



Academy of Model Aeronautics

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EXHIBIT A RULES CHANGE PROPOSAL FORM

PROPOSAL NO. _____
(To be inserted by Headquarters)

RECEIVED DATE _____
(To be inserted by Headquarters)

REVISE DATE _____

VERSION NUMBER _____

RULES CHANGE PROPOSAL FORM

Send to AMA Headquarters via email at ruleschanges@modelaircraft.org. A copy will be forwarded to the appropriate Contest Board Chairman.

PROPOSAL TYPE (Check One): Basic Cross Indicate Original Proposal Number _____

Urgent/Safety/Emergency Interpretation

General Section Executive Council Outdoor Free Flight Indoor Free Flight CL Speed

CL Racing CL Navy Carrier CL Aerobatics CL Combat CL Special Events RC Aerobatics

RC Scale Aerobatics RC Pylon Racing RC Helicopter RC Soaring Scale Electric

Special Events RC Combat

Brief summary of the proposed change.

Increase the weight limitation to 5500 grams in all AMA classes in order to promote additional safety measures, less cost for components and enable more competitors to compete that were disqualified under the current weight limitations..

Exact wording proposed for the rule book. (List paragraph numbers where applicable. Example: Change “quote present rule book wording” to “exact wording required”.

ORIGINAL WORDING OF WEIGHT AND SIZE RULE 4.3:

“4.3: **Weight and Size:** No model may weigh more than 5000 grams gross, excluding fuel, ready for takeoff. Electric models are weighed with batteries. In Sportsman, Intermediate and Advanced an allowance of 115 grams is permitted. No model may have a wingspan or total length longer than two (2) meters (78.74 inches).

Wherever practical, all aircraft should be weighed prior to the start of the contest. If weight is being enforced then all planes competing in that class must be weighed before the same round (round 1 or otherwise) for a baseline. Only two attempts at making weight will be allowed on the day specified for weigh-in. If no calibration system is available for the scales, a tolerance of 50 grams will be allowed for possible inaccuracies in the measurement instrument. Random checks may be conducted at any time during the contest. An aircraft that has been damaged and repaired during the contest, after the initial weigh-in has been made, is subject to being reweighed. Repaired models failing the weight and/or size limits shall be disqualified for competition but recorded scores with the legal aircraft will stand. Aircraft qualifying for a Final shall be weighed and size-checked prior to the commencement of the Finals and may be checked again at any time during the Finals at the discretion of the CD / ED. Only one attempt at making weight will be allowed for a Finals weigh-in prior to the commencement of the Finals. In the event that the disqualification occurs amongst the Finalists at the Nationals, the next highest competitor shall be allowed to replace the disqualified competitor in the Finals. In the event that more than one or more Finals rounds have been flown at the time of a disqualification, no additional pilot will be invited to replace the disqualified contestant. Models shall be weighed in a manner that does not cause damage to the aircraft_“

CHANGE TO FOLLOWING REVISED WORDING OF WEIGHT AND SIZE RULE 4.3:

“4.3: Weight and Size: In classes 401-404, no model may weigh more than 5500 grams gross, excluding fuel, ready for takeoff. Weight measurement of the model is subject to a 1% tolerance to account for any variance between scales used. In class 406, no model may weigh more than the current rule for F3A in the FAI Sporting Code. All models are weighed with batteries including but not limited to batteries that drive the propeller. No model may have a wingspan or total length longer than two (2) meters (78.74 inches). In Sportsman (401), the Contest Director/Event Director may allow any AMA legal, propeller driven, aircraft to be flown.

Wherever practical, all aircraft should be weighed prior to the start of the contest. If weight is being enforced then all planes competing in that class must be weighed before the same round (round 1 or otherwise) for a baseline. Only two attempts at making weight will be allowed on the day specified for weigh-in. Random checks may be conducted at any time during the contest. An aircraft that has been damaged and repaired during the contest, after the initial weigh-in has been made, is subject to being reweighed. Repaired models failing the weight and/or size limits shall be disqualified for competition but recorded scores with the legal aircraft will stand. Aircraft qualifying for a Final shall be weighed and size-checked prior to the commencement of the Finals and may be checked again at any time during the Finals at the discretion of the CD / ED. Only one attempt at making weight will be allowed for a Finals weigh-in prior to the commencement of the Finals. In the event that the disqualification occurs amongst the Finalists at the Nationals, the next highest competitor shall be allowed to replace the disqualified competitor in the Finals. In the event that more than one or more Finals rounds have been flown at the time of a disqualification, no additional pilot will be invited to replace the disqualified contestant. Models shall be weighed in a manner that does not cause damage to the aircraft.”

Logic behind proposed change, including alleged shortcomings of the present rules. State intent for future reference.

The pattern community has been discussing the current weight rule 4.3: Weight and Size. Some have felt the rule should be removed and some have felt it be left in place “as is”. One of the purposes of the NSRCA, AMA’s S.I.G. for pattern, is to find a compromise that is supported by and promotes the desires of the majority of its constituents. This also serves to align the AMA rules with several other countries that have made changes to their rules. The NSRCA feels that, when written, the 5000g rule limit, which has been in force before the inclusion of even 4-stroke engines, could not have had the foresight of current technologies such as electric powered aircraft and current technology of batteries.

The NSRCA feels that it is probable that other countries have started to look at this as part of the reason why their limits have increased. Countries that have already adopted this weight limit to their “development classes” which serve all classes except FAI include France and South Africa (links are listed below).

Due to other rules proposal the NSRCA is recommending to address safety, the weight rule needs some modification as 5000 grams is very restrictive and drives up the cost for necessary equipment to meet the existing standard. This potentially prevents some competitors from competing. The general consensus of the NSRCA board is that with the addition of this new weight limit together with the existing noise rule and the current size rule, competitors will be able to add safety features such as an arming device to make sure that the batteries that drive the propeller are disconnected. This also will allow a reduction in costs to the competitor and minimize any “modifications” of airframe or components in order to save weight.

An example of a competitor that is potentially causing a safety issue is one who changes the wiring of his electronic speed controller or the battery leads to a lighter gauge wire or removes the factory supplied heat sink on the electronic speed controller to simply save weight. By doing these things, the competitor is eliminating the safety factor built in by the manufacturer of the product. The specific gauge of wire is determined by the manufacturer and should not be tampered with. Likewise, the heat sink is installed by the manufacturer to dissipate heat and should not be removed for the purpose of saving weight.

It is our opinion that relaxation of the weight standard will not lead to increased airframe or propulsion costs. The pattern market is now worldwide and is driven by the F3A rules, not what we or other countries allow for our development classes.

South Africa - http://www.samaa.org.za/maasa/sporting_code.pdf

4.4 Sportsman to F3A class

Any suitable propulsion source may be utilised except those requiring solid expendable propellants, gaseous fuels (at room temperature and atmospheric pressure), or liquefied gaseous fuels. Electric-powered model aircraft are limited to a maximum of 42.56 volts for the propulsion circuit, measured without load, and prior to flight while the competitor is in the ready box.

Individual classes must conform to the following specifications:

- Maximum overall span 2000 mm
- Maximum overall length 2000 mm
- Maximum dry weight (F3A class, including batteries) 5000 grams
- Maximum dry weight (All other classes, including batteries) 5500 grams

4.5 No limits are placed on the size of the glow, gas or electric motor used in any of the above classes. The use of an electric motor will be constrained by the total dry weight limit placed on aircraft in the respective classes.

4.6 A tolerance of 1% to be allowed for all measurements referred to above in all the classes.

France -

http://www.ffam.asso.fr/activite/pdf/categ_nationale/Regl%20Vultige%20Avion%20Ref%20310%20%28Janv.%202012%29.pdf

Translation at -

http://translate.google.com/translate?hl=en&sl=fr&u=http://www.ffam.asso.fr/activite/pdf/categ_nationale/Regl%20Vultige%20Avion%20Ref%20310%20%28Janv.%202012%29.pdf&ei=E8AoT42xFOHKiQKc1aDRCg&sa=X&oi=translate&ct=result&resnum=1&ved=0CCUQ7gEwAA&prev=/search%3Fq%3Dhttp://www.ffam.asso.fr/activite/pdf/categ_nationale/Regl%20Vultige%20Avion%20Ref%20310%20%28Janv.%202012%29.pdf%26hl%3Den%26client%3Dfirefox-a%26hs%3DEH8%26rls%3Dorg.mozilla:en-US:official%26prmd%3Dimvns

http://www.ffam.asso.fr/activite/pdf/categ_nationale/Regl%20Vultige%20Avion%20Ref%20310%20%28Janv.%202012%29.pdf%26hl%3Den%26client%3Dfirefox-a%26hs%3DEH8%26rls%3Dorg.mozilla:en-US:official%26prmd%3Dimvns

2.2. Caractéristiques des avions utilisés

F3A : voir code sportif FAI (Volume F3 Voltige)

Avion de voltige nationale A et nationale B :

- Envergure maximum : 2 m
- Longueur fuselage maximum : 2 m
- Limitation des sources de propulsion : toute source d'énergie convenable peut être utilisée à l'exception de celles utilisant du propergol solide, du carburant gazeux (à température et pression atmosphérique ambiantes) ou du carburant gazeux liquéfié. Les modèles à moteur électrique sont limités à un maximum de 42.56 volts pour le circuit de propulsion, mesure faite à vide avant le vol pendant que le concurrent est dans l'aire de préparation.
- Masse maximale de l'avion en ordre de vol sans carburant ou avec batterie de propulsion pour les modèles à moteur électrique : 5,5 kg

Une tolérance de 1,00 % sera appliquée pour l'imprécision des appareils de mesure de la taille, de la masse et de la tension.

Characteristics of the aircraft used

F3A: see FAI Sporting Code (Volume F3 Aerobatics)

A national aerobatic aircraft and the B:

- Maximum Wingspan: 2 m
 - Maximum fuselage length: 2 m
 - Limitation of propulsion sources: sources of suitable energy can be used except those using solid fuel, gaseous fuel (temperature and pressure ambient air) or liquefied gaseous fuel. Models with electric motors are limited to a maximum of 42.56 volts for the propulsion system, vacuum measurement made before the flight while the competitor is in the preparation area.
 - Maximum mass of the aircraft ready to fly without fuel and with battery for models with electric motor: 5.5 kg
- A tolerance of 1.00% will be applied to the imprecision of measuring devices the size of the mass and tension

New event test data/information (new events only), please provide what testing of this new event has taken place to include number of participants and number of contests.

N/A

Effect, if any, on current AMA records.

N/A

Note: The Contest Board Chairman may, in coordination with the submitter of the proposal, at any time prior to submitting a proposal to the Contest Board for Final Vote, edit proposal wording to increase clarity and to avoid ambiguity provided the proposal intent is not changed.

1. Proposer NSRCA Sponsored Rules change / Scott McHarg AMA # 7511

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Date of Signature Scott A. McHarg 03.07.12