



BRITISH MODEL FLYING ASSOCIATION

THE R/C ACHIEVEMENT SCHEME

GUIDANCE for MULTI-ROTOR RACING

EXAMINERS

2023 ISSUE

POWER ACHIEVEMENT SCHEMES

The Role of Multi-rotor Racing Examiner

The role of a Multi-rotor Racing Examiner is to “assess applicants for the Multirotor Racing A Certificate achievement scheme test only and maintain the standards of the R/C Power Achievement Scheme by example”.

Note: Although there are separate qualifications within the achievement scheme, fixed wing power, helicopter, and silent flight (electric, thermal and slope). As a Multirotor Racing Examiner, you may not undertake, or assist as a second examiner, in any other of the achievement scheme tests, and are limited to assessing the Multi-rotor Racing A Certificate only.

Legal Responsibilities

Only pilots with a suitable model that are operating legally are eligible to take the test.

There are clearly defined legal requirements for the operation of Small Unmanned Aircraft (model aircraft), from passing a CAA (or BMFA) legal & safety knowledge test before piloting a model, to registering with the CAA as an SUA Operator (can also be done via the BMFA) if the pilot is also the owner and operator of the model aircraft, then ensuring the SUA Operator identity number is appropriately attached to the model. There are also restrictions on where a model can be flown and the heights and distances from people, property, vehicles or structures that the model can be operated.

Finally, there is a legal requirement to operate the model safely e.g. ensuring the model is 'fit for safe flight' and the pilot is in a fit state to undertake that flight, as well as the site and weather conditions being suitable.

Assessing a Candidate

When assessing a candidate for a test, your task as a Multirotor Racing Examiner can be split into three distinct phases:

- (1) Your own preparation.
- (2) The assessment.
- (3) The conclusion.

Phase (1) - Your Own Preparation

As in all walks of life the success or failure of any venture can be dependent on the initial preparation, and achievement scheme tests are no different.

Please take time to discuss the Multi-rotor Racing A Certificate test with the candidate before starting. This is to ensure both you and they are in agreement on how the assessment is to be conducted, especially the proposed use of any gates and obstacles, as well as the area the test will be conducted in.

As the Multi-rotor Racing Examiner, you must be satisfied that the candidate understands the tasks they are expected to perform, as well as any manoeuvre specific requirements, such as height and distance limits, as this is the goal post you are measuring them against. This is critical if you have never met the candidate before, as their interpretation of the guidance document while preparing for the test may be different.

Note: For your own information, ensure you check ahead on the site rules for the location you test at, as a breach of site rules (for example flying in a no-fly area, or arming in the pits against club rules) must result in a test failure.

Phase (2) – The Assessment

The assessment of the test must cover three elements to be considered a pass, which are:

General Safety:

Assess the candidate's general approach to safety, look for issues such as:

- Leaving a messy pits area with numerous trip or other safety hazards.
- Batteries left on charge unattended.
- Connecting and arming in areas they shouldn't.
- Not checking frequency availability, especially FPV gear, before turning on.
- A messy or unprepared model (loose wires, cracked frame, bent props).
- Have they briefed their observer on what to look for during the flight.

Flight Performance:

The candidate must complete all of the exercises as described in the Multi-rotor Racing A Certificate guidance document, and in the order listed in the document.

The multi-rotor must be in manual mode, or 'Acro', and not be stabilised or using GPS for example.

The test is written in a way to allow a range of gates, flags or other obstacles to facilitate the test, but under no circumstances may manoeuvres be altered to facilitate the use of a specific multi-rotor.

The candidate must demonstrate their multi-rotor 'failsafe' before beginning the flying element of the test, which should be done with the propellers removed for safety.

The multi-rotor should be armed to start the motors turning and the transmitter turned off, if the motors do not stop within 3-5 seconds (depending on transmitter brand) the test must be considered a failure. The candidate must reprogram their failsafe accordingly before trying again.

Theory:

At the end of the test the candidate must answer questions on multi-rotor theory.

This is broken into two parts:

- (1) **Mandatory questions** – These should be taken from the list of mandatory questions from the <https://achievements.bmfa.uk/mandatory-questions> website, however a candidate can be exempted from this requirement if they provide evidence of a current BMFA RCC pass.
- (2) **Minimum of five (5) general knowledge questions** – These questions should be a relevant mix of safety based questions specific to the safe flying of multi-rotors, and taken from areas such as; site rules; the BMFA Handbook; or BDRA event rules. ***Note: Questions on the BMFA or BDRA constitution are not considered relevant to flying safety.***

Phase (3) – The Conclusion

This is the stage where you decide whether the candidate has passed or failed, and must be a combined assessment of general safety, flight performance and theory.

For example, a candidate's level of flying ability alone is not enough to pass if they have a poor approach to general safety or can't answer theory questions.

A good approach to dealing with a person that has failed is to first ask them 'How did you feel you did?' When a test has not gone well, a candidate may well be expecting to fail the test, so this makes it easier to fail the candidate, as you are agreeing with their own assessment. On occasion you may get a candidate with an opinion that differs to yours, however, as the Multi-rotor Racing Examiner your decision is final, so it is good practice to make notes during the test, either on paper or mentally, of any parts of the test you were either happy with or not.

As a guide, the A certificate tests are used by many clubs as a measure of 'safe solo flight', i.e. do you feel you could safely turn your back on this person while they are flying and feel safe.

Processing a Candidate

Test forms can be downloaded from the <https://achievements.bmfa.uk> website and selecting 'Test Forms' from the 'Downloads' menu tab.

If you fail a candidate, it is still good practice to complete a test form, as this gives the candidate information to take away and practice with for a future attempt, however, you do not need to process this any further as the examiner.

A candidate may have up to two attempts in one day, so if a candidate is failed it is usually best to suggest they have a couple of practice flights before trying again. You can stand with them and do this as a mock test, but no matter how well a mock test is performed, a pass must not be issued off the back of one.

If you pass a candidate, the pass form must be completed and uploaded on the <https://achievements.bmfa.uk/the-tests/submit-a-cert> website.

You will be expected to enter your details as examiner, as well as the candidate's details. You will also be required to upload a copy of the pass form, though this can be done by taking a photo of the passed form on your mobile phone for example.

Note: When entering details, such as email / BMFA number, ensure the correct details are used, as this prevents delays in processing their pass.

Note: Any information you share in the comments box will also be shared with the candidate via the details you enter.

Note: It is advisable to keep the pass form for a few weeks, or until the candidate can confirm the pass has been added to their membership details.

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