Methane, 20% castor oil lubricant, 70% Methanol. A reasonable charge may be made for fuel. Fuel for compression ignition engines is not restricted."

## **4.13 Control Line Bendix Racing**

### **Clause 4.13.3 (f)**

Rationale for change – Update description of MAAA number displayed on the model.

Current wording:

"Models shall be coloured in a scale-like fashion, i.e. in a colour scheme that may have been used on a full-sized aircraft.

The racing number of the prototype must be permanently affixed to each side of the fuselage, and also the inboard wing, in a minimum height of 50 mm.

The contestant's VH [AUS] number must be permanently affixed to the upper surface of the outboard wing in a minimum height of 25 mm."

Proposed wording:

"Models shall be coloured in a scale-like fashion, i.e. in a colour scheme that may have been used on a full-sized aircraft.

The racing number of the prototype must be permanently affixed to each side of the fuselage, and also the inboard wing, in a minimum height of 50 mm.

The contestant's MAAA number (preceded by "AUS") must be permanently affixed to the upper surface of the outboard wing in a minimum height of 25 mm."

#### **Clause 4.13.6 (e)**

Rationale for change – Remove the need for a visual starting signal.

Current wording:

"The starting signal is then given by means of both a visual (flag) and an acoustic signal."

Proposed wording:

"The starting signal is then given by means of an acoustic signal."

## **4.14 Vintage A Team Race**

#### **Clause 4.14.3 (b) v**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"The minimum width of the fuselage, measured at the longitudinal position where the pilot's head is located, shall be 1 1/2" (38mm).."

Proposed wording:

"The minimum width of the fuselage, measured at the longitudinal position where the pilot's head is located, shall be 1 1/2" (38mm)."

**Clause 4.14.3 (b) vi**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"The minimum height of the fuselage, including the canopy/cockpit profile, measured at the longitudinal position where the pilot's head is located, shall be 3" (76mm).."

Proposed wording:

"The minimum height of the fuselage, including the canopy/cockpit profile, measured at the longitudinal position where the pilot's head is located, shall be 3" (76mm)."

**Clause 4.14.3 (b) vii**

Rationale for change – Ensure the two wheels have appropriate horizontal separation.

Current wording:

"The minimum wheel diameter shall be 1 1/2" (38mm) with a 1/16 inch negative (-1.5mm) tolerance.

Proposed wording:

"The minimum wheel diameter shall be 1 1/2" (38mm) with a 1/16" (1.5mm) negative tolerance. Distance between the wheels shall be a minimum of 75mm.

**Clause 4.14.3 (e) ii**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"No multifunction valves may be used.."

Proposed wording:

"No multifunction valves may be used."

**Clause 4.14.3 (e) v**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"A Schraeder type valves are permitted."

Proposed wording:

"Schraeder type tank valves are permitted."

**Clause 4.14.3 (g) i**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"The model may be strengthened, provided that the outline is not changed in any way. Only materials available in 1957 may be used in construction; however, modern adhesives may be used and metal motor mounts are allowed.."

Proposed wording:

"The model may be strengthened, provided that the outline is not changed in any way. Only materials available in 1957 may be used in construction; however, modern adhesives may be used and metal motor mounts are allowed."

**New clause 4.14.3 (g) ix**

Rationale for change – Allow the wing to be higher or lower in the fuselage than the original.

Proposed wording:

"The vertical positioning of the wing may be altered; eg designs with wings that are installed above the engine bearers may now have the wing positioned below and low wings may be raised. There is no limitation to the amount of movement but in all other respects the profile and plan view of the design must remain as plan.

**Clause 4.14.4 (a)**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"Line Length: The length of the control lines must be 15.92 metres (+40mm -0mm). The length is measured from the face of the grip on the control handle to the centre line of the model.."

Proposed wording:

"Line Length: The length of the control lines must be 15.92 metres (+40mm -0mm). The length is measured from the face of the grip on the control handle to the centre line of the model."

**Clause 4.14.7 (b)**

Rationale for change – Specify pit stops to require refuelling.

Current wording:

"Heat distance will be 80 laps with one compulsory stop."

Proposed wording:

"Heat distance will be 80 laps with one compulsory refuelling stop."

**Clause 4.14.7 (b)**

Rationale for change – Specify pit stops to require refuelling.

Current wording:

"Final distance will be 160 laps with two compulsory stops."

Proposed wording:

"Final distance will be 160 laps with two compulsory refuelling stops."

## **4.13 C/L Classic Stunt**

### **Clause 4.16.2 Eligibility (first sentence)**

Rationale for change – Adjust eligibility cut-off to end of 1970.

Current wording:

"Aircraft to be designed prior to 1970."

Proposed wording:

"Aircraft to be designed prior to 1971."

### **Clause 4.16.5 Line tests (second paragraph)**

Rationale for change – Adjust pull test to align with F2B.

Current wording:

"A static load test will be applied to the assembled control handle, lines and aircraft equal to 15 times the weight of the model, up to a maximum pull of 20 kg."

Proposed wording:

"A static load test will be applied to the assembled control handle, lines and aircraft equal to 10 times the weight of the model."

## 4.18 Classic "B" Team Race

### Clause 4.18.1

Rationale for change – Remove superfluous first sentence.

Current wording:

"REGULATIONS & RULES for AUSTRALIA for year 2000 onwards (Based on 1965 USA Rules)

OBJECTIVE. It is the purpose of team racing to fly semi-scale realistic airplanes in direct competition through a series of heat races and a final

Original model designs that can be documented to have been designed, constructed and actually flown in competition prior to January 1, 1966 are eligible to compete in this event. Any other model can be built, but must conform to all the specifications of the 1965 rules."

Proposed wording:

"OBJECTIVE. It is the purpose of team racing to fly semi-scale realistic airplanes in direct competition through a series of heat races and a final.

Original model designs that can be documented to have been designed, constructed and actually flown in competition prior to January 1, 1966 are eligible to compete in this event. Any other model can be built, but must conform to all the specifications of the 1965 rules."

### Clause 4.18.1 (a)

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"Engine shall be as listed below. It shall be completely cowled with only the glow plug, needle valve stem, cut-off lever (if fitted), fill-vent tubes, and exhaust permitted to protrude through the cowling. An air intake & small access hole for choking is permissible.."

Proposed wording:

"Engine shall be as listed below. It shall be completely cowled with only the glow plug, needle valve stem, cut-off lever (if fitted), fill-vent tubes, and exhaust permitted to protrude through the cowling. An air intake & small access hole for choking is permissible."

**Clause 4.18.1 (a)**

Rationale for change – Allow use of metal mounting plates and half-pans.

Current wording:

"No tuned pipes are allowed. No metal engine mounting pans are permitted."

Proposed wording:

"No tuned pipes are allowed. Full length metal engine mounting pans (like those used on an Open Rat Race or speed model) are not permitted. However, half pans are acceptable as are engine plates with a front cone."

**Clause 4.18.1 (b)**

Rationale for change – Tidy up use of double full-stop characters..

Current wording:

"Model shall have a cockpit or cabin containing a dummy pilot's head with both being in proportion to the model. The dummy pilot must have direct forward vision to the outside of the model. The minimum height of the fuselage, including the canopy/cockpit profile, shall be 3-3/4" and the minimum fuselage width shall be 2", both height and width to be measured at the longitudinal position where the dummy pilot's head is located.. Model shall have a minimum effective wing area of 125 square inches."

Proposed wording:

"Model shall have a cockpit or cabin containing a dummy pilot's head with both being in proportion to the model. The dummy pilot must have direct forward vision to the outside of the model. The minimum height of the fuselage, including the canopy/cockpit profile, shall be 3-3/4" and the minimum fuselage width shall be 2", both height and width to be measured at the longitudinal position where the dummy pilot's head is located. Model shall have a minimum effective wing area of 125 square inches."



**Clause 4.18.1 (c)**

Rationale for change – Ensure the two wheels have appropriate horizontal separation.

Current wording:

"Model landing gear shall be of the two wheel, side by side type. The minimum wheel diameter is two inches (50mm sizes are acceptable) with a 1/16th (1.5mm) negative tolerance."

Proposed wording:

"Model landing gear shall be of the two wheel, side by side type. The minimum wheel diameter is two inches (50mm sizes are acceptable) with a 1/16th (1.5mm) negative tolerance. Distance between the wheels shall be a minimum of 100mm."

**Clause 4.18.1 (e)**

Rationale for change – Tidy up use of double full-stop characters.

Current wording:

"Fuel tank, including filler line and fuel line from tank to needle valve, shall hold no more than 30 cubic centimetres. Fuel systems shall be subject to measurement at any time. Refuelling shall be by squeeze bottle only. No multifunction valves may be used. The overflow can be either a pipe or a schraeder valve. Engine shutoffs are recommended but are not compulsory. If fitted they must not be used in flight during a race. The penalty for this is 30 seconds added to the race time. Shutoffs may be used during the warm up and after completion of race.."

Proposed wording:

"Fuel tank, including filler line and fuel line from tank to needle valve, shall hold no more than 30 cubic centimetres. Fuel systems shall be subject to measurement at any time. Refuelling shall be by squeeze bottle only. No multifunction valves may be used. The overflow can be either a pipe or a schraeder valve. Engine shutoffs are recommended but are not compulsory. If fitted they must not be used in flight during a race. The penalty for this is 30 seconds added to the race time. Shutoffs may be used during the warm up and after completion of race."

**Clause 4.18.1 (g)**

Rationale for change – Revise allowable use of modern materials.

Current wording:

"Strengthening is permitted, including the use of glass fibre for covering. The use of any carbon fibre or kevlar is not permitted"

Proposed wording:

"Strengthening is permitted. Models may be covered in fibreglass cloth. Modern materials such as carbon fibre or kevlar may be used for strengthening or repairs."

#### **Clause 4.18.6 (c)**

Rationale for change – Remove need for pilots to advise fellow competitors of intent to overtake – not practical, never done nor enforced.

Current wording:

"Passing must be done by overflying, and the pilot must warn his fellow competitors of his intention to overtake them."

Proposed wording:

"Passing must be done by overflying."

#### **Clause 4.18.7**

Rationale for change – Remove superfluous commentary.

Delete clause entirely.

### **New section 4.19 Classic FAI Team Race**

Add new section using the contents of supporting document "Classic FAI T-R rules 11-2-2013".

## **New section 4.20 Vintage Combat**

Add new section using the contents of supporting document "SA Vintage Combat proposal Feb 2013".