

MODEL AVIATION

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In this issue:
1966 Supplement to
OFFICIAL
MODEL AIRCRAFT
REGULATIONS

(SUPPLEMENT AND
1965 RULES
USED TOGETHER
FOR COMPLETE
1966 RULES)

FILE COPY



Bobby Roe and Stunt Model. (Frucci)

THE OFFICIAL MAGAZINE OF THE
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The 1966 model aircraft regulations described on the following pages are intended to supplement those contained in the mid-January 1965 rule book edition of MODEL AVIATION. The official AMA model aircraft regulations for 1966, therefore, are those which were in effect for 1965, except as modified, deleted or added to by the regulations in this issue.

Pattern Event Regulations

22.2a. General Requirements. Add to this paragraph: "Engine displacement limit is .61 cubic inches, total."

22.5 (After GENERAL). Delete words in third sentence so that it now reads "Contestant shall be permitted to enter in only one of the three categories listed in Para. 4."

22.5a. (This is a new rule.) That any contestant in the pattern event of a sanctioned RC Contest be allowed two (2) airplanes to be labeled "one" and "two." The contestant may choose to enter either plane at the beginning of the meet and shall continue to use such plane unless, and until, said plane shall be damaged to the extent that it cannot be readily repaired. Contestant then may, upon notification to the Contest Director, substitute plane number two for the balance of the meet with no penalty.

Under no circumstances will contestant be allowed to re-submit plane number one after it is taken out of competition. No substitution of parts between one plane and the other will be permitted other than engines and radios. That is to say, the wing off of one airplane may not be used on the other airplane in the event number one should sustain only wing damage.

22.11 Flight Pattern (Note—changes in maneuver listings are not all in sequence—they are grouped according to nature of changes and interpretation required.)

A. Delete maneuvers 1., 2a., 2b., substitute the following:

1. Proto Take-off: "Model will be taxied *realistically* downwind at least 50 feet from point of engine start, stopped, then turned at least 120 degrees into the wind and takeoff made on this heading."

B. Maneuver numbers following will be out of sequence due to elimination of maneuver 2 without substitution. Disregard this and leave other maneuver numbers unchanged.

C. Maneuver 21. Landing Perfection. Change the wording of the initial phrase

from "Smooth approach, smooth landing with no bounce etc.," to read "Smooth and realistic approach, smooth and realistic landing with no bounce etc.—full points. Graduated to minimum points for extremely rough approach, rough landing with bounce but without nose-over due to poor control. (Might be due to poor surface conditions.) Mandatory zero points for nose-over, intentional dive-in, or landing not within clear view of judges."

D. Maneuver 23. Proto Taxi. Change the description of the maneuver to read as follows: "After touching down model is brought to a complete stop, then taxied over *realistically* and brought to a stop with the main landing gear within 3' circle designated as the 'hangar' and located in the vicinity of the starting point of the proto takeoff."

Interpretation of A through D, preceding:

In scoring for realism, judges are to note whether performance is similar to that of full scale aircraft in terms of action affected by use of two- or three-wheeled main landing gear. Example: A two-wheel airplane (with tail wheel) may land three-point, but a trike gear airplane lands by touching main gear first, then nose gear. Similarly, a two-wheel-gear airplane normally "S" turns during taxi, for pilot visibility, but a trike geared plane does not.

Note: Revise Judges Guide in accordance with foregoing.

E. Maneuver 14. Cuban Eight. Change the entry of the Cuban Eight to level flight rather than a 45-degree dive being required. This will allow entrance and exit to be at the same altitude. Note that maneuver diagram and Judges Guide should be revised.

F. Maneuver 19. Vertical Eight. Change vertical eight to FAI vertical-eight which is an inside loop followed immediately with an outside loop directly below it.

G. Maneuver 20. Traffic Pattern Approach to Landing. Change the start to descen point to the downwind leg instead of the final upwind leg. Revise Judges Guide.

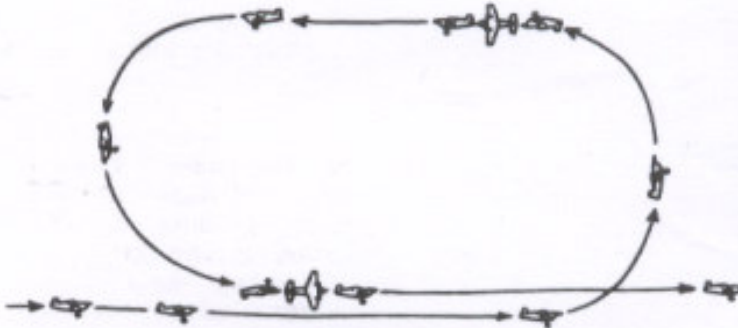
FAI MANEUVERS



▲ 5.4.2

DOUBLE STALL TURN

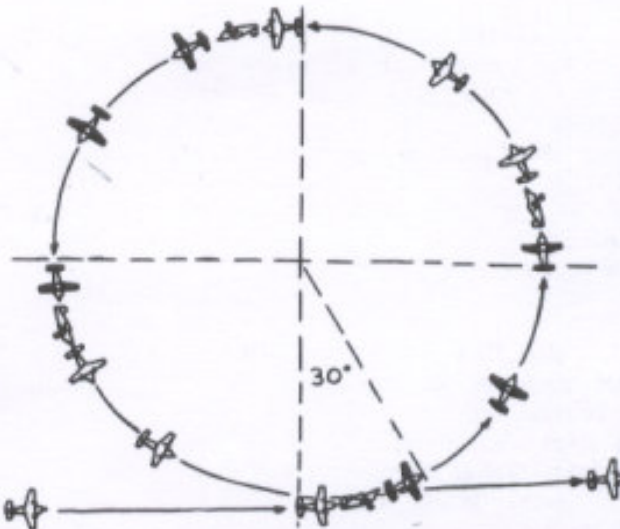
Side view on left, end view on right. B-B in end view shown displaced for clarity, should be superimposed.



▲ 5.4.3

COMBINED IMMELMANS

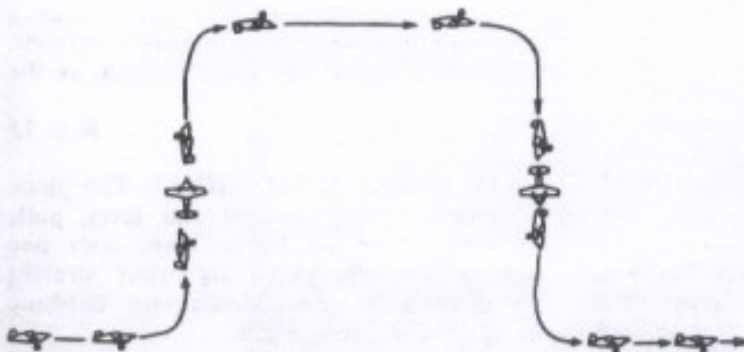
View from side. Horizontal entry and exit paths shown displaced for clarity, should be superimposed.



5.4.8▶

ROLLING CIRCLE

View from below. 30 degree angle typical.



◀ 5.4.15

TOP HAT
View from side.

FAI RADIO CONTROL MANEUVERS

The official schedule of FAI RC maneuvers, revised to include changes for 1966:

5.4. The maneuvers must be executed in the order in which they are listed and the Competitor must indicate in writing, before the start of the flight, any maneuvers he will not execute.

The start of each maneuver must be indicated by the pilot or his assistant. The maneuvers of takeoff and landing need not be signalled, but must be executed in an un-interrupted manner.

The Competitor may only make one attempt to execute each figure during any one flight.

The pilot has 10 minutes in which to complete the program of maneuvers from the moment he receives the signal to start the engine.

5.4.1. TAKEOFF: The model must stand still on the ground with the engine running without being held by the pilot or mechanic and must then take off into wind. The taxi-run should be straight and the model should lift gently from the ground and climb at a gradual angle. The takeoff is completed when the model is turned to circle back over the transmitter.

K = 5

5.4.2. DOUBLE STALL TURN: The model starts in level flight, noses up to the vertical attitude, yaws through 180°, then dives and makes half of an inverted loop into vertical flight, then yaws through 180° again, finally recovering into upright level flight.

K = 15

5.4.3. COMBINED IMMELMAN AND INVERTED IMMELMAN: Model starts in level flight, pulls up into a half loop, followed by half a roll, flies straight and level for approximately one second, then makes half an outside loop, followed by half a roll, recovering in straight level flight.

K = 10

5.4.4. LOOPS: The model starts the loops maneuver flying straight and level, then pulls up into a smooth, round loop, followed by a second and third loop in exactly the same path with a straight and level recovery to finish.

K = 10

NOTE: Loops must appear round and superimposed to the ground observer even in the presence of the wind.

5.4.5. INVERTED LOOPS: The model commences the inverted loop flying straight and level, then noses down into inverted loops and recovers flying straight and level on the same heading and altitude as the entry.

K = 15

5.4.6. ROLLS: The model commences from straight and level flight then rolls at a uniform rate through three complete rotations and finishes in straight flight, all on the original heading, the time of the three rolls to be approximately four seconds.

K = 10

5.4.7. SLOW ROLL: The model commences from straight and level flight, and then rolls slowly at a uniform rate through one complete rotation. The approximate time of the roll to be 5 seconds.

K = 15

5.4.8. ROLLING CIRCLE: The model commences in straight level flight, makes half a roll into inverted circular flight, subsequently making a half roll at each quadrant of the circle so that the model flies alternately upright and inverted in consecutive quadrants. The model recovers in straight level flight on the same heading and height as the entry.

K = 15

5.4.9. TAIL SLIDE: The Tail Slide commences with straight level flight, pulls up to a vertical position, slides downward tail first for two plane-lengths, recovers in a right-side-up position and finishes in straight and level flight at the same altitude as the entry.

K = 15

5.4.10. HORIZONTAL EIGHT: The plane commences flying straight and level, pulls up into $\frac{3}{4}$ of an inside loop, does one full inverted loop starting from straight down, then $\frac{1}{4}$ of an inside loop finishing in straight and level flight.

K = 8

5.4.11. CUBAN EIGHT: The plane commences flying straight and level, pulls up

FAI RADIO CONTROL MANEUVERS

into an inside loop and continues until heading downward at 45°, does half roll followed by another inside loop of 45°, does half roll followed by straight and level recovery at same altitude of entry.

K = 6

5.4.12. VERTICAL EIGHT: The plane commences the vertical eight flying straight and level, pulls up into one complete inside loop, follows with one inverted loop and recovers straight and level at the same altitude as the entry.

K = 10

5.4.13. INVERTED STRAIGHT FLIGHT: The model starts the maneuver level and upright, makes a half roll to inverted, flies straight and level inverted for a minimum of 5 seconds and recovers with a half roll to the upright position.

K = 8

5.4.14. INVERTED EIGHT: The plane commences the inverted eight flying straight and level inverted, turns left one complete circle, turns right one complete circle, flies straight and level in the same direction as the entry still inverted.

K = 15

5.4.15. TOP HAT: The model starts in straight level flight pulls up into vertical climb and makes a half roll, then levels out inverted on the same heading as entry. After short inverted flight, model dives vertically, performs a half roll and finally recovers in straight level upright flight on same heading and height as entry.

K = 15

5.4.16. SPINS: The plane establishes a heading direction by flying straight and level, pulls up into a stall and commences the spin through one, two, three turns and recovers to level flight on the same heading as the initial flight direction.

K = 8

5.4.17. LANDING PATTERN: The rectangular approach is commenced with the model flying into the wind above the landing circle, a left turn of 90°, a crosswind leg, a second left turn of 90°, a downwind leg, a third left turn of 90°, a crosswind leg, a fourth of 90° and straight flight toward the point of touchdown. The maneuver is finished just prior to the point of touchdown. The direction of the maneuver will be determined before each round in accordance with safety regulations.

K = 10

5.4.18. LANDING: The model flares smoothly to touch the ground with no bouncing or change in heading and rolls to a stop.

K* = 10

TOTAL 200

*K = 10 when landing is in 25m. diam. circle

K = 5 when landing is in 50m. diam. circle

K = 0 when landing is outside 50m. diam. cir.

Maximum possible points 2000.



The future of model aviation depends on today's juniors.