



# Academy of Model Aeronautics

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## RULES CHANGE PROPOSAL FORM

## INSTRUCTIONS

This document is designed for you to print out and write in your proposal. If you want to type your proposal, PLEASE go back to the website and select ON -LINE PROPOSAL FORM. Please complete this form, scan into your computer and e-mail it to: [ruleschanges@modelaircraft.org](mailto:ruleschanges@modelaircraft.org). A copy will be forwarded to the appropriate Contest Board Chairman. The current issue of Competition Regulations must be referenced.

PROPOSAL NO. RCA 18-09  
(To be inserted by Headquarters)

RECEIVED DATE 3/15/17  
(To be inserted by Headquarters)

REVISE DATE \_\_\_\_\_  
(To be inserted by Headquarters)

VERSION NUMBER \_\_\_\_\_  
(To be inserted by Headquarters)

PROPOSAL TYPE (Check One):  Basic  Urgent  Safety/Emergency  Interpretation  
 Cross (Indicate Original Proposal Number) \_\_\_\_\_

### SELECT APPLICABLE COMPETITION REGULATIONS

- |  |  |   |  |
|--|--|---|--|
| <input type="checkbox"/> General Section | <input type="checkbox"/> Outdoor Free Flight | <input type="checkbox"/> Indoor Free Flight       | <input type="checkbox"/> CL General          |
| <input type="checkbox"/> CL Speed        | <input type="checkbox"/> CL Racing           | <input type="checkbox"/> CL Navy Carrier          | <input type="checkbox"/> CL Aerobatics       |
| <input type="checkbox"/> CL Combat       | <input type="checkbox"/> CL Special Events   | <input checked="" type="checkbox"/> RC Aerobatics | <input type="checkbox"/> RC Scale Aerobatics |
| <input type="checkbox"/> RC Pylon Racing | <input type="checkbox"/> RC Helicopter       | <input type="checkbox"/> RC Soaring               | <input type="checkbox"/> RC Fixed-wing Scale |
| <input type="checkbox"/> CL Scale        | <input type="checkbox"/> RC Combat           | <input type="checkbox"/> RC Special Events        |  |

### Brief summary of the proposed change.

Modify the voltage limit identified in Section 4.1

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

In Section 4.1 modify the second sentence in the first paragraph to read:

Electrically-powered model aircraft are limited to a maximum of 52 volts for the propulsion circuit, measured prior to flight while the competitor is in the ready box.

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

The hobby has moved on from the 5S 5000 mah batteries we typically use. Many vendors no longer offer these batteries as the primary users of large batteries such as EDF and helicopters are now using 6S batteries. The narrowing choices indicate problems for the future.

There are advantages to using 6S batteries. A 12S 4500 mah battery system contains the same energy as a 10S 6000 mah battery but typically weighs less and costs less. It is possible to create a power system that contains more energy but my expectation is that it will be used to increase flight duration and not maximum power output. Most competitors are already cutting back on the maximum throttle on our current 10S batteries to achieve a smoother more even-paced flight.

Motor manufacturers such as Hacker already provide a variety of KV motors to accommodate preferences. Various manufacturers have indicated lower KV motors will soon be available if this proposal is accepted. Most ESCs already accept 12S battery systems.

I would expect that all contests in the USA except FAI team trials would accept 12S systems as defined in this proposal.

**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.**

Testing has occurred but not in events

**Effect, if any, on current AMA records.**

None

**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.**

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**Signature** \_\_\_\_\_

