Type the instruction in the space below:

Amend sub-paragraphs 5B.8.2-11 and paragraph 5B.10 as shown below:

5B.8.2. **THE 1 POINT PER 15 DEGREE RULE**

This basic rule provides a general guide for downgrading deviations from defined manoeuvre geometry. 1 point must be subtracted for each approximate 15 degrees deviation, **but 0.5 points only for half of this**. In general, lines must be judged more critically than deviations in yaw or roll.

5B.8.3. **LINES**

All aerobatic manoeuvres are entered and exited by a horizontal line of recognisable length. When no horizontal line is flown between two manoeuvres, the just-completed manoeuvre must be downgraded by 1 point and the upcoming manoeuvre must be downgraded by 1 point. ~~Horizontal flying between manoeuvres which is not considered part of the exit or entry line, must be observed, but not judged for quality.~~

The total length of a vertical or up/downline, as dictated by the performance of the model aircraft, is not a downgrading criterion.

All lines within a manoeuvre have a start and an end which define their length. They are preceded and followed by part loops. The length of a line should only be graded when a manoeuvre contains more than one line with a given relationship to each other ie as in a square loop. If there is a minor deviation in the relationship then ~~1~~ **0.5** point is subtracted, and more points are subtracted for greater deviations.

5B.8.4. **LOOPS**

A loop must have by definition, a constant radius, and must be performed in the vertical plane throughout. It is entered and exited by a well-defined line which, for a complete loop, is horizontal. For a part-loop, however, such lines may be in any other plane of flight as required by the particular manoeuvre.

Loops and part-loops within one manoeuvre must have the same radius. Each occurrence of a ~~slight~~ **minor** difference in radius must downgrade the manoeuvre by ~~1~~ **0.5** point, while more severe deviations may downgrade it by 1, **1.5** 2 or ~~3~~ **more** points for each occurrence. The radius of the first loop or part-loop, determines the radii of subsequent loops or part-loops within one manoeuvre.

Every loop or part-loop must be performed without interruption to the circular flight path. Every ~~visible~~ segmentation must be downgraded by ~~1~~ **0.5 or more** point**s.**

If the loop is not performed entirely in the vertical plane ie it drifts closer or further from the judges, minor drift must be downgraded by ~~1~~ **0.5** point, while more severe drift must be downgraded **more** ~~by several points~~.

In three-, four-, six-, and eight-sided loops, the main criteria are that the loop must have the sides at the same lengths/correct angles for the defined number of times, and all part-loops must have the same radius.

5B.8.5. **ROLLS**

Rolls and part-rolls may be performed as individual manoeuvres, or as parts of other manoeuvres. The following applies to all continuous rolls and part-rolls as well as to consecutive continuous rolls and part-rolls:

a) They must be performed on a constant flight path.

b) The roll-rate must be constant. ~~Small~~ **Minor** variations in roll-rate must be downgraded by ~~1~~ **0.5** point, while more severe variations must receive a downgrade of ~~2~~ **1** or more points. Slowing down (or speeding up) the roll-rate towards the end of a roll must be downgraded using the 1 point per 15 degree rule.

c) The start and stop of the rotation must be crisp and well-defined. If a start or stop is badly defined, ~~1~~ **0.5 or more** point**s** ~~is~~ **are to be** subtracted for each.

d) In all manoeuvres which have more than one continuous roll, the continuous rolls must have the same roll-rate. In all manoeuvres which have more than one part-roll, the part-rolls must have the same roll rate. Lines between consecutive part-rolls must be short and of equal length. Between consecutive continuous rolls or part-rolls in opposite direction there must be no line. Where there are continuous rolls and part-rolls

within one manoeuvre, the roll-rate for the part- rolls does not necessarily have to be the same as the roll-rate for the continuous rolls.

Particular attention has to be paid where the manoeuvre description requires continuous rolls or part- rolls to be performed in opposite directions. For a roll or part-roll performed in the wrong direction, a zero score must be given for the entire manoeuvre.

5B.8.8. **TORQUE-ROLLS**

A torque-roll is a roll, which is executed while the model aircraft is hovering in a vertical attitude and in a fixed position at no flying speed. If the torque-roll is not performed stationary and/or the fixed position is not maintained in all directions, it must be downgraded by ~~1~~ **0.5** ~~point~~ or more **points**, depending on the severity of the defect(s). Absence of a hover must be zeroed. Otherwise torque- rolls are judged the same way as axial rolls as far as the roll rates, the start and stop of the rotation and the roll direction is concerned.

5B.8.10. **LINE/LOOP/ROLL/HORIZONTAL CIRCLE COMBINATIONS**

These are much diversified, but all are combinations of lines, loops, part-loops, continuous rolls, part-rolls, snap-rolls, horizontal circles, and horizontal part-circles. The judging of all these components applies as described above.

Whenever a continuous roll, part-roll, snap roll, or a consecutive combination of these is placed on a line, the length of the line before and after the roll or the combination of consecutive rolls must be equal. ~~1~~ **0.5** point is subtracted for a minor difference, and ~~2~~ **1** ~~points~~ **or more points** for a major difference. If there is a complete absence of a line before or after the roll, 3 points are subtracted.

Exceptions are all Immelman Turn and Split-S manoeuvres where rolls are always performed immediately before or after or part-loop, which means, the rolls always begin with the start of the lines and stop with the end of the lines. A visible line in-between the two components or rolls and not completely before or after the part-loop, must downgrade the manoeuvre.

Flight paths of continuous rolls or part-rolls that are integrated with loops or horizontal circles should be smooth, continuous, and of constant radius. Where an integrated roll is required, quick- rolling should be downgraded using the 1 point per 15 degree rule.

Particular attention has to be paid where the manoeuvre description requires a continuous roll or part-roll to be performed to the inside or the outside of a horizontal circle. For a continuous roll or part-roll performed in the wrong direction, a zero must be given for the manoeuvre.

5B.8.11. **STALL-TURNS**

The criteria in this manoeuvre are mainly about lines. The lines must have exactly vertical and horizontal flight paths.

The model aircraft comes to a stop in forward movement and then must pivot around its centre of gravity (CG) in the yaw axis for the manoeuvre to receive a high score. If the model aircraft does not pivot on the CG, but within a radius of a half-wingspan, ~~one~~ **1** point is subtracted. For a radius of pivot up to one wingspan, 2 to 3 points are subtracted and if the radius exceeds 1½ wingspans, the manoeuvre must be downgraded 4 to 5 points. A radius of pivot of 2 wingspans or more is considered a wing-over and a zero must be given. If the model aircraft should “torque-off” during the stall turn, a downgrade must be applied using the 1 point per 15 degree rule. If the model aircraft flops forward or backward in a stall turn, a zero score must be given. …

5B.10. **POSITIONING OF THE MANOEUVRE WITHIN THE MANOEUVRING ZONE**

The entire flight must be within the manoeuvring zone to avoid being penalised.

A centre manoeuvre must be flown so that it is centred on the centre line indicated by the centre flag. If the manoeuvre is flown off-centre, it must be downgraded according to the misplacement. This may be in the range of ~~1~~ **0.5** to 4 points subtracted. The centre of a centre manoeuvre is in the middle between vertical limits left and right.

Flying so far out as to make evaluation of a manoeuvre difficult should be severely downgraded. The main criterion here is *visibility*. For a large, highly visible model aircraft, a line of flight approximately 175m in front of the pilot may be appropriate, while a smaller less visible model aircraft might have to be flown at say 140 to 150m. Manoeuvres performed on a line greater than approximately 175m in front of the pilot

must be downgraded by at least 1 point. Manoeuvres performed on a line greater than 200m in front of the pilot must be downgraded more severely (in the order of 2 to 3 points).

In general, turn-around manoeuvres are positioning manoeuvres. Therefore, entry and exit altitude need not be the same if the pilot wishes to make an altitude adjustment.

If any part of a manoeuvre is performed beyond the safety line, the manoeuvre will be zeroed. Repeated infringements of the safety line may result in the competitor being asked by the flight line director to terminate the flight, due to safety reasons.

Reason: Consequence of rule 5.1.8 b)