

Abbreviated F3A Aerobatics Judging Guide

(To be read in conjunction with the current FAI Sporting Code Volume 3 Radio Controlled Aerobatics)

Ignore who is flying, what aircraft they are using and equipment used – judge the series of manoeuvres presented to you.

Principles to judge and weighting are: geometrical accuracy (50%), smoothness/gracefulness (25%), positioning (12.5%), & size relative to other manoeuvres in flight (12.5%).

Criteria for judging: type of defect, severity of defect, number of times defect occurs, positioning of manoeuvre and size relative to other manoeuvres in flight.

Judging is based on the trajectory of its centre of gravity rather than attitude of the aircraft, manoeuvres must be wind corrected except where the aircraft is in a stalled condition. (Spins, Stalls and Snaps

Basic rule is to deduct 1 point for 15 degrees variation from defined manoeuvre geometry, lines should be judged more harshly than yaw or roll.

Defect	Deduction
Lack of Gracefulness/Smoothness	-1 to -3
Sizing different relative to other manoeuvres in flight	-1 to -2
Positioning <i>Appropriate distance out should be based on visibility of aircraft</i>	
Manoeuvre not centred (per 15 degrees)	-1 to -4
More than 175m out (visibility is the criterion), >200m = 2-3 pts	-1 to -3
Outside 60 degree markers, further out is worse (based on % out of box)	-1 to -10
Lines	
Length of lines not graded	No deduction
Manoeuvre doesn't start and end with a horizontal line	-1 per manoeuvre
Misrelationship between lines (ie. Square Loop)	-1 to -2
Rolls not centred on lines (except Split S and Immelmann)	-1 to -2
No line before/after roll (except Split S and Immelmann)	-3
Loops	
Radius of first loop determines radii of subsequent loops or part loop in the manoeuvre (ie. All loops or part loops must have same radius)	-1 to -3 per change
Segmentation (loop or part loops not smooth)	-1 per event
Departure from vertical plane (leaning in or out)	-1 to -3
Turn-arounds are for positioning, entry/exit altitude can be different height	No deduction
Rolls	
Variation in roll rate	-1 or more
Slowing down / speeding up roll rate	-1 per 15 degrees
Start or stop not crisp (each)	-1
Not centred on lines (except Split S and Immelmann)	-1 to -2
No line before/after roll (except Split S and Immelmann)	-3
Change in pause length within manoeuvre	-1 or more per event
Point missed within roll (ie. 3 point instead of 4 point, -6 (90degrees)	-1 per 15 degrees
Roll or part-roll in wrong direction	Zero scored
Defect	Deduction
Roll/Loop Combinations	
For Immelmann & Split S, roll not immediate before/after loop or part loop	-2
For Immelmann, roll starts before loop or part loop completed	1 per 15 degrees
On Cuban 8's or half Cubans, rolls must be centred on lines	-1 to -3
Humpty Bumps must have consistent radii in all part loops	-1 to -3
Integrated rolls or part rolls not smooth and continuous and correctly integrated	-1 per 15 degrees

Snap Rolls <i>Use same basic judging criteria as axial rolls above. If it's not an axial or barrel roll, it's a snap roll</i>	
Attitude (pos or neg) at pilot's discretion	No deduction
Stall/break from line of flight not observed but model still auto rotates	-1
Stall/break from line of flight not observed and barrel rolls	Severe downgrade
Axial roll disguised as a snap	Severe downgrade
Aircraft unstalls during snap	-1 per 15 degrees
Spins <i>Nose up attitude, nose drops as aircraft stalls, simultaneously, wing drops in direction of spin</i>	
Gain in altitude prior to spin	-1 per 15 degrees
Severe yawing/weathercocking when near stalled	-1 per 15 degrees
Drift when stalled or near stalled (not outside aerobatic zone)	No deduction
No stall, snap rolled, or spiral-dived into spin	Zero scored
Slides into spin	-1 per 15 degrees
Forcing spin in opposite direction on initial rotation	Severe downgrade
Forcing spin from high angle of attack with down or up elevator	-4 to -5
Conditions (ie. no wind) may mean aircraft doesn't completely stop	No deduction
Rotation errors judged in same manner as rolls	-1 per 15 degrees
Reversal of rotation not immediate (eg: becomes unstalled)	Severe downgrade
Roll rate in reversal significant (slight difference ok)	-1
Unloading spin	-1 per 15 degrees
Specific attitude of aircraft during spin not judged as long as remains stalled	No deduction
No visible vertical line following rotation(s)	-1
Stall Turns	
Pivot up to ½ wingspan	-1
Pivot up to 1 wingspan	-2 to -3
Pivot >1 ½ wingspans	-4 to -5
Pivot >2 Wingspans, flops over	Zero scored
Torques off	-1/15 degrees
Pendulum movement after pivot	-1
Skid before reaching stall turn (early rudder)	-1
Drift during stalled condition provided stays in aerobatic zone	No deduction
Part loops on entry/exit not constant and equal radius	-1
Rolling Circles <i>Mainly about maintaining consistent circular flight path, altitude, roll rate and roll integration</i>	
150m distance requirement not applied. Deduct where >350m	-1 to -3
Deviations in geometry	-1 per 15 degrees
Either performed towards or away from judges	No deduction
Roll or part roll in wrong direction	Zero scored
Apply same rules as per rolls	

Note: This judging guide is not intended to replace the Sporting Code 2012 "Manoeuvre Judging Guide " and is supplied for reference and guidance. We urge every pilot to read the Sporting Code 2012 Annexe 5b.

When judging, judge others, as you would expect others judge you, judge honestly, judge fairly.

The APA Committee.