

## **Additional, comprehensive reasons for the new rules for F3M**

### **5.10. Introduction:**

New paragraph to explain what is the F3M class. As AMA RC scale aerobatics, F3M is inspired by full scale aerobatic.

#### **5.10.1. Redefinition and precision of the definition of a large RC aerobatic Power Model Aircraft:**

Precision to explain that exact scale is not required.

#### **5.10.2. Redefinition of general characteristics of a large R/C Aerobatic Power Model Aircraft:**

Main change: Weight of the F3M models will change from maximum 20 Kg without fuel to 25 Kg with fuel and enhancers devices for harmonization with AMA rules (not exceed a takeoff weight, including fuel, of 55 pounds = 24,947 Kg)

In addition, the new weight limit will allow in the future the introduction of new equipment participating in noise reduction (4-stroke engines, acoustic form, optimized or larger exhaust ...)

#### **5.10.3. Redefinition of technical verifications**

##### **Proof of scale:**

In the actual rules, technical verifications are far too complicated and so not possible. As example, there are too many measurements based on a 3 view drawing which exact accuracy cannot be proven. The new rules are simpler and easier to implement in a model processing during a World or Continental championship.

The wings and horizontal tail must be seen (no complicated measurements) as they are on the full size subject aircraft to avoid structural modifications.

##### **Sound / noise level test:**

The fight against noise pollution should not be ignored and must always be taken into consideration. However, the current rule introduced in 2012 was not technically verified before implementation. The result is that it is not possible to be under the actual sound level limit with models and equipment currently available on the market.

On the other hand, there are no AMA RC scale aerobatic rules about maximum sound level.

To set new realistic regulation, the new rule is in 2 parts:

- 1/ A noise measurement made during the model processing based on the previous rule (before 2012) to make it realistic and reachable by the actual F3M model Aircrafts.

Note: This rule may in the future evolve gradually according to the equipment progress (4-stroke engines, acoustic form, optimized or larger exhaust ...)

This new rule should not be considered as a right to make noise, but as a basis for possibility of progress for the future.

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- 2/ A noise mark (Sound presentation score: see 5.10.10. Marking) is assigned to each flight by the judges. The coefficient of this note is increased to 30 K (AMA RC scale aerobatics is only 15 K) to weight heavier on the final result and encourage competitors to make efforts to reduce and manage noise. If the competitor receives a mark of 3, or underneath, from two judges, the problem is reported to the pilot. If he receives on the next flight again a mark of 3, or underneath, from two judges, he is disqualified.

#### **5.10.4 .Precision about number of flights**

Precisions with 2 known sequences each one valid for one year (the proposal will set the known sequence for the 2 next years)

#### **5.10.5. Definition of an attempt**

Not clearly defined in the actual rules.

#### **5.10.6. Precision about number of attempt**

Not clearly defined in the actual rules.

#### **5.10.7. Definition of an official flight**

Not clearly defined in the actual rules.

#### **5.10.8. Definition and number of helpers**

Not clearly defined in the actual rules.

#### **5.10.9. Redefinition of the aerobatic airspace**

New aerobatic airspace. Same as AMA RC scale aerobatics.

#### **5.10.10. Redefinition of marking**

New aerobatic airspace. Same as AMA RC scale aerobatics with sound presentation (30K) score and airspace control score, sequence break penalty.

#### **5.10.11. Redefinition of classification**

Precision and redefinition of classification. Flight coefficients normalized between known, unknown and freestyle flights (actual 35/45/20 % - New 40/40/20%)

#### **5.10.111. Introduction of classification for World and Continental Championships**

Not existing in the actual rules.

#### **5.10.112. Introduction of team classification**

Not existing in the actual rules.

#### **5.10.12. Redefinition of judging**

Introduction of judging rules for World and Continental championships (not existing in the actual rules)

#### **5.10.13. Introduction of detailed organization for Large R/C Aerobatic Model Aircraft Contests**

Introduction of detailed rules (not well defined in the actual rules)

Note concerning 5.10.13.a) Members of a National team may make use of the model aircraft processed by another member of the same national team:

Transportation of large R/C model aircraft could be expensive in the case of a World Championship.

This new rule provides an opportunity for teams without large financial resources to participate with a fewer number of planes.

This is what is happening in full scale aerobatics World championships.

#### **5.10.14. Definition of sequence of figures**

Rules based on FAI Aresti catalogue (same as AMA RC scale aerobatics)

#### **5.10.15. Definition of Unknown figure sequences for final flights**

New rules for World and continental championships

#### **5.10.16. Redefinition and precision about Freestyle program**

New precision about rules, criterion "new manoeuvres" deleted (Impossible to clearly define what a new manoeuvre is), Criteria reorganised.

**Annex 5C** (new annex): Introduction of F3M large r/c aerobatic power aircraft official flying and judging guide (same as AMA RC unlimited scale aerobatics)

#### **Annex 5L: New known sequences 2016-2017**

New sequences according to the new aerobatic airspace, same figures coefficient as full scale aerobatic.

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