

5.4 HELICOPTERS

5.4.1 General

5.4.1.1 Model Weight

The maximum weight of radio controlled helicopters shall not exceed 6.5 kg with fuel

5.4.2 BMFA Variations on F3C Helicopter

Note: The F3C class rules can be downloaded at www.fai.org/fai-documents# or obtained direct from BMFA Head Office

5.4.2.1 Scrutineering and Noise testing

At UK domestic events, scrutineering and noise testing will be done as the CD decides and will normally only be done if concern is expressed about any particular model or where local rules apply.

5.4.2.2 Local Rules

Local rules may apply to any UK contest and will be notified to the competitors by the CD prior to the start of the contest.

5.4.2.3 One Day Contests

The normal programme will consist of four rounds of the 'A' schedule with the best three rounds scoring.

At the CD's discretion, and after discussion with the pilots prior to the start of the contest, one of the rounds may be replaced by a 'B' schedule.

5.4.2.4 Multi Day Contests

A full schedule of four 'P' rounds and three 'F' rounds will be flown if possible.

5.4.2.5 Judges

The normal complement of judges for a UK domestic event will be three but this may be altered at the CD's discretion.

5.4.2.6 Contest Director

Any queries or protests concerning the contest must be taken up only with the CD.

If a protest is not settled to the protester's satisfaction by the CD, the protester may request that a jury is constituted, according to BMFA General Rules, and the CD will appoint three persons to form that jury.

5.4.3 European Sportsmans Helicopter

5.4.3.1 Object

To provide a competition class that will encourage pilots with a range of abilities to compete on an equal standing

5.4.3.2 General Rules

5.4.3.2.1

The general rules of the competition shall be as for F3C FAI Helicopter with the following alterations. Where confusion exists, these alterations shall take precedence.

5.4.3.2.2

The decisions of the specific event Contest Director (CD) are final.

5.4.3.2.3 The competition is open to all pilots and types of model helicopter / engine combinations and to all pilots, excepting those pilots who have flown at a centralised F3C event in the previous 24 months.

5.4.3.2.4 Interchange of judges during a competition is only permitted between round so as to maintain consistency of scoring.

5.4.3.2.5 During the flying the judges are out of bounds to all except the CD, the score sheet collector and the caller of the next pilot.

5.4.3.2.6 Judges should know the score requirements as defined in the latest issue of the European Sportsmans schedule.

5.4.3.2.7 All manoeuvres are marked out of 10 points. Points are lost as decided by the individual judge in accordance with the current rules.

5.4.3.2.8 Dangerous Flying

Any flying that is deemed to be dangerous will result in the round score being zero. This must be enforced to ensure that all pilots choose their schedules with care and fly them safely. Dangerous manoeuvres should be determined as:

- (a) Flying behind the judge line at any time.
- (b) Overflying the pits area or any other area designated as a no-fly zone.
- (c) Any manoeuvre where the pilot is obviously flying to the limits of his ability and is not in full control of his model.
- (d) A crash shall not be deemed to be the result of dangerous flying unless (c) above is applicable. A genuine accident or mechanical failure should not be punished.

5.4.3.2.9 Calling Manoeuvres

Each pilot should have a caller who should be well practised. The manoeuvre names should be called in the correct sequence, each followed by a call of 'now' when the manoeuvre is commenced and 'complete' when the manoeuvre is finished.

Manoeuvres only be marked by the judges between the calls of 'now' and 'complete'. If the manoeuvre is not called, is called early, is called late or is called out of sequence then it should be penalised.

5.4.3.2.10 Pilot Position

All flying must be away from the judge line and the model must not be flown between the pilot and the judges. The CD may, however, allow this in very exceptional circumstances.

5.4.3.3 Flight Programme

The flight programme consists of:

- (a) Two hovering manoeuvres, followed by
- (b) Six aerobatic manoeuvres, followed by
- (c) Landing

Every manoeuvre shall be marked out of 10 by each of judges, giving a maximum available round score of 270 points (top and bottom score removed if 5 judges present). At the discretion of the CD, Pilots are required to complete their own score sheets for each round. One copy should be retained by the pilot's caller with the remaining copies handed to the judges immediately before the flight begins.

5.4.3.4 Schedule of Manoeuvres

1) TRIANGLE

MA ascends vertically from helipad to a height of 2m and stops. MA flies backwards and stops over flag 1 (2). MA ascends at 45° while simultaneously performing a 180° pirouette in either direction and stops over helipad. MA descends at 45° while simultaneously performing a 180° pirouette in either direction and stops over flag 2 (1). MA flies backwards and stops over the helipad. MA descends and lands in the helipad.

2) FLOWER

MA ascends vertically from helipad to a height of 2m and stops. MA ascends backwards while performing a quarter of a 5m radius circle and stops over flag 1(2). MA performs a quarter of a 5m radius circle while simultaneously a 180° pirouette in either direction to the helipad. Over the helipad the MA changes its pirouette direction performs a quarter of a 5m radius circle while pirouetting to flag 2 (1). MA descends backwards while performing a quarter of a 5m radius circle and stops over the helipad. MA descends and lands in the helipad.

3) CANDLE

MA flies straight and level for 10m and enters the manoeuvre by pulling up into a 10m (minimum) vertical ascent. MA performs a half pulled flip such that the first half occurs during the ascent and the second half occurs during the descent. MA goes into a vertical descent to same altitude as entry. MA continues for 10m to finish the manoeuvre. Note: MA must be horizontal at the top.

4) PULLBACK WITH HALF LOOPS

MA flies straight and level for 10m and pulls up into a vertical ascent after passing the centre line. MA performs a half backward loop. MA goes into a vertical descent to the same altitude as entry. MA continues for 10m to finish the manoeuvre.

5) DOUBLE TAIL TURN 540

MA flies straight and level for 10m and pulls up into a vertical ascent after passing the centre line with a 540° stall turn at the apex. MA flies a vertical descent, performs a half loop and flies to opposite apex with a 540° stall turn at the same altitude as the first stall turn. MA goes into a vertical descent and pulls out to the same altitude as entry. MA continues for 10m to finish the manoeuvre.

6) OVAL

MA flies straight and level for 10m and pulls up into a half loop after passing the centre line. At the apex MA flies inverted until the opposite apex is reached. MA finishes the loop to the same altitude as the entry. MA continues for 10m to finish the manoeuvre.

7) DOUBLE ROLLS

MA flies straight and level for a minimum of 10m and executes two consecutive rolls in either direction. The end of first roll and the start of the second must pass in the centre line. Manoeuvre is completed with 10m straight and level flight.

8) TAIL TURN

MA flies straight and level for a minimum of 10m and pulls up into a vertical ascent with a stall turn at the apex. MA performs a vertical descent with half roll. MA pulls out to the same altitude as entry. Manoeuvre is completed with 10m straight and level flight.

9) AUTOROTATION

Model Aircraft flies at a minimum altitude of 20m. The engine power must be reduced to idle (or off) and descends to the helipad. Scores criteria for this autorotation landing (maximum score):

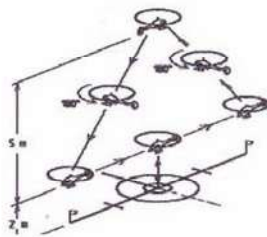
Rotor shaft points to inside 1 m circle: 10 points

Rotor shaft points to inside 3 meter circle: 8 points

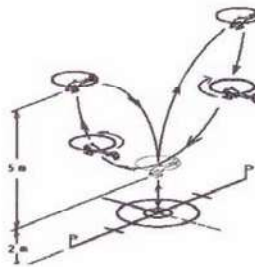
Rotor shaft points in other cases: 6 points

DIAGRAMM SCHEDULE NEW PS

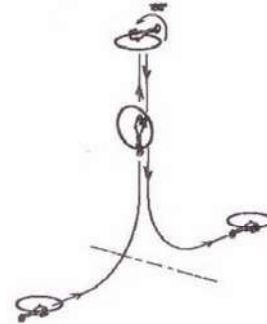
N PS1 TRIANGLE



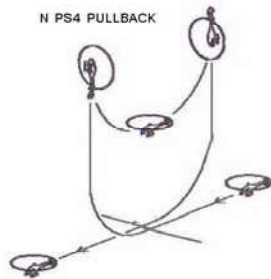
N PS2 FLOWER



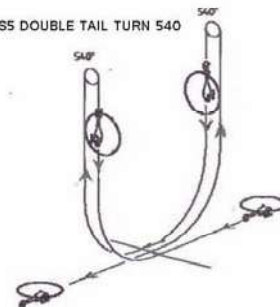
N PS3 CANDLE



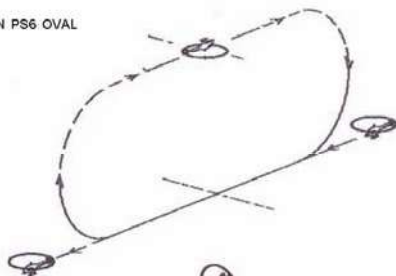
N PS4 PULLBACK



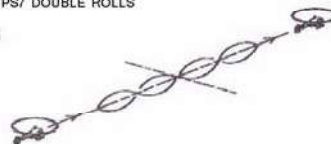
N PS5 DOUBLE TAIL TURN 540



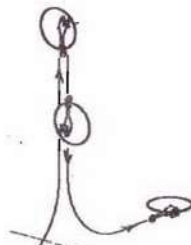
N PS6 OVAL



N PS7 DOUBLE ROLLS



N PS8 TAIL TURN



N PS9 AUTOROTATION

