

BMFA Mandatory Test Questions

These questions have been extracted from the BMFA (*The RCAS -) Fixed Wing Power Certificates* booklet, 2019 issue. The booklet is available here: <https://achievements.bmfa.org/guidance-booklets/fixed-wing-power-certificates>.

The questions differ slightly from the set published on the BMFA website, published in 2016.

There is a useful quiz published by the BMFA to help you test yourself ahead of undergoing a test - or just for a refresher after you have proven your competence! - <https://achievements.bmfa.org/quizzes/mandatory-questions-quiz>.

Q(1) Who Regulates all civil flying activities over the United Kingdom, including model aircraft ?

A The Civil Aviation Authority

Q(2) How are the rules and regulations for flying established in law by Parliament (statute) ?

A As a series of Articles contained within in the Air Navigation Order (ANO).

Q(3) What does Article 240 of the ANO state, in relation to endangering an aircraft or any person in an aircraft?

A 'A person must not recklessly or negligently act in a manner likely to endanger an aircraft, or any person in an aircraft.'

Q(4) What does Article 241 of the ANO state, in relation to endangering a person or property?

A 'A person must not recklessly or negligently cause or permit an aircraft to endanger any person or property.'

Q(5) Who is legally responsible to ensure that a model is flown safely ?

A The remote pilot.

Q (6) Which Civil Aviation Publication (CAP) relates specifically to the use of model aircraft, and for which specific purposes only ?

A CAP 658 (as amended by CAP 1687), for sport and recreation purposes only

Q(7) According to CAP 658 (as amended by CAP 1687), which model aircraft are required to have an operating failsafe and what is the minimum setting ?

A

1) Any aircraft >7kg.

2) Any Gas Turbine powered aircraft.

3) Any powered model aircraft fitted with a receiver capable of operating in failsafe mode.

As a minimum, reduce the engine(s) speed to idle on loss or corruption of signal.

Q(8) What does Article 94 of the ANO say about the responsibilities of the remote pilot of a small unmanned aircraft ?

A

- 1) The remote pilot of a small unmanned aircraft may only fly the aircraft if reasonably satisfied that the flight can safely be made.
- 2) The remote pilot must not fly a small unmanned aircraft closer than 1 km from the boundary of a protected aerodrome (flight restricted zone) unless with Air Traffic Control (ATC) permission.

Q(9) What does Article 94 of the ANO say about visual contact with small unmanned aircraft ?

A The remote pilot must maintain direct, unaided visual contact with the aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions.

Q(10) What does Article 94 of the ANO say about small unmanned aircraft above 7kg?

A The remote pilot of a small unmanned aircraft, which has a mass of more than 7 kg, must only fly the aircraft:

- Clear of controlled airspace unless with Air Traffic Control (ATC) permission.
- Clear of any Aerodrome Traffic Zone (ATZ) unless with ATC permission.
- At less than 400 ft above the surface except with permission from the CAA.
- Clear of the 'flight restriction zone' of a protected aerodrome unless with Air Traffic Control (ATC) permission.

Q(11) What does Article 94 of the ANO say about 'commercial operation' for small unmanned aircraft ?

A The remote pilot of a small unmanned aircraft must not fly the aircraft for the purposes of 'commercial operation' except in accordance with a permission granted by the CAA.

Q(12) How is a flight for the purpose of 'commercial operation' defined ?

A Any flight for which remuneration or 'valuable consideration' is given or promised in respect of the flight or the purpose of the flight. Essentially any gain you may make from the flight/operation undertaken.

Q(13) How is 'a small unmanned surveillance aircraft' defined ?

A An aircraft which is equipped to undertake any form of surveillance or data acquisition (this includes all camera equipped aircraft) .

NOTE: The provision of data solely for the use of monitoring the model is not considered to be applicable to the meaning of 'surveillance or data acquisition'.

Q(14) What are the separation requirements of Article 95 - for small unmanned surveillance aircraft - when operating over or within a congested area or organised open-air assembly of more than 1,000 persons ?

A The aircraft must not fly over or within 150 metres of a congested area or organised open-air assembly of more than 1,000 persons

Q(15) What are the separation requirements of Article 95 - for small unmanned surveillance aircraft - in respect of any vessel, vehicle or structure which is not under the control of the remote pilot of the aircraft ?

A The aircraft must not fly within 50 metres of any vessel, vehicle or structure not under the control of the remote pilot of the aircraft.

Q(16) Except during take-off and landing, what are the separation requirements of Article 95 - for small unmanned surveillance aircraft – excluding the remote pilot of the aircraft, or anyone under their control ?

A The person in charge of a small unmanned surveillance aircraft must not fly the aircraft ;

- 1) over or within 150 metres of any congested area;
- 2) over or within 150 metres of an organised open-air assembly of more than 1,000 persons;
- 3) within 50 metres of any vessel, vehicle or structure which is not under the control of the person in charge of the aircraft; or
- 4) within 50 metres of any person.

Q(17) What must be obtained before any flight within controlled airspace or an ATZ of an aircraft over 7kg, or the ‘flight restriction zone’ of a protected aerodrome for any aircraft?

A Obtain permission from the appropriate Air Traffic Control unit.

Q(18) CAA General Exemption E 4457 - permits FPV flight without a buddy box, but with a competent observer. (a) How must the competent observer monitor the flight and (b) What is the maximum mass of aircraft that may be flown under this exemption?

A

- (a) The competent observer must maintain direct unaided visual contact with the model at all times and communicate with the remote pilot.
- (b) The aircraft must be below 3.5kg including batteries and fuel.

Q(19) Who has legal responsibility for the safety of an FPV flight a) conducted with a buddy box lead and b) conducted without a buddy box lead ?

A

- (a) The remote pilot (master Tx) who must maintain direct unaided visual contact with the model at all times.
- (b) The remote pilot, who must have a competent observer maintaining direct unaided visual contact with the model at all times.

Q(20) According to CAP 658 (as amended by CAP 1687) what are the 8 ‘Only fly if’ checks for an FPV flight of an aircraft over 3.5kg ?

A

1. The activity is solely for 'sport and recreation' purposes;
 2. Two pilots take part;
 3. A Buddy Box system is employed;
 4. The remote pilot operates the master transmitter;
 5. The remote pilot does not wear the headset or view a screen;
- contd:

6. The aircraft remains within the natural unaided visual range of the remote pilot;
7. Reliable operation of the Buddy Box is established.
8. A clear handover protocol is established.

Notes:

From April 2016 it is a requirement of all tests (excluding C certificate tests) that candidates must answer correctly 5 questions taken from the list of mandatory questions based on legal aspects of model aircraft flying. The examiner should only ask 5 questions and if the candidate does not know the answer to any question the test must be considered as a fail. The examiner will then proceed to ask a minimum of 5 (A tests) or 8 (B tests) questions based on the BMFA Safety Codes for General Flying and local flying rules and for the 'B' certificate the 'Safety Code for Model Flying Displays'.

The examiner should indicate on the test form which questions have been asked.

It is expected that examiners will select questions that are appropriate to the test being taken, however candidates should familiarise themselves with all of the questions on the list. Candidates are not expected to be "word perfect" with their answers but they should be able to demonstrate that they are fully aware of the legal controls for model aircraft flying. For example if a candidate gives the answer to Question 4 (What does article 241 of the ANO state?) when asked Question 3 (What does article 240 of the ANO state?) it is likely they are aware of both answers and the examiner should point out they have answered the wrong question and ask for the correct answer.